Thesaurus siluricus : the flora and fauna of the Silurian period : with addenda (from recent acquistions) / by John J. Bigsby.

Contributors

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THESAURUS SILURICUS.

THE

FLORA AND FAUNA

OF THE

SILURIAN PERIOD.

bf 10.4 ~~bbb. 56~~

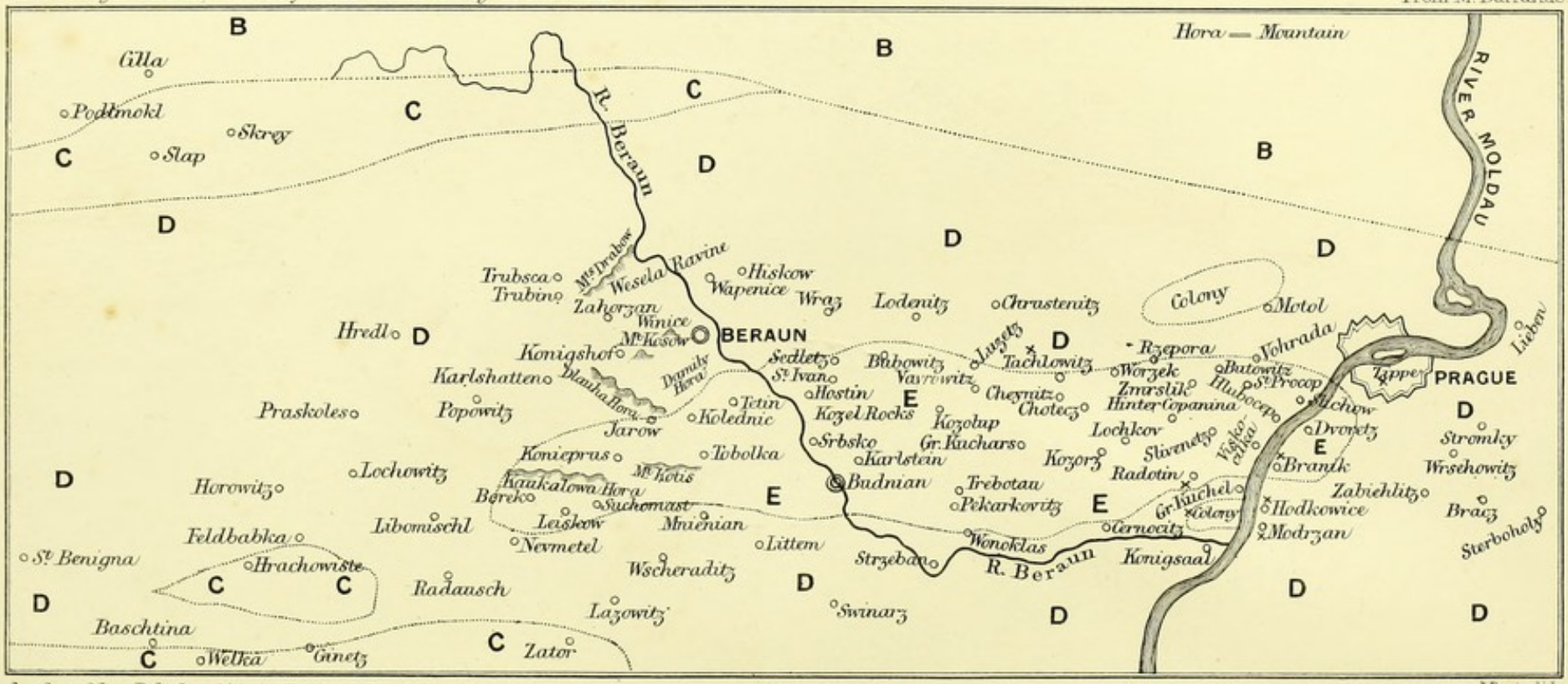
BIBLIOTECA
COLL. REG.
EDIN

THE SILURIAN BASIN OF BOHEMIA, (IN PART)

representing the principal fossiliferous localities.

The villages inserted are only those mentioned by M. Barrande.

From M. Barrande



See Syst: Silur: Boh.ª I. *p. 921 for Table of Localities.*

J. Basire, lith.

REFERENCES.

B — *Azoic Rocks.*
C — *Primordial Rocks.*
D — *Quartzite &c. Rocks (Lower Silr).*
E — *4 Stages (Upper Silr).*
x *indicates a Colony.*

Colony Bruska (in Prague.)
" *at Hodkowice.*
Colony at Branik.
" " *Modrzan.*
" *(Krejci) Gross Kuchel.*
" " *Radotin.*
" " *Motol.*
" " *Tachlovitz.*
" " *Zippe (in Prague.)*

Kilometres.

0 5 10

THESAURUS SILURICUS.

THE

FLORA AND FAUNA

OF THE

SILURIAN PERIOD.

WITH

ADDENDA

(FROM RECENT ACQUISITIONS).

BY

JOHN J. BIGSBY, M.D., F.G.S.,

FORMERLY BRITISH SECRETARY, CANADIAN BOUNDARY COMMISSION; MEMB. AMER. PHILOS. SOC. PHILAD.; CORRESPONDING MEMB. ACADEMIES OF NAT. SCIENCES, PHILAD. AND ST. LOUIS; OF THE LYCEUM, NEW YORK. HONOR. MEMB. ROYAL BOHEMIAN MUSEUM, PRAGUE.

"The boldest and happiest generalizations must depend on details."—Dean CONYBEARE.

LONDON:

PUBLISHED BY JOHN VAN VOORST, PATERNOSTER ROW.

MDCCCLXVIII.

The Author begs to thank the Royal Society for a grant of One Hundred Pounds in aid of the publication of this work, on the condition that the Royal Society receive One Hundred Copies for distribution among its Foreign Members, and those of the Geological Society of London.

PRINTED BY TAYLOR AND FRANCIS, RED LION COURT, FLEET STREET.

TO

SIR RODERICK IMPEY MURCHISON, Bart., K.C.B.,

MEMBER OF THE INSTITUTE OF FRANCE, DIRECTOR-GENERAL OF THE GEOLOGICAL SURVEY OF GREAT BRITAIN AND IRELAND.

&c. &c. &c.

Dear Sir,

I thank you for permission to dedicate the Thesaurus Siluricus *to you. It was a request equally natural to make and to grant.*

I need not say that your kind approval of the execution of this humble but laborious work is of the greatest value to me.

The enjoyments of elegant life you early chose to abandon, preferring to wander for many successive years over the rudest portions of Europe and Asia—regions new to Science—in the hope, happily realized, of winning new truths.

By a rare union of favourable circumstances, and of personal qualifications equally rare, you have thus been enabled to become the recognized Interpreter and Historian (not without illustrious aid) of the Silurian Period—the grandest of all the Periods,—and, as yet, apparently the seed-time of all succeeding life.

I do not now speak of your brilliant services in other fields of geological research: my sole present object is to give expression to my abiding gratitude for the active interest you have been pleased to take in the Thesaurus Siluricus.

I am, dear Sir,

Respectfully and faithfully yours,

J. J. BIGSBY.

Gloucester Place, Portman Square.
1868.

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PREFACE.

This attempt to exhibit in a clear and concise form the leading features of Silurian life has arisen from my own deeply felt want of such a record or muster-roll of the constituent members of this early portion of extinct Zoology—a great and varied zoology, prophetic of the grand outlines of all succeeding organic beings, and unequalled in magnitude and other points of interest.

This has been rendered a favourable moment for such an undertaking by recent publications of singular value, but which are difficult of access.

The new facts they contain may now be added to the accumulations of the last thirty years, brought together by the highly meritorious labours of private individuals, and especially by the Professors and Students of Colleges in many parts of the world.

But the largest contributions have come from public surveys, in North America especially. These surveys have been conducted by men of great ability and zeal. When, therefore, a national exploration has been set on foot, the effect has always been, in an extraordinary degree, that sterility in facts mineral and organic has become abundance, and obscurity has been exchanged for light.

As there is here required not only a common acquaintance with Silurian life, but also an exactitude and a critical skill in palæontological determinations much beyond the ordinary student, I obtained, after my materials were well put together, the very valuable aid of Mr. J. W. Salter, late Palæontologist to the Museum of Practical Geology. I was then, through the kindness of Sir R. I. Murchison, Bart., K.C.B., allowed to submit my manuscript to Robert Etheridge, Esq., F.R.S.E., the present Palæontologist to the Institution over which Sir Roderick presides with so much father-like wisdom.

To the continued superintendence of these eminent naturalists I am indebted for corrections and suggestions of the greatest value, and particularly as relates to Britain and the Old World.

My matter has been principally found in the voluminous and truly priceless writings of Angelin, Barrande, Billings, Davidson, De Verneuil, Eichwald, Hall, M'Coy, Murchison, Phillips, Portlock, Salter, Sedgwick, Shumard, Sowerby, and many other authors of scarcely inferior merit *.

My best acknowledgments are due to Sir Roderick Murchison for the fourth edition of "Siluria": much new information has been derived from it.

I have been favoured with many unpublished contributions from my friends Mr. Billings (the learned Palæontologist of the Canadian Geological Survey) and Principal Dawson, F.R.S., Montreal.

Also, through the kindness of Mr. Salter, large additions have been received from Col. Strachey (Himalayas, E. I.), from Dr. Milligan (West Tasmania), from Henry Hicks, Esq. (South Wales), and from the late Mr. Wyatt-Edgell of the 13th Regiment of Infantry.

In regard to the obligations conferred on me by M. Joachim Barrande, silence, were it possible,

* Agassiz, Belt, Beyrich, Bronn, Brongniart, Carruthers, Conrad, Dalman, D'Orbigny, Vicomte d'Archiac, Dawson, Emmerich, Emmons, Fischer, E. Forbes, Goldfuss, Green, Harkness, Hisinger, Haime, Honeyman, T. Rupert Jones, Ketley, Kutorga, Lawrow, Linnæus, Lovén, Lonsdale, Marcy, M'Chesney, Meek, Meneghini, Milne-Edwards, Morris, Nicholson, Owen, Pander, Römer, Rouault, Sars, Safford, Shaler, Sharpe, Swallow, Triger, Vanuxem, Von Buch, Volborth, Wahlenberg, Winchell, &c.

would be a happy escape from the vain attempt to express them. How can the gift of more than 2000 Molluscan species, determined by the first palæozoic naturalist of the age, be worthily acknowledged? M. Barrande will be fully content to find his reward in any usefulness of the work he has so largely benefited.

Under the head of "authorities quoted," there will be placed in the Appendix a list of books and memoirs employed in building up this general view of Silurian life, to which, accordingly, has been given the name of "Thesaurus Siluricus."

As long as an individual Mollusk remains unregistered it loses a great part of its usefulness in natural history; and we remain ignorant of its place in Creation; but even then it may reveal an important fact—just as the Trilobite speaks of the Palæozoic period, and the Nummulite of the Tertiary.

Until some such record as the present is available, the labours of investigators (many of the greatest are still rejoicing us with their presence) will rest comparatively fruitless.

It has hitherto not been possible to contemplate widely scattered existences in the aggregate. Many facts have been stored up separately, but generalized truths rarely attained. The work now undertaken has not been yet done for any one epoch—not even for the Cretaceous period by Mr. Gabb of California, although he has done much and well.

The elaborate and highly valuable labours of Mr. Etheridge in this direction, on the Jurassic Fauna and Flora, I am happy to say are only waiting for the printer. There are Societies in London who would do themselves great honour by undertaking their publication.

The Thesaurus Siluricus deals principally with the external circumstances of the Mollusca, and is in the form of a Table. The different subjects are taken alphabetically. After registering a *genus* of the Order under consideration, with its author, and the date of its establishment, the *species*, few or many, are successively named and treated under four or more heads, along one and the same ruled line. First comes the subdivision of the stage in which it occurs; then, in a given order, its author, and locality, in the column indicative of its proper stage. Immediately at the commencement of this Table is placed the stratigraphy of the principal countries concerned, together with an explanation of the abbreviations used in the Table.

From this seemingly unattractive catalogue of existences the reader has it in his power to people a multitude of localities and horizons with groups of life as picturesque, and as full of movement, as those which Charles Darwin found in the Straits of Magellan: such groups or communities are plentiful in the palæozoic strata of New York, Wales, Bohemia, &c.

Besides the use of the 'Thesaurus' for reference in the closet and the quarry, it furnishes a vast body of facts leading to generalizations in vital statistics; it provides a high station from which the student may descry the Silurian populations of the whole earth, as far as they are now known. It assists in tracing the extent, shape, and varying depths of basins. By its aid we compare remote horizons, detect regional affinities and differences, and, moreover, we note the curious changes of many kinds which take place while the epoch is passing through its succession of ages. It will place under examination numberless communities of life, their constituents, wants, habits, migrations, duration, and extinction. The attention of the student is particularly directed to the geographical summaries of life appended to some of the orders.

The "Thesaurus" contains 8997 species, and therefore is an ample field of study; but it probably does not tell us of one tenth part of the Silurian life still lying buried in Arctic, Subarctic, and Southern America, in Northern Europe, Australia, India, and many other regions. What a splendid promise to the future explorer!

FACTS AND OBSERVATIONS.

Having deemed the completeness and accuracy of the 'Thesaurus' itself to be beyond all comparison my principal duty, and having found this to be a labour, however agreeable, not a little protracted, it has become impossible in the following pages to present more than a simple analysis of a few Silurian orders, and some of the more obvious facts and inferences to be derived from the body of the work. Those, it is trusted, have their interest, and will invite a broader, more leisurely, and more able study than is in my power to bestow. The subjects will fall under the following heads:—

1. The Gasteropoda.
2. Trilobita.
3. Echinodermata &c.
4. The Primordial Stage.
5. The Bohemian Area.
6. Universality.
7. Locality.
8. First appearance.
9. Duration or longevity, and extinction.
10. Migration.
11. Recurrence.
12. Divergence.

Before proceeding to treat on these subjects, it is encouraging to contemplate the progress of Silurian Palæontology during the last twelve years, as shown in Table A.

TABLE A.

Silurian Life.	Plantæ.	Amorphozoa.	Foraminifera.	Cœlenterata.	Echinodermata.	Annelida.	Cirripedes.	Trilobita.	Entomostraca.	Polyzoa.	Brachiopoda.	Monomyaria.	Dimyaria.	Heter -Pteropoda.	Gasteropoda.	Cephalopoda.	Pisces.	Class uncertain.	Total.
Prize Essay, 1856.....	18	19	...	168	93	10	...	425	8	76	579	14	151	63	151	299	10	9	2093
Thesaurus, 1868	82	136	25	507	500	154	8	1611	318	441	1650	168	541	358	895	1454	37	12	8897

This Table is taken from the late Prof. Bronn's well-known and truly admirable Prize Essay of 1856, and from the present work. It shows that within the last ~~twelve~~ 12 years the number of known, well-determined species has been more than quadrupled—opening to the naturalist nothing less than a new world of life.

GASTEROPODA.—This class of Mollusks consists of 51 genera and 895 species. The geographical summary placed in the body of the Thesaurus contains much information which need not be repeated here.

Almost all tolerably examined Silurian countries are found possessed of Gasteropoda, but in very different proportions, and of very different kinds. This is in part dependent on the amount of search bestowed. If the results of a resolute search be small, we must, perforce, take for granted that the Gasteropoda are few. Their office is then performed by representatives.

The following little Table shows in a striking manner the several and extremely various amounts of Gasteropodal species found in some of the great Silurian districts of the earth.

For further matter see Thesaurus, p. 169.

Geographical Summary of Species.

Arctic America.	Wisconsin.	Iowa.	Ohio.	Tennessee.	Pennsylvania.	New York.	Canada West.	Anticosti Island.	Mingan Isles.	Newfoundland.	Nova Scotia.	Ireland.	England.	Wales.	Spain.	France.	Bohemia.	Sardinia.	Baltic Russia.	Russia proper.	Sweden.	Norway.	Silesia.	South Australia.	Tasmania.	North India.
7	25	13	3	14	9	152	100	41	25	39	8	60	65	77	4	3	244	2	51	38	27	13	5	7	13	9

A certain number of these species are repeated in more than one country; but the "repeats" cannot be removed without more time than is at my command. These numbers, therefore, sometimes represent *appearances* *, as defined. Incomparably the larger number of *species* appear, respectively, only in one area; nevertheless exceptions are common. Here are a few.

	Countries.		Countries.
Murchisonia bellicincta	10	Euomphalus alatus	5
Pleurotomaria umbilicata . . .	8	„ funatus	5
Murchisonia bicincta	6	Holopella obsoleta	5
„ gracilis	5	Cyclonema bilix	4
„ perangulata . . .	5	„ trimarginatus . . .	4
„ tricarinata	5	Murchisonia articulata	4
Platychisma helicites	5		

But going back to genera, Table B (below) shows that the eight following genera have the widest and most complete range; and it is great. The reason may be that the Gasteropoda are not nice in their food, that they can exist on several kinds of sediments, and frequent the moderate depth which allows of the freest travel.

TABLE B.

Genera.	Species.	Countries inhabited.	Genera.	Species.	Countries inhabited.
Pleurotomaria	171	34	Raphistoma	19	20
Murchisonia	132	30	Subulites	20	17
Euomphalus	86	21	Loxonema	32	13
Acroculia †	123	17			

Most of these countries are exceedingly large; so that for 171 species of *Pleurotomaria* to exist only in thirty-four countries would seem to imply moderate range; but many of these regions would well bear subdivision, when the apparent spreading would be greatly extended. The fossiliferous area (Silurian) of Canada alone is 60,000 to 80,000 square miles.

Of the 51 genera of this order, 19 are confined each to one district, which is very credible, seeing that 12 genera have only one or two species each. Among the other 32 genera there are degrees of dispersion. Taking the whole class, there are 894 species and 1254 appearances, or one quarter more appearances than species; but if we look down the list of individual genera, appearance and species are the same in 31; in other instances the former exceeds the latter by one half, one third, or one fourth—in *Murchisonia* by one third, in *Rhaphistoma* and *Platychisma* by one half. Trilobites are liable to a smaller amount of dispersion than this.

The specific *appearances* of the Gasteropoda are 658 in the Old World and 595 in the New World, the former number being greatly increased by M. Barrande's discoveries in the Prague area.

Twenty-two genera, and nine or ten species, are common to Europe and America, the species ‡ of course being greatly in the minority. As to the increment and decrement of species in time, every large area must have its own; but there is a common feature almost everywhere, such as we see in the following Table, which exhibits the British Silurian Gasteropoda in their rise and decline.

* By the word "appearance" is meant, in these pages, only the presence in any area of a particular species or genus which may or may not exist elsewhere. One species may, and often does, make many "appearances;" for example, *Orthis sericea* is in many areas. "Appearance" applies to horizons as well as to areas.

† The United States of America (latitude 40°–42°) and Bohemia are both very strong in *Acroculia*; there are 47 species in each.

‡ They are:—*Clyclonema ventricosa*, New York and Wales; *Euomphalus angulatus*, Pennsylvania, Norway; *Murchisonia angustata*, Wisconsin, Wales; *M. bellicincta*, New York &c., Silesia, Scotland; *M. tricarinata*, New York &c., Sardinia; *Ophileta compacta*, New York &c., North Scotland; *Raphistoma lenticularis*, New York &c., Wales &c.; *R. qualteriata*, Labrador, Russia, &c.; *Subulites elongatus*, Canada, Esthonia; *Trochus helicites*, Nova Scotia, England.

TABLE C.—Progress in British Gasteropoda.

Primordial.	Llandeilo.	Caradoc.	Llandovery.	Wenlock.	Lower Ludlow.	Upper Ludlow.	Passage-beds.	Total.
2	7	34	35	17	23	10	2	130

We here begin and end with two species, or more truly with four different species; but the majority of the Gasteropoda are about the middle of the mass of beds, as is usual. The Llandovery beds become rich by borrowing six species from the lower stage. The names of the species referred to in the above Table can be had by reference to Murchison's 'Siluria,' 4th edition, pp. 531 &c.

In so extraordinarily rich a district as Central Bohemia it is worthy of notice that out of the whole fifty-one genera of this order it has only twenty-three, and these are poor in species. It is, however, the richest area of all, England coming next, with twenty genera; one only in common, *Acroculia*.

The interesting Table D, here subjoined, exhibits the proportions in which the species of the Gasteropoda are found in the four stages of the Silurian epoch, according to our present knowledge.

TABLE D.

Genera.	Primordial Stage.	Lower Stage.	Middle Stage.	Upper Stage.	Genera.	Primordial Stage.	Lower Stage.	Middle Stage.	Upper Stage.	Genera.	Primordial Stage.	Lower Stage.	Middle Stage.	Upper Stage.
Acroculia	3	12	3	106	*Brought forward*	22	110	25	197	*Brought forward*	102	280	74	356
Calyptræa	...	...	...	2	Holopella	...	5	8	7	Raphistoma	3	14	2	...
Carinaropsis	...	6	...	...	Hormotoma	...	2	...	...	Rotella	...	...	...	5
Cerithium	...	...	...	2	Litorina	...	1	...	1	Scalites	1	3	...	...
Chemnitzia	...	...	1?	...	Loxonema	1	2	2	23	Scoliostoma	...	...	...	1
Chiton	...	1	1	1	Macrocheilus	...	2	1	3	Siphonaria	...	...	...	1
Cirrus	...	...	..	7	Metoptoma	11	15	...	...	Stomatella	...	...	...	1
Cleodora	...	2	...	...	Murchisonia	24	51	20	31	Straparollina	1	...	...	...
Clioderma	...	6	...	...	Natica	...	5	1	15	Straparollus	1	4	...	2
Clisiospira	2	...	...	...	Naticella	...	1	...	4	Strophostylus ...	...	...	...	6
Cyclonema	1	21	11	11	Ophileta	12	5	...	...	Subulites	2	9	2	2
Delphinula?	...	...	...	7	Patella	...	6	...	5	Trochonema	1	7	2	1
Dentalium	...	3	...	...	Phasianella	...	1	...	...	Trochus	...	3	3	16
Eunema	1	5	...	1	Pilidion	...	...	...	4	Tubina	...	1	...	7
Euomphalus	3	25	9	43	Platychisma	...	...	1	4	Turbo	2	7	2	28
Gyrotrema	...	...	...	5	Platyostoma	...	...	1	10	Turritella	...	1	...	2
Helicotoma	7	8	...	...	Pleurotomaria ...	32	73	14	50	Vermetus?	...	...	...	2
Holopæa	5	21	...	12	Porcellia	...	1	1?	2					
	22	110	25	197		102	280	74	356	Total	113	329	85	430

There are several things worthy of notice in this Time-table of the Gasteropoda. The species augment with the progress of the epoch, those of the upper stage being nearly four times as many as the Primordial. The poverty observed in the Middle Silurian is due to well-known circumstances, and is incident to almost all areas.

We have in the Primordial stage 121 appearances, which are, except eight, all distinct species. Only one of these species passes into a higher stage, the *Pleurotomaria Progne* (also of Black-River and Trenton Limestones).

The genera in the four stages we have adopted are in number 19, 17, 3, and 12 respectively; and the species, taken in like succession, are 113, 329, 85, and 430.

That the very earliest phase of this epoch should contain so large a body of Gasteropoda implies a large amount of maturity in the conditions of the time, as well as of adaptation of organic structure. We also find them even then associated with Cephalopoda of high rank, such as *Clymenia* and *Orthoceratites*; while the Gasteropoda maintain themselves vigorously, with organs of great power. We must, perforce, be greatly struck by this outburst of new and complex forms of life after an apparently long arrest of creative energy. (See p. xx, on the Primordial Stage.)

Nearly all of these many Primordial Gasteropoda are natives of North America, the exceptions being only five, i. e. *Ophileta compacta* and *Euomphalus matutinus* in N.W. Scotland, *Acroculia Cantabrica*, *A.* sp. ind. of Spain, and *Helicotoma Anglica* from South Wales. Bohemia has not a single Primordial Gasteropod, remarkably numerous though they be higher up. Only two small genera stop within the Primordial beds; most of the others pass, in the form of new species, freely up to the summit of the epoch.

The Table E, subjoined, shows the comparative numbers with which the species of this class people the sediments of the Silurian epoch.

Table E.

	No. of Species.	Siliceous Grit.	Siliceous Sandstone.	Argillaceous Sandstone.	Calcareous Sandstone.	Calcareous-argillaceous Sandstone.	Mudstone.	Argillaceous-calcareous Shale.	Argillaceous Limestone.	Pure? Limestone.	Number of Appearances.
Wales*, 1858.....	84	11	14	18	32	24	14	13	27	5	158

The appearance of the same species in more than one sediment (which has been called "divergence") is frequent in Wales; for eighty-four species make 158 appearances in more or fewer of the ten kinds of sediments of the Table; many frequent more beds than two. There are 115 appearances in calcareous beds, but only 43 in non-calcareous beds. We see very few Gasteropoda in limestone which is pure, or nearly so; and this holds good with most other Silurian Mollusca.

In the State of New York the preference of Gasteropoda for sediments containing some lime is eight times as strong as for non-calcareous beds†; that is, out of ninety-three Gasteropoda, eighty-three are in calcareous beds.

Of the ninety-seven Silurian Gasteropoda known in Britain and Ireland in 1868, twenty species are recurrent; but six of these are only transferred from the Llandovery stage to the Wenlock. *Euomphalus sculptus*, however, and *Platychisma simulans* are in four stages (Caradoc, Llandovery, Wenlock, Ludlow); *Euomphalus funatus* and *Holopella cancellata* are in three, the rest being only in two stages and thus indicating a weak power of recurrency.

Trilobites.—Of the 119 genera which form this order, 74 make their first appearance in the Primordial stage of the epoch, and they present at one period or other of their existence 998 species, as we are taught by the 'Thesaurus.'

These Primordial genera are nearly two-thirds of all those contained in Silurian beds. Forty-six of these genera never leave this the earliest of the four stages. Not one of their 235 species is seen in Caradoc, Pleta, Trenton, or any other part of the epoch; but twenty-seven genera push upwards, and always by new species, leaving the old ones behind. These genera in their transit through the successive stages become exceedingly rich in species, and several are rich within the Primordial limits (*Bathyurus, Agnostus, Olenus, Dikelocephalus*, &c.).

A Primordial *species* usually has a considerable vertical range within its native stage, and there only.

The Primordial Trilobites vary in amount and kind with the country examined, and not so

* See Murchison's 'Siluria,' 4th edition. † Journ. Geol. Soc. Lond. vol. xv. p. 308.

much in accordance with the size of the country as with the original impress of the Creator and with the nature of the strata. We already have materials from almost all parts of the Silurian scale of rocks to show, with some force (M. Barrande), that life began earlier and more abundantly in the valleys of the St. Lawrence and Mississippi than in Europe. Thus the Primordial Trilobites of these valleys comprehend 208 species, in 40 genera, and very much assembled in two broad quasi-foci, Wisconsin being one, and parts of Lower Canada the other. In Sweden there are in this stage 56 species, in 18 genera; in Great Britain and Ireland, 33 species, in 11 genera; in Bohemia, 28 species, in 8 genera; space has little to do here.

The influence of the Primordial stage on molluscan life, the abundance and typical forms of its species, cannot well be over-estimated and reflected upon.

The dates of the appearance and disappearance of all the Silurian Trilobites, together with their facies stage by stage, their increment and decrement, should now follow; but as this is not a monograph, and is intended to be an invitation to labour rather than a completed task, all mention of them will be omitted. For Prague and its environs this has been done admirably.

The number of species now known and registered is 1677, and their appearances in the several regions are 2169, the former being rather less than four-fifths of the latter. The difference (492 appearances) becomes the measure of their dispersion; and it is less than that of most of the molluscan orders of this period.

Very unexpectedly the species of this order in North America are much fewer than in Europe, being only about one-third of the whole. This may, by possibility, arise from the prevalence of sandstone over limestone in North America. In New York State the limestones are only 600 feet thick, but the sandstones are 3000 feet thick; and there is little reason to think things are different in other parts of that continent. In both cases neither the superficial areas nor the research bestowed upon them differ much.

The geographical summary here subjoined gives the number of species of Trilobites found in each of the forty-eight districts, as far as is known. To most of the areas interesting details are attached, which are to be found in the 'Thesaurus' and elsewhere.

The totals of species and appearances in America and Europe are inserted separately.

TABLE F.—TRILOBITA (Geographical Summary).

AMERICA.

Appearances (Specific).	Bolivia, South Amer.	Arctic Sea.	Rupert's Land.	N.W. Michigan.	Minnesota.	Wisconsin.	Iowa.	Missouri.	Dacota Territory.	Illinois.	Indiana.	Ohio.	Kentucky.	Texas.	Tennessee.	Virginia.	Pennsylvania.	New York.	Canada West.	Canada East.	Vermont.	Massachusetts.	New Brunswick.	Nova Scotia.	Anticosti Island.	Mingan Isles.	Labrador.	Newfoundland.	Total Appearances (America).	Number of Species.
	5	6	3	8	23	72	6	1	1	14	2	9	2	10	11	4	14	73	39	104	17	2	1	12	23	15	5	58	540	405

EUROPE &c.

Appearances (Specific).	Ireland.	Scotland.	England.	Wales.	Belgium.	France.	Spain.	Portugal.	Sardinia.	Bohemia.	Harz (Thuringia).	Bavaria.	Silesia.	Podolia.	Baltic Russia.	Russia (Proper).	Sweden.	Norway.	India.	Australia.	Total Appearances (Europe &c.).	Number of Species.
	98	44	160	208	9	49	47	17	1	404	20	29	1	10	70	104	279	60	8	11	1629	1272

The great total for both hemispheres is 1677 species.

We know 57 American genera; of these 16 belong exclusively to that hemisphere; while the European genera are 118, 69 of these being never seen out of that quarter of the globe. Some genera have many species, more abundantly than the Echinodermata, but much less so than the Gasteropoda, and still less than the Cephalopoda. *Phacops* has 96 species, *Illænus* 92, *Asaphus* 90, *Lichas* 79, *Cheirurus* 77, &c. Thirty-one genera have each only one species; and they never leave their native area, save in one instance (*Polyeres*, Bohemia, France).

Forty-one genera are only seen in one country or area respectively, although each may have three, four, or six species, their associated genera meanwhile spreading far and wide. A curious example of wide diffusion we have in the genus *Cromus*, which has been met with in Bohemia, the Arctic seas of America, and in Belgium.

The largest genera have been subject to the widest dispersion. Thus *Dalmania* is seen in twenty-one separate regions, *Lichas* in twenty-four, *Phacops* in twenty-five, *Cheirurus* in twenty-six, *Illænus* in twenty-eight, and *Calymene* in twenty-nine. *Isotelus* with seven species occupies fourteen countries*.

It is to be feared that no general conclusions can be made from these facts until we know more of the physiological conditions of these animals. Some rich genera are very local, such as *Cyrtometopus, Bathyurus, Dikelocephalus, Dionide*. The sixty-one species of *Proetus* are each typical of one area, except *Proetus concinnus, P. latifrons, P. Stokesii*. Only three of the Primordial genus *Conocoryphe* are in two countries:—*C. coronata*, Spain and Bohemia; *C. depressa*, Wales and Texas (U. S. A); *C. minuta*, New York and Wisconsin. Twenty of the species belonging to this genus are in Wisconsin, eleven in Wales, and the rest are scattered. The species of *Bronteus* are principally massed within the Bohemian basin (forty-three out of fifty-six), three being typical of one country only.

The same *species* may inhabit many regions. *Encrinurus punctatus* is in eight, and is in two quarters of the globe. *Dysplanus centrotus* is in six countries, *Bumastus Barriensis* in ten, while *Calymene Blumenbachii* and *C. senaria* are each in seventeen.

Instances of great migration from east to west, and from west to east are many, and about equal in number; but the particulars about the time-stages have not yet been fully ascertained. Other directions are not uncommon.

Calymene Blumenbachii is only seen in the Trenton limestone, in America; but in Europe it reappears in the Wenlock of Wales. *Encrinurus segmentatus* is in the Hudson-River group of the Island of Anticosti, to revive in the Wenlock of Dudley &c. Many such examples are at hand. This may be called recurrence by migration.

Recurrence among Trilobites is rather weak, seven per cent. in species, computing from the sum of all at present known; that is, 115 recurrents out of 1677 species. The largest genera have the most recurrent species. They are *Acidaspis, Cheirurus, Lichas, Phacops, Proteus*. The majority of the smaller genera have either only one or none; but some of even the most prolific have none, such as *Ogygia, Amphion, Megalaspis, Remopleurides*. The same species in these four genera

* The following are some examples of genera with few species, yet seen in several countries:—

	Sp.	Cos.
Pharostoma	4	5
Plesiocoma	2	3
Polyeres	1	2
Polytomurus	1	2

	Sp.	Cos.
Rhodope	3	3
Triarthus	5	6
Dysplanus	3	6

	Sp.	Cos.
Actinopeltis	3	7
Basilicus	4	7
Bumastus	6	12

never leaves its native level. The genera possessing recurrent species are placed in the foot-note *. They are taken from the 'Thesaurus'.

Out of 224 species of Trilobites in Great Britain and Ireland, as known in 1867, thirty-two exhibit some amount of vertical range, or about 14 per cent.; but two-thirds of these recurrents occupy contiguous stages, and so may only occupy transition-beds. They may all be found in 'Siluria,' 4th edition, pp. 514 &c.

As my own later-collected materials for ascertaining the relations of Trilobites to their sediments are not yet ready for use, I have formed, from what was known in 1858, the following Table. As the organic material of this Table was taken from 'Siluria,' 3rd edition, and as its sediments have passed under the eye of Mr. J. W. Salter, it may be supposed that considerable accuracy has been attained.

The sediments are arranged under eleven heads, which is being as minute, and at the same time as comprehensive, as is required.

TABLE G.—Trilobites (British)—appearances and their sediments (1858).

Genera.	Number of British Species.	Siliceous Conglomerate.	Siliceous Grit.	Siliceous Sandstone.	Calcareous Sandstone.	Argillaceous Sandstone.	Calcareo-argillaceous Shale.	Mudstone.	Carbonaceous Shale.	Argillaceo-calcareous Shale.	Argillaceous Limestone.	Limestone.	Number of Sediments.
Acidaspis	13	...	...	...	2	...	5	1	1	1	7	...	6
Æglina	4	...	...	...	...	...	1	1	3	...	1	...	4
Agnostus	5	...	...	...	...	...	2	1	3	...	1	...	4
Ampyx	4	...	...	...	1	...	2	2	2	...	...	...	4
Angelina	2	...	...	2	...	...	...	...	...	...	...	...	1
Asaphus	6	...	1	2	3	5	2	1	1	2	2	...	9
Bronteus	2	...	...	...	...	1	...	...	...	...	1	...	2
Calymene	6	...	...	3	2	2	5	2	1	1	2	...	8
Cheirurus	6	...	...	...	3	1	...	...	1	3	4	...	5
Conocephalus	1	...	...	...	...	...	...	...	1	...	...	...	1
Cybele	2	2	...	2	2	2	...	...	...	...	...	...	4
Cyphaspis	2	...	...	...	1	...	1	1	...	...	1	...	4
Cyphoniscus	1	...	...	...	...	...	...	...	...	...	...	1	1
Deiphon	1	...	...	...	...	...	...	...	...	...	1	...	1
Ellipsocephalus	1	...	...	...	...	...	...	...	1	...	...	...	1
Encrinurus	5	1	1	1	3	4	3	2	2	3	2	...	10
Harpes	2	...	...	...	...	2	...	...	...	...	...	...	1
Homalonotus	5	...	1	...	3	3	2	1	...	...	1	...	6
Illænus	7	...	...	...	1	2	1	...	2	2	3	1	7
Lichas	9	...	...	1	3	2	2	...	...	3	8	...	6
Ogygia	5	...	...	...	...	1	2	3	3	1	1	...	6
Olenus	5	...	...	1	...	...	...	1	5	...	...	...	3
Paradoxides	1	...	...	...	...	...	...	...	1	...	...	...	1
Phacops	17	...	...	1	11	8	10	4	...	6	5	...	7
Proetus	2	...	...	...	1	1	1	1	...	1	2	2	7
Remopleurides	7	...	...	...	...	3	7	1	...	2	1	...	5
Sphærexochus	2	...	...	...	...	1	...	...	...	1	1	1	4
Staurocephalus	2	...	...	...	...	...	2	1	...	1	1	...	4
Stygina	2	...	...	...	...	...	...	1	1	...	...	...	2
Tiresias	1	...	...	...	...	...	...	...	...	...	1	...	1
Trinucleus	8	1	1	1	3	3	6	7	4	3	2	1	11
	126	4	4	14	39	41	54	31	32	30	48	6	—

* Trilobite genera possessing recurrent species in the following numbers:—

Acidaspis	6	Calymene	6	Harpes	3	Lichas	16	Sphærocoryphe	1
Æglina	1	Cheirurus	10	Holometopus	2	Phacops (exclusive of varieties)	15	Staurocephalus	2
Ampyx	1	Cybele	2	Homalonotus	2	Platymetopus	2	Stygina	1
Arethusina	1	Cyphaspis	4	Illænus	5	Proetus	10	Trinucleus	2
Asaphus	4	Dalmania	7	Isocolus	1	Sphærexochus	4		115
Bronteus	3	Encrinurus	3	Isotelus	1				

We learn from this Table that, of the whole 293 appearances (1858) of this order in the British Isles, 167 took place in highly calcareous strata, 63 where lime was in smaller quantity, and 63 where that earth was entirely absent. Clay and sand being almost always in considerable proportions, we deduce that Trilobites lived in seas of moderate, and even shallow depths, seeing that they are also in pure siliceous sand and grit.

Calcareous strata, then, are the richest in Trilobite life, and especially calcareo-argillaceous shale (fifty-four species), pure or nearly pure limestone being very poor. Argillaceous limestone contains twenty-two genera and forty-eight species.

Certain genera, *Asaphus*, *Encrinurus*, and *Trinucleus*, occupy nine, ten, eleven beds; but eight have each only one bed, the average in thirty-one other genera being four.

Acidaspis with thirteen species inhabits six, and *Encrinurus* with five species is in ten beds; so that the number of beds inhabited mainly depends on the peculiar structure of the genus itself. The simpler this is, perhaps the easier the Crustacean conforms to new conditions; yet *Trinucleus*, so elegant in form and so charged with ornament, is in all the eleven beds.

The comparative organic rank of these genera, a most interesting study, has yet to be worked out.

The plan and object of these pages renders it necessary to omit all notice of eight orders, Amorphozoa, Cœlenterata, Polyzoa, &c. They all, however, present points of interest which are indispensable to a proper exhibition of Silurian life.

A rapid sketch, not the results of a leisurely study, of some leading particulars of three orders, Cephalopoda, Brachiopoda, and Echinodermata, will now follow.

Cephalopoda.—It is impossible to think on the subject of the Palæozoic Cephalopoda without expressing, with Sir Charles Lyell and all geologists, the greatest thankfulness, mixed with astonishment, for the three splendid quarto volumes, recently issued by M. Barrande on this order, an order of beings often gigantic, always formidable, and in numbers, form, habits, and powers well worthy of our closest attention. For accuracy of description, as I judge, for sound palæontology, and for almost incredible diligence, there is nothing in geological bibliography at all comparable with these single-handed labours of M. Barrande. We need merely call attention to the exquisite plates, representing many hundred species and varieties.

It is delightful to observe that, during nearly forty years of exile, the master and friend of M. Barrande still continues to him his patronage. These and other volumes of equally exalted merit are gifts to his age worthy of a king.

This order contains thirty-one genera and three subgenera in 1419 species (see Geographical Summary, p. 191). In Europe these make 1284 appearances, and in North America 442 appearances. The number of *species* in each hemisphere has not yet been obtained; but in Europe the number of *species* and *appearances* differs little. The summary just referred to supplies such details as are now known; and they are many and curious. The irregularities in distribution there remarked are partly due to the different degrees of attention paid to the several districts; but in certain of these the Cephalopoda are really few: it is presumed that their office is performed by other orders.

The Cephalopoda are apparently universal. Every known Silurian district has its representative—Arctic America, Tasmania, India, Franconia, Russia, Ireland, &c. The following countries possess the greatest number:—Bohemia (minute in size) has 826 *species*! New York and Canada (1200 miles by 400) 242 *appearances*; Britain with Ireland 77 *species* (168 appearances); Russia 130 *species* (mostly); Wisconsin (U. S. A.) 50 *species*.

Fourteen genera are not seen in America, and four are not in Europe. These are all feeble in species—five of the American genera only containing one; but we must except the important Bohemian genera, *Clymenia* (6 sp.) and *Goniatites* (17).

The genera confined to America have fourteen species; so that the oneness of the two hemispheres in this order is almost perfect. Twenty-eight species of Bohemian Cephalopoda exist in

other countries. They make seventeen appearances in Great Britain, six in France, five in Russia, and four in North America, several other appearances being scattered singly here and there.

The very beautiful genus *Actinoceras* is widely distributed; it is in eleven great American districts, and in seven European.

Cyrtoceras is in twenty-two countries. Speaking of Europe and North America, it is in eleven each. In Bohemia it is surprisingly numerous.

The *Discosurus* of Lake Huron, the State of New York, and Prince Rupert's Land is exclusively American. It is remarkable for the flat, nummulite-like form of its septa, and their very rapid diminution in size.

The seventeen species of *Goniatites* only exist in Bohemia. None of them are in passage-beds; five of them are in fauna F, the others are in G.

The genus *Lituites* is seen in twenty-three countries, thirteen being European.

A *Nautilus* (sp. *involvens*) has a singularly wide dispersion. It is found in Niti of the Himalayas (India), in the valleys of the Mississippi and the St. Lawrence, in Newfoundland, Bohemia, Russia.

The Orthoceratites are found in thirty-nine great countries, in 708 *species*, 304 of these being in the little area of Bohemia,—a circumstance most extraordinary, but perhaps being partly capable of explanation by the probable increase there of the plutonic heat at the time, as well as by the favourable nature of the sediments.

The simplest form in this order is that of *Piloceras*, Salter; and it is found associated with the genera *Cyrtoceras, Lituites, Nautilus, Orthoceras* in Newfoundland, the Mingan Isles (G. St. Lawrence), and Canada. It also forms part of the Primordial community, composed of American species, settled on the north-west extremity of Scotland.

That there should be in these Primordial times animals of such a high rank as these, suggests, with no small urgency, the probability of their being the remains of a large and lost fauna.

The abundance of these large and voracious sea-creatures implies an abundance of prey, a sea full of life, now out of our observation.

They are usually found buried in many deposits. Of this a tolerably accurate idea may be formed from the following Table, made out from Quart. Journ. Geol. Soc. Lond. xv. p. 334. It may be allowed to speak for other countries, as well as for other Orthoceratites, besides those already inserted.

TABLE H.—The sediments in which seven British genera are found.

Genera (1858).	Siliceous Grit.	Siliceous Sandstone.	Calcareous Sandstone.	Argillaceous Sandstone.	Calcareo-argillaceous Shale.	Mudstone.	Carbonaceous Shale.	Argillaceo-calcareous Shale.	Argillaceous Limestone.	Limestone (pure).
Ascoceras	...	...	...	...	1	1	...	...	...	...
Cyrtoceras	...	1	...	1	...	...	...	...	1	...
Gomphoceras	...	...	1	1	...	...	...	...	...	...
Lituites	1	...	1	1	2	1	...	2	7	1
Orthoceras	...	9	15	17	15	17	4	6	11	1
Phragmoceras	...	...	1	2	5	4	...	2	2	...
Tretoceras	...	...	1	1	...	...	...	...	...	...
	1	10	19	23	23	23	4	10	21	2

Being free swimmers, and changing their quarters according to seasons and certain instincts, these mollusks fall into many bottoms. The mixed deposits usual in medial depths hold the greater part of these remains. Seventy-three species are in calcareous sediments, and thirty-four in non-calcareous. This list was drawn up under the inspection of Mr. J. W. Salter.

Some information on the recurrency of this order may be had in the great Table on the subject in page 191.

Brachiopoda.—There has been placed on page 126* a summary of the geographical distribution of the Silurian Brachiopoda. It tells us that North America has yielded 1121 specific appearances, and that Europe &c. has given 1672, a much larger number. Twenty-seven genera of this order are common to the two worlds; eight are exclusively American, and fourteen are European. With respect to the comparative numbers of species, the Table in page 126 is approximately correct, and it enters into curious details on the species common to several widely separated countries.

Almost all the genera are scattered freely; the richer, of course, very widely. It is interesting in no ordinary degree to run the eye along the Table (p. 126*) from West to East, from Bolivia (S. A.), or Rupert's Land in the north, through forty-one Silurian areas, and see that even now there is an almost unbroken line of *Orthides* girdling the globe[a]. Other genera present a like continuous belt of species passing from land to land round the world: we refer to *Atrypa, Discina, Lingula, Pentamerus, Rhynchonella, Spirifera, Strophomena.* It is almost certain that the other genera have a similarly wide range (*Chonetes, Obolus,* &c). The gaps are fast filling up.

The Table (I) subjoined is intended to show the vertical distribution of the Brachiopodal species. If this order can be said to be very characteristic of the Silurian epoch, it is from the somewhat equable manner in which the species are diffused over its four stages, especially those of the larger genera. Eight rich genera appear in every stage, sometimes increasing in numbers from below (*Athyris, Atrypa, Rhynchonella, Spirifera,* &c.), while others rather decrease, as *Lingula, Orthis.*

Table I, showing the Vertical Distribution of the Silurian Brachiopoda (species).

Genera.	Lower Primordial.	Upper Primordial.	Lower Stage.	Middle Stage.	Upper Stage.
Acrotreta	...	2	1	...	...
Athyris	...	...	7	10	28
Atrypa	...	1?	27	23	62
Aulonotreta	1	...	1	...	...
Camarium	...	...	2	...	...
Camerella	2	6	6	2	...
Chonetes	...	...	4	4	17
Crania	...	...	6	1	5
Cyrtia	...	...	...	1	3
Discina	8	...	28	2	21
Eatonia	...	...	...	...	4
Eichwaldia	...	...	2	...	...
Leptæna	..	2	56	16	62
Leptocelia	...	...	1	4	4
Lingula	14	10	52	10	20
Lingulella	5	6	...	...	...
Lingulepis	2	...	...	...	...
	32	27	193	73	226

Genera.	Lower Primordial.	Upper Primordial.	Lower Stage.	Middle Stage.	Upper Stage.
Bt. forward...	23	27	193	73	226
Meganteris	...	...	...	...	4
Merista	...	..	1	2	18
Meristella	...	...	4	8	11
Mimulus	...	...	...	...	2
Nucleospira	1	...	...	...	4
Obolus	6	3	6	...	7
Obolella	9	6	1?	...	...
Orthis	9	24	186	42	80
Orthisina	4	1	15	1	2
Pentamerus	...	...	4	21	44
Pholidops	...	...	...	...	2
Platystrophia	...	...	6	1?	...
Porambonites	...	...	10	1	2
Rensselæria	...	...	...	...	5
Retzia	...	...	1?	...	12
Rhynchonella	...	1[b]	29	39	121
	61	62	456	188	540

Genera.	Lower Primordial.	Upper Primordial.	Lower Stage.	Middle Stage.	Upper Stage.
Bt. forward...	61	62	456	188	540
Rhynchospira	...	...	1	...	4
Siphonotreta	...	...	4	...	1
Skenidium	...	...	1	...	2
Spirifera	...	...	18	23	95
Spirigerina	...	...	1	2	1
Stricklandinia	...	2?	...	3	4
Strophodonta	...	...	...	1	10
Strophomena	...	1[c]	57	30	58
Trematis	...	...	10	...	2
Trematospira	...	...	...	...	8
Trimerella	...	...	...	...	2
Triplesia	...	...	6	1	...
Tropidoleptus	...	...	1	...	...
Zygospira	...	...	1?	1	...
	61	65	556	249	727

They are not so much massed in one or two beds as the Cephalopoda are in Trenton Limestone, Pleta, or Fauna E. e. 2 of Bohemia.

[a] The Table gives 37 as the number of countries inhabited by the Orthides; but we now find it to be 41. Discrepancies of this limited kind will be found elsewhere in the 'Thesaurus.' They are almost inseparable from the progressive nature of the work.

[b] Rhynchonella Corinthia.

[c] Strophomena Aurora.

Like all other Mollusca, these 1658 species did not inhabit the Silurian sea at once, but at distinct times, and separately, in consecutive communities. It is only as genera that this order permeates all stages.

We shall see, when speaking on this subject, that these populations were renewed at very short intervals, a few survivors being permitted to escape upwards, in ways to be afterwards mentioned.

In Table I is visible at a glance the opulence and poverty, more or less, of the different stages.

We see that the Brachiopoda had a vertical (by strata) maximum and minimum—these seemingly capricious fluctuations in quantity being caused by conditions acting upon a tender structure, often incapable of undergoing modification.

One genus arrives at its maximum in the Primordial, ten in the Lower Stage, none in the Middle Stage, and seventeen in the Upper. The Middle Stage is more abundant in this order perhaps than in any other.

The seven richest genera (*Discina, Lingula, Orthis,* &c.) begin in the Primordial, and push their representatives into the uppermost beds of the period.

Fourteen genera, all feeble, except *Athyris* and *Spirifer,* are first seen in the Lower Stage, only one in the Middle, and seven weak genera in the Upper.

Three Primordial genera never pass the limits of their native stage. Three other genera belong to the Lower Stage alone.

The Primordial Stage, the Table informs us, has 126 species of Brachiopoda, in fourteen genera—an unexpectedly large supply of food for the carnivorous animals that prevail in this stage.

The elder Primordial has eleven genera, all, save one (*Lingulepis*), crossing the boundary into the stages above. The upper division of this part of the column has six, which do the same.

The number of Orthides (thirty-three species) in the Primordial stage is remarkably large. That there should be twenty-four species of *Lingula* we were better prepared for.

That a *Nucleospira* (Hall) should be met with in the Primordial is new, but the authority on which the fact rests is too good to allow of its being rejected.

M. de Koninck, in his Memoir on the genus *Chonetes,* only enumerates two Silurian species. There are now thirty-one in the 'Thesaurus.'

There is some little recurrent movement in the two divisions of this Primordial Stage; but their organic connexion is slight, being kept up by, at most, two or three species in common. The same species is often found in several beds of the Quebec group; but few pass the limits of the true Primordial.

The mixed effects on the number of appearances from horizontal and vertical range are very considerable, but there has not been time to disentangle them. The appearances exceed the species, each genus having its own proportion. In some few there is equality, or an approach to it.

TABLE I.—Proportion of Appearances to Species.

Appearances.				Total of Species.	Observation.
Genera.	America.	Europe.	Total.		
Atrypa	102	97	199	113	These extracts from Tables might be much extended.
Chonetes	7	39	46	31	
Orthis	214	389	603	331	
Rhynchonella	123	179	302	175	
Leptocœlia	7	3	10	10	
Meganteris.....	4	...	4	4	

ECHINODERMATA.—The following little Table represents, numerically, the geographical distribution of the three forms of the class Echinodermata. It is short, but contains much matter.

TABLE K. Class Echinodermata (Geographical Summary).

	AMERICA.																	EUROPE &c.																				
Orders.	Arctic America.	Wisconsin.	N. Iowa.	Missouri.	Illinois.	Indiana.	Ohio.	Kentucky.	Tennessee.	Maryland.	Pennsylvania.	New York.	Canada West.	Canada East.	Anticosti Island.	Nova Scotia.	Newfoundland.	Total Appearances (America).	Ireland.	Scotland.	England.	Wales.	France.	Spain.	Sardinia.	Harz (Germany).	Podolia.	Bohemia.	Baltic Russia.	Russia.	Sweden.	Norway.	India.	Australia.	Total Appearances (Europe &c.).	Great Total Appearances.	Number of Species.	Number of Countries inhabited.
Crinoidea	1	19	...	3	17	12	5	4	42	1	4	71	45	15	4	...	2	245	5	1	53	8	2	...	1	1	3	1	18	32	23	7	1	2	158	403	315	30
Cystidea	...	12	1	2	1	...	...	...	2	2	...	12	19	14	1	...	...	66	4	...	16	24	...	2	...	..	...	12	7	18	10	1	...	...	94	160	136	19
Asteriada	...	2	...	2	...	...	3	...	1	...	...	5	13	3	1	1	1	32	1	...	19	7	1	...	...	...	...	3	2	2	1	...	...	...	36	68	61	18
	1	33	1	7	18	12	8	4	45	3	4	88	77	32	6	1	3	343	10	1	88	39	3	2	1	1	3	16	27	52	34	8	1	2	288	631	512	...

Table L, subjoined, shows the numerical proportions in which the species of this class occupy the successive stages of this epoch.

TABLE L.

Order.	Primordial Stage.	Lower Stage.	Middle Stage.	Upper Stage.	Total.
Crinoidea	2	106	8	187	303
Cystidea.....	3	76	3	45	126
Asteridea	1	30	2	25	58

Its contents require no remarks.

Crinoidea.—The order Crinoidea contains 78 genera and 315 * species. Thirty genera have each only one species; and these in only five cases occupy two countries. Fifteen genera have three species, and ten have two, the geographical range being here also short. A few genera are comparatively rich in species. Thus *Glyptocrinus* has nineteen species, and is found in fourteen distinct areas; and *Actinocrinus* has fourteen species, and inhabits fourteen areas; *Hypanthocrinus*, with twenty-three species, is seen in ten districts. Together with great beauty, Crinoids are very sensitive to conditions, and therefore they have but a limited geographical range.

The Table K will show how few Crinoids there are in many countries, such as Nova Scotia, Newfoundland, Iowa, Scotland, Spain, India, Tasmania, &c. Crinoidea have in North America two principal foci or places of concentration. There are likewise in Europe two similar chief seats. They are all singularly rich.

These concentrations are in America some hundreds of miles apart: that on the west occupies Tennessee, Illinois, Wisconsin; and that on the east is met with around the City of Ottawa (Canada West) and North New York, the adjacent state of the North-American Federation.

The chief seats in Europe of this order are England with Wales, and Russia with Sweden, and this in a very striking manner. These remarkable assemblages are probably due to appropriate sediments and other favourable conditions (deep sea &c.).

A genus may be confined to a very few square miles, as in the case of the subgenus *Cupellæcrinus*

* 315, from late acquisitions.

with its nine species. It is confined to Decatur County, Tennessee *. On the other hand, although the species of a genus may be few, they may, contrary to rule, be widely scattered. In this way the three species of *Scyphocrinus* are found in New York, Sardinia, and Sweden.

Crinoidal species are very local, with a few exceptions. Thus the single species *Marsupiocrinus cælatus* lived in the Silurian seas of England, New York, and Tennessee. *Calliocrinus*, *Crotalocrinus*, &c. present similar facts.

In this order zoological connexion between areas is chiefly maintained by genera. Twenty-one genera are common to the western and eastern hemispheres—a fact of weight; thirty-five are exclusively American; and twenty-three are European.

Two hundred and forty-five species are North-American, and one hundred and fifty-eight are European, which reverses the usual proportion of fossil life in these two great divisions of the earth.

Recurrence is rare among Crinoidea. I only know of twelve instances, six of which are given in the footnote †. Many of them are in coterminous beds.

Cystidea.—The Tables K and L, just referred to, contain much information respecting this beautiful and curious order. It consists of 32 genera and 136 species. Until within the last thirty years little was known about it. Since then this order has been illustrated in an admirable manner by Von Buch, Forbes, and Billings.

Its genera *Palæocystites*, *Protocystites*, *Trochocystites* are found in Primordial strata at Phillipsburg (Canada East), at the head of Lake Champlain, at Montreal?, in the Mingan Isles (Gulf of St. Lawrence), in South Wales, in Spain, and Bohemia. It abounds in the Trenton Limestone of America, in the Caradoc beds of Britain generically and specifically, passes freely into Upper Silurian, and then into a Devonian Limestone.

In both hemispheres the Cystidea have the same two headquarters as the Crinoidea; but America exhibits fewer species than Europe. Edward Forbes, by way of directing particular attention to these gatherings, calls them polarizations.

The Cystidean genera are rather more prolific than the Crinoidea; but eight have each only one species, even after a close inquiry for them. The geographic range of species is less also. Out of thirty-three countries inhabited by Crinoids, in only twenty have Cystidea been observed.

The proportion of appearances in different lands to species is as six to five.

Here again, the genus *Holocystites*, with its seven species, never leaves Wisconsin, with the exception of *H. sphæricus*, which we have at Chicago (Illinois), a bordering state.

Nine genera are common to Europe and America, ten being exclusively American, and eleven exclusively European. At present Cystidea have not been brought from India or Australia.

Apiocystites Huronensis affords the only known instance of vertical range in this order; and it is short and doubtful.

Asteridea.—This order contains fourteen genera and sixty-one species, or four to a genus; while in Brachiopoda it is thirty species to a genus, in Cephalopoda thirty-three. *Palæaster* contains fourteen species as the richest genus, *Edrioaster* and *Palæchinus* having each one only. This order is only seen in nineteen Silurian areas.

Europe and North America have five genera in common; five others are the sole property of America, and four of Europe.

In America we find, again, the chief abode of the Asteridea to be around the City of Ottawa (Canada West) and in North-west New York State (twenty-one out of thirty-three species). Elsewhere the species are scattered singly or in pairs, in Indiana, Ohio, Illinois, Canada, Newfoundland.

* Genera and species may seem far apart geographically, when in reality they are close together, as on the opposite sides of a boundary river, the St. Lawrence or the Mississippi. Thus two species of *Stephanocrinus* are on the same sheet of rock, but are catalogued as in two separate countries.

† *Ctenocrinus typus*, *Cyathocrinus exilis*, *Melocrinites lævis*, Pleta, Corall. Lst.; *Dictyocrinus squamifer*, H. R. G., L. H. G.; *Glyptocrinus decadactylus*, Primordial (Geinitz), H. R. G., CL.; *Pericchocrinus moniliformis*, Llandov., W.L.

In Europe, the British Islands contain twenty-seven out of thirty-three species; of the six not found there, five are in North-west Europe, and another is French.

This order is but small; this, however, is not for want of due search, for their size and beauty render them attractive to collectors.

The Primordial Stage.—Waiting for the results of the investigations now taking place in Canada as to the exact relations of the Quebec Group with the Primordial Stage, it will be better not to dwell long on this part of the Silurian epoch, especially as the present ideas on these relations do not give entire content. The very name has ceased to be appropriate.

The 'Thesaurus' amply manifests the great extent, or even the universality, of the numerous correspondences and the organic riches of the Primordial of Barrande, the Taconic stage of Prof. Emmons. It is indissolubly Silurian by almost every possible tie—by facies, materials, stratigraphy, and organic contents, according to De Verneuil, Hall, Murchison, Logan, Billings, &c.

The mineral characters of this stage are exceedingly diversified, and indicate the complicated nature of the processes then in full operation. It presents the alum-slates of Sweden, the soft blue clays of Russia, the clayey schists and conglomerates of Bohemia, the arenaceous and metamorphosed schists of Britain, the displaced schists, limestones, and conglomerates of Quebec, the soft calcareous sandstones of Central North America, among other varieties of composition and of stratigraphy.

The Primordial Stage did not start forth, Pallas-like, at once, in full maturity. The quantity, variety, and high rank of its fauna shut us up from any other conclusion than that it is only part, and a rich part, of an already established flora and fauna, lying undetected at present, and perhaps for ever, but which may be any day discovered in some of the many countries not yet examined. The Eozoon of Canada &c. belongs to an anterior and unconformable deposit.

Excepting the four orders Echinodermata, Cœlenterata, Monomyaria, and Dimyaria, all the others are in great force, those of high organization in particular. Crustaceans of very large size were numerous in Canada, and seem to have overspread large districts with their coprolites.

Table M.—Primordial Life, as known in 1868.

Orders.	America.	Europe.	Total.	Orders.	America.	Europe.	Total.	Orders.	America.	Europe.	Total.
Plantæ	11	11	22	*Brought forward*	40	19	59	*Brought forward*	398	325	723
Amorphozoa	22	5	27	Annelida	2	27	29	Dimyaria	8	4	12
Cœlenterata	5	1	6	Trilobita	212	205	417	Pteropoda	34	23	57
Crinoidea	...	1	1	Entomostraca ...	13	12	25	Gasteropoda	103	12	115
Cystidea	1	1	2	Polyzoa	50	27	77	Cephalopoda	54	11	65
Asteridea	1	...	1	Brachiopoda	81	35	116				
	40	19	59		398	325	723		597	375	972

The Table M contains all the Primordial life known in the present year, the western and eastern hemisphere being taken separately.

The Primordial fauna of North-east America greatly exceeds in number that of Europe (as 597 to 375 species). We see it in every order except the Annelida, a portion of our classification exceedingly faulty. This excess on the part of America is very strong in Amorphozoa, Trilobita, Brachiopoda, Polyzoa, Gasteropoda, and Cephalopoda, and it leads to the suggestion that organic existences may have begun earlier in the west than in the east, as M. Barrande is inclined to believe. In Bohemia, the best-examined country in Europe, the Primordial contains only twenty-eight Trilobite species, instead of the affluence of the Quebec group of North America, no Gasteropod, and no Cephalopod, although ten species of *Orthoceras* start into existence immediately after its termination—that is, in D. d. 1, the earliest bed of M. Barrande's second fauna. Neither *Cyrto-*

ceras nor any other Cephalopod appeared until near the end of this Stage D; while in America this order abounded in the Upper Primordial, and consisted of genera of every variety of rank—*Piloceras, Lituites, Orthoceras,* and *Nautilus,* the last genus being still an inhabitant of our seas.

Gasteropoda are exceedingly numerous in America during this stage, and as remarkably few in Europe.

The Trilobites are nearly equal in number of species east and west of the Atlantic; but the geographical summaries exhibit many striking differences. The American Primordial has no *Æglina, Ogygia,* &c., but has three *Remopleuridæ,* so abundant in Ireland and thus helping to connect the western part of Ireland with the Silurian lands beyond the sea. It is to be remembered that the great abundance of life in the Primordial of America need have no connexion with priority of existence, but may have arisen from a longer duration, from a more fertile epochal impress, and from the much more extensive area of the western Primordial. During part of the time the two great geographic divisions of this stage were coexistent.

The Table (N) subjoined conveys only a provisional statement of the Primordial life of America, but it is believed to be sufficiently accurate for general use.

TABLE N.—The Flora and Fauna of the Primordial Stage of North-east America; principally the River Ottawa, Lower Canada, the Mingan Isles, Western Newfoundland, and North-east New York (not the Mississippi Valley).

	Plantæ.	Amorphozoa.	Cœlenterata.	Crinoidea.	Cystidea.	Asteridea.	Annelida.	Trilobita.	Entomostraca.	Polyzoa.	Brachiopoda.	Monomyaria.	Dimyaria.	Hetero-Pteropoda.	Gasteropoda.	Cephalopoda.	Pisces.	Total.
Upper. Quebec Group	...	9	2	...	...	...	21	96	3	44	42	...	5	19	57	34	...	332
Upper. Calciferous Sandstone	6	5	1	...	...	...	3	6	3	...	6	...	1	5	39	19	?	94
Lower. Potsdam Sandstone	5?	8	...	...	1	...	4	74	6	1	31	...	...	5	3	...	...	138
Total	11	22	3	...	1	...	28	176	12	45	79	...	6	29	99	53	...	564

This stage is here divided into Lower and Upper Primordial, the former being represented by Potsdam sandstone, and the latter by the enigmatical Quebec group and Calciferous sandstone, and having superadded a few bottom layers of the Chazy beds of Lake Champlain.

This separation is based on mineral, as well as on very striking organic characters. The Table shows the latter at a glance. We there find seven important orders altogether absent from the Potsdam sandstone, five very poor in species, while the Crustacea and Brachiopoda are numerous.

Speaking in general of the valleys of the St. Lawrence and the Mississippi, the Calciferous sandstone overlies Potsdam sandstone conformably, but differs from it, chiefly, by containing more lime or magnesia, and often more of both at once. The characteristic fossils of these beds, in the districts here referred to, are not at all those of Potsdam rock, but are Gasteropoda and Cephalopoda in considerable numbers, and full of life and movement. It is poor in the other and simpler orders. Of six it is altogether destitute.

If we pass north-eastwards, from Quebec to the Mingan Isles in the Gulf of St. Lawrence, we there find in this bed sixty-three fossils not often connected with those of the Quebec group. To the south, in the Mohawk Valley, or to the west, in the valley of the Mississippi, we find the same—that is, numerous organic remains typical of place as well as of bed, 375 altogether.

The Calciferous sandstone agrees with its associate strata in having neither Echinodermata nor Monomyaria.

The fossils of the subdivision Chazy, met with in the Quebec group, or its equivalent, about

Phillipsburg (Lake Champlain), belong to its base, because its arenaceous beds very soon change upwards into a compact mass of crushed Crinoids, Cephalopoda, &c. (143 species), all quite new, and therefore the product of new conditions.

Wholly independent of the Quebec group, the Chazy beds spread over vast tracts on the Ottawa, the Upper St. Lawrence, and the Mississippi valleys, and lie conformably upon Calciferous sandstone. It is extremely difficult to separate them. In other words, in America there seems to be no sharp line dividing the Primordial from the beds above it—a condition of things, of course, affecting their upper zoological limits. As far as is now known, this line is rarely transgressed in Europe by Silurian life *.

Many of the Chazy mollusca are really of the Calciferous age, and go no further than the Chazy, while many which first show in this last bed freely mount up into the higher strata, Trenton, &c.

The mineral character of the Chazy beds is unsteady in its best exposures, as seen in the Gulf of St. Lawrence, the Mississippi valley, &c. It may consist of various sandstones, brown shale, and of dolomitic and argillaceous limestone. On the River Ottawa it is a sandstone fifty feet thick, resting, conformably, on a few feet of grey limestone (Calciferous sandstone).

The presence in some localities of the Chazy layers is indicated by the disappearance of all the Trilobita, except two species of *Asaphus*.

Great interest attaches to the Quebec group on account of its zoological contents, its doubtful stratal position, the displacements it has suffered, and the controversies it has occasioned.

It is clearly on or near the horizon of the Calciferous sandstone, and some of the lower layers of the Chazy rocks.

The fauna of the Quebec group is very peculiar; it embraces 332 species at Quebec and in West Newfoundland—the life, however, of these two districts being very different *specifically*, although for 1677 feet (Divisions N, O, P) the same words would describe the strata of both (300 miles apart).

Its numerous forms of life are almost all of very high organic rank, such as Cephalopoda, Gasteropoda, Trilobita, &c. (see Table N).

Although there are forty-four Polyzoa well known in the Quebec group (several of them also met with in Australia and England), there are only two Cœlenterata upon our present list. All these fossils are in great numbers individually as well as specifically, with the exception just named.

Our acquaintance with the recurrents of this stage is as yet imperfect. Those which move from bed to bed within the Primordial stage are numerous, and their range is great; but of those which escape upwards into the Black-River or Trenton group of North-east America, into the stage D of Bohemia, or the Upper Llandeilo of Britain, the number is small, and perhaps doubtful.

Table O exhibits this flora and fauna under a general aspect, and arranged as they occur in Lower or Upper Primordial. To these are attached corresponding horizons, in whose columns the recurrents are enumerated, their names being placed alongside. They are fourteen in number. Since they are vouched for by the best and most recent authorities, it is not easy to give a reason for their rejection. The transition which is effected at Hof in Bavaria, as recently announced by M. Barrande in a letter to myself, by means of Trilobita and Brachiopoda, is strongly in favour of a far closer connexion between the Primordial and the higher stages than hitherto entertained. As recurrence is active within the Primordial mass, it will probably be found, after a time, to exist about its upper limits. We may be on the eve of receiving further evidence, enabling us to estimate more accurately the distinction between Cambrian and Silurian stages.

These facts are taken from the 'Thesaurus;' but this very interesting portion of it is the gift of Barrande, Emmons, Hall, Logan, Billings, and is the fruit of their summer toil and winter studies.

* According to the late determinations of M. Barrande, this transgression takes place, to some extent, at Hof in Bavaria.

TABLE O.—The Primordial Flora and Fauna and their Recurrents (1868).

Kingdom and Orders.	Species. Primordial Stage.		Primordial.								Recurrent Species.
			Lower.				Upper.				
			Horizons.				Horizons.				
	Lower.	Upper.	2.	3.	4.	5.	2.	3.	4.	5.	
Plantæ	12	9									
Amorphozoa	12	16	1								Ischadites, sp. ind., L. Llan., Carad.?
Annelida	21	8	1								Buthotrephis succulens, P. and Tr.
Hetero-Pteropoda	2	48									
Polyzoa	4	74	1				1				Diastopora? consimilis, P. and U. Llan.; Graptolithus Nilssoni, Llan., E. e. 1.
Cœlenterata	...	6					...	1			Stenopora fibrosa, Queb. G., CS., CH., &c.
Crinoidea	1										
Cystidea	...	2									
Asteridea	...	1									
Trilobita	226	184	2								Agnostus princeps, P., U.Llan.
Entomostraca	16	9									Dikelocephalus Celticus, P., U.Llan.
Brachiopoda:—											
Orthis	8	21									
Rhynchonella	...	1									
Strophomena	...	2									
All other species	51	35	1								Lingulella lepis, P., U.Llan.
Dimyaria	1	11									
Gasteropoda:—											
Murchisonia	1	25	1								Murchisonia scalaris, Llan., Carad.?
Pleurotomaria	1	31						1			Pleurot. Progne, Queb. G., BL., Tr.
All other species	6	48									
Cephalopoda:—											
Cyrtoceras	...	7									
Orthoceras	...	37					2	1		1	Orthoc. Allumettense, Queb. G., CH., BL.; O. proteiforme, CS., Tr.; O. Brongniarti, Llan., Carad.; O. laqueatum, CS., Carad., Tr., W., L.
All other species	...	21									
	362	596	7				3	3		1	

We owe the rich Primordial harvest gathered in Newfoundland and Anticosti Island to the enterprise and skill of Mr. Richardson, as directed by Sir W. E. Logan.

THE SILURIAN BASIN OF CENTRAL BOHEMIA.—After premising a few necessary remarks, it is intended here to give a rapid sketch of the principal features of the Bohemian Basin; then, 1st, some statements will be made as to the places where its fauna make their first appearance; 2ndly, its zoological relations with other countries will be noticed; and, 3rdly, there will follow a short account of one of its great Molluscan communities. The scope of these observations forbids any allusion to several other interesting subjects of a kindred nature. This abundant life M. Barrande has exhumed and described with consummate skill—and alone, treading for thirty years the solitary and toilsome path appointed for every great workman. M. Barrande entered on his palæontological studies with a preparedness and breadth of view very rare at that time (1838). Availing himself of the little already done by his predecessors, he has ascertained the external limits and true subdivisions of his fossil-bearing territory. Its organic contents he has grouped according to place and stratum, noting their natural relations, their movements, vertical and horizontal, following out also their several structural developments. There are particulars included within these heads of descriptive natural history which are absolutely necessary to any good generalization, but which previously had been almost unthought of. It is by such enlightened and prescient labours that M. Barrande has been able to examine so successfully a district of

singular interest, and to bring within our view much that is new in the history of Silurian species, their time of appearance, duration, classification, &c.

The Silurian beds near Prague enjoy a zoological opulence surpassing all previous experience, taking into consideration their very small extent, which bears no kind of comparison with the size of other basins.

Within an oval space (mostly on the west of this city) fifty miles long by twenty-five broad, 2800 species of marine remains have been collected, and 2093 have been described by M. Barrande. Of course, individuals are in millions incalculable. Four-fifths of this fauna are furnished by the four orders Cephalopoda, Trilobita, Brachiopoda, and Gasteropoda, and chiefly in the small parishes of Lochkov, Kozorz, Butowitz, Konieprus, and Mnienian.

Further, the conditions of this Silurian area are in discrepancy with some of our established notions. It is a close basin with an immense variety of life—a basin with very small foreign interchange. During a short time its gates were opened thrice, and then closed almost totally, and for ever. It abounds, except in its Primordial beds, with powerful Carnivora, the lower forms being very scarce, while its higher strata (H. h. 1) give out two land plants, unhesitatingly pronounced to be such by M. Barrande. The area has been frequently overflowed by thick and by thin sheets of trap and porphyries, from what sources I know not, but without a single marked boss or upheaval of any kind.

This whole Silurian district is 100 miles by 44 in its greatest dimensions, and is a long oval; perhaps a third of the size of Wales.

The accompanying Sketch Map represents about one half of the area, and that which is richest in fossils.

Easy access is obtained to good sections by means of quarries, ravines, and watercourses.

The strata repose in synclinal conformableness, zone upon zone, except in a few cases of local derangements, and an occasional change of dip. At the bottom of this succession are M. Barrande's stages A and B, wholly azoic, principally schists, abutting directly on granite and gneiss. These same schists, as they ascend, at length betray Primordial life, and are then distinguished by the letter C. They are 900 to 1200 feet thick, thin and close-packed on the south-east, but much separated on the north-west by intercalated porphyries and conglomerates.

The next stage upwards is that of D (56 miles by 9 to 12 miles). In its lower half it is made up of alternating schists, quartzites, and conglomerates, followed above by very thick beds of coloured schists. This stage has been subdivided thus:—1. At the base, schists with conglomerates. 2. The quartzite band of Mount Drabow, with conglomerates—both together forming half of the whole stage. 3. Black foliated schists. 4. Very micaceous schists. 5. Yellowish-grey schists, supporting the trappose base of stage E next succeeding. These schists, 3, 4, 5, are 3000 feet thick. Stages C and D contain no limestone.

In this stage D, in d. 3, 4, 5, are the celebrated colonies, twenty in number (M. Barrande, MS.), lying along a certain zone. Eight have been described (see sketch). They consist of traps interleaved with graptolite schists, holding calcareous concretions, pretty full of organic remains. The presence of these colonies indicates a general but slight disturbance, of which few other signs remain. A great peculiarity in their life is that they are precedent (prophetic of) and not posterior, as recurrents, to the great normal fauna about to appear.

The stage E (Upper-Silurian) is based upon broken sheets of trap, alternating with graptolite schists. These traps form a true girdle, about 300 feet thick, to the upper stages E, F, G, and H, which correspond in great measure with the Upper Silurian of England and other parts of the world. The stage E, with its trappose base, consists of argillo-calcareous nodules—long, flattened spheroids, imbedded in argillaceous schists, which (nodules), the ~~trap~~ schist disappearing in the ascent, gradually coalesce into compact fetid limestone. The whole stage is 450 to 900 feet thick.

M. Barrande has separated this stage into two parts, E. e. 1 and E. e. 2, both of them singularly abundant in marine life.

The stage F is also in two parts, F. f. 1 and f. 2. It consists of pale and dark-tinted limestone, neither concretionary nor fetid, but with much chert, either disseminated or in kidneys. Organic remains become much fewer here, with the exception of Brachiopoda, which are numerous.

The stage G is 1000 feet thick, and in three divisions. It is composed of argillaceous limestone in thick beds and with chert (as in stage F), with calcareous lumps lying in clay schists, which last, increasing in quantity, gradually excludes the calcareous element, and ends in stage H.

The stage H is 850 feet in average thickness, and is in three parts. This highest stage is principally clay schist, grey, green, black, alternating with beds of impure quartzite. The transitions from part to part and from stage to stage are very always gradual.

The Silurian population about Prague is unique; no other country can show anything resembling it. So great is the buried multitude, that this vicinity might be supposed to be the common sepulchre of marine life for a thousand miles round; but it is not so, most of the species are at home, they are indigenous: one-tenth may be strangers; and some of these are in the colonies, and appear to have come from opposite quarters, *i. e.* from the north-east and south-west, and at different times. The most crowded parishes, according to our present information, are those of Lochkov and Kozorz. They are neighbours, and may extend over the space of four to six square miles. Of course the strata are only exposed to view in patches, so that we have no access to many of the contained organic remains.

Within about ten miles from the city of Prague, very nearly the whole series of beds belonging to the Silurian epoch are, at one place or other, largely and clearly brought into view, some few being removed from the top of stage H. In many parishes, such as Hlubocep, Konieprus, Dvoretz, &c., the several stages are seen in their proper stratigraphical relations, while in most other countries hundreds of miles must be traversed in order to see such a succession of fine exposures.

The following lines give a numerical abstract of all the Bohemian life, as at present determined, with sufficient accuracy.

	Species.		Species.		Species.
Plantæ	5	Cirripedes	7	Pteropoda	93
Amorphozoa	8	Trilobita	369	Gasteropoda	234
Cœlenterata	36	Entomostraca	33	Cephalopoda	851
Crinoidea	1	Polyzoa	31	Pisces	5
Cystidea	10	Brachiopoda	289	Class uncertain	4
Asteridea	3	Monomyaria	22		
Annelida	9	Dimyaria	83	Total species described	2093

This brief account of the leading features of this basin I have ventured to give by way of immediate assistance to the student in what now follows. It may be all had more at large in the works of Barrande and of Murchison.

On the Place of First Appearance of Bohemian Mollusks.—All Silurian life is divisible into the indigenous or native, and the derived or foreign, while every order has some species so ubiquitous that they may be called universals (see p. xxxiii).

The first class we have seen to be exceedingly numerous; and the second, although very much fewer, present many points of interest. It is useful to distinguish the indigenous animal from the guest; it enables us to study the conditions appropriate and natural to all Mollusca—that is, the sediments, food, depth, temperature, &c. Curious and instructive particulars also arise in basins from the presence or absence of a tendency there to migrate.

At this moment I know of 202 Bohemian species which occur in other countries; there are doubtless many more. Of these 202 species, three-quarters (149) inhabit several horizons, while 51 of the remainder, wherever they are met with, are typical of only one horizon. I proceed to

trace them to their several birthplaces, and so to point out the relations they establish between Bohemia and those birthplaces *.

It is an accepted truth that the earliest bed in which any form of life is found is its birthplace (a word convenient and short), although an occasional correction may become necessary.

Thus, until better taught, we take a fossil of any of the Bohemian faunæ E, F, G, H, to have first existed in Wales, if we find it there in Llandeilo or Caradoc—and nowhere else, unless actually seen. We know how a change of residence can be effected.

Bohemia has vital relations of this kind with many countries, but none so remarkable as those lying on the edge of the Atlantic, or on the Mediterranean. With these and with the other areas it is connected by means of mollusks which are known *only* in the two areas concerned (save the universals)—a fact which gives precision and speciality to the connexion. We will enter into the following particulars :—

Amorphozoa.—Of the five species of *Stromatopora* in Bohemia, only one occurs elsewhere ; and that is in Lake Huron, in the Hudson-River group, while the Bohemian species is Upper-Silurian (E. e. 2). Its birthplace seems to have been in the distant West. The *Ischadites Kœnigii* is in Shropshire in Llandeilo as well as in Upper Silurian ; in Bohemia it is in E. e. 2, and is not a native.

Cœlenterata.—Adding the Cœlenterata lately received from M. Barrande to those already in hand, we at present only know of twenty species in Bohemia ; of these, twelve are foreign and eight native. Of the foreign, three are everywhere (in Bohemia &c.) on the same horizon, and nine vary in this respect,—eight being in the Llandeilo and Caradoc beds of Britain, and one Lower-Silurian both in Canada and Esthonia—the whole of them being Upper-Silurian in Bohemia, where they are therefore strangers. The native Bohemians are all of the upper zones. The particulars of these statements are easily found in the ' Thesaurus.'

Of the seventeen species of Bohemian Echinoderms which, through the kindness of M. Barrande, are found in the ' Thesaurus,' all, excepting two, belong to the earlier part of the Lower Silurian stage ; for this reason, as well as because they are nowhere seen in any other stage, these Crinoids are probably natives. We cannot at present determine the place of first appearance in the cases of

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* It is easy to see that several useful inferences might flow from the facts, gathered into a series of tables, of which the *imaginary* one subjoined might be the first (it gives the native and foreign species of all the orders, for the whole area concerned, France, Britain, Canada, &c. ; other Tables might do the same for the separate stages ; others, again, might show the zoological relations of area with area, American, Australian, European : a very little zeal might here open a wide door) :—

A Form of Table exhibiting the Native and Foreign Fauna of certain Silurian Districts.

Orders.	France.		Britain.		Spain.		Bohemia.		Sweden.		Russia.		Wiscons.		N. York.		Canada.		&c.	
	Native.	Foreign.	Native.	Foreign.	Native.	Foreign.	Native.	Foreign.	Native.	Foreign.	Native.	Foreign.	Native.	Foreign.	Native.	Foreign.	Native.	Foreign.		
Plantæ	3	7	5	2	3	1	4	3	5	2	...	...	9	1	...	...	15			
Amorphozoa	50	7	39	7	12	2	7	1	21	7	19	3	17	2						
Cœlenterata	41	9	52	11	13	2	9	2	17	3	16	5	15	3	49	6				
Annelida	23	6	29	6	11	3	15	3	20	4	13	4	&c.	&c.						
Trilobita	27	3	60	19	19	13	260	30	79	7	49	7								
&c.	&c.	&c.	&c.	&c.																

It should be here stated that the change of horizon often effected by species is called "recurrence;" and it is greatly facilitated by the power that species possess of living on several kinds of sediments, and by migration—subjects to be treated on in the sequel.

Trochocystites Bohemicus in the Primordial of Bohemia and Spain, and of *Scyphocrinites elegans* in the Upper Silurian of Sweden and Bohemia.

Of the seven species of Annelida (Bohemian) seen in other basins, two belong to the derived class, and three or four are native (see 'Thesaurus'); *Spirorbis Lewisii*, also in Bohemia, is of doubtful origin.

Of the forty-three species of Bohemian Trilobites (out of 369) which have inhabited other regions, it may be assumed that thirty-five are native. Four of these are Primordial; and for the others we can detect no earlier first appearance in other countries. Five species of the forty-three are in the same zone in all places; no one birthplace can be assigned to them. May they not be from distinct acts of creation? Five Bohemian Trilobites, *Calymene Baylei, C. complicata, C. Blumenbachii, Phacops apiculatus*, and *Sphærexochus mirus*, seem to be strangers.

Whether the Bohemian beds be the argillaceous slate of the lower stage, or the argillaceous limestone of the upper, Trilobites found there a congenial habitat. Very few migrated, and almost as few entered the district from other parts.

Of the nine Polyzoa in Bohemia (not Graptolites), none are known out of the Bohemian strata; and these have been very recently determined by M. Barrande.

The Graptolitidæ are far more freely and widely dispersed than any other kind of Silurian life many species being common to Australia, Europe, and America *.

The Bohemian Graptolitidæ are also largely distributed over the world. Only three of its twenty-six species are restricted to their own native area—a circumstance not observed in any other Silurian order. In eight species the priority of appearance is doubtful, the dates being the same in the various countries. Fourteen species are foreign; for their earliest appearance has taken place not in Bohemia, but in Australia, England, France, &c.†

Brachiopoda.—Bohemia possesses 321 species of this order; and, except seventeen, they are all native. Sixty-seven are met with in other parts of the world; and of them fifty are either natives or are undistinguishable from them. The seventeen foreigners are all in parts of the lower stage, except two, which show first in the middle stage ‡. More Bohemian Brachiopoda may be expected in other areas; but I have not as yet had time to follow them.

Monomyaria.—Only one Bohemian species of this order has been seen out of Bohemia. It is known also at Dudley and other places in England, and on the same horizon as in Bohemia, and therefore of doubtful birthplace.

Dimyaria.—Of the sixty-six Bohemian Dimyaria, only four are known elsewhere, viz.:—*Cardiola fibrosa* (Wales, Ireland, &c.) without change of horizon; *C. interrupta*, in Caradoc in Lancashire,

* *Natives.*—Acidaspis Buchii, Æglina rediviva, Æ. speciosa, Agnostus rex, Arionellus ceticephalus, Asaphus nobilis, Bronteus thysanopeltis, Calymene brevicapitata, C. diademata, C. incerta, C. pulchra, Cheirurus claviger, C. insignis, Conocoryphe coronata, Cyphaspis Burmeisteri, Dalmania Hausmanni, D. Phillipsii, D. proavia, D. socialis, Deiphon Forbesii, Harpes venulosus, Illænus Salteri, Paradoxides spinosus, Phacops breviceps, P. proævus, Placoparia Zippei, Polyeres Dufresnoyi, Polytomurus euglypta, Remopleurides radians, and five Trinuclei.

† *Native.*—Graptolithus Bohemicus, G. chimæra, G. Römeri. *Doubtful.*—Graptolithus Linnæus, G. peregrinus, G. Proteus, G. spiralis, Climacograptus bicornis, Dictyonema Bohemica, D. gracilis, Diplograpsus Linæi. *Foreign.*—Graptolithus Beckii, *Scotland*; G. colonus, *France*; G. Halli, *Scotland*; G. latus, *Skiddaw*; G. Nilssoni, *Skiddaw*; G. nuntius, *Scotland*; G. priodon, *Scotland*; G. sagittarius, *Scotland*; G. testis, *France*; Diplograpsus ovatus, *South Australia*; D. palmeus, *Thuringia*; Rastrites peregrinus, *Scotland*; Retiolites Geinitzianus, *France*; R. venosus, *Wales.*

‡ *Foreigners.*—Atrypa compressa, *Britain*; A. marginata, *Britain and America*; A. imbricata, *Ireland*; Leptæna sericea, *Spain &c.*; L. transversalis, *Britain*; Discina reversa, *Esthonia, Bohemia, &c.*; Merista naviformis, *New York*; Orthis elegantula, *Britain*; O. hybrida, *Ohio*; O. Lusitanica, *Portugal*; O. orbicularis, *Baltic*; Pentamerus linguiferus, *Wales*; Rhynchonella cuneata, *Scotland*; R. navicula, *England*; R. Wilsoni, *Britain*; Strophomena pecten, *Britain*; S. funiculata, *Sardinia.*

elsewhere in the Upper Llandovery, or higher; England therefore appears to be its birth-place; *Conocardium*, sp. ind., may be French, but we wait for more information; *Ribeiria pholadiformis* is in Caradoc in Portugal, but it is in D. d. 1, still lower down, at Vosek and Zahorzan in Bohemia, where, therefore, we place the first appearance of this species of Dimyaria.

Hetero-Pteropoda.—Of the thirty-eight species in Bohemia, by far the majority are natives. In the rare instances where the same species is found in other regions, the stratal zone is the same, as in the cases of *Bellerophon acutus*, *B. bilobatus*, *B. trilobatus*, and *Theca simplex*. The first three of the above species show themselves in so many and such distinct countries, that we feel inclined to explain the facts by the notion of multiple creations.

Gasteropoda.—Of the fifty-one Silurian genera of this order, Bohemia contains twenty-two, in 245 species; but only the five inserted in the footnote are met with in other parts of the world †, and of these the two species of *Acroculia* only seem to be foreigners.

The positive rarity of Mollusca under any form coming from other regions is a very strong indication of the Prague basin being with difficulty accessible from without, except on a few remarkable occasions. In the bays and sounds of the present seas the Mollusca change but little, and are peculiar.

Cephalopoda.—It is a singular fact that Bohemia contains more than half of all the known Orthoceratites (396 out of 696), nearly all the species being typical of that country.

Thirty Cephalopoda have relations with other regions. Nine Bohemian Orthoceratites originate in Spain, France, Britain, and Ireland ‡, in the extreme west of Europe, where they are in the Caradoc and its equivalent stages, while they are in the third fauna in Bohemia; three of these (marked *) are also in the Lower Silurian of Russia and Norway. Six Orthoceratites, in the same way, are derived from the North and N.N.W.—that is, from Russia and Norway.

Orthoceras pelagicum is both in France and Bohemia, and probably on the same horizon, like *Bactrites nanus*, *Cyrtoceras læve*?, *O. bullatum*?.

Orthoceras dulce (Sweden, Britain), *O. originale* (Britain), *O. styloideum* (France, Thuring.), *O. tumidum* (Ireland), are native Bohemian species, together with the great body of this order in that basin. We add a few words on this order.

The Goniatites of De Haen (having their maximum in quantity &c. in the Devonian epoch), seventeen in number, abound in many parts of the environs of Prague, especially at Hlubocep, making their first appearance as low down as F. f. 2.

It is probably in the little contiguous parishes of Lochkov and Kozorz, a few miles west of Prague, that the crowd of Orthoceratites is the greatest. Seventy-one species, each consisting of individuals past enumeration, are in Lochkov, overflowing into Kozorz; and forty-three species, mostly distinct, are in Kozorz. There are thirty-two species at Dvoretz, nearer Prague, almost all peculiar to Dvoretz. Further inquiry would, I know, show something like the same state of things in other parts of this Silurian deposit.

This genus is also remarkable in its vertical distribution. It makes 345 appearances in Bohemia (with others elsewhere). There are none in the Primordial stage (Fauna C); but in D we find 24; in E. e. 1, 52; in E. e. 2, 203; in F, 22; in G, 40; in H, 4. Here we remark scantiness at the top and bottom, with an extraordinary opulence in E. e. 2, ~~a limestone more or less connected with trappose rocks~~,—as in the British Gasteropoda.

Recurrence is common; it occurs in 126 species, and especially from Fauna E to Fauna G.

† Acroculia haliotis, *Sowerby*, (Llan.) Scotland, (Upper Silurian) Bohemia; A. rostrata, *Eichwald*, (Pleta) Baltic Russia, (Faunæ F, G) Bohemia; Euomphalus monoplectus, E. substriatum, E. trochleatum, Bohemia and Franconia (Upper Silurian).

‡ Orthoceras ibex *, O. calamiteum, O. irregulare, O. gregarium, O. lineare *, O. Ludense *, O. nummularium, O. subannulare, O. tenuicinctum.

§ Orthoceras distans, O. annulatum, O. Ibex, O. Ludense, O. regulare, O. lineare.

Five Orthoceratites (*O. capillosum, loricatum, originale, pseudo-calamiteum, rigescens*) permeate almost the whole succession of the upper strata of Bohemia.

The Bohemian *Orthoceras annulatum* is in the State of New York and Britain, and the Bohemian *O. bullatum* is in West Canada and Australia,—facts which once would not have been believed; but geological zoology not only deepens into the past, but widens unto the uttermost parts of the earth.

The 302 species of Cyrtoceratites never leave their native stage, and only ascend eleven times into the next subdivision of that stage. Other genera of Cephalopoda crowd these same parishes in abundance, *Cyrtoceras* in particular; but we have not space for further details.

We are opening out a condition of things in this well-worked basin which is utterly irreconcileable with the hypothesis of natural selection.

We now pass on to make some brief remarks on the zoological relations of the Bohemian basin with some other parts of the earth.

It remains for the present a singular fact that these relations are by much the closest with the Silurian districts in the extreme west and north-east of Europe, at a distance of 800 to 1200 miles. We speak of Ireland, Great Britain, France, Spain, Russia, &c. These countries have 207 species in common with Bohemia, and in the following proportions:—

	Species.		Species.
England	81	Baltic Russia	32
Wales	66	Russia	28
Scotland	32	Sweden	47
Ireland	47	Norway	35
France	48	The Harz	41
Spain (little examined)	25		

The above little list tells its own story; but a still closer insight into the relations of these countries is afforded by the subjoined Table.

TABLE P.

	Direction from Bohemia.	Cœlenterata.	Cystidea.	Trilobites.	Graptolites.	Brachiopoda.	Monomyaria.	Dimyaria.	Gasteropoda.	Heteropoda.	Annelida.	Cephalopoda.	Total Appearances.
England	W.N.W.	8	...	6	5	35	1	2	3	2	4	15	81
Wales	,,	7	...	8	7	26	1	...	1	2	3	11	66
Scotland	,,	5	...	3	5	10	...	...	1	2	2	4	32
Ireland	,,	4	...	6	2	18	...	...	1	1	3	12	47
France	W.S.W.	...	...	17	4	15	...	3	...	1	1	7	48
Spain	S.W.	1	1	14	...	3	...	2	...	2	...	2	25
Sardinia	S.	1	...	...	2	5	...	...	...	...	...	1	9
Harz	N.W.	1	...	2	10	17	...	...	...	...	3	8	41
Baltic Russia	,,	5	...	4	...	15	...	...	1	1	...	6	32
Russia Proper	,,	6	...	1	...	15	...	...	...	...	...	6	28
Sweden	N.	5	...	6	2	26	...	...	1	...	1	6	47
Norway	,,	5	...	1	2	18	...	...	1	1	1	6	35
Total Appearances ...		48	1	68	39	203	2	7	9	12	18	84	491

The appearances enumerated in this Table are 491 against 207 species, showing that the same species is used to people several regions. Instances will be given hereafter of the same species inhabiting thirty or more countries.

Every one of these affiliated areas (and many more will in future be added to them) is connected with Bohemia by different groups of extinct life, different in the connecting genera and species both in kind and proportions—these peculiarities being regulated by local circumstances.

England, Wales, and Ireland are remarkable for the great number of their Brachiopoda and Cephalopoda identical with species in Bohemia.

If from these western frontiers of Europe we cross the Atlantic, we shall find in North-east America forty-three species of Mollusca identical with those of Bohemia,—a very suggestive fact, on which the space allotted here will not allow me to speak.

In Great Britain, France, and Spain the Bohemian species are much the same, but each country has a few peculiar to itself. Scotland has *Calymene brevicapitata, Rhynchonella cuneata*, &c. Wales has *Chonetes minima, Leptæna aquila, Orthis lineata*, a *Calymene*, an *Agnostis* and a *Remopleurides*. France has *Graptolites testis, Orthis redux, Rhynchonella Ceres*, a *Homalonotus*, a *Bronteus*, &c. In every region the nature of the fauna depends on the fact of deposition or non-deposition of certain beds, and on the effects of denudation.

M. Deshayes shows very forcibly how close are the vital relations of these portions of the Silurian deposit of Europe, by asserting that any two basins have intimate relationship when they each possess twenty identical species, for a still larger identity of genera is sure to follow. But there are areas coeval, or nearly so, which have scarcely a species in common, because peopled under different conditions—such as Canada East (Quebec) and Western Newfoundland, such as the eastern and western ends of the Clinton group (New York). The connexion of the Prague basin with others appears to be much closer than could have been expected, looking at distances and the ever active influence of locality.

The Bohemian species in England and Wales must be considered a very large number. The Table P shows their distribution. Hitherto Scotland has not yielded its full tribute of life; it therefore exhibits a less prominent amount of unity with Bohemia.

The similarity of the Silurian life of France, Spain, Portugal, and Sardinia to that of Bohemia is very striking, and it is rendered the more so by the imperfect manner in which these countries have been searched. France came under the careful survey of very eminent men at atime when organic remains were little regarded. Since that period MM. De Verneuil, Rouault, Triger, Caillaud, and Bureau have made considerable collections, not wholly published.

At the time when the Silurian mollusks of Spain and France were deposited the Pyrenees did not exist, and one great Silurian ocean, filling those two broad regions, occupied much of the interval between these western frontiers of Europe and Bohemia, stretching with many a devious shore of Laurentian and other rocks far into the east and north.

Table N shows that the most remarkable points in the fauna of Spain and France are the abundance of Trilobites in species identical with those of Bohemia, the paucity of identical Brachiopoda and Cephalopoda, and the absence of Gasteropoda.

Two species of Spanish Trilobites met with in Bohemia are Primordial (an *Arionellus* and a *Conocoryphe*); and eleven or twelve of them are of the Caradoc age, the equivalent, more or less exactly, of the Bohemian stage D. But in France no Primordial Trilobites are known; while thirteen of its species are in the stage D, just mentioned, and two, *Bronteus Thysanopeltis, Cyphaspis Burmeisteri*, are Upper-Silurian in Bohemia and France. The places of first appearance of these species are therefore mostly doubtful at present.

These two great regions are apparently poor in the other Silurian orders. Spain at present only yields twenty-five Bohemian species, but France, having been better worked, gives forty-eight—numbers, however, which are merely temporary.

Russia maintains her connexion with Bohemia only by a few Brachiopoda, one Trilobite, six Cœlenterata, and six Cephalopoda,—and this not for want of research; for a celebrated visit of three distinguished geologists made palæontology fashionable in Russia. Baltic Russia is nearly as poor in Bohemian life.

Instead of only four Bohemian *orders*, as in Russia, England contains nine orders, Norway eight, Sweden and Ireland each seven—together, in each country, with a plentiful supply of species.

If we are to believe that the Bohemian sea overspread a large portion of Europe in the early stages of the Silurian epoch, it shows the same amplitude and magnificence of design which is exhibited by the Silurian areas of North-east America, whether we regard their more complete exhibition in the valleys of the Mississippi and the St. Lawrence, or the vast expanse of Upper Silurian strata in Northern and Arctic America, where ~~it is most probable that~~ the Lower Silurian stages ~~never~~ existed. *only in 2 spots.*

Communities.—The natural history of the communities of this epoch has not as yet received due attention. Professor M'Coy and Mr. Billings have given several interesting skeleton lists of this kind, but they have gone no further. Neither analysis nor conclusions belonged to their immediate duties. Instructive instances of these groupings lie ready in every land. Some of the earliest life with which we are acquainted is found to be in societies, consisting of individuals drawn together by their instincts, and retained for a longer or shorter time by a sense of ease and safety; but no mollusk is absolutely fixed to any one community. Removals are common, andt hey are called acts of migration or of recurrence. What species or genera can or cannot coexist in the same community, the incompatibles and compatibles, from powers, wants, or external conditions, is only partially ascertained.

The bed e. 2 of the Bohemian stage E possesses unusual interest from the number, diversity, and rank of the life it contains.

Of the sixteen * subdivisions established in this basin by M. Barrande, that which he has named E. e. 2 (the seventh from the bottom) is by far the most prolific. Of the 2093 marine forms held by the whole basin, nearly one-half (921) are in this bed, of no great thickness (150 feet?), and principally within a space of fifteen miles by seven. They evidently form one society; for there are no barriers between different parts of the subdivision, and there never were any.

About Kozorz and Lochkov, and for seven miles around these villages, the rocks are the most crowded (see Map), and especially by Cephalopoda, distributed with some irregularity:—the Brachiopoda often at Dlauha Hora, Lodenitz, Luzetz, &c.; the Gasteropoda at Lochkov, Karlstein, Dlauha Hora, Dvoretz, &c.; the Dimyaria at Dvoretz, Karlstein, &c.; and so on, still on the same horizon, E. e. 2.

The Cephalopoda and Gasteropoda are in numbers especially astonishing when we remember that each species brings its thousands or millions of highly endowed individuals. These two orders give us 714 species, or about four-fifths of the organic remains of this bed (E. e. 2). The parishes of Lochkov and Kozorz seem to be the headquarters of the Cephalopoda. They have seventy-five species in common; while Lochkov has 220, and Kozorz 102, exclusively its own.

The following Table (Q) gives, in a condensed form, the known population of fauna E. e. 2 (numerically).

Fauna e. 1 * Fauna D, 5; fauna E, ~~1~~ 2; fauna F, 2; fauna G, 3; fauna H, ~~2~~ 3; =16.

TABLE Q.—Bohemian Life as exhibited in Fauna E. e. 2.

Orders &c.	Species. Total.	Genera, with their Species.
Plantæ	none.	
Amorphozoa	5	Ischadites, 1; Stromatopora, 4.
Cœlenterata	12	Cystiphyllum, 2; Favosites, 3; Halysites, 1; Heliolithus, 5; Omphyma, 1.
Cystidea	1	Scyphocrinites, 1.
Annelida	1	Cornulites, 1.
Cirripedes.....	none.	
Trilobita	76	Acidaspis, 20; Arethusina, 1; Calymene, 4; Cheirurus, 7; Bronteus, 7; Cromus, 2; Deiphon, 1; Cyphaspis, 5; Harpes, 5; Illænus, 2; Phacops, 6; Proetus, 7; Lichas, 5; Sphærexochus, 2; Staurocephalus, 1; Trilobita, 1.
Entomostraca ...	4	Ceratiocaris, 2; Eurypterus, 1; Leperditia, 1.
Polyzoa	5	Dictyonema, 2; Fenestella, 1; Retepora, 1; Retiolites, 1.
Brachiopoda	46	Atrypa, 11; Chonetes, 3; Discina, 1; Lingula, 1; Orthis, 4; Pentamerus, 3; Porambonites, 1; Mimulus, 2; Retzia, 1; Rhynchonella, 2; Spirifer, 11; Strophomena, 5; Trematis, 1.
Monomyaria	7	Avicula, 7.
Dimyaria	36	Antipleura, 2; Astarte, 1; Cardiomorpha, 1; Cardiola, 4; Cardium, 4; Cypricardium, 3; Hemicardium, 3; Isocardia, 3; Lucina, 3; Lunulacardium, 3; Mytilus, 4; Pholadomya, 2; Silurina, 3.
Pteropoda	13	Conularia, 1; Cyrtolites (Bellerophon), 8; Ecculiomphalus, 2; Phragmotheca, 1; Pterotheca, 1.
Gasteropoda	125	Acroculia, 29; Calyptræa, 1; Cirrus, 6; Delphinula, 3; Euomphalus, 18; Gyrotrema, 2; Loxonema, 4; Murchisonia, 8; Natica, 4; Naticella, 4; Patella, 1; Pilidion, 1; Porcellia, 3; Pleurotomaria, 9; Rotella, 2; Subulites, 1; Trochus, 9; Tubina, 4; Turbo, 12; Turritella, 4.
Cephalopoda	590	Ascoceras, 10; Aphragmites, 2; Glossoceras, 2; Cyrtoceras, 199; Gomphoceras, 59; Nautilus, 5; Orthoceras, 252; Phragmoceras, 25; Trochoceras, 36.
Class uncertain ...	1	Lobolithus, 1.
Total	922	

This Table contains 94 genera and 922 species.

It is difficult to discover any mutual dependence among the numbers of this community as at present open to our examination.

The carnivorous animals could not have subsisted on what we now see, unless they fed on each other; for they greatly outnumber the herbivorous or infusorial feeders, contrary to the usual proportions. I have twice found Bellerophons in the chambers of *Orthocera*; M. Barrande has found young Orthocerata there. The simpler organisms are in this bed exceedingly few.

The Brachiopoda are in patches, the genera very poor in species, except *Atrypa* and *Spirifer*. M. Barrande expressly states that there is not the vestige of a plant in all the beds (Défense des Colonies, 1865, p. 304).

Compensation must have been found in animals of a soft structure, which of course have left no traces.

The five orders Trilobita (sixteen genera), Dimyaria (thirteen genera), Brachiopoda (thirteen genera), Gasteropoda (twenty genera), and Cephalopoda (nine genera) exhibit remarkable variety in their forms of life, and the last two are wonderfully abundant; and we miss among others the large order Echinodermata. If we look at the species in this subdivision, we find the genera *Calymene* and *Phacops* but poor, and the others, except *Acidaspis*, very poor. *Orthis, Rhynchonella, Pentamerus*, and some more Brachiopodal genera are slenderly represented.

M. Barrande's new genera *Mimulus, Antipleura, Gyrotrema*, and *Silurina* are here.

It is evident from the argillaceo-calcareous nature of the sediment, from the predominance of free-swimmers, and from the absence of vegetation and of the Annelida, that the Silurian sea was then deep, but not too much so for the coexistence of numerous Dimyaria and Gasteropoda.

Although the mineral passage from any one of M. Barrande's subdivisions into the next is always insensible, or at least slow, the species belonging to bed E. e. 2 very rarely ascend into F. ~~E. e. 3 or 4~~, while it is very common for a species first appearing in E. e. 1 to find its way into E. e. 2, and then to disappear for ever.

It is well to add here that the ground occupied by the Upper Silurian strata near Prague, now spoken of, is somewhat irregular, and even rather hilly; so that a large proportion of the parishes show, each of them, several horizons, belonging to stages E, F, G, and H. M. Barrande has enumerated eighteen parishes in which this occurs. Of these I shall only name Lochkov, Dvoretz, Konieprus, Hlubocep. In the foregoing observations we only deal with the one community residing on the bed E. e. 2.

Universality.—In the spirit of the following definition it would appear that the Silurian system of rocks is universal in extent (that is, it overspreads the whole earth more or less completely, covering up its predecessors), and that its component parts were laid down at a proximate time, and in like manner ceased to be laid down, statements approved by M. Barrande. (Bull. Soc. Géol. de France, n. s. xii. 361.)

Definition.—*A formation may be considered to be universal when it occupies large and small areas in very many parts of the earth, often remote from, and even antipodal to each other, when it is always of like stratigraphical relations, is composed of like materials, and contains numerous genera of existences in common, together with some representative and some identical species.*

In support of our applying this definition to the Silurian system, the 'Thesaurus' exhibits the widest possible distribution of its fauna—a fauna, it must be remembered, which is pure from admixture with that of any other epoch which might possibly have been progressing at the same time. But we have to except, it must be recollected, the few members of the prior period which have strayed into ours.

The 'Thesaurus' contains many examples of the same species of mollusk being in from twenty to twenty-five different countries, countries extensive and far apart, the same creature or creatures marking the route from land to land. This is greatly aided by the power enjoyed by very many mollusks of living on several sediments. In this way the *Theca triangularis* is found in all the many sediments of the Hudson-River group of America.

From a Table drawn up under the inspection of Mr. Salter, we find (in 1866) 195 species common to regions very remote from each other, some of them being antipodal—a fact which tells the more forcibly from the tenacity with which the larger part of Silurian life clings to locality as well as to horizon.

Two hundred and ten species are common to Europe and America. Sixty Silurian genera (truly European) have been brought from South Australia by Mr. Selwyn, the Chief Geological Surveyor of that colony; and Professor M'Coy has met with in that country a *Siphonotreta*, a *Phacops*, and eighteen species of Graptolites absolutely identical with those of North America and of Europe. The Professor strongly expresses his surprise and delight.

According to M. Barrande, *Orthoceras bullatum* (Sowerby) is at Melbourne (South Australia), in Ireland, Bohemia, Germany, and Russia; *Conocoryphe depressa* is in Wales and Texas (N. A.). Western Tasmania, the Himalayas, Russia, South and North America, and many other large divisions of the earth afford ample evidence of the general presence of the constituents, zoological and mineral, of this period.

The following Silurian remains are so widely distributed that they may almost be said to be universal:—*Calymene Blumenbachii, Orthoceras annulatum, O. ibex, O. nummularium, Graptolithus priodon, G. sagittarius, Leptæna depressa, L. sericea, Orthis testudinaria, O. elegantula, O. hybrida, O. Wilsoni, Atrypa marginalis, A. reticularis, Pentamerus galeatus, P. Knightii, P. oblongus, Strophomena pecten, S. rhomboidalis, Bellerophon bilobatus, Conularia Sowerbyii, Cornulites serpularius, Tentaculites Anglicus*, &c.

The Silurian beds, it must be borne in mind, are usually visible in mere shreds and remainders in the best-worked places. They are apt to consist in any one place of a stage or a part of a stage, the other portion being removed by denudation, or covered up by later deposits for hundreds of square miles; or they never existed, the locality in the last case having been in a state of emergence during certain periods.

It is in the Arctic seas of America, South-eastern Hudson's Bay, Sardinia, Spain, and such like imperfectly known countries that certain important stages are said to be wanting *. But the visible geographic spread of these strata is often very great. So extensive are the easily traceable Silurian areas of North America (2000 miles across) and the more disturbed and fractional areas of Western Europe (1200 miles across ?), that it only needs a short and easy step in advance to induce a belief in a former universal prevalence and external domination of this system.

Sufficient territory resting on Silurian rocks has been spared from oscillatory action to enable us to trace it, in one or other of its parts, over a large part of the earth. We follow it, with many a bend and gap, from England, through France or Spain, into Germany, Turkey, Russia, and so on, to India and Australia. Or we arrive in North America, the interspaces being filled up either by sea, by newer rocks, or by kindred Palæozoic rocks, which themselves irresistibly bespeak our strata near at hand. Here, as well as in South America, this period is in abundant display. More than fifty great terrestrial spaces, scattered over the whole earth, are occupied with some portion of the Silurian succession of rocks, with their proper stratigraphical habitudes, connexions, &c.

This is only a very small fragment of the argument in favour of the universality of epochs as defined above. It is a great fact, and it enables us to apply to one end of the earth information and reasoning gathered at another.

Locality.—The 'Thesaurus' brings conspicuously into view the great influence of locality on the nature and amount of life.

It is a *power*, in the strongest sense of the word, universal and great; or rather we ought to say that it operates by a concentration of powers peculiar to itself. We shall see in some thousands of instances that localities had exclusive privileges in regard to life, as far as we now know.

In every considerable region the collector finds much that is new and peculiar, the union with other Silurian districts being often mainly generic. And it is so at the present day. Every tolerably large space of sea-bottom has its own conditions and its own fauna. The exact nature of that sea-bottom cannot be safely predicated; for it is only to be learnt by actual examination. The physical state of land and sea was and is as local as the population; for it is produced by plutonic and other agencies, all limited in space. So the dwellers among these local changes must be local too, and subject to removal at any moment. Thus, if we suppose a rocky islet to be placed to-day in the sea, then immediately a new set of actions begin to operate upon materials around, organic and inorganic. Most of the old things and conditions disappear. New shore-lines, new currents, new depths, and new life appear. The first occupants of any portion of the globe who shall point out?

The maximum of life is usually local, meaning, by that expression, the largest combination of abundance, variety, and rank. It may show itself in any country, in any part of an epoch, or of a stage, in the middle or at the end of either, being governed principally by the nature of the sediment.

The rich Primordial beds of Western Newfoundland and of Quebec, the crowded Pleta beds of Esthonia and Russia, the Trenton limestone of the State of New York, the Bohemian beds E. e. 1, 2, some of the Welsh beds near the same horizon as those of Prague, the Lower Helderberg rocks of New York, are all striking examples of localization in time and place.

Parts of the Middle Silurian of Wales and New York present great dearth of life, and for a well-known reason. Even the rich Silurian strata of Bohemia are occasionally only so in the form of oases, the sediments around them having scarcely a single tenant. The Potsdam sandstone of the St. Lawrence and Mississippi valleys gives no signs of life for many thousand square miles, except in patches, peopled chiefly with Lingulæ in incalculable myriads.

North-east Central America (the United States and the Canadas) has probably received in an equal degree with Europe the attention of the palæontologist; but the latter, up to the year 1866,

* Dr. Hayes is said to have met with a patch of Lower Silurian in the Arctic seas.

has proved the richer by about 1200 species. This is to be attributed partly to the nature of the two regions *, and partly to the successful labours of M. Barrande †. The Table (R) placed below is intended to show this.

Table R.—The Silurian Fauna and Flora of North America and Europe, as known in 1866.

Orders.	America.	Europe.	Orders.	America.	Europe.
	Species.			Species.	
Plantæ (Kingdom)	56	20	*Brought forward*	1045	1021
Amorphozoa	58	64	Crustacea { Trilobita	396	1008
Foraminifera	...	25	Crustacea { Entomostraca	75	170
Annelida	36	98	Brachiopoda	678	721
Hetero-Pteropoda	96	144	Monomyaria	78	56
Polyzoa	203	177	Dimyaria	181	241
Cœlenterata	262	245	Gasteropoda	421	274
Echinodermata	249	156	Cephalopoda	321	861
Cystidea	56	63	Pisces	2?	34
Asteridea	29	29	Sedis incertæ	4	2
	1045	1021	Total	3201	4388

Although this Table contains 1500 species less than the number with which we are now (1868) acquainted, it is believed that the reader will be led into no serious error by adopting it.

We see from it that the Cephalopoda, Crustacea, Brachiopoda, and Annelida of Europe largely exceed in number of species those of North America, while in nine orders the two hemispheres are about equally provided. America surpasses Europe in the number and variety of its Echinodermata and Gasteropoda, as well as, to a smaller extent, in the Polyzoa and Cœlenterata. There are also here other particulars worthy of note.

I am not prepared with any inferences from these facts. We know, however, that the mineral constitution and the external influences of these several parts of the earth were different—not that the first is of so much importance as was supposed.

Many species are marked as undefined in the 'Thesaurus,' because they are often only known by fragments.

Out of 9030 species of marine creatures now (1868) registered as belonging to the Silurian period, 4628 are only set down as met with in one locality of a certain radius. This has been ascertained by careful search into the writings of the most accredited palæontologists; and it is applicable to the works of Barrande, Billings, Hall, M'Coy, Sowerby, Salter, and many others, especially to those of the very able explorers of the United States (Conrad, Shumard, Meek, &c.).

There has been no further inquiry into the *number* of places (ranging from one to twenty-five or more) inhabited by the same species, excepting among the Cephalopoda of Bohemia; of these, 190 more appear, each only in two places.

From our total flora and fauna, therefore, there remain 4402 species to people the Silurian strata, each in two and many more places; this they do amply. In 4628 species typical of one place, we hear little about varieties or transitional forms, although the former of these are common. Neither can it be safely said that natural selection in these cases has perfected its work; for these species usually belong to communities consisting of several genera.

Such a very great number of species being each restricted to a single locality, is an important fact. They are so many *specific centres*, and probably will never be much curtailed. It indicates that

* Some countries yield a smaller harvest than others because the rocks are accessible with difficulty, as in all forest-lands, plains, and all hills buried in sand (Africa)—where the coasts are flat, the rivers few, and their banks low—where metamorphism has been active, as in the interior of Newfoundland (Murray)—where no rock-sections are made for public purposes.

† Large additions to the fauna of Bohemia have been most kindly sent to me by M. Barrande since Table R was constructed.

when species are common to two sets of beds more or less apart, the connexion between the latter is closer than has been hitherto thought, and, further, that the absence of identical species in the two beds does not forbid considerable relationship. Edward Forbes goes further, and says that a large proportion of all known species of fossils are founded on a single specimen, &c. (Proc. Geol. Soc. Lond. vii. 52). It certainly seems that there was considerable stagnation of movement in those times—a great arrest, cosmic, because universal.

Multiple creation is implied, going on everywhere, and affecting every form of life. The grand mystery of creation has been in operation all through the epoch in thousands of places. Ordinarily the Crinoid and the Cephalopod found graves in argillaceous limestone, the Lamellibranchiate in a mixed sandy mud, and so on.

When we find a species only in one set of conditions, we obtain but a partial acquaintance with its habits and modifications; we appear to be only at the beginning of our work.

By way of bringing these facts before the reader in some little detail, the following Table (S) has been prepared.

Compared with the totals given in p. vii, it will be seen that in each order the tendency of the species inhabiting only one place is to *one-half* of the whole number. The Trilobita, Brachiopoda, Gasteropoda, and others fall short of it; while Crinoidea and Entomostraca (as might be expected), together with Dimyaria, are all three in excess of their respective moieties. All the species of Pisces and *incertæ sedis* belong each to one separate place.

TABLE S.—Exhibiting the number of Silurian species known only in one place.

Orders.	Nos.	Orders.	Nos.	Orders.	Nos.
Plantæ (kingdom) ...	47	*Brought forward*...	812	*Brought forward*...	2775
Amorphozoa	92	Cirripedes	6	Dimyaria	287
Cœlenterata	220	Trilobita	708	Pteropoda	210
Crinoidea	229	Entomostraca	198	Gasteropoda	454
Cystidea	90	Polyzoa	265	Cephalopoda	858
Asteridea	46	Brachiopoda	699	Pisces	26
Annelida	88	Monomyaria	87	Incertæ sedis.....	10
	812		2775	Total	4620

We will proceed to mention a few of the more striking facts connected with locality.

Silurian fish are only spoken of as existing in Bohemia, Britain, Russia, and the State of New York; but they must be in other countries.

Out of our sixty species of the genus *Asaphus*, only one is known in Bohemia—and no *Olenus*, a large genus elsewhere. The genus *Dikelocephalus* (Trilobita) contains thirty species, but only three exist in two areas; twelve are near Quebec, and there only; nine others are in Minnesota; and Texas with Vermont have each one,—all distinct species.

Each of the twenty-seven known species of *Maclurea* is confined to one spot. Twenty are American only; and of these, eleven are seen on the western coast of Newfoundland, and principally at Point Rich.

Together with many members of other orders, at least 112 species of the genus *Cyrtoceras*, twenty-seven of the genus *Trochoceras*, and thirty species of *Orthoceras* are huddled together in the adjoining little parishes of Lochkov and Kozorz, near Prague. As with the many other Mollusca placed there, these species are unknown elsewhere; migration seems to have been impossible.

Most of the Bohemian Brachiopoda are in the rocks around Konieprus and Mnienian, and are peculiar to them. Out of the general body of the *Orthides*, numbering 331 species, only two are supposed to be in Nova Scotia. Of the 132 species of *Murchisonia*, again, but two species are there, and not one of the 171 species of *Pleurotomaria*, a conspicuous shell. On the other hand, Nova Scotia holds one half of the genus *Cleidophorus*, and Tasmania is singularly rich in the

Palæarcæ, while the shales of Point Lévis, near Quebec (and the shales only), are crowded with various species of Graptolites, seen for the most part nowhere else.

These singularities in the geographical distribution of the Mollusca will be explained at the same time with those of the present fauna of Australia, South America, Madagascar, &c.; but the manner of so doing is still to be wished for.

The sedimentary strata containing our 9030 organic remains exhibit ample traces of localization. Upon this subject our space admonishes us to be very brief. The sedimentary strata consist of a few simple forms, about eleven in number, varying in the proportions of their ingredients, in aggregation, and in mass; but still the limestones, schists, &c. of the most distant countries, and of different parts of the epoch, may be undistinguishable. Many a time, of hand specimens from the Silurian, Triassic, and Jurassic periods, &c., the same may be said. All strata and masses of rock are local, as well as their mineral variations, in breadths of greater or less size. Here a bed is missing, there another, while intercalations, overlaps, and breaks are not unfrequent. Beds being local is not perceived and acknowledged except when they are so small as to permit of being easily traced. In North-east America the Oneida conglomerate, the Onondago-salt group, and the Oriskany sandstone are striking instances of intercalation—of beds only occupying portions of a basin. Doubtless the same occurs in the Old World.

The Oriskany sandstone is particularly worthy of our study. It is now known to extend to the south of New York, and very far to the north-east of that State (Dana). It is composed of the unaltered débris of granite, gneiss, and mica, in the form of sand, gravel, and lumps, largely infiltrated with lime. Usually without organic connexion with the limestones below, it indicates the beginning of a new period, and is in fact the base of the Devonian.

First Appearance.—This may be considered, practically, only another term for the date of its creation, liable indeed to mistake in individual cases, which, however, sooner or later meets with correction. While I give my full belief to the sublime utterance of the prophet, "*I have made the earth, the man and the creatures that are thereon, by my great power*" (Jer. xxvii. 5), the present observations rest wholly on natural-history facts derived from the 'Thesaurus' and similar sources.

By far the most important part of a geological formation is its life. Mineral substances, always few in number, are simply ministerial to life.

The first appearance of individual existences seems to be a normal transaction, not a casual, as it appears to be; for the great result is beneficial and harmonious. It takes place (we know not how; no eye saw it) among conditions prearranged for healthy subsistence, and not by transmutation.

Life started into being, necessarily, in societies both composite and simple; the composite at once, in the beginning of a stage or at any other time—Radiata, Mollusca, Annelida, Articulata, all showing themselves simultaneously, or nearly so, for they subsist on each other. The sporadic method is common to all parts of an epoch; for there has always been a sowing of solitary forms, together with considerable retention of the old population; and there was a growth in numbers until a change in conditions came. All this is well known.

It is a very striking fact that the great majority of the Silurian fauna made their first appearance on the same horizon—that is, everywhere on, proximately, the same stage or subdivision of the epoch. The same strata can occasionally be traced with accuracy, and often with little change of constitution, for more than 1000 miles (Potsdam sandstone), but oftener not. In this manner we learn that the conditions were similar in these regions. The recurrent species form the exceptions.

The lowest traceable place in the succession of strata in which a mollusk is found must be held to be that of its origination or first appearance; and the fact may be reasoned from with tolerable safety. Thus we all believe in the various periods at which the *Goniatite, Ammonite, Trigonia,* and *Helix* first showed themselves. When treating on recurrency, this subject will receive further consideration.

On the Duration of Species (chiefly).—This is an important part of vital statistics, which, running up the whole scale of existences, reaches and deeply interests man himself. This subject introduces us to masses of time beyond our conception, but not beyond the vital force of some genera and species to endure. Families and orders are little affected by the flux of time, or of conditions, but genera more so—some, however, living through many periods. We shall see that, with certain exceptions, the life of a species is far shorter, while that of an individual is incomparably so. So numerous are their generations, that it is idle to speak of them as less than hundreds of thousands.

Continually liable to unforeseen occurrences, the duration of Molluscan communities is very precarious; it may be stopped by the loss of a genus.

Oscillation is the parent of many of the direct causes interfering with organic existence of all classes.

As a general law, the viability of a species is in the inverse ratio of its organic rank—each species, nevertheless, having its own quantity of endurance. With individuals this law is reversed; the higher the rank the greater the viability. While the wants remain the same, the means of satisfying them are more effective. The points of contact with external things less expose them to damage, than they are means of support and safety. The individual man lives longer than the monkey, the horse than the fowl, the bird than the oyster. The duration of individual life may perhaps be measured by the rate of development (M. Dufo). This subject is yet in its infancy.

We suppose the various stages, whether Primordial, Oslo, Caradoc, Wenlock, or Niagara, to have occupied a deal of solar time, while individual life was short. It might have been, as at present, a day, a season, a year, or a term of years—periods very brief in comparison with a stage, a subdivision.

The simpler organization of the Protozoa and Diatomacea, but especially their extreme fecundity, enables them to resist successfully all the agents of extinction.

Passing by the several vague opinions on this subject previously put forth, I shall only mention that of Prof. Bronn and Mr. S. P. Woodward (with the priority here I am not acquainted). They have concluded that a species generally lives through one-third or one-half of the duration of the set of beds in which it appears. Although this statement wants precision, it was an approach to the truth. M. Bronn, after much consideration, tells us that only a quarter or a sixth of the fauna of a stage has a duration equal to that of the "terrain" containing it (Prize Essay, p. 357), and in further proof quotes an interesting table from Mr. Searles Wood's Monograph on the Crag fossils (Palæontograph. Soc. 1848). This Table, with others, proves that the species ordinarily thought to represent a "terrain," or a fauna, only continue through a part of it. Darwin (Origin of Species, p. 293) says that insuperable difficulties prevent any just conclusions on this point.

Whatever may be thought of the above paragraphs, M. Barrande has poured a flood of light upon us. For Bohemia he has given us a true relative measurement of organic duration, and therefore more or less applicable to all other countries. M. Barrande has supplied the great want—a careful assignment of fossils to their proper places in their one or more stage-subdivisions. He subdivides all the fossiliferous strata of Central Bohemia into parts 1, 2, 3, 4, 5, according to observed peculiarities: see pp. xxiv, xxv.

M. Barrande shows that of 396 species of Bohemian Orthoceratites, thirty-two began and ended their existence in the first subdivision (E. e. 1), thirty-eight more passing into E. e. 2, there to perish, and that one hundred and ninety-six appeared in E. e. 2 *exclusively*, not a single Orthoceratite reaching E. e. 3, a subdivision entirely destitute of them (and of *Cyrtoceras*). Fauna F. f. 1 has only five typical species; F. f. 2 has seventeen, G. g. 1 has twenty-three, while G. g. 2 has three, and G. g. 3 thirteen, H. h. 1 having only two. All cease to exist with their respective little group of beds. Some recurrents have been omitted, but not many.

The genus *Cyrtoceras* of Bohemia exhibits the following remarkable evidence of the brief life allotted to its species. In fauna E. e. 1 there are twenty-seven species appearing and disappearing within that subdivision, save ten, which ascend into E. e. 2, but no further; while in E. e. 2 alone

there are 199 which are never seen elsewhere. The remaining thirty-two species, which make up the 258 existing near Prague, are scattered about in faunas F. f. 1, 2, and G. g. 1, 3—each species in one subdivision only.

The Bohemian Brachiopoda are 321 in number as known at present. Out of this aggregate, 223 species (my stock until within a few weeks), only thirty-nine live in one horizon, or about one-sixth; but the determinations being sometimes imperfect, this statement is only partially reliable. Ninety-eight more species from the same generous hand have reached me recently. They are in fourteen genera. Of these only four species appear in more than one part of a subdivision.

The Bohemian Trilobita are in 352 species; respecting half of them there are good data. Of this half (189 really), 127 live only in one part of a subdivision, thirty-four go into the next stage, and twenty-eight into several parts of the same faunal subdivision.

The Bohemian species of Pteropoda are ninety-seven in number. Seventy-seven do not outlive their native subdivision, such as D. d. 5, E. e. 2, or F. f. 2, &c.

This Prague area has 248 known species of Gasteropoda. Of these, 232 die out at the close of their respective subdivisions, in whatever stage they may be.

An examination of the other orders, Dimyaria &c., would only lead us into a repetition of the above statements. We see that, leaving the recurrents out for the present, a species only exists in Bohemia during a part of a stage-subdivision, and that the organic separation of part from part is very sharp—leaving but a brief interval for the exercise of natural selection.

The fauna of the earth appears in these times to have been renewed incomparably more frequently than has been supposed. In a Presidential Address by Prof. Ramsay (Quart. Journ. Geol. Soc. vol. xx. p. 59) are many valuable statements on this subject. They were arranged and prepared by R. Etheridge, Esq., F.R.S.E., and, although directly applicable to the Oolitic formations, agree in the main with the observations just made on the Silurian fauna of Bohemia. Every geologist should make himself familiar with this address.

We can only stop for the present to draw two important conclusions.

The act of creation was continuous and frequent throughout every part of every stage of an epoch, conditions permitting.

Some species had a prodigious duration; that of the greater number we have seen to be short *relatively*. Measured by solar time, by the vast extent of molluscan dispersion, and by the rate of sedimental accumulation in recent times, this duration was always great.

Extinction.—All beings are made finite by the action of two laws. The great First Cause has impressed upon all creatures a certain rate of progress (during youth), maturity, and decadence, ending in extinction. Then, again, all beings are subject to external conditions, favourable and unfavourable, which assist in the production of an average longevity. These may be called the laws of *impress* and of *conditions*. Extinction of life is commonly slow, continuous, individual, and sometimes is more rapid than replacement from without or than by acts of creation. Sudden acts of extermination are exceptional, brief in time, and limited in space.

The extinction of an *order* is very rare: it implies the lapse of more than one epoch or era. In the same way the disappearance of a *genus* is of more importance than that of a *species*, because it tells of a greater change of conditions.

Local groups consisting of one species are not uncommon; but the great bulk of animal life is formed into societies more or less complex, their members living in a state of mutual dependence. A number of their species, or even of their genera, may disappear without the dissolution of the society, because compensations may arise from various sources. Examples of these societies are numerous in the great work of Sedgwick and M'Coy (Benson Knot, Dudley, &c.), in the writings of Mr. Billings (to whom I owe so much), and others; but they may be constructed in almost any number, with singular exactitude, from the Silurian basin of Bohemia *.

* Mr. Lycett (Journ. Geol. Soc. Lond. vol. iv. p. 42) gives an interesting example of a community from the Great Oolite near Minchinhampton.

The causes of extinction are in universal operation. They are cosmical. Silurian life was discontinued everywhere at the same time, proximately.

There is no example, as far as I know, of a Silurian *community* rising, by migration or otherwise, into Devonian or Carboniferous strata; but single species do, and somewhat largely, just as we see in every epoch up to the present.

Little appears to suffice for extinction, so obscure, delicate, and slow are some of its causes. They are of course of a mixed nature, as was observed at the beginning of these remarks. The chief of those which are mechanical is oscillation. Oscillation alters the form and the proportions of land and sea, changes sea-bottoms, depths, currents, and temperatures, and this in various degrees of intensity, from merely occasioning uneasiness, to the infliction of immediate death. Examples of all this are plentiful. Under the last mentioned state of things the oscillation is irresistible. After a period of confusion and agony, existence ceases, except in cases where the summons to depart was instantly obeyed. This fatality happened to the beautiful Devonian Crinoid, *Hypanthocrinus*, on the Pennsylvanian shore of Lake Erie; it was suffocated by a sudden mud-flow. In palæozoic times changes in climate were probably rare; but a lowering of temperature is always a powerful cause of extinction. When the change of level is moderate, life may be continued with diminished energies. Readjustments, reparations, and slow accretions of new life now take place.

Oscillation does not permanently lessen the amount of Silurian or other life; it changes its forms, and perhaps the precise locality. It may confer new food and shelter, take away or modify either. As long as levels are stationary, genera and species make healthy and happy use of their instincts, with but few intrusions or desertions; but a change of level brings both.

When sea-levels are being depressed, all the zones of life are in distress, in proportion to the rate and extent of the process. It is a process which is always visibly going on now, in some part of the earth or other. The whole marine population then move upwards, with some few exceptions. In times of elevation the general life-movement is downwards, the littoral mollusks being left high and dry to perish; the red-weed-loving animals are ill at ease on the new littoral, covered with rotting algæ, and the nullipore-browsers are equally so in their new place; probably the deep-sea mollusks lose in quietude, nourishment, and temperature; so that let there be oscillation, and all animated existence is set in motion, not only within, but beyond the disturbed area; for wanderers will inconveniently crowd the outer residents in quiet seas.

But this unstable area may become a place of rest, when it will be gradually peopled by suitable organizations, driven from troubled homes, and glad to occupy the void. This new peopling sea-bottoms from a distance need not perplex the naturalist; it is an affair of causes, all within the epoch. No form of life alien from the existing epoch can enter, except a few recurrents. There is no mingling of epochs.

The first Great Cause has granted to all His creatures great liberty of action. Zones of residence are very broad, except for a few. Neither depths nor sediments are adhered to very strictly by the Silurian or any other fauna, the sediments themselves (sea-bottoms) being formed at almost every level.

After this digression, we add a few words on the vital or physiological causes of extinction. The genus, species, or individual may exhaust its term of life. We see this *term* (average viability) in all animals. In conformity with it each dies, if permitted by external events. The life-term of species varies exceedingly. By far the larger number of them we have seen to have a very brief existence. The species simplest in point of structure, the Amorphozoa, Cœlenterata, Polyzoa, &c., do not enjoy any peculiar longevity, if we are to believe the 'Thesaurus'—with certain exceptions.

The mutual relations of the members of a molluscan community have great influence on its preservation or destruction. The carnivorous portion may be too active, or the herbivorous too few; and the same may happen to other branches of it. Epidemics arise, touching only one form of life, but nevertheless fatal to the whole. The population may become so large as to press severely on subsistence, when one of two things, or both, will take place—an unusual fatality, or a forced

migration. This is very liable to happen if two or three species (or genera) reach their maximum of quantity and power at the same time and at the same place; the equilibrium between want and supply is destroyed. Deaths may exceed the births in number, from an unusually hot or cold season, from scanty food, or from a change in the mineral ingredients in the sea; it may have become brackish, fresh, or too salt. Instances of such conditions abound. The operations of man have but slight effect on marine life.

Migration.—Any considerable removal of a living creature from place to place is called migration, whether directly by its own act or not. It is called transport when life has ceased. At present we speak only of the inhabitants of the Silurian sea. Migration has always been a great fact, and must often occur to an animal of fixed wants living among varying conditions. It colonizes unoccupied spots by swarming from crowded places, throws foreign life into old communities, thereby conferring variety, perhaps together with some advantages.

The processes of nature are in ceaseless operation; portions of the sea-grounds are continually being made unfit for the occupation of organic beings, and then again are restored to their use: so it has always been. Here migration comes into play and builds up comparatively permanent societies. A living individual is set in motion by external agencies; and sooner or later it fixes upon some one spot, there it remains, and it either dies, languishes, or prospers. Living, it spreads by reproduction; meanwhile it is joined by other individuals in growing numbers. Some of these, finding appropriate conditions, flourish, and a community is eventually established, which divides and subdivides, and flits about (within narrow limits, it is true) in search of food, shelter, and other necessaries. Communities (genera and species) take action, and remove when necessary; but the impulse is from the individual: it is in his interest. Migration in Silurian times must have been hazardous, but more so now, when exterminating agencies are more numerous.

In those times (as now) there must have been failure upon failure in changing their abodes, down the measureless flow of time from the Silurian to the Permian formation; and we know of generic forms which have made this long voyage.

We usually trace the march of the migrant but imperfectly, but at other times pretty well, from land to land, because it often forms settlements as it goes.

Every free animal is by nature a wanderer in search of pasture and security, the lowest forms having the greatest migratory power. This process may be in abeyance; for a community may be stopped by great depths, hedged in by high sea-cliffs or by sea-deserts of sand and shingle, impassable, especially by the herbivor—just as some of the Bohemian Trilobites occupy small patches in the midst of an untenanted waste. Extent of dispersion is in proportion to these and other obstacles, as well as to viability. Or the creatures may have been content with their quarters; for the individual stops on the instant that his wants are supplied, the next move perhaps being made by his uneasy progeny. Communities sometimes leave their abodes all in a body: they are either swept away by a high tide, or some such strong current, or, as must often happen, the herbivorous division move away in search of food and shelter, and the carnivorous must go with them necessarily. Each act of migration has its own direction, distance, and method, about which something will be said in the sequel.

Whole communities have been known to return together to the country they had long abandoned. Mr. Godwin-Austen gives a remarkable instance of this kind of repossession in the Palæozoic rocks near Boulogne (France). Here alternations of level have introduced into the same area, successively, distinct assemblages of suitable marine life, one or two of them actually accomplishing a repetition of occupancy (Journ. Geol. Soc. Lond. lx. 244).

The only entirely satisfactory proof of a fossil having begun to exist in another place or horizon than that in which it is first seen is its being so found; but the following marks taken together (more or fewer) will leave little room for mistake. The migrant is apt to be solitary, with no kindred, young or old, around it. It may be in a coarse foreign sediment, travel-

stained, abraded, or greatly damaged. The facies of the new neighbourhood and its fauna may be inconsistent with the idea of the new fossil being a native.

In the power of migration the Mollusca vary greatly. Many mollusca, fixed during the early portion of their life, are free to rove at pleasure afterwards, and *vice versâ*. They travel much in the ova, or as fry. In the Lake of the Woods (Rupert's Land) great numbers of minute, yet delicately elaborated, trilobites were found in a Ludlow rock. The same occurred in Wales to Mr. J. W. Salter. These creatures were easily transportable.

The sum of migratory power seems pretty equably distributed among the several orders, except the Echinodermata and one or two more,—the sources of this power, it is to be recollected, being of different kinds.

The Brachiopoda, Cœlenterata, and other sea-life are swept away by currents, and take their chance of survival at new stations.

The oceanic free swimmers, Cephalopoda, Pteropoda, &c. travel far and near, Gasteropoda beginning life in the Pteropod form (E. Forbes, Edin. Phil. Journ. xxxvi.).

The many modes of migration over sea-bottoms, active and passive, are well known.

The faculty of sustaining great bathymetric range must essentially assist the migrant; and it was common and powerful in the Silurian epoch, as we learn from the numerous "grounds" frequented by many of its faunæ. This is well shown in Table xix. (Quart. Journ. Geol. Soc. Lond. vol. xv. p. 315) *, as corrected by Mr. J. W. Salter. Together with the accompanying text this Table contains much matter concerning Silurian nature, which need not be repeated here.

Here that portion of the fauna which, from their wide distribution, have been called "universal" are found in eight, nine, and ten different sediments. In proof of this I subjoin the following little Table. It is merely a selection of some of the more striking instances in the several orders,—neglecting the number of sediments below seven. Where the mollusca can exist in health on many sediments, they can travel far; for considerable changes of depth are implied.

TABLE T.

Species.	Sediments.		Species.	Sediments.			Species.	Sediments.	
	10	9		9	8	7		8	7
Favosites alveolaris ...	*		Asaphus tyrannus	+			Theca triangularis	...	+
Cornulites serpularius	*		Encrinurus punctatus	+			Pterinæa retroflexa	...	+
Beyrichia Klœdeni ...	*		Stenopora fibrosa	...	+		Cyclonema crebristria ...	...	+
Atrypa reticularis	*		Bellerophon bilobatus	...	+		Orthoceras subundulatum	...	+
Orthis elegantula	*		Tentaculites anglicus...	...	...	+	Graptolithus priodon ...	...	+

Mollusca, except free swimmers, are slow travellers; but like the Crustacea, with a sufficient allowance of time they move to great distances when assisted by shore-lines and some steadiness of ocean depths. The fauna of the north-east coast of North America, from Nova Scotia to Virginia, is nearly the same.

The directions taken by Silurian mollusks in leaving their birthplace must have often depended, as now, on oscillatory movements. They had to follow the level most advantageous to them; neglecting this they must have suffered, and perhaps perished.

The Silurian areas in both the New and the Old Worlds were so extraordinarily large that their inhabitants had very free range. The directions taken by the majority are easily obtained from the 'Thesaurus,' through a knowledge of their points of origin.

There are many modes of treating the subject of *direction* in migration. We have already taken Bohemia as a fixed point of centre, and ascertained the directions from which, and to which,

* On the habitats of the fauna of Wales.

various species came and went. This might be done profitably with Great Britain, Esthonia, or any other tolerably worked country. But here we have not space for what can easily be done by any student from the 'Thesaurus.'

We shall now trace the directions pursued by the 210 species which are common to North-east America and Europe (western especially). They are set down in the following Table (U).

TABLE U.—The Directions (east and west) of Species *in transitu* between North America and Europe, together with the Isozonals of both Hemispheres.

Directions.	Plantæ.	Amorphozoa.	Cœlenterata.	Echinodermata.	Annelida.	Trilobita.	Entomostraca.	Polyzoa.	Brachiopoda.	Monomyaria.	Dimyaria.	Heteropoda.	Gasteropoda.	Cephalopoda.	Pisces.	Uncertain Class.	Total.
From Europe to America (W.)	2	2	7	...	2	8	...	1	6	...	...	4	...	3	...	...	35
From America to Europe (E.)	...	1	4	...	...	1	3	...	14	1	...	2	1	3	...	...	30
The Isozonals in both hemispheres...	1	2	6	...	...	15	1	30	52	4	8	10	7	9	...	...	145
Total	3	5	17	...	2	24	4	31	72	5	8	16	8	15	...	...	210

But first some necessary observations must be made.

The sedimentary differences between the hemispheres, persistent more or less through the whole succession, together with the great interval between the areas, and the size of these latter, forbid the idea of there being very intimate fossil connexion in this case. The differences begin in the Primordial sediments, which are remarkably dissimilar; while in the lower stage the ingredients, quantities, mechanical condition, and time of deposit agree but little, and the like must be said of the middle and upper stages.

The summit beds of the British Upper Silurian are arenaceous mudstones, with a little lime, all capped by a red ferruginous sandstone (Devonian). Those of New York and the British provinces are mostly argillaceous or shaly limestone, covered up with a vast coating of crystalline grit, from the detritus of granite, gneiss, and mica-slate, unaltered, except in being saturated with calcareous matters (Oriskany sandstone).

The influence of sedimentary differences, although it has been exaggerated, is still very great.

The Atlantic ocean possibly contains Silurian areas, and also possibly conceals migrant stations along the route across. Both sides of this broad sea exhibit long stretches of Silurian coasts.

Norway gives up twenty-six American species, and Sweden thirty-eight—many of the latter country being Norwegian also.

Ireland has several remains characteristically American. The Silurian strata of the north-west end of Scotland are notorious for being intensely American. They contain some of the most remarkable and rarest fossils of the West, of the genera *Piloceras, Maclurea, Ophileta,* &c.

The half of specific Silurian life being at present only known at one place, we are compelled therefore to look to the other half for the migrants. From these also, for certain reasons, a further deduction of 400 species at least must be made; so that we have little more than 4000 to deal with.

The Table U, although seemingly on a small scale, is extremely interesting. Every known area * has been searched; and most parts of Europe send their quota. Each order being kept apart, every species going east or west is in its proper place in the Table, together with the Isozonals, by which expression is signified that numerous body the species of which are scattered over the world on the same level.

* Many Australian Graptolitidea also are plentiful in Canada, but they have not been inserted in the Table, in order to preserve oneness of subject.

The Isozonals in the Table U are more than double the number of the migrants, these latter being somewhat few, because of the distance traversed, and because this is only one of many such lines of molluscan journeying.

We remark that the number of migrants from America to Europe is less than that of those going in the opposite direction, so that the exchange is against the West—an unexpected and disappointing conclusion; and we see that the orders likely or unlikely to travel behave as might have been expected, Cœlenterata, Trilobita, and Brachiopoda being the most active of all, while the two last, together with Polyzoa, most abound with isozonal species common to the two hemispheres. This Table contains six orders having no species making this traverse, not even the Dimyaria, an order holding 526 species.

In 1866–7, before I received further contributions from M. Barrande, the species registered were 7767, and the *appearances* were 10,447. But as it has already been explained that we have to do only with half the former number, it results that every species which moved at all passed into two other countries, or nearly (3883 species, 10,447 appearances), because the appearances were in very numerous instances not set down for want of space.

But this statement affords a very imperfect view of Silurian migration or dispersion; for a certain number of species of almost every order are planted east, west, south, and north, in 5, 7, 10, 15, 22 countries, almost belting the world; whether by radiation from a common centre, or by ordinary migration, is not yet known.

This is true of the quasi-universal species already mentioned, and of many others. As a rule, but with exceptions, this scattered fauna is always on the same stratigraphical level, whether that be of the lower or of the upper stage.

A Montreal fossil we trace southwards to Pennsylvania, westwards into Minnesota, and eastwards to Anticosti; Minnesotans are found in the Texas &c. The Australian *Diplograpsus pristis* (Hisinger) also flourished in Britain and Canada on the same zone.

The *Illænus crassicauda*, *Favosites Gothlandica*, several *Leptænæ*, *Orthides*, and other genera mark with their presence lines 6000 miles long, attracting notice first in Canada, Russia, or Britain, &c.

Recurrence or Vertical Range.—What can be more unexpected or more wonderful than the upward passage of a mollusk by successive generations, through stages and epochs, during centuries almost countless? What a vast train of descendants must have followed the first ancestor! And it is a fact which grows in importance as we ascend the sedimentary column to its present summit. The doctrine of limited duration in species must sometimes require an elastic interpretation.

"Recurrence," a phrase of one of my masters, Prof. John Phillips, is simply the reappearance of a plant or animal in a zone of rocks higher than that in which it was first observed. It implies progress upwards, either on the same spot or on another by migration. Instances of both kinds are plentiful.

Recurrency is the more worthy of our attention, because Edward Forbes* thinks "that there often prevails an extreme and unwholesome tendency on the part of many palæontologists to insist on the real distinctness of the species found in different stages, and to force their diagnoses accordingly." A few years ago many of our best naturalists forbade the belief in vertical range, except in rare cases—M. Agassiz asserting that the number of supposed instances was daily diminishing with advancing knowledge; but a far greater latitude is now very generally granted to this operation. Thomas Davidson, F.R.S., a very high authority, remarks†, "It is now acknowledged that many species have lived through several stages of the Silurian system, and are even perpetuated beyond it; and this applies equally to palæozoic and jurassic fossils. To narrow too strictly the stratigraphical limits of species is to expose ourselves to adopt even false and puerile characters in fossils

* Quart. Journ. Geol. Soc. Lond. vol. x. p. 40.

† Bull. Soc. Géol. de France, vol. v. n. s. p. 310.

when they are found in two different stages." These statements favour the present inclination to obliterate all sharp lines of demarcation. Beautiful examples abound in Wales and New York of these transitions, by minute and prolonged shadings, mineral and organic. We have a striking instance of this in Pennsylvania, in the passage of the Devonian series into Coal-measures (H. D. Rogers). Recurrence usually deals with life, but it may be effected after death, by means of transport, without our knowing it. When organic transition is sharp and sudden, between conformable strata, denudation may be suspected, as we see in the Black-River limestone of the Mohawk valley (New York); but when it is seen in discordant rocks, there has been a positive break.

Species are the principal time-tests; genera and families run through so many stages and epochs that they characterize none. Thus Lingulidæ, Craniadæ, Asteridæ, Aviculidæ, Nautilidæ, &c. have dwelt in the beds of almost every age (S. P. Woodward). In this point of view recurrents are often of little value; but they may be, nevertheless, essential to the well-being of a community. Thus a ravenous Gasteropod in the course of his upward range, or a legion of them, may be sent in to prevent the herbivorous class from exhausting the public store of food.

The Table (X) now subjoined, presents a synoptical view of Silurian life in relation to the subject in hand, as far as was known in 1865. It shows that out of 5968 species, whose places are well known, 784 are recurrents, or 13 per cent. This leaves 5184 species faithful to one horizon. Primordial recurrency has been left to another occasion; it grows in importance.

TABLE X.—A Synoptical View of Silurian Life in reference to Vertical Range or Recurrency (as known in 1865). The Primordial stage is treated apart.

Kingdom, Classes, Orders, Genera, and Species.	Species typical of one horizon.				Species Recurrent.												Total Recurrents.	Per cent. on all Species.
					Lower Silurian.				Middle Silurian.				Upper Silurian.					
					Horizons.				Horizons.				Horizons.					
	Lower Silurian.	Middle Silurian.	Upper Silurian.	Total Typical.	2.	3.	4.	5.	2.	3.	4.	5.	2.		4.	5.		
Plantæ	37	17	5	59	4	...	...	...	...	...	...	...	1	...	...	...	5	8
Amorphozoa	56	7	25	88	6	4	...	...	...	...	...	...	1	...	...	...	11	11
Annelida	34	8	26	68	4	1	4	...	...	1	...	...	2	1	...	...	13	16
Hetero-Pteropoda	98	9	38	145	21	1	4	...	3	...	...	...	3	...	...	...	32	12
Polyzoa	149	26	64	239	17	9	4	1	6	...	...	...	1	...	...	...	38	14
Cœlenterata	97	35	179	311	30	13	8	...	12	2	...	...	5	...	...	...	70	18
Crinoidea	99	10	132	241	13	1	...	...	3	2	...	...	7	...	...	...	26	9
Cystidea	64	2	31	97	1	1	...	...	...	...	...	...	...	...	...	...	2	2
Asteridea	24	4	21	49	2	...	1	...	...	...	...	...	1	...	...	...	4	8
Trilobita	538	43	264	845	69	15	5	2	14	2	...	...	27	3	2	...	139	14
Entomostraca	55	4	115	174	4	1	...	...	2	1	...	...	2	...	...	...	10	5
Brachiopoda:—																		
Orthis	113	12	56	181	21	8	1	1	2	1	...	...	2	1	...	...	37	17
Rhynchonella	20	22	73	115	7	2	2	...	7	2	...	...	4	1	...	...	25	18
Strophomena	29	9	15	53	7	8	2	...	...	3	...	...	4	...	1	...	25	32
All other species	216	80	299	595	24	13	4	1	19	6	2	...	19	6	...	...	94	14
Monomyaria	27	5	70	102	5	3	...	...	3	1	1	...	6	...	...	...	19	16
Dimyaria	211	25	127	363	29	6	1	...	8	1	...	...	10	2	...	...	57	14
Gasteropoda:—																		
Murchisonia	37	6	26	69	15	...	...	...	1	1	...	...	4	...	...	...	21	23
Pleurotomaria	56	11	20	87	15	...	...	...	...	...	...	...	1	1	...	...	17	16
All other species	171	23	131	325	12	1	1	...	7	3	...	...	5	...	...	...	29	8
Cephalopoda:—																		
Gomphoceras	4	58	16	78	2	...	...	...	...	...	...	...	2	...	...	...	4	5
Cyrtoceras	36	225	35	296	7	...	...	...	2	...	...	...	9	...	...	...	18	6
Orthoceras	128	96	95	319	28	10	5	...	5	3	...	...	14	...	...	...	65	17
All other species	111	105	69	285	11	1	2	...	1	...	...	...	8	..	...	..	23	8
	2410	842	1932	5184	354	98	44	5	95	29	3		138	15	3		784	13 average.

This Table may be looked upon in several important aspects. The typical species of different kinds are placed in succession, numerically, in their proper stages, together with their various

amounts. The recurrents are treated in like manner, but the number of horizons which they occupy is also shown. Thus, of recurrent Trilobites in the lower stage sixty-nine are seen in two horizons, fifteen are in three, and two in five; while the middle and upper stages are similarly treated. Recurrent Trilobites are 14 per cent. of the whole order. In like manner Table X gives the percentage of recurrent species throughout the entire Silurian fauna.

We have not yet learnt always to distinguish a recurrent from a typical species; but this may sometimes be done from its retaining the peculiarities of the native stage, and from the marks of migration it may carry. The individual we happen to take in our hands may not have changed its horizon, being the offspring of old residents, partaking, however, of the epigenic alterations passed through by the deposit holding it *.

The vegetation of the Silurian epoch enjoys some vertical range, but chiefly affecting its genera. Table X shows that out of fifty-nine species (known in 1866), five pass into other stages, but only into such as are coterminous. Generically plants enter many horizons. Of the genus *Palæophycus*, ten species are in the Primordial of Labrador, New York, &c.; others arrive at the middle stage; and one has been discovered in the Upper Silurian of the Baltic sea.

Among the Annelida, *Buthotrephis* has four Primordial forms, most of the others being Middle-Silurian, while *B. succulens*, according to Prof. Geinitz, is in the Primordial at Lobenstein (Reuss, Germany), and in the Trenton limestone of New York.

The three species of *Rusophycus* occupy (each separately) the Chazy beds, the Clinton group, and the Eurypterus-limestone of North-east America, three horizons of very different dates.

The conditions favouring recurrence, or rendering it possible, are simplicity of structure, fecundity in reproduction, longevity, the power of locomotion, facility of transportation, and conditions continuous, or nearly so. While sediment is slowly accumulating, generations mount up with the increasing thickness, until they often find themselves among strange life, and they themselves are called recurrents. All this is greatly aided by a steady medium like the sea, and an occasional failing in power on the part of opposing circumstances.

Recurrency in marine life, ancient or modern, is universal, and is common to all forms of organic existence, and to every part of time, the act growing in frequency through every succeeding epoch up to the present day.

Mollusks may have recurred in companies, as they must often travel in groups; but instances are unknown to me, nor are they easy of detection. The fact which we are discussing shows that a marine creature is not necessarily confined to any one community, but that both it and its young may find good homes in several successively.

Recurrence is a measure of viability, that is, of capacity for enduring change of food, pressure, temperature, &c.; and the number of recurrents becomes a measure of new conditions, the more numerous the recurrents the less being the change.

By far the greater number of derived fossils congregate about the first layers of new stratal subdivisions, and then are replaced by the *Autochthones* of Agassiz, the native mollusks. This is well exemplified in the Trilobites of Bohemia. Pennsylvania and New York exhibit similar facts, together with a remarkably great intermingling of fossils in the contiguous beds of two stages. In Tennessee, the Niagara and Lower-Helderberg groups, so widely apart in New York, are inseparable in their molluscan life and mineral condition for the thickness of thirty feet †; but under these circumstances we cannot be said to be dealing with full and true recurrency.

* It is well to give a summary of these alterations (metamorphisms). Many rocks are apparently barren which certainly once contained extinct life. They and their contents have been more or less transformed, and the latter even obliterated. The rock has become hardened by assumed cleavages or crystalline forms. It may now be vesicular, have received magnesia, lime, iron, sulphur, &c. by way of addition to its original composition; and it may have developed new minerals.

† Bull. Soc. Géol. de France, xviii.; Canad. Journ. i. 220, ii. 138; Geol. Report Tennessee, Prof. Safford; Geol. Report Pennsylvania, H. D. Rogers; Geol. Report, Logan, 1857, pp. 152, 156.

In Bohemia and some other countries appearance and disappearance of species go on so rapidly that the life at the top and bottom of a stage would be completely dissimilar but for the recurrents; and opportunities for vertical range are constantly occurring in the dispersion and reconstruction of societies, a state of things which leads to new abodes, new combinations, and perhaps to increased well-being.

The Upper-Silurian fossils which people the Prague colonies in fauna D. d, except as they come from another area, are not recurrents, are not the posterity of Bohemian mollusks. They are the *precursors* of an identical and larger coming fauna. Signs are not wanting that they came from a country where the Silurian epoch was more advanced than in Bohemia; and they become of great value by indicating local inequality of progress in the act of deposition during this epoch—suggesting, moreover, that any of the Silurian stages may be in process of formation about the same time with another in different parts of the world.

Recurrents tolerate many sediments. This has always been a common and useful property of marine life. So it is with the greater portion of our present marine fauna. This they are enabled to do by the fact that different plants are able directly or indirectly to furnish acceptable food for the same animal. The orders which are under disadvantage in this respect are the Echinodermata, Entomostraca, and some Gasteropoda.

Some recurrent species enjoy enormous longevity, but we may treat on this subject more fully elsewhere. When found in very distant areas they are often ultra-epochal (or serial), and they start up when least expected; but there are terms of arrest, or horizons of finality, above which neither single nor grouped existence can pass (Bronn, Deshayes, &c.).

Recurrence varies in its amount with the locality, because no two localities are at all points alike. It is common in Sweden and Canada, and still more abundant in Wales, where the interval between the Lower and Upper Silurian is tolerably well supplied with life. In the Wenlock and Ludlow beds of that district and its vicinity eighty-nine of the fossils are the same (1858). Vertical range is feeble in Bohemia and Russia, which in the latter country is strange, because no disturbing causes seem to have been present, and none of much power in Bohemia.

In one region a species may be restricted to a single set of beds, without being so in another. We have this exemplified in the Silurian fauna of Britain and Bohemia, as in the following Table.

TABLE Y.—Some Fossil Species Typical or Recurrent, according to their Basin.

Fossil Species.	Bohemia.				Wales.				Fossil Species.	Bohemia.				Wales.			
	E.	F.	G.	H.	L. Silurian.	Wenlock.	Ludlow.	Passage-beds.		E.	F.	G.	H.	L. Silurian.	Wenlock.	Ludlow.	Passage-beds.
Cardiola interrupta	*	...	...	[a]	...	*	*	...	Leptæna sericea	*	...	...	...	*	[b]	...	...
Euomphalus funatus	*	...	...	...	*	*	*	...	Merista tumida	*	...	...	...	*	*	*	...
Graptolites priodon?	*	...	...	...	*	*	*	...	Rhynchonella Wilsoni	...	*	...	...	*	*	*	...
Staurocephalus Murchisoni	*	...	...	...	*	*	*	...	,, navicula	*	...	...	...	...	*	*	...
Atrypa marginata?	*	...	...	..	*	*	*	...	Strophomena euglypha	*	...	...	...	*	*	*	...
									,, funiculata	*	...	...	..	*	*	*	...

These restricted or typical fossils, except one, are from the Upper-Silurian stage E, mainly because it is the principal depository of fossils, G and H having comparatively few. A few species, on the contrary, are recurrent in Bohemia, and confined to one stage in Wales. Among others may be mentioned *Leptæna euglypha*, which is in Caradoc in Wales, and in both E and F in Bohemia. Some are recurrent in both these basins, but not always beginning on the same zone.

The same genus recurs differently in different countries, and necessarily. Thus of forty

[a] Llandovery. [b] Middle Silurian.

species of Orthoceratite in New York, one eighth outlive their native deposit, while in Britain twice that number do (twelve species out of fifty-one). In Britain all the *Pleurotomaria* are constants; but in other areas many make short runs upwards.

The species and genera probably differ, in their tendency to recur, according to the stage in which they make their first appearance; and it is believed that considerable diversities of behaviour are discernible in them. Time has not permitted the recurrency of the higher portions of the Silurian system to be looked at with sufficient care; but we see it to be large, and to become doubly interesting from the near approach of the Devonian system, and of the extra-epochal or serial recurrents it initiates.

The question may arise whether a fossil apparently recurrent be not in truth a new and independent creation—not a recurrent, but the identical species of a past horizon, brought into existence a second time. The possibility of such an occurrence is denied by most of the authors of the present day. But on such a subject it is better not to be too confident. Creation is a mystery which all our efforts to penetrate, as Elie de Beaumont says, have only raised a very small corner of the thick veil under which nature has concealed her immense work. It is the opinion of Agassiz that animals undistinguishable from each other may appear, without tie or connexion of any sort, in different fauna (Proc. Acad. Nat. Science, Philad. 1859, p. 186). Dana (Ann. Nat. Hist. 2nd ser. vol. xvii. p. 43) affirms and advocates the doctrine of independent creations. Bronn, from reasons altogether different from Dana, broadly states that "there is no doubt but that the return of identical life-conditions can cause groups of animal species to appear a second time"*. Analogous observations relating to the Oolite near Cheltenham †, and to the Cornbrash near Cirencester ‡, are in accord with this. The mixed beds of Petite Cœur in the Tarentaise, and consisting of Carboniferous, Liassic, and Jurassic rocks, as investigated by Elie de Beaumont §, Mortillet ‖, Heer ¶, and others, greatly favour the opinions of the Heidelberg and Newhaven Professors.

I beg to express a waiting belief in this hypothesis, without being quite able to conceive the possibility of any organism resisting the plutonic and other agencies so terrible and so active during the long interval with which we are dealing. But Edward Forbes, Pictet, Deshayes, and a numerous company of good naturalists, who do not believe in a second creation, doubtless have offered strong reasons in support of their incredulity.

Divergence.—A few words on this subject may be useful. By this expression is meant a change of residence made by any member of a molluscan fauna from ground to ground, once or more than once. With sediment, in fact, its connexion is often indirect and at second hand.

Divergence is rendered possible by a pliable organization, and it is necessary in order to enable mollusks to travel (migrate), to pass over and feed on a plurality of grounds, and also to tolerate changes in the nature of their habitats.

The present state of the ocean-floor, as far as inorganic matter is concerned, I believe, reflects very tolerably that of any part of the earth's history. The materials and the agencies have always been much the same; but with living beings it is different.

Although a sediment may be, and often is, the same in two or more epochs to every test of the chemical analyst, each of these epochs, as was taught by Mr. S. P. Woodward, had its own appointed and very different forms of life.

Composed of few mineral substances, sediments still vary in the proportions of their ingredients so much and so frequently as often to break up the bottoms into small and irregular areas. Of course any quantitative mineral analysis has only a very limited application as to place.

* Bronn, Essai pour la Prix, 1856, Acad. des Sciences; Comptes Rendus, tom. ii. p. 724.

† Lycett, Morris, Ann. Nat. Hist. 1848, vol. ii. p. 248 &c. Palæontogr. Soc. 1850–3. Brodie, Geol. Journ. Lond. vol. vi. p. 239.

‡ Buckman, Ann. Nat. Hist. vol. xii. p. 324 (1853).

§ Bullet. Soc. Géol. de France, vol. xii. pp. 534, 676.

‖ Bullet. Soc. Géol. de France, vol. x. p. 18.

¶ Jahrbuch f. Mineral, 1850, pp. 657, 674.

An inquiry into the nature and position of sea-grounds, conducted with considerable care, results in the fact that every kind of ground, except rock, exists at one place or other *at almost all depths, small and great*—the nature of the successive depths being, in a rough way, that which has been adopted in Table Z. The exceptions are numerous. The following are instances of the greatest; the others I must neglect.

Blocks of stone at 200 fathoms (Greenland, Dr. Wallich). *Shingle* at 1675 fathoms (Capt. Dayman). *Gravel* at 2330 fathoms (Atlantic Telegraph route, Dayman). *Sand* at 954 fathoms (Atlantic Telegraph route, Dayman). *Brown mud*, clays principally, at 180 fathoms (Ægean Sea, Forbes). *Weed*; Dr. Wallich has met with no "Algæ proper" below 200 fathoms. *Nullipore* at 130 fathoms (Algiers, Milne-Edwards). *Shelly ground* at 54 fathoms. *Coralline* at 145 fathoms, at which depth Mr. Gwyn Jeffreys finds *Chiton cinereus* and *Trochus granulatus*. *White mud*; this ground in an especial manner belongs to the deepest parts of the sea, but it is found at all levels in areas of smaller sizes.

The presence of this or that ground may usually be accounted for by local circumstances—by ocean depths, contours of and distance from land, by the constituents of the nearest coasts, by the presence or absence of headlands, of great rivers, of steady, variable or conflicting currents, by prevailing temperatures, and other well-known influences. These are all cosmic agencies.

The causes of divergence, as they now occur to me, are the following:—

1. Currents (tides &c.) driving the fauna from their grounds.
2. Changes of level, damaging or removing their grounds, rendering them in fact less desirable for shelter or pasture.
3. Injurious changes in the nature of the faunal community; the carnivorous mollusca have devoured all the herbivorous, or the latter all the plants.
4. The free swimmers, Cephalopoda and Pteropoda, are dropped in a dead state into various grounds, because they live independently of all sediment.

We now lay before the reader the Table Z. It exhibits, with a certain degree of accuracy, the distribution of a large number of marine species of mollusks among the principal sea-grounds of the present day, as seen in eleven large regions.

TABLE Z.—Molluscan Sea-grounds.

Marine Regions.	Rock.	Stones.	Gravel.	Shingle.	Sand.	Brown Mud.	Weed.	Shelly Ground.	Nullipore.	Coralline.	White Mud.	Number of Appearances.	Number of Species.	Number of Species constant.	Number of Species divergent.
* Edward Forbes, N.W. Scotland	9	111	197	154	227	177	124	...	100	...	...	1099	410	66	344
* ,, S. & W. England	...	81	115	99	140	97	25	...	61	...	...	618	225	48	177
* ,, The Ægean Sea	54	4	5	...	82	122	108	2	77	4	5	463	411*a*	287	124
† J. G. Jeffreys, British Seas	43	46	33	1	97	31	31	17	10	...	1	310	213*b*	99	114
‡ M'Andrew, N.E. Atlantic	84	74	51	...	475	193	29	21	8	3	...	938	664	66	598
‡ ,, Vigo Bay, Spain	6	...	5	...	71	59	1	1	20	...	...	163	156	134	22
‡ ,, Carthagena Bay	...	...	...	...	59	46	12	...	...	24	1	142	82	44	38
§ ,, Norway	20	1	123	...	81	59	23	...	57	4	...	368	232	95	137
‖ Cuming, E. & W. Pacific	54	94	7	2	79	274	...	17	...	24	1	552	441	111	330
¶ C. B. Adams, Panama, S. America	41	113	2	...	28	18	2	17	...	2	...	223	193	95	98
** Hinds, West Pacific	2	4	...	...	25	75	2	...	...	2	1	111	~~111~~ 101	~~100~~ 90	11
Marine Fauna	313	528	538	256	1364	1151	357	75	333	63	9	4987	3138	1145	1993

(*a*) In twenty-three cases grounds are omitted by the authors. (*b*) In fifteen here also.

* Report British Association, 1850.
† British Conchology, 1863.
‡ Reports British Association, 1850 and 1856.
§ M'Andrew & Barrett, *ibid.*
‖ *Ibid.* 1856.
¶ *Ibid.* 1856.
** *Ibid.* 1856.

This Table gives the results of 5000 acts of dredging (minus two), as performed by experienced naturalists in eleven large districts, in eleven sea-bottoms. Edward Forbes, M'Andrew, and Gwyn Jeffreys conducted these operations as their only object, as also did Cuming; but both Cuming and Hinds passed rapidly over large spaces of sea in irregular pursuit of the animals only, and not as investigators of any district. Adams evidently moved over littoral and other small depths, for he was often among rocks and stones. Forbes laboured in laminarian and medium depths; for gravel, shingle, sand, and weeds figure largely in his lists, while there is little mention of rock, and none of white mud. Hinds worked a good deal over the same level, but rested nowhere, so that most of his species are constant to two, often intermixed, grounds. Perhaps Forbes, M'Andrew, and Cuming swept over the largest extent of sea.

Every one of these eleven districts carries with it its own interpretation, and deserves an independent study. Some were nearly closed basins; others ran down latitudes along shores oftenstraight; others, again, consisted of open sea. They presented many other differences, local and climatal.

The object of this Table (Z) is to show, to measure, the extent of modern divergence in 3137 species of marine life taken in the mass, throwing aside for a moment any further artificial arrangement.

Taking the sums total of the grounds, it points out the comparative faunal occupancy of each over large regions. Rock presents 313 appearances, for instance, one sixteenth of the whole appearances; stones and gravel a tenth; shingle one twentieth; sand considerably above a quarter. By inference it tells the extent and importance to living creatures of these grounds, their depths, and other particulars.

The total number of appearances in this Table (as already defined) is 4987, being 1849 above the actual species,—an excess spread irregularly over all the grounds. The species constant to one ground are 1145; to what particular grounds especially, I do not know. The divergent species (1993) are nearly double this number—a fact of great importance, as assisting in the act of migration, our main concern here.

The constant and divergent mollusks vary in number with the kind of sea they inhabit. In the open sea the former are few and the latter are numerous; in close waters this is reversed. Thus we see in Vigo and Carthagena bays, and perhaps on the British coasts, the constants are many, and wanderers are seldom seen. In support of this statement we find that in the above-named bays, of 141 Gasteropoda, 94 are constants; and of 117 Acephala, 100 are constants. These two orders represent the bulk of the animal life of the localities. Here M'Andrew worked assiduously for fourteen weeks.

Brown mud (argillaceous) with some siliceous sand, or a little lime, is the seat of one-third of the marine population of Table Z; and quartzose sand, more or less pure, contains a still larger fauna. Stones and gravel are well frequented; rock, weed, and nullipore much less so (in these lists), and about equally. White mud is barely mentioned by five of the dredgers.

As the following Table (2 A) occupies very little space, and brings to view many noteworthy particulars, I venture to insert it.

TABLE 2 A.—Molluscan Orders.

	South and West Coasts of England.									North and West Coasts of Scotland.									
	Number of Species.	Grounds.							Total.	Number of Species.	Grounds.								Total.
		1.	2.	3.	4.	5.	6.	7.			1.	2.	3.	4.	5.	6.	7.	8.	
Gasteropoda	90	11	25	27	14	4	3	...	84	125	37	27	15	13	8	12	8	...	120
Acephala	105	25	19	22	18	10	5	...	99	100	17	21	13	13	12	15	6	1	98
Echinodermata ...	26	8	3	4	7	3	...	1	26	18	7	8	2	1	...	...	...	...	18
	221	44	47	53	39	17	8	1	209	243	61	56	30	27	20	27	14	1	236

It is constructed from the Dredging-Tables of Edward Forbes, for certain parts of the coast of Great Britain. We see that the majority of the three orders, selected on account of their numbers, inhabit 1, 2, 3, 4 grounds. An Echinoderm (*Ophiocoma rosula*), an order in palæozoic times rigidly confined to one or two calcareous grounds, is found now in seven.

POSTSCRIPT.

I.—Time and space will only permit the introduction into these pages of the foregoing twelve short sketches, almost entirely unaided by illustrative remarks drawn from palæozoic literature. It is probable that a calmer and more deliberate examination of the lights scattered throughout the 'Thesaurus' would have suggested some still more striking truths which therefore remain yet latent. For this an apology has been already offered.

The following further list of geological subjects, partly already treated of in MS., will show how important are the omissions we know of. Full and comprehensive as the standard works are, the rapid progress of the science has left even now more to be said.

Additional Subjects.—*Oscillation*, its effects on life. *Silurian areas* of Europe and America compared—in strata, and their contents, country with country, stage with stage. *The Silurian selvages* of N.W. Scotland and Ireland, peculiarly American, carefully examined. *Silurian* and *recent* sea-beds compared. The *bathometry* of molluscan life in the Silurian and present periods. The *increment* and *decrement* of Silurian life, species, and genera, separately tabulated for all countries. The greater or less *synchronism* of strata far apart; measured, where possible. Was America *inhabited* before Europe &c.?—as seems probable. During the existence of an epoch may the *foreshadowing* of the next become perceptible? We see this in Nova Scotia (Devonian) and in Pennsylvania (Carboniferous formation). The *transport* or removal of dead organisms from place to place; the "*remaniement*" of the French. *Extra-epochal recurrence* is of all time and place, and full of interest.

II.—*An Extract from an Address to a Meeting of Geologists at Chambéry, Savoy*, 1844.

"Il n'y a qu'un demi- siècle, un orateur chrétien, se défiant des hommes de la science leur disait: 'Arrêtez-vous enfin, et ne creusez pas jusqu'aux enfers. Aujourd'hui, Messieurs, rassurés sur l'inébranlable constance de notre foi, nous vous disons: *creusez, creusez* encore: plus vous descendrez, plus vous rapprocherez du grand mystère de l'impuissance de l'homme et de la vérité de la religion. Creusez donc, creusez: et quand la science aura donné son dernier coup de marteau sur les fondements de la terre, vous pourrez à la lueur du feu qu'il fera jaillir, lire encore l'idée de Dieu et contempler l'empreinte de sa main'" *.—*Monseigneur Rendu, Bishop of Annecy, Savoy.*

* Bullet. Soc. Géol. de France, n. s. tome i. p. 857.

III.—*Primordial Fossils* (26) *from New Brunswick* (*N. A.*).

(See Acadian Geology, J. W. Dawson, 2nd Edit. p. 641.)

Eocystites primævus,	*Billings.*	Coll. Hartt, Coldbrook, St. John's.
Lingula Matthewi,	*Hartt, MS.*	Coldbrook.
,, n. s.	,,	Ratcliffe's Mill, Hartt.
Obolella transversa,	,,	Coldbrook.
Discina Acadica,	,,	Ratcliffe's Mill.
Orthis Billingsi,	,,	,,
,, n. s.	,,	St. John's Slates.
Conocephalites Baylei,	,,	Ratcliffe's Millstream.
,, Matthewi,	,,	,, ,, and St. John's.
,, Robbii,	,,	Ratcliffe's Mill.
,, Orestes,	,,	,,
,, elegans,	,,	,,
,, Ouangondianus,	,,	,,
Conocephalites tener,	*Hartt, MS.*	Coldbrook.
,, Aurora,	,,	Ratcliffe's Mill.
,, Thersites,	,,	,,
,, gemini-spinosus,	,,	St. John's.
,, Hallii,	,,	Ratcliffe's Mill.
,, quadratus,	,,	Coldbrook.
,, neglectus,	,,	,,
,, formosus,	,,	Ratcliffe's Mill.
Microdiscus Dawsoni,	*Billings.*	Coldbrook.
Agnostus Acadicus,	,,	St. John's.
,, similis,	,,	Ratcliffe's Mill.
Paradoxides lamellatus,	,,	St. John's?
,, micmac,	,,	St. John's.

N.B.—There are several other undetermined species, and some orders of Mollusca not yet examined.

(*Received August 26th*, 1868, J. J. B.)

NOTES ON "FACTS AND OBSERVATIONS."

PAGE

xxvii. *Calymene complicata* should be *C. duplicata*. *Phacops apiculatus* must be erased.

xxvii (note*). Polyeres Dufresnoyi = Acidaspis Buchii. Polytomurus euglypta = Dionide euglypta.

xxviii. The three species of *Euomphalus* must be erased.

xxxi. The 2093 species mentioned are those which are already described (1868).

xxxi (note). The subdivisions are:—in stage (fauna) C, 1; D, 5; E, 2; F, 2; G, 3; H, 3; =16.

xxxii. Erase the 17th and 18th lines *from the bottom* of the page. Two lines from the bottom also, *for* E. e. 3 or 4 *substitute* F. f. 1.

xxxiii. M. Barrande does not vouch for *Orthoceras bullatum* being in Bohemia.

xxxvi. There are two species of *Asaphus* in Bohemia.

Errata in Sketch Map.—Colony Zippe (Bruska) is on the north of the River Moldau. Colonies Branik, and Haidinger near Radotin, are both outside of the boundary line of stage E.

ABBREVIATIONS IN NOMENCLATURE.

CANADA AND THE ADJACENT UNITED STATES OF AMERICA.

Stages.	Parts of Stages.	Abbreviations.
Upper.	Lower Helderb. Gr. { Up. Pentam. Lst. / Delth. Sh. Lst. / Low. Pent. Lst. / Waterline Gr. }	L. H. G.
	The Guelph Series (Le Clair and Galt Limestones).	Guelph.
	Onondaga-Salt Group	O. S. G.
	Coralline Limestone of Schoharie	Cor. Lst. Sch.
	Niagara Series (Racine or Le Clair, *Illinois*).	Niag.
Middle.	Clinton Group	CL.
	Medina Sandstone	M. Sa.
	Oneida Conglomerate	O.C.
Lower.	Hudson-River Group (Blue Lst. Ohio)	H. R. G.
	Utica Slate = Shales above Tr. (D.D.Owen)	U.Sl.
	Trenton Limestone (Galena Limestone)	Tr.
	Black-River Lst. (Buff Limestone)	BL.
	Bird's-eye Limestone	B.
	Chazy Limestone (and Sandstone)	CH.
	Calciferous Sandstone	CS.
(Taconic) Primordial.	Quebec Group = { Chazy L. (part) / Calciferous Sa. / Point-Lévis Rocks }	Queb. G.
	Potsdam Sandstone	Potsd.

ANTICOSTI ISLAND.

Divisions and the Equivalents.—Geology of Canada, 1863.

Divisions 4, 3 = Mayhill, *J. W. Salter*	A. Gr. = Anticosti Group.
„ 2, 1 = Llandovery, „	

BRITAIN.

Upper. Middle. Upper.	Upper Ludlow (Tilestone)	U.L.
	Lower Ludlow	L.
	Wenlock	W.
	Upper Llandovery (Mayhill)	U.Llandov.
Primordial. Lower.	Lower Llandovery	L.Llandov.
	Caradoc (Bala) = American (Tr.)	Carad.
	Upper Llandeilo	U. Llan.
	Lower Llandeilo, Skiddaw Slates, Arenig	L.Llan.
	Stiper Stones, Tremadoc Slate, Lingula Flags, Harleck Grits, Llanberris Slate	P.

BOHEMIA.

Stages.	Parts of Stages.	Abbreviations.
Upper. Third Fauna.	Schists culminant	H. h. 1, 2. 3
	Upper Limestone	G. g. 1, 2, 3.
	Middle Limestone	F. f. 1, 2.
	Lower Linestone	E. e. 1, 2.
Lower. Second Fauna.	Quartzite &c.	D. d. 1, 2, 3, 4, 5.
Primordial.	Protozoic Schists	C. c. 1.
	Azoic Schists	B.
	„ (Clay Slate) *Barrande*, 1846, 1852, 1862.	A.

SWEDEN.

Upper.	Regiones	F, E, ED.
Lower.	Regiones	D, C, CB.
Primordial.	Regiones (Alum Slates &c.)	B, A.

RUSSIA.

Primordial. Lower. Upper.	Coralline Limestone (base)	Corall. L.
	Brandschiefer Schist	Inflam. Sch.
	Pleta = Orthoceras Limestone	Pleta.
	Obolus Sandstone? / Blue Clay	P.

NORWAY.

3 Groups.	Upper Malmö = Wenlock and Ludlow.	
4 „	Lower Malmö = Llandovery.	
3 „	Oscarsal = Caradoc.	
3 „	Upper Oslo = Llandeilo.	
—	Lower Oslo = Stiper Stones.	

(Kjerulf, Journ. Geol. Soc. Lond. xiv. 36.)

Specimen of the Catalogue of the Primordial Fossils of Western and Northern Newfoundland, as represented by letters.—Edw. Billings, Palæontologist. (Sir W. E. Logan's Report, 1863.)

Species.	Potsdam.			= Calciferous Sandst.					Not BL. or Tr. Slightly CH.				= Point Lévis.		
	2020 feet.			1839 feet thick.					1084 feet.				1677 feet.		
	A.	B.	C.	D.	E.	F.	G.	H.	I.	K.	L.	M.	N.	O.	P.
Leptæna decipiens	...	...	...	...	...	...	...	...	...	...	...	...	...	...	+
Eopteria typica	...	...	...	...	...	...	+								
Holopea Ophelia	...	...	...	...	...	...	...	...	+						
Bathyurus perplexus	...	+													
&c. &c. &c.															

NOTICE.

Double insertions corrected (from synonymy chiefly). The localities attributed to both insertions are to be placed under the species retained. Some recent acquisitions are added.

ERASED.	RETAINED.
Tetradium columnaris	Chætetes columnaris.
Acervularia Baltica	Arachnophyllum typus.
Aulopora (inserted).	
Chætetes annulatus	Alveolites annulatus.
Aspera pyriformis	Favosites pyriformis.
Strephodes vermiculoides	Cyathophyllum truncatum.
Cladocora sulcata	,, articulatum.
Propora tubulata	Heliolites tubulatus.
Sarcinula organum	Syringophyllum organum.
Stenopora fibrosa	Favosites fibrosa.
Omphyma turbinata	Omphyma canina.
Petraia profunda	Streptelasma profundum.
Palæaster Phillipsii	Echinocystites Phillipsii.
Agnostus nodiger	Agnostus brevifrons.
Arionellus acutangulus.	
Asaphus Brongniarti	Homalonotus Brongniarti.
,, Guettardi	Basilicus Guettardi.
Barrandia longifrons	Homalopteon-longifrons.
,, radians	,, radians.
Bronteus signatus	Bronteus laticauda.
Bumastes Barriensis	Illænus Barriensis.
,, carinatus	,, carinatus.
,, M'Cullumi	,, Maccullumi.
Cheirurus affinis	Cyrtometopus affinis.
,, tumidus	,, tumidus.
Dalmania Dujardini	Phacops Dujardini.
,, incerta	,, incertus.
,, limulurus	,, limulurus.
,, obtusicaudata	,, obtusicaudatus.
,, proavia	,, proavius.
,, sclerops	,, sclerops.
,, truncato-caudata	,, truncato-caudatus.
Isotelus affinis	Asaphus affinis.
,, Homfrayi	,, Homfrayi.
,, Iowensis	,, Iowensis.
Sao hirsuta	Not in Wales.
Sphærophthalmus alatus	Olenus alatus.
Beyrichia rugulifera	Primitia rugulifera.
,, sigillata	,, sigillata.
	Beyrichia Salteriana, Jones.
	Primitia Solvensis, ,,
Cythere umbonata	Ceratiocaris umbonatus.
Cytherina Baltica.	
,, alta.	
Eurypterus megalops	Stylonurus megalops.
,, scorpioides	,, scorpioides.
	Leperditia brachynotus, Schmidt.
Leperditia scalaris	,, fonticula, J. Hall.
	,, obliqua, Schmidt.
	,, punctatissima, Salter.
Pterygotus Anglicus.	
,, punctatus.	
	Pterygotus raniceps.
Slimonia punctata	Eurypterus punctatus.
Graptolithus gracilis	Cladograptus gracilis.
,, lobiferus	Graptolithus Beckii.
,, Sedgwickii, ,, triangulatus	Rastrites triangulatus.
,, tænia	Graptolithus Hisingeri.
Climacograptus bullatus	Diplograptus bullatus.
Dichograptus aranea	Dichograptus octobrachiatus.
Didymograpsus caduceus	Tetragraptus bryonoides.
,, hamatus	Cyrtograptus hamatus.
,, sextans	Diplograpsus sextans.
Diplograpsus bicornis	Climacograptus bicornis.
,, nodosus	Graptolithus bicornis.
,, rectangularis	Climacograptus rectangularis.
,, teretiusculus	,, teretiusculus.
	Tetragraptus Headii (Canada).
Retepora incepta	Propora incepta.

ERASED.	RETAINED.
Athyris bella	Meristella bella.
,, Circe	,, Circe.
,, depressa	Rhynchonella depressa.
,, didyma	Meristella didyma.
,, nitida	Merista nitida.
,, tumida	Meristella tumida.
Atrypa æquiradiata	Rhynchonella æquiradiata.
,, brevirostris	Pentamerus brevirostris.
,, didyma	Meristella didyma.
,, nitida	Rhynchonella nitida.
,, nucleus.	
,, phoca	,, phoca.
,, robusta.	,, robusta.
	Cryptonella (Hall) eximia, L.H.G.
Cyrtia exporrecta	Spirifera exporrecta.
,, trapezoidalis	,, trapezoidalis.
Discina cælata	Trematis cælata.
	Eichwaldia corallifera *, Hall.
	,, concinna *, ,,
	,, gibbosa *, ,,
	,, reticulata *, ,,
Lingula unguicula	Lingulella unguicula.
Merista arcuata	Meristella arcuata.
,, bella	,, bella.
,, cylindrica	,, cylindrica.
,, lævis	,, lævis.
,, nitida	,, nitida.
,, oblata	,, oblata.
,, tumida	,, tumida.
Orthis Ella	Trematospira Ella.
	Orthis flabellites, Hall.
Pentamerus reversus	Camerella reversa.
Platystrophia Tcheffkinii	Orthisina Tcheffkini.
Rhynchonella cuneata	Retzia cuneata.
Spirifera pisum	Nucleospira pisum.
Trematis crassa	Discina crassa.
,, punctata	,, punctata.
,, striata	,, striata.
Anodontopsis perovalis	Modiolopsis perovalis.
,, securiformis	Axinus securiformis.
Ctenodonta Edmondiæformis	Arca Edmondiæformis.
Cucullella Anglica	Redonia Anglica.
Mytilus Nerei	Modiolopsis Nerei.
Orthonota primitiva	Arca primitiva.
Tellinomya lingulicomes	Lingulella unguicula.
Cyrtotheca lævis	Ecculiomphalus lævis.
,, Scotica	,, Scoticus.
Calyptræa calyptrata	Acroculia calyptrata.
Chiton Canadensis	Metoptoma Canadensis.
Cyclonema corallii	Murchisonia corallii.
	Eunema trilineata, Hall.
Euomphalus triporcatus	Trochonema triporcata.
Helicotoma uniangulata	Ophileta uniangulata.
Litorina striatella	Holopæa striatella.
Ophileta anglica	Helicotoma anglica.
Pleurotomaria angulata	Murchisonia angulata.
,, inflata	,, inflata.
,, latifasciata	Trochonema latifasciata.
,, lenticularis	Scalites lenticularis.
,, Prycea	Murchisonia Pryceæ.
,, subrotunda	,, subrotunda.
,, turrita	,, turrita.
Trochus helicites	Platychisma helicites.
Turbo corallii	Murchisonia corallii.
,, tricinctus	Trochonema tricincta.
Actinoceras conoideum	Discoceras conoideum.
Cycloceras annulatum	Orthoceras annulatum.
,, ibex	,, ibex.
,, tenuiannulatum	,, tenuiannulatum.
,, tracheale	,, tracheale.
Gomphoceras pyriforme	Phragmoceras pyriforme.
Orthoceras arcuoliratum	Cycloceras arcuoliratum.
,, cancellatum	Endoceras cancellatum.
Phragmoceras Brateri	Cyrtoceras Brateri.

* Twentieth Regents' Report, New York, 1868.

P.S.—These Corrections will add to the accuracy of the Specific Numerical Relations—although the difference made is only 1·4 per cent. on the whole Silurian life. The double insertions are useful to beginners.

Subdivision.	Genera, Species, and Author.	Lower Stage.	Middle Stage.	Upper Stage.
	Actinophyllum, *Phillips*, 1847 (a *calciphyte* allied to *Acetabularia*, J.W.S.).			
U. L.	plicatum, Phill.	.....	.....	England.
	Arthrophycus, *Hall*, 1852.			
M. Sa.	Harlani, Hall.	.....	(Y. York) Rochester, &c., Canada W., Pennsylv., Virginia, Mifflin co.	
,,	sp. ind. ,,	.....	(N. York) Orleans county.	
	Beatricea, *Billings*, 1857, a Rugose Coral.			
H. R. G., M. Sa.	nodulosa, Billings.	Anticosti Isle(Gulf St.Lawr.)	Anticosti I., Div. 1.	
H. R. G.	undulata, ,,	Anticosti Isle, Lakes St.John (C.E.) and Huron (C.W.)		
	Buthotrephis, *Hall*, 1846.			
CS.	antiquata, n. s. Hall.	(N. York) Clinton county.		
P.	asteroides, Emmons.	Georgia Township (Vermt.).		
Marly Lst.	biplex, Eichw.	Lyckholm, &c. (Esthonia).		
H. R. G.	? flexuosa, Emmons.	Georgia Towns. (Vermont), (N. York) Washington co.		
Tr., CL.	gracilis, n. s. Hall.	Pennsylv. (N.Y.) Herkm. co.	(N. York) Oneida county.	
CL.	var. crassa, n. s. ,,	.....	,, ,,	
,,	var. intermedia, n. s. ,,	.....	,, ,,	
,,	impudica, n. s. ,,	.....	(N. York) New Hartford.	
,,	palmata, n. s. ,,	.....	,, ,,	
,,	ramosa, n. s. ,,	.....	,, ,,	
P.	rigida, Emmons.	Georgia Towns. (Vermont).		
H. R. G.	subnodosa, n. s. Hall.	(N. York) Lewis county, N.W. Michigan.		
Tr.	succulens ,,	(N.York) Glens' Falls, N.W. Michigan.		
P. Lingula Fl....	sp. ind. Williamson.	(Wales) Dolgelly.		
	Dictyolites, *Hall*, 1838.			
M. Sa.	Beckii, Hall.	.....	(N. York) Orleans county.	
	Ichnophycus, *Hall*, 1852.			
CL.	tridactylus, n. s. Hall.	.....	(N. York) Oneida county.	(Doubtful.)
	Laminarites, *Sternb.*, 1838.			
P. Blue Clay ...	antiquissimus, Eichw.	St. Petersb., Czarskoe-selo, &c. (Russia).		
	Lepidostrobus?, *Brongn.* (only the spores are known).			
L. passage-beds..	sporangia of, = *Pachytheca sphærica*, Hooker.	.....	.....	England and Wales (Downton beds, *passim*).
	Licrophycus, *Billings*, 1862.			
H. R. G.	formosus, Billings.	(Anticosti) English head.		
B., BL., Tr.....	Hiltonensis, ,,	(L.Huron) Is.St.Jos.(C.W.).		
H. R. G.	Hudsonicus, ,,	(L.Huron)Manitouline Isles.		
,, ...	vagans, ,,	(Anticosti) West End.		
Tr.	minor, ,,	(C.W.) Ottawa city.		
H. R. G.	robustus, ,,	(Anticosti Isle) English hd.		
Tr.	Ottawaënsis, ,,	(C.W.)Ottawa city, W.shore. of Lake Ontario.		
	Nullipora, (the name of a sea-plant, J.W.S.).			
Pleta.....	cerebralis, Eichw.	Poulkova (Russia).		
	Palæochorda, *M'Coy*, 1849. (These are filled Annelid-burrows, J.W.S.)			
Llan.....	major, M'Coy.	Kirkfell, Douglas(Is.ofMan), Scawgill (Westmoreland), D'Erras, &c. (Esthon.).		
P.(Vermt. slate)	marina, Fitch.	Georgia Township(Vermt.).		
Llan.....	minor, M'Coy.	Undereg.(Westmd.),Scawgl.		
P. (schists)	tenuis, Fitch.	Georgia Township (Vermt.).		
Llan.	teres, Harkness.	(S.W. Scotl.) Barlæ Quarry.		
	Palæophycus, *Hall*, 1847.			
Eurypterus L. ...	acicula, Eichw.	.....	.....	Isle Oesel (Baltic).
P. Potsd. Sa. ...	articulatus, Winchell.	Wisconsin.		
CS.	Beauharnoisensis, Billings.	(Canada E.) Beauharnois.		
P. Potsd., CS ...	Beverleyensis, ,,	(Canada W.) Beverley.		
P. ,, ,,	congregatus, ,,	(N. Vermont) Highgate, (Canada E.) St. Armand.		
P. CS.	funiculus, ,,	(Canada W.) Napierville,&c.		
P. Potsd.	incipiens ,,	(Labrador) Straits of Belle-isle, Anse au Loup., Swanton, N.W. Vermont.		

Subdivision.	Genera, Species, and Author.	Lower Stage.	Middle Stage.	Upper Stage.
P. Potsd.	informis, Winchell.	Wisconsin.		
CS.	irregularis, n. s. Hall.	(N.York) MohawkValley,&c.		
Tr.	obscurus, Billings.	C.W. Ottawa city.		
,,	rugosus, n. s. Hall.	(N.York)Middleville, &c.		
,,	simplex, n. s. ,,	(N. York) Herkimer county.		
CL.	striatus, n. s. ,,	.....	(N. York) Oneida county.	
MSa.	tortuosus, n. s. ,,	.....	(N.York)GeneseeR.mouth	
P. CS.	tubularis, n. s. ,,	(N. York) Mohawk Valley, N.W. Michigan.		
H. R. G.	virgatus, n. s. ,,	(N. York) Washington.		
CL.	sp. ind. ,,	.....	(N. York) Oneida county.	
,,	,, ,,	.....	,, ,,	
H. R. G.	,, ,,	New York.		
	Palæotrochis, *Emmons,*	1856.		
P.	major, Emmons.	N. Carolina, Washington,		
,,	minor, ,,	N. York county.		
	Phycodes, *Rœmer.*			
	circinatus, Rœmer.	Thuringia.		
	Phytopsis, *Hall,* 1846.			
B.	tubulosum, Hall.	N. York, Mohawk Valley, N.W. Michigan.		
BL., B.	cellulosum, ,,	N.York,Mohawk V., Canada.		
	Rusophycus, *Hall,* 1852	(short species of *Cruziana,*	J.W.S.).	
CL.	bilobatus, n. s. Hall.	.....	(N. York) Oneida county.	
,,	clavatus, n. s. ,,	.....	,, ,,	
Eurypt. Lst.	embolus? Eichw.	.....	.....	Isle Oesel (Baltic), Roodzikulle, &c.
CH.	Grenvillensis, Billings.	(C.E.) Lower Ottawa River.		
,,	pudicus, n. s. Hall.	.....	(N. York) New Hartford.	
,,	subangulatus, n. s. ,,	.....	(N. York) Oneida county.	
	Sphenothallus, *Hall,* 1	846.		
H. R. G.	angustifolius, n. s., Hall.	(N. York) Mohawk Valley.		
,,	latifolius, n. s. ,,	(N. York) Schoharie.		
	Spongarium, *M.-Edw.,*	1839 (a *calciphyte*: the name	remains, J.W.S.).	
UL.	æquistriatum, M'Coy.	.....	.....	Benson Knot, Kendal.
W. L.	Edwardsi, Murch.	.....	.....	Dinas Bran (N. Wales), Aymestry (England).
UL.	interlineatum, M'Coy.	.....	.....	Kendal, Benson Knot, Brigsteer, &c.
,,	interruptum, ,,	.....	.....	Kendal, Spital (Westmorel.).
	Trichoides, *Harkness,* 1	855.		
	ambiguus, Harkness.	S. W. of Scotland.		
	Vexillum, *Rouault,*1850.			
	Desglandi, Rouault.	Bain, &c. (France).		
	Halli, ,,	Soulevache, &c. (France).		
	Labechii, ,,	Goven, Bain, &c. (France).		

Summary (Geographical).

Genera.	Species.			Genera.	Species.		
	America.	Europe.	Common.		America.	Europe.	Common.
Actinophyllum	...	1		Palæophycus	18	1	
Arthrophycus	2	...		Palæotrochis	2	...	
Beatricea	2	...		Phycodes	...	1	
Buthotrephis	12	2		Phytopsis	2	...	
Dictyolites	1	...		Rusophycus	5	1	
Ichnophycus	1	...		Sphenothallus	2	...	
Laminarites	...	1		Spongarium	...	4	
Lepidostrobus	...	1		Trichoides	...	1	
Licrophycus	7	...		Vexillum	...	3	
Nullipora	...	1					
Palæochorda	2	3			56	20	None.

KINGDOM ANIMALIA. SUBKINGDOM PROTOZOA. PROVINCE ASTOMATA. CLASS AMORPHOZOA.

Subdivision.	Genera, Species, and Author.	Lower Stage.	Middle Stage.	Upper Stage.
	Acanthospongia, *M'Coy*, 1846.			
Llandov.	Siluriensis, M'Coy.	.....	Galway (Ireland).	
	Achilleum, *Schweigger*,	1840 ?, *Goldf.*		
Marly Lst.	cerasus, Eichw.	Poulkova (Russia).		
Orthoc. L., Pleta.	oleraceum, ,,	,, ,,		
	Amphispongia, *Salter*,	1865 (a sponge allied to *Grantia*, Bowerbank, J.W.S.).		
	sp. ind.	.....	.....	Pentland Hills (Edinburgh).
	Archæocyathus, *Billings*, 1861.			
P. Potsd.	Atlanticus, n. s. Billings.	(Labrador) Forteau Bay, Straits of Belleisle.		
,, ,,	Minganensis, n. s. ,,	(Labrador) PorteauBay, Mingan Isles (G. St. Lawr.).		
,, ,,	profundus, n. s. ,,	(Labrador) Strts. of Belleisle.		
,, ,,	sp. ind. ,,	N. W. Vermont.		
	Astræospongia, *Rœmer*,	1860.		
Orthoc. L., Pleta.	echinoides, Eichw.	Poulkova (Russia).		
Niag.	meniscus, Safford.	.....	.....	Tennessee, Decatur county (most abundant).
	Astylospongia, *Rœmer*,	1860.		
?	castanea, Rœmer.	Sadewitz (Lower Silesia).		
Niag.....	imbricato-articulata, ,,	.....	.....	(Tennessee W.) Decatur co.
?	incisa, ,,	Sadewitz (Lower Silesia).		
Carad., Niag. ...	inciso-lobata, ,,	Sholes Hook ? (Low. Silesia).	.....	,, ,,
Tr.	parvula, Billings.	(C.W.) Ottawa city.		
?	pilula, Rœmer.	Sadewitz (Lower Silesia).		
Pleta, W.	præmorsa. ,,	Popova (Russia), L. Silesia.	.....	(Tennessee W.) Decatur co., Sweden, (Indiana) Wald.
Niag.	stellatim-sulcata, ,,	.....	.....	(Tennessee W.) Decatur co.
	Calathium, *Billings*, 1865.			
P. CS. Queb. G...	affine, n. s. Billings.	(Newfoundland, N. shore), Cape Norman.		
,, ,,	Anstedi, n. s. ,,	(Newfoundl. N.) Schooner Isl.		
CH.	Canadense, n. s. ,,	Mingan Isles (G. St. Lawr.).		
P.Div.K.Queb.G.	Fittoni, n. s. ,,	(Newfoundl. W.) Pt. Rich.		
CS. Queb. G. ...	formosum, n. s. ,,	(Newfoundl. N.) C. Norman.		
Queb. G.	pannosum, n. s. ,,	Port Levi, Quebec, C.E.		
CS.	paradoxicum ? ,,	Mingan Isles (G. St. Lawr.).		
	Caunopora, *Phillips* (see Stromatopora).			
CL.	junciformis, Hall.	.....	N. York.	
	Cliona (= Vioa), *Portlock*	(a boring sponge in shells, J.W.S.).		
Carad.	antiqua, Portlock.	(Tyrone) Desertcreate.		
,,	prisca, M'Coy.	.....	Malvern (England).	
L.	sp. ind. Salter.	.....	.....	Ludlow, Shropshire.
	Cnemidium, *Goldf.*, 1830.			
Compact L.....	radiatum, Eichw.	Wesenberg (Esthonia).		
Orthoc. L.	rimosum, Hising.	Poulkova (Russia).		
W. (Shale)	tenue, Lonsdale.	.....	.....	Dudley, Worcester.
	Coscinium, *Keyserling*,	1846 = *Clathropora*.		
	flabellatum, Billings.	Canada.		
CH., B., Bl., Tr. Pleta.	proavium, Eichw.	Esthonia, Canada	Pentam. Lst.; Borkholm (Esthonia) ?	
	Coscinopora, *Goldfuss*,	1830.		
	sulcata, D. D. Owen.	Upper Mississippi?		
	Dædalus, *Rouault*, 1850.			
	Newtoni, Rouault	(France) Guichen.		
	Koninckı, ,,	,, ,,		
	sp. ind. Salter.	Normandy; Budl. Salt[n]. (Devonian pebbles).		
	sp. ind. Rouault.	Normandy.		
	Eospongia, *Billings*, 1861.			
CH.	Rœmeri, Billings.	Mingan Isles (G. St. Lawr.).		
	varians, ,,	,, ,,		
	Intricaria, *Defrance*, 1822	(probably a *Vioa*, J.W.S.).		
Carad.	obscura, Portlock.	Tyrone (Ireland).		
Tr. ?	reticulata, Hall.	(N. York) Jefferson co., Can.		
	Ischadites, *Kœnig, Murch.*	1839 (clearly a regularly formed sponge with roots, J.W.S.).		
(Arenig)	antiquus, Salter.	N. Wales.		
Orthoc. Lst.....	Eichwaldii, Schmidt.	Wesenb. Haljal. (Esthonia).		
L.	Kœnigii, Murchison.	.....	.....	Shropshire.
	tessellatus, Salter.	.....	.....	,,
Niag.	tessellatus, Winch.&Marcy.	.....	.....	Chicago (Illinois).
L.	sp. ind. ,,	.....	.....	Shropshire.
LLlan., Car.....	,, ,,	Garn. E. of Arenig (W.), Swed.		
W.	,, ,,	.....	.....	Dudley (England).

Subdivision.	Genera, Species, and Author.	Lower Stage.	Middle Stage.	Upper Stage.
Woolhope	sp. (Grindrodi), Salter.	.....	.....	Woolhope, Dudley, Walsall, Malvern, Mayhill, &c.
	Manon, *Goldf.*,1830=*Verrucospongia,* D'Orb.			
Orthoc. L., Pleta	deforme, Eichw.	Poulkova, &c. (Russia).		
,,	globosum, ,,	,, ,,		
,,	sulcatum, ,,	,, ,,		
,,	verrucosum, ,,	,, ,,		
	Nidulites, *Salter,* 1851 (a reticular, flat plate; cups on both sides, J.W.S.).			
L.Llan., U.Llandov.	favus, Salter.	Pembrokeshire (Wales). ...	Haverfordwest, (S.W. Scotland) Dalquharran.	
	Palæomanon, *Rœmer,* 1860.			
Niag.	cratera, Rœmer.	.....	.....	(Tennessee W.) Decatur co.
	Protospongia, *Salter,* 1863.			
Up. Tremad., P., L. Ling. Sa.	diffusa, Salter.	St. David's (S. Wales).		
,,	flabella, Hicks.	,, ,,		
,,	fenestrata, Salter.	,, ,,		
,,	sp. ind. ,,	,, ,,		
	Receptaculites, *Defr.,* 1827 (a Rhizopod ?).			
	Australis, Salter.	.....	Yarradong (N.S. Wales).	
Pleta.....	Bronni, Eichw.	Réval (Balt.), Ropscha, &c. (R.).		
CS.	calciferus, Billings.	Mingan Isles (G. St. Lawr.).		
Mid. Sil.	Canadensis, ,,	.....	Anticosti Island (Canada).	
CS.	elegantulus, ,,	Mingan Isles (G. St. Lawr.).		
Galena=Tr. ...	fungosus, Hall.	Wisconsin (U. S. America).		
	globularis, Billings.	,, ,,		
Niag.	hemisphæricus, Hall.	.....	.....	Wisconsin (U.S. America).
Div. 1. A.....	insularis, Billings.	.....	Gamache Bay, Anticosti.	
,, ...	infundibulum, Hall.	.....	.....	,, ,,
L. H. Gr.....	infundibuliformis, Eaton.	.....	.....	N. York.
,, ...	Jonesi, Billings.	.....	.....	Gaspé (Canada E.).
Galena=Tr. ...	Iowensis, D. D. Owen.	Upper Iowa (U.S. Amer.).		
γ	Murchisoni, Eichw.	Russia.		
Tr., L.	Neptuni, Murch.	L.St.John, Malbay(Can. E.).	.....	Ludlow (England).
B., BL., Tr.....	occidentalis, Salter.	L. St. John (C.E.), Mid-Ottaw. (C.W.), N. York, Lake Winnipeg, Rupert's Land.		
Tr.	orbicularis, Hall.	N. York ?		
Orthoc. Lst.....	orbis, Eichw.	Ropscha (R.), Isle Odinsholm, Réval (Baltic).		
Galena=Tr. ...	Oweni, Hall.	Illinois, Wisconsin.		
Niag.	subturbinatus, ,,	.....	.....	N. York.
Tr.	sulcata, D. D. Owen.	(Missouri) Salt River Bluff.		
Galena L.....	sp. ind. Hall.	Iowa (U.S. America).		
	Reticulites, *Eichw.*,1829.			
Orthoc. L.	boletiformis, Eichw.	Poulkova (Russia).		
,, ...	deformatus, ,,	Czarskoe-selo (Russia).		
	Rhabdaria, *Billings,* 1865.			
CS.	fragilis, Billings.	Mingan Isles (G. St. Lawr.).		
,, ...	furcata, ,,	,, ,,		
	Scyphia, *Oken,* 1815.			
Dolomite ?	conula, Eichw.	Kirna (Esthonia).		
Pleta.....	pygmæa, ,,	Poulkova, &c. (Russia).		
Corall. Lst.	reticula, ,,	.....	.....	IsleOesel,Arensbourg(Balt.),
?	**Siphonia,** *Parkinson, Goldfuss,* 1811.			
Llandeilo. Pyroxenic quartz ?	cylindrica, Parkinson.	Czarskoe-selo, St. Petersburg (Russia).		
Niag.	excavata, Goldf.	.....	.....	Tennessee W.
Pyroxenic quartz, Niag.	*præmorsa* excavata ,,	St. Petersburg (Russia), Réval, &c. (Baltic, Esthonia),	Isle Dago.	..... Tennessee W. (Rœmer).
	Sphærospongia, *Salter.*			
Carad.	hospitalis, Salter.	Shropshire.		
	inoscularis, ,,	Niti, Himalaya (E.I.).		
	melliflua, ,,	,, ,, ,,		
	sp. ind. ,,	Thibet.		
	,,	,,		
	Stromatopora, *Goldfuss (Bronn ?),* 1830=Caunopora,*Phil.*; Aulopora,*Goldf.* (a calcareous sponge, J.W.S.).			
H. R. G.	Canadensis, Billings.	Canada.		
P.Queb.G.Div.L.	compacta, ,,	(Newfoundld. W.) Pt. Rich.		
CL.,Niag.,Corall.	concentrica, Hall.	.....	(N. York) Lockport	(N. York) Schoharie co., N.W. Mich.(L.S.),Gothld.
Corall.Lst., Schoharie.	constellata, ,,	.....	.....	(N. York) Schoharie co.
W. shale, Lst. ...	nummulisimilis, Lonsdale.	.....	.....	(Engl.)Aymest., Malvern,&c.
CS., CH., B., BL., Queb. G. Div. G.	rugosa, Billings.	(Newfoundl. N.) Cape Norman, Highgate Springs, N.W. Vermont.		

Subdivision.	Genera, Species, and Author.	Lower Stage.	Middle Stage.	Upper Stage.
Car.W.Tr.,Niag., Onon.St.Group	striatella, D'Orb.	Anticosti Isle, N. York, Can., (Wales) Llanwddin, Montgomeryshire, Britain.	.....	N. & S.Wales, Scotl., Dudley, Walsall, N. York, L. Tematsk., Esthon., Ural, &c.
	sp. ind. Hitchcock.	.....	.....	N. Vermont (U. S. America).
	Stromatocerium, *Hall,* 1846 (closely allied to Stromatopora, J.W.S.)			
BL.	rugosum, Hall,	S.W. Scot.?, N. York, Tennessee, L. St. John (C.E.), (Cand.W.) Mid-Ottawa R.		
=Tr.....	sp. ind. Salter.	Tasmania West.		
	Tetradium, *Hall, Dana?*			
	apertum, Safford.	Mid-Tennessee, Kentucky.		
B., BL., Tr. ...	cellulosum, Hall.	(Canada W.) Ottawa River.		
Tr., MSa.....	columnaris, ,,	N. York.		
Tr.	fibratum, Safford.	Tennessee (Canada E.) Montreal, Murray Bay.		
	minus, ,,	Mid-Tennessee, Kentucky.		
	Tetragonis, *Eichw.*, 1859.			
L.	Danbyi, M'Coy	.....	.....	Kendal (Westmoreland).
Orthoc. Lst.....	Murchisoni, Eichw.	Réval (Baltic), Ropscha (Russia).		
(Pleta) Orth.Lst.	parvipora, ,,	Réval (Baltic).		
Dolom. Orth.Lst.	sulcata, ,,	Kirna (Esthonia).		
L.	sp. ind. M'Coy	.....	.....	Kendal (Westmoreland).
	Trachium, *Billings*, 1865.			
G. Div., CS.....	cyathiforme, Billings.	(Newfoundland) C. Norman.		
	rugosum, ,,	,, ,,		
	Trichospongia, *Billings*, 1865.			
CS.	sericea, n. s. Billings,	Mingan Isles (G. St. Lawr.).		
	Verticillopora, *Defrance*, 1828.			
W.	abnormis Lonsdale.	.....	.....	Britain, Pyrton Passage, &c.

Summary.—(Geographical.)

Genera.	Species.		
	America.	Europe.	Common.
Acanthospongia	...	1	...
Achilleum	...	2	...
Amphispongia.....	...	1	...
Archæocyathus	4	...	...
Astræospongia	1	1	...
Astylospongia.....	6	5	2
Calathium	7	...	...
Caunopora	1	...	...
Cliona	...	3	...
Cnemidium	...	3	...
Coscinium	2	1	1
Coscinopora.....	1	...	...
Dædalus	...	4	...
Eospongia	2	...	...
Intricaria	1	1	...
Ischadites.....	1	8	...
Manon	...	4	...
Nidulites	...	1	...
	26	35	3

Genera.	Species.					
	America.	Europe.	N.S.Wales.	Tibet.	Tasmania.	Common.
Continued	26	35	...	...	...	3
Palæomanon	1	...	...	...	...	...
Protospongia	...	4	...	...	...	...
Receptaculites	18	4	1	...	...	...
Reticulites	...	2	...	...	...	...
Rhabdaria	2	...	...	...	...	...
Scyphia	...	3	...	...	...	...
Siphonia	3	2	...	...	...	1
Sphærospongia	...	1	...	4	...	...
Stromatopora	8	4	...	...	...	1
Stromatocerium	1	1	...	...	1	1
Tetradium	5	...	...	...	...	...
Tetragonis	2	5	...	...	...	...
Trachium.....	2	...	...	...	...	...
Trichospongia	1	...	...	...	...	...
Verticillopora	...	1	...	...	...	...
	69	62	1	4	1	6

RHIZOPODA.

Ehrenberg's Lower-Silurian Foraminifera, 1858.

Fig. 1. Vaginulina? ..... ? Eozoon.
2. Nodosaria..... ?
3. Textularia initialis ..... ?
4. Polymorphina Abaira..... ? Bulimina.
5. „ avia..... ? Bulimina.
6. Guttulina Silurica ..... ? Bulimina.
7, 8. Rotalia palæotrias ..... ? Globigerina.
9. Rotalia palæoceras ..... ? Nonionina.
10. Dexiospira triarchæa ..... ? Globigerina.
11. „ hexarchæa ..... ? Rotalina.
12. Aristerospira octrachæa ..... ? Rotalina.
13. Nonionina archetypus ..... ?
14. Spirocerium priscum ..... ?

There is not one of the above determinations that can be definitely *accepted*. Some of the grains are possibly parts of Eozoon. They can only be spoken of as *Textulariform*, *Rotaline*, and such like; but of course Prof. Ehrenberg's names can be put in a catalogue as being really *Foraminifera*.—Prof. T. Rupert Jones.

Monatsbericht der Kön. Preuss. Akad. der Wissens., p. 445, 1861. Prof. Ehrenberg finds, near St. Petersburg, in the Lower-Silurian clayey green sandstone, the following Infusoria:—

Panderella silurica.
„ depressa.
„ lobata.
Panderella crepusculum.
Cymbulia? brachiospira.
„ vetustissima.
Tiedemannia? antiquissima.
„ ? silurica.
„ ? lunata.
Criseis? falx.
„ ? hemicyclus.

ZOOPHYTES.

SUBKINGDOM CŒLENTERATA=*Zoophyta*, Linn.=*Anthozoa*, Ehrenb. CLASS ACTINOZOA. SUBCLASS CORALLARIA, Edw.=*Actinoidea*, Dana. ORDERS ZOANTHARIA RUGOSA, Z. TABULATA.

Subdivision.	Genera, Species, and Author.	Lower Stage.	Middle Stage.	Upper Stage.
	Acervularia, *Schweigger*, 1820=Lithostrotion (pars), *D'Orbigny* (Astræa, *Sow.*).			
Car., Woolh., W.	Ananas, Linn.	Coniston (Lancashire)	.....	Dudley, Staffordsh., Ledbury, Herefordsh., Finl., Gothl.
	antiqua, M.-Edw.	.....	.....	Petchora (Russ.).
Llandov., W. ...	*Baltica*, Lonsd.	.....	.....	(Engl.) Aymestry &c., Irel.
	=arachnophyllum typus, M'Coy.			
Corall. Lst., Wlh., W.	luxurians, M.-Edw. & H.	.....	.....	Isle Oesel (Balt.), Dudley, Gothl., Dalecarlia.
	Alveolites, *Lamarck*, 1801.			
	annulatus, Eichw.	Poulkova (Russia).		
	apiculatus, „	Poulkova, Popowa (Russia).		
	Fougti, M.-Edw. & H.	.....	.....	Gothland.
W.	Grayi, M.-Edw.	.....	.....	Dudley, Wenlock.
Orthoc. Lst.....	hemisphæricus, Eichw.	Poulkova (Russia).		
U. Llandov.., W. Div. I. A. G.	Labechii, M.-Edw.	.....	Wales, Galway, Ireland (W.), (Anticosti) South-west Point &c.	Dudley, Westmorel. ?, (Irel.) Ferriter's Cove, Dingle, (Russ.) Hapsal, Réval.
?	lobatus, Meningh.	Sardinia.		
Orthoc. L.	pyriformis, Eichw.	Poulkova &c. (Russia).		
Carad., Pleta., W.	repens, Lamarck, =*millepora*.	Réval, Hapsal (Baltic).....	Norway, Wales	Aymestry, Dudley (Engl.), Canad., Tennessee, Decatur co., Kentucky.
W.	serrato-poroides, M.-Edw.	.....	.....	Dudley, Wenlock Edge, Walsall (Engl.).
	Amplexus? *Sowerby*, 1814.			
Guelph.....	? cingulatus, Billings.	.....	Bay of Chaleurs, Gaspé.	
	laxatus, „	.....	.....	Guelph (Canad. Central).
	Anisophyllum, *M.-Edw. & H.*, 1850.			
L. H. G.	Agassizi, M.-Edw. & H.	.....	.....	Tennessee, Wayne co. W. (Devonian, test. M.-Edw. & H.)
	Arachnophyllum, *Dana*, 1846.			
	Richardsoni, Salter.	.....	.....	(Amer. Arctic Seas) Wellington Channel.
W.	typus, M'Coy.	.....	.....	Ireland, Aymestry, Dudley, Wenlock, Walsall, Mayhill, &c.
	=*Acervularia-Baltica*.			
	Astrocerium, *Hall*, 1852.			
Niag.	constrictum, Hall.	.....	.....	(N. York) Lockport &c.
W.	mitratum, Hising.	.....	.....	Dudley, Walsall, Gothland.
Niag.	parasiticum, Hall.	.....	.....	N.W. Michigan (N.Y.) Lockp.
„	pyriforme, „	.....	.....	(Nova Scotia) New Canaan, (N. York) Lockport &c.
Orthoc. L., Pent. L., Corall. L.	reticulatum, Eichw.	Lyckholm (Esthonia)	Kattentack (Esthon.).....	Isle Oesel (Baltic).
Niag.	venustum, n. s. Hall.	.....	.....	(N.York) Lockport &c. Nova Scotia, New Canaan, N.W. Michigan, Drummond I., L. Huron.
	Aulacophyllum, *M.-Edw. & H.*, 1850=mitratum		(W.), Gothland, Dudley, Walsall.	
	Bolboporites, *Pander*, 1830.			
CH.	Americanus, Billings.	Canada.		
Orthoc. L.=Pleta	mitralis, Pander.	Ropscha, Zarskoe-selo, &c. (Russia).		

Subdivision.	Genera, Species, and Author.	Lower Stage.	Middle Stage.	Upper Stage.
Orthoc.L. = Pleta	semiglobosus, Pand.	Ropscha, Czarskoe-selo (R.).		
,, ,,	stellifer, Eichw.	Poulkova &c. (Russia).		
,, ,,	triangularis, Pander.	Ropscha, Czarskoe-selo (R.).		
,, ,,	uncinatus, ,,	,, ,,		
	Boliviana, *Salter*, 1861.			
LS.?	bipennis, Salter.	Valley of Unduava, Bolivian Andes, south side (S.A.).		
,,	melocactus, ,,	Aceromarka Vall., Illimani Andes (S.A.).		
,,	proboscidea, ,,	,, ,, ,,		
	Calceola, *Lamarck*, 1809.			
W.	americana, Rœmer.	.....	.....	Tennessee West.
,,	Gothlandica, Helmers.	.....	.....	Gothland.
Del. Sh. L.	plicata, Conrad.	.....	.....	(Central N. York) Herkmr.co.
Pleta.....	subconica, Kutorga.	.....	.....	Poulkova (Russia).
W.	Tennessee-ensis, Rœmer.	.....	.....	Tennessee W., Norw., Sweden.
	Campophyllum, *M.-Edw. & H.*, 1850.			
Pleta., Corall. Lst.	flexuosum,	Réval (Baltic).	.....	Pyhalep, Isle Daga (Baltic).
	Calapoecia, *Billings*, 1865.			
Div. 1. A.G. (Llan.)	Anticostensis, Billings.	.....	Gamache Bay, Anticosti.	
BL.	Canadensis, ,,	Ottawa City (C.W.).		
H. R. G.	Huronensis, ,,	C. Smyth, Lake Huron.		
	Callopora, *Hall*, 1852.			
Niag.....	aspera, Hall.	.....	.....	(N. York North) Lockport.
,,	elegantula, ,,	.....	.....	(N. York). ,,
,,	florida, ,,	.....	.....	,, ,,
,,	laminata, ,,	.....	.....	,, ,,
,,	nummiformis, ,,	.....	.....	,, ,,
Onon. S. Gr.?...	sp. ind. ,,	.....	.....	Mackinaw (L. Huron).
	Calophyllum, *Dana*, 1848.			
	phragmoceras, Salt.	.....	.....	Wellington Channel, Arctic America.
	Cannopora, *Hall*, 1852.			
CL.	junciformis, Hall.	.....	(N. York) Wayne county.	
	Chætetes, *Fischer*, 1837.			
Niag.	alveolaris, Vern.	.....	.....	Canada, N. York.
	annulatus, Eichw.	Poulkova, Papova (Russia).		
Lst. w. pyroxene.	apiculatus ,,	,, ,, ,,		
Pleta, W.....	*aspera*, D'Orb.	Esthonia.....	.....	Dudley (England).
	favosites.			
W.?	Bowerbankii, M.-Edw.	.....	.....	Dudley, Sedgeley, Westml.
Tr., M. Sa. &c....	columnaris, Hall.	Tenness.?, N.Y., Lewis co...	N. York.	Canada.
	tetradium.			
	Dalii, M.-Edw. & H.	Ohio (U.S.A.).		
	filiasa, ,,	Frankfort (Kentucky), Cincinnati, &c. (Ohio).		
	monticulipora.			
	Fletcheri, ,,	.....	.....	Dudley (England).
H. R. G.	frondosa,	(Ohio) Cincinnati, Oxford.		
Niag. L. H. G....	Gothlandica, Hall?	.....	.....	N. York &c.
Pleta, Corall. Lst.	hemisphærica, Eichw.	Poulk. &c. (R.), Réval &c. (Estho.), I. Dago &c. (Balt.).	.....	Orynine (Kamenatz-Podsk.).
	heterosolen, M.-Edw. & H.	Ylytch, Petschora (Russia).		
B., BL., Tr., H. R. G.	lycoperdon, Hall.	Tenn., Missouri, N.W. Michigan, Virginia, L. St. John (Can. E.), Canada W., N. York, Lockpt., &c.		
	var. nodosa ,,	N.W. Michigan (U.S.A.), Red River (Hudson's Bay).		
H. R. G.	mammulata, M.-Edw. & H.	(Ohio) Cincinn., Dayton, &c.		
	monticulipora.			
	Panderi, De Vern.	St. Petersburg (Russia).		
Pleta, Llandeilo, Car., Llandov., W., CH., B., BL., Tr.	Petropolitana, Pander.	(C.W.) Mid-Ottawa, N.W. Vermont, Kentucky, Tennessee, Ohio, Low. Silesia, Esthonia, Russia, Norway, Sweden, Wales, Ireland.		
	pavonia, M.-Edw. & H.	(Ohio) Cincinnati.		
W.	pulchella, ,,	.....	.....	Dudley (England).
Pleta.....	pyriformis, Eichw.	Poulkova, Papova (Russia).		
H. R. G.	ramosa, M.-Edw. & H.	(Ohio) Cinci. (Ind.) Madison.		
	rugosa, Hall.	(Ohio) Cincinnati, (N. York) Herkimer county.		
H. R. G., W. ...	tuberculata, M.-Edw. & H.	(Ohio) Cincinn., Springf., &c.		
	yak, Salter.	Niti, Himalaya (E.I.).		
Tr., H. R. G. ...	sp. ind. Sharpe.	New York (U.S.A.).		
	,, Hall.	(N. York) Chazy village.		
M. Sa.	,, ,,	.....	Lockport (N. York).	

Subdivision.	Genera, Species, and Author.	Lower Stage.	Middle Stage.	Upper Stage.
	Chonophyllum, *M.-Ed w. & H.*, 1850.			
CL.	Belli, Billings.		West Bay, Manitoline Is., L. Huron.	
W.	perfoliatum, M.-Edw. & H.			England?, Gothland.
	Cladopora, *Hall*, 1852.			
Niag.	cæspitosa, Hall.			(N. York) Lockpt., Can. W.
,,	cervicornis, ,,			(N. York) Lockport.
,,	fibrosa, ,,			,, ,,
,,	macrophora, ,,			,, ,,
,,	multipora, ,,			(N. York) Lockport, Can. W.
,,	reticulata, ,,			(N. York) Lockport, Kentuck.
,,	seriata, ,,			(N. York) Lockport, Canada W., Tennessee.
	Clathropora, *Hall*, 1852.			
Niag.	alcicornis, Hall.			(N. York) Lockport.
Tr.	flabellata, ,,	(N. Wisconsin) R. Escanaba.		
Niag.	frondosa, ,,			Grimsby (Can. West), (N. York) Lockport.
	Clisiophyllum, *Dana*, 1846.			
Corall. Lst.	buceros, Eichw.			Pyhalep, Isle Oesel (Baltic).
	Danaanum, De Vern.			(Tennessee) Perry county.
Corall. Lst.	cristatum, ,,			Pyhalep, Isle Oesel (Baltic).
,,	eminens, Eichw.			,, ,, ,,
	Hisingeri De Vern.			,, ,, ,,
	Salteri, Haughton.			(Arctic Amer.) Beechey Isle.
W.	vortex, M'Coy.			Shropshire (England).
	sp. ind.			(Arctic Amer.) Griffith's I. &c.
	Cœnites, *Eichw.*, 1820 (LIMARIA, *Steininger*).			
W.	clathrata, Sow.			Ledbury, Lincoln Hill, Abberley Hills, Dudley (Engl.).
	enata, Hall.			N. York (U.S.A.).
W.	fructuosa, Steininger.			Engl., Presteign (Wales), Norway.
Niag.	fruticosa? Hall.			(N. York) Lockport.
U. Llandov., W., Corall. Lst.	intertextus, Eichw.		(Norway) Malmo Isle.	Dudley, Presteign, Mayhill, Aymestry, Wilna (Russ.), Ireland.
Woolh., W.	juniperinus, ,,		Wales	Presteign, Mayhill, Dudley, Ireland, Wilna (drift), (Russ.), Gothland.
U. Llandov., W., Corall. Lst.	labrosus, M.-Edw. & H.			Dudley.
=Carad.	laciniatus, Eichw.	Wesenberg, D'Erras (Estho.).		
CL., Niag.	laminata, n. s. Hall.		Anticosti Isl. (G.S.L.)	(N. York) Lockport.
W.	linearis, M.-Edw. & H.			Dudley, Kamenetz, Podolia, Isle Oesel (Baltic), Lode, Sweden.
Corall. Lst.	Linnæi, Eichw.			
Corall. Lst.	nodulosus, ,,			Isle Oesel (Baltic) Hohen-eichen.
Niag.	ramulosus, n. s. Hall.			(N. York) Niagara co.
W.	strigatus, M'Coy.			Dudley (England).
	sp. ind. Salter.			(Arctic Seas, Amer.) Griffith's Island &c.
	Columnaria, *Goldf.*, 1826.			
BL.	alveolata, Hall & Billings.	C.E., Murray Bay, Red River, Fort Garry, (C.W.) Mid-Ottawa.		
M. Sa.	Blainvilli, Billings.	(N. York) Mohawk Valley, (Tenn.) Wisconsin, Nashville, Highgate Springs, N. Vermont, and N. York, Watertown, Chazy Village, Madison (Indiana), &c. &c., Lake St. John (C.E.).	Canada.	
Tr.	erratica, ,,	Lake St. John (C.E.).		
CH.	incerta, ,,	(Canad. E.) Lower Ottawa.		
Corall. Lst., Schoharie.	inæqualis, n. s. Hall.			(N. York) Schoharie co.
Guelph	Galtensis, Billings.			Guelph (Canad. Central).
H. R. G.?	Goldfussi ,,	St. John Lake (C.E.).		
	Gothlandica, De Vern.			Gothland.
CH.	parva, Billings.	Canada.		
,,	rigida, Billings.	Lake St. John (C.E.).		
H. R. G.	stellata, Safford.	Stone's River, Tennessee.		
CH., BL.	sulcata, De Vern.	N. York, Canada.		Russia (course from the W.).
	Sutherlandi, Salter.			Arctic Seas (America), Garnier Bay, &c.
Niag.	sp. ind. D. D. Owen.			Upper Mississippi.
	Conophyllum, *Hall*, 1852.			
,,	Niagarense, Hall.			(N.Y.) Lockp. &c., N.W. Mic.

Subdivision.	Genera, Species, and Author.	Lower Stage.	Middle Stage.	Upper Stage.
	Constellaria, *Dana*, 1849.			
Low. Sil.	antheloidea, ...	Cincinnati, Dayton, Oxford (Ohio), Madison (Indiana), Lowville (N. York).		
	Corynoides, *Nicholson*, 1867.			
,, ...	calicularis, Nicholson.	Dobbs' Linn &c., Moffat (Df.).		
	Cyathaxonia, *Michelini*, 1846.			
	Dalmani, M.-Edw. & H.	.....	.....	Gothland.
W., UL.	Siluriensis, M'Coy.	.....	.....	Kendal (Westmoreland).
	Cyathophyllum, *Goldf.*, 1826. (Under this head are many species truly referable to other genera, but left here for convenience of reference, J.W.S.).			
LLlandov., W....	angustum, Lonsdale.	.....	Lickey (Engl.), Llan. (W.)	
Div. 4 = Mayhill A. G.	Anticostiense, n. s. Billings.	.....	S.W. Point Anticosti Isle (G. St. Lawr.).	
LLlandov., W....	articulatum, Wahlenb. = *Cladocora sulcata.*	.....	.....	Dudley, &c. (Engl.), (Swed.) Mt. Klinteberg, Esthonia, Russia, Arctic Seas (Amer.), Pyhalep (Isle Dago), &c.
Niag.	cæspitosum, Hall.	.....	.....	N. York, Wisc., Chicag. (Ill.)
Corall. Lst.	coralligerum, Eichw.	.....	.....	Isle Oesel (Baltic), Ficht.
?	Eriphyle, n. s. Billings.	.....	Bay of Chaleurs (Gaspé).	
Div. 4 = Mayhill A. G.	Euryone, n. s. ,,	.....	,, (C.E.) The Jumpers (Anticosti).	
Orthoc. L., W....	flexuosum, Lonsd.	Réval (Baltic), Russia	.....	Gothland, Isles Dago and Oesel (Baltic), Wenlock, Malvern, &c. (Irel.) Ferriter's Cove and Dingle.
	interruptum, n. s. Billings.	.....	Bay of Chaleurs (Gaspé).	
W.	Loveni, M.-Edw. & H.	.....	.....	Wren's Nest near Dudley, Gothland.
	nymphale, n. s. Billings.	.....	Bay of Chaleurs (Gaspé).	
	Pasithea, n. s. ,,	.....	,, ,,	
	pelagicum, n. s. ,,	.....	Anticosti I. (G. St. Lawr.), Becsie River Bay.	
	Pennanti, n. s. ,,	.....	Bay of Chaleurs (Gaspé).	
Corall. Lst.	pileolus, Eichw.	.....	.....	(Isle Oesel, Baltic) Lodé.
W.	recurvum, M.-Edw.	.....	.....	Dudley, Gothland.
	Shumardi, Rœmer.	.....	.....	(Tennessee W.) Perry co., (L. Huron) Portage Bay, Manitoulin Island.
CL., Niag.	solitarium, Billings.	.....	(L. Huron) Manitoulin Isl.	
Devon.?	spiriferens, Caillaud.	.....	.....	(France) Lower Loire.
Bala, W.	turbinatum, Sow.	Prolimoor Well	.....	(Shropshire) Wenlock, Dudley, Malvern.
Woolh., W.	truncatum, Linn. = *Strephodes vermiculoides*, M'Coy.	.....	.....	Shrops. Much Wenlock, Dudley, Irel., (Gothl.) Holmestrand, Russ. (Isle Dago), Lodé.
Mayhill	Wahlenbergii, n.s. Billings.	.....	(Anticosti) East Pt.	
	sp. ind. Salter.	.....	.....	(Arctic Amer.) Beechey I. &c.
	,, Billings.	.....	.....	(N. New Brunswick) Restigouché.
	Cyclolites, *Lamarck*, 1801.			
CL.	rotuloides, n. s. Hall.	.....	(N. York) Oneida Co.	
	Cylindripora, *Eichw.*, 1859.			
	serpuloides, Eichw.	.....	.....	Wilna, Russia (drift).
Dolom., Corall. L.	tubus, ,,	.....	.....	(Isle Oesel) Arensbourg.
	Cystiphyllum, *Lonsd.*, 1839.			
W.	brevilamellatum, M'Coy. = *cyatho-angustatum*, Lons.	.....	.....	Shropshire (England).
Llandov., W., Corall. Lst.	cylindricum, ,,	.....	Galway (Ireland).	(Engl.) Benthall Edge, Dudley, (Isle Oesel) Lodé.
	? excavatum, Keyserling.	Waschkina (Petschora).....	.....	Irel., Benthall Edge (Westmoreland), Isle Oesel.
W.	Grayi, M.-Edw. & H.	.....	.....	Dudley.
	helianthoides ?	.....	.....	North Gothland.
CL., Niag.	Huronense, Billings.	.....	(L. Huron) Cockburn Isl.	(L. Huron) Huronia Pt.
Pentam. Lst.? ...	impunctum, Lonsd.	.....	(Pentam. Lst.) Bogoslofsk, Ural.	
	maritimum, n. s. Billings.	.....	Bay of Chaleurs (Gaspé).	
?	obliquum, Keyserling.	Petschora, N. Russia.		
Llandov., W. ...	Siluriense, Lonsd.	.....	Galway (Ireland).	Dudley (England).
	turbinatum, Rœmer.	.....	.....	Thuringia.
	sp. ind. Duncan.	Tasmania West.		
	sp. ind. Salter.	.....	.....	Arctic Seas (Amer.) Griffith's Island, S.E. Wisconsin.

Subdivision.	Genera, Species, and Author.	Lower Stage.	Middle Stage.	Upper Stage.
	Dania, *M.-Edw. & H.*, 1849.			
	Huronica ,, ,,	Isle Drumm., Lake Huron.		
	Dekayia, *M.-Edw. & H.*, 1851.			
Sil. Inf.	aspera, M.-Edw. & H.	Cincinnati, Ohio. De Vern.		
	Dendropora, *Michelini*, 1845 (Rhabdopora).			
?	suffruticosa, Menenghi.	Sardinia.		
	Dianulites, *Eichw.*, 1829.			
Pleta.....	detritus, Eichw.	Poulkova, Popova, &c. (Russ.)		
,, ...	fastigiatus, ,,	Réval (Baltic).		
	Diplophyllum, *Hall*, 1852.			
Niag.(Dev.Engl.)	cæspitosum, n. s. Hall.	.....	.....	(N. York) Lockport, N.W. Michigan.
Cor.L., Schoharie W.	coralliferum, ,,	.....	.....	(N. York) Schoharie Co.
	flexuosum, D'Orb.	.....	.....	Dudley ?, Malvern, Ferriter's Cove (Ireland).
Guelph.....	irregularis, Billings.	.....	.....	Guelph (Central Canada).
H. R. G.	sp. ind. ,,	(N. York) Oneida Co. &c., Ohio.	.....	S.E. Wisconsin ?
	Discophyllum, *Hall*, 1846.			
H. R. G.	peltatum, Hall.	N. York.		
CL.	sp. ind. ,,	.....	N. York.	
	Diphyphyllum, *Lonsdale*, 1845 (see Cyathophyllum).			
	Emmonsia, *M.Edw. & H.*, 1851.			
Cliff Lst.	hemispherica, M.-Edw.&H.	.....	.....	(Ohio) Springfield, (Tennessee) Perry county.
	? cylindrica ,, ,,	.....	.....	Wisconsin (Castelnau auct.), (Kentucky) Louisville.
	Enallopora. ?			
	Chartersi, n.s. Meneghini.	Sardinia.		
	Eridophyllum, *M.-Edw. & H.*, 1850.			
	rugosum ? M.-Edw.	.....	.....	Gothland.
CL.	Vennori, Billings.	.....	Manitóuline I., L. Huron.	
	Favistella, *Hall*, 1847 (*Dana*, 1846?).			
Carad.	alveolaris, Blainville.	(N. & S. Wales) Glyn Ceriog, Meifod, &c.	(Wales) Mathyrafal, Pen-y-Craig.	
B., BL., Tr.....	alveolata, Goldfuss.	(Can. E. & W.) Pt. St. Clair, Tennessee, L. Winnipeg, Rupert's Land.		
	favosidea, Hall.	.....	(N.Y.) Rochest., Wayne co.	
H. R. G.	favosa, ,,	Manitouline I., Lake Huron.		
	Franklini, Salter.	.....	.....	(Arctic Amer.) Beechey Isle.
	reticulata, ,,	.....	.....	,, Griffith's Isl.
H. R. G.	stellata, Hall.	Anticosti (G. St. Lawr.), N. York, Tennessee, Indiana, Upper Mississippi River, N.W. Michigan.		
	Favosites, *Lamarck*, 1816	= *Calamopora*, Goldf.		
	acanthopora, Goldfuss.	?		
Car., L.U Llandov., W., L.	alveolaris, Goldfuss.	S.W. Scotl., Coniston (Lancashire), Montgomery co. (S. Wales), Norway, Réval (Baltic).	(Engl.) Tortworth &c., (Wales) Llandov., Pen-y-lan, Oberpahlen (Livon.).	(Engl.) Aymestry, Wenlock, Ireland, Wales, Bohemia, Norway, Gothland, Icy Sea, (Russ.) Altai.
	var. a. multipora, Lonsdale.	.....	Wales, Tortworth, Mayhill, &c.	(Wales) MarloBay&c., (Irel.) Ardaun &c., (Sw.) Malmoe.
Carad., Llandov., W., L., Pentam., Corall. Lst.	aspera, D'Orbigny. =*chætetes*.	(Wales) Cefn-y-Garrig, Powis Castle.	(Scotl.) Kilbride, Fennern (Livonia).	Dudley, Malverns, Aymestry, Woolhope, &c.
G. g. 1, 3.....	Bohemica, Barr.	.....	.....	(Bohemia) Hlubocep.
	capax, Billings.	.....	Anticosti Isle, West end.	
Niag.	constricta ,,	.....	.....	Thorold (Canada S.W.).
Carad.	crassa, M'Coy.	Coniston (Lancashire), S.W. Scotland.		
W., L.	cristata, Blumenbach.	.....	Malverns, Galway (Irel.).	(Tenn.) Decatur co., Gothl., Dudley, Wenlock, Réval, Hapsal.
Mayhill, H.R.G., MSa., &c.	favosa, Hall, Billings.	Anticosti Isle.....	(Anticosti) The Jumpers.	(Esthonia) Katchukof, Oural, (Russ.), Tennessee (Can. W.), L. Tematscaming, L. Huron, West end, Upper Mississippi River.
Tr., Niag.....	fibrosa, Goldfuss.	(Portugal) Busaco, (Can.E.) Lorette.	.....	(Tennessee W.) Decatur co.
Corall. Lst., L.U Llandov., W., L.	Forbesii, M.-Edw. & H.	.....	(Engl.) Tortworth, Gloucestershire, Galway.	Gothland, Dalecarlia, I. Oesel, Dudley, Wenlk., Tortwort., Benthal Edge (Westml.).
	var. discoidea, Rœmer.	.....	.....	Tennessee, Decatur county (U.S.A.).

Subdivision.	Genera, Species, and Author.	Lower Stage.	Middle Stage.	Upper Stage.
Carad., Llandov., W., Corall. Lst.	Gothlandica, Linn. =*niagarensis*.	(N.Wales)Llangollen, (Irel.) Maam, Tortworth (Gloucestershire).	(Anticosti) *passim*, Kilbride, Tortworth, Galway, Mayhill, Talkhoff (Livonia).	(N. York)Lockport, Indiana, Wisconsin, Chicago, (Ill.) Tennessee, DecaturCo., Up. Mississippi River, Canada, ArcticAmerica, FortGarry, RedR., Gaspé, Canada, New Brunswick, Restigouche, (Engl.) Dudley &c., Irel., Swed., Norway, Russ., Thuring., Bohemia, Esthonia.
Tr., H. R. G., MSa., Niag., W.	Hisingeri, M.-Edw. & H.	Montreal, Mid. Ottawa R., N. York, Pennsylv., Missouri, RedRiv., (Huds.Ba.).	Tortworth, Anticosti.....	Norway, Sweden, Russia.
	Lycoperdon, Billings.	.....	AnticostiIsle(G.St.Lawr.).	
	megastomum, Haughton.	.....	.....	Arctic Seas (Amer.) Fury Pt.
Carad., L.U Llandov., W., Corall. Lst.	multipora, M'Coy.	Norbury, Haverfordwest, (Shropsh.), Quarry Hope.	(Wales) Craig-Gwyddon &c., Galway, Mayhill, Fennern (Livonia).	Malvern, Marls.Bay(Wales), Bogoslofsk (Petschora).
Niag.	niagarensis?, Hall.	.....	.....	(N. York) Niagara Falls, Schoharie county, N.W. Michigan, S. Wisconsin.
W.	oculata, Goldfuss.	.....	.....	Aymestry (Engl.), Gothland.
	patellaria, Kutorga.	Esthonia.		
	perplexa, Salter.	.....	.....	Arctic Seas, America.
Guelph, E. e. 1 ?, Pleta, Corall. Lst., Pentam. Lst., W., L.	polymorpha, Goldfuss.	Polkova (Russia), D'Erras (Esthonia).	Oberpahlen (Livonia), Bohemia.	(Can. W.) Guelph, Isle Oesel, Lodé, (Baltic), Petschora (Arctic Russia).
Mayhill &c., H. R. G. &c.	prolificus, Billings.	Anticosti Isle, *passim*.	Anticosti Isle, *passim*.	
?	ramosa, De Vern.	.....	.....	Russia.
Pleta, Corall.Lst.	reticulata, Blainville.	Réval, Wesenberg(Esthonia).	.....	I.Oesel (Balt.), Petschora(R.)
	Troosti, De Vern.	.....	.....	Iowa (U.S.A.).
Niag.	venusta, Hall.	.....	.....	N.York (U.S.A), Chicago.
	sp. ind. Salter.	.....	.....	(ArcticAmer.)Beechey Is. &c.
	,, ,,	.....	.....	,, Griffith's I. &c.
?	,, Selwyn.	.....	Victoria (Australia).	
	,, Duncan.	Tasmania West.		
	Fistulipora, *M'Coy*, 1849.			
W.	decipiens, M'Coy.	.....	.....	Aymestry (Shropshire).
	Fletcheri, *M.-Edw. & H.*, 1850.			
	tubifera, M.-Edw. & H.	.....	.....	Gothland.
	Goniophyllum, *M.-Edw. & H.*, 1850.			
,,	Fletcheri, M.-Edw. & H.	.....	.....	Dudley, Wenlock (Engl.).
Llandov., W. ...	pyramidale, Hising.	.....	Galway (Irel.)	Wales, Gothland.
Llandov.	zic-zac, M'Coy.	.....	Galway.	
=Tr.	sp. ind.	Tasmania West.		
	Halysites, *Fischer*, 1813	=CATENIPORA, *Lamarck*.		
Niag.	agglomerata, Hall.	.....	.....	(N. & S.E. Wisconsin) Milwaukee, (N. York) Ogden, Sweden Town, Monro co.
Pleta.....	approximata, Eichw.	Isle Dago (Baltic).		
Llan.,Car., Llandov., W.	catenulatus, Linnæus. =*Catenipora escharoides*.	Anticosti, CanadaE., N.York, Up. Miss., Ireland, Wales, S.W. Scotl., I.Dago, Norw.	Bohemia, Fennern (Livonia), Norway.	Wales, Sweden, Russia, Lithuania, Esthonia, Armenia, KingWm. Isle (Arctic Amer.), L. Tematscaming (C.W.), Thorold (C.W.), S. & N. Wisconsin, Kentucky, L. Huron.
	communicans, Lamarck.	.....	Kattentack, Esthonia.	
?	dissimilis, Eichw.	Wilna (Russia), drift.		
Pentam. Lst. ...	exilis, ,,	.....	Hapsal, Esthonia.	
H. R. G.	gracilis, Hall.	Wisconsin (U.S.A.).		
	labyrinthica, Goldfuss.	Norway, Wales.	Wales	Dudley, Shropshire, Herefordshire.
	Heliolites, *Dana*, 1846=	PORITES.		
	elegans, Hall.	.....	.....	Nova Scotia, N. York, Thorold (Can. West).
Llan., Carad., Llandov., W.	favosus, M'Coy.	S.W.Scotland	Esthonia (Schmidt)?	
W.	Grayi, M.-Edw. & H.	.....	.....	Dudley (England).
Llan., Car., U Llandov., W.	inordinatus, Lonsdale.	(Wales) Pembrokeshire, Robeston, Wathen.	Ireland?	Ferriter's Cove, Doonquin (Ireland).?
(Drift)	,, Eichw.	Lower Silesia.		
Llandeilo, Car., Llandov., W., Pleta.	interstinctus, Wahlen.	(Wales) Llangoll., Scotland, Ireland, Russia, Sweden.	Mayhill, Llandov., Mathyrafal, &c. (Wales), Anticosti.	Tennessee, Decatur co., Canada, N.York, Irel., Scotl., Malverns, Bohem., Swed.
Car., W.	var. subtubulata, M'Coy.	Coniston (Lancashire).	.....	Aymestry (England).
Niag.	macrostylum, Hall.	Russia?	.....	(S.E. Wisconsin)Milwaukee.
Car., Llandov., W., Corall. Lst.	megastoma, Billings, M'Coy.	Anticosti, Can., Norw., Russ., (Wales) Glen Ciriog, &c., Coniston (Lancashire).	(Wales) Mathyrafal, Malverns, Esthonia	Canada, S. Wisconsin, Isle Oesel, Hoheneichen, Norway, Dudley (England).

Subdivision.	Genera, Species, and Author.	Lower Stage.	Middle Stage.	Upper Stage.
Corall. Lst.	microporus, Eichw.	.....	.....	Hapsal (Esthonia).
Niag., W.	Murchisoni, M.-Edw. & H.	.....	.....	Dudley (Engl.), Gothland, Tennessee.
Car., Llandov., W.	petaliformis, Lonsd.	Coniston (Lancash.), Mandinam (W.).	Wales, Shropshire	Dudley, Walsall, &c. (Engl.), Ireland.
Corall. Lst.	porosus, M.-Edw. & H.	.....	.....	Isle Dago (Baltic), N. York, Arctic America.
Car., Niag.	pyriformis, Hall.	(S.W. Scotl.) Mulock Hill.	.....	Bohemia, Norway, Sweden,
(Mayhill) Div. 4, A. G.	sparsus, Billings.	.....	Chicotte R., Anticosti.	(Wales) Marloes Bay, (Engl.) Dudley, Gothland,
(Mayhill) Div. 1, A. G.	speciosus, ,,	.....	(Anticosti) Junction Cliff.	Upper Mississippi River, S. Wisconsin, Tennessee.
Niag.	spinipora, Hall.	.....	.....	(Iowa) Turkey River, (N.Y.)
Car., L.U Lland.	subtilis, M'Coy.	(S.W. Scotland) Mulock. ...	S.W. Scotland.	Lockport, L. Hot Creek, Ne-
Lland. = Div. 1, A. G.	tenuis, Billings.	.....	Gamache Bay, Anticosti Is.	vada, California, (L. Hur.) Drummond's Island, N.W. Michigan.
Car., W.	tubulatus, Lonsd. = *Propora*.	(S.W. Scotl.) Mulock, Llanfyllin (Wales), Coniston (Lancashire).	Golengoed ? (Wales).....	Dudley, Aymestry, Gothland, Bohemia.
	tubulosus, M'Coy.	(S.W. Scotland) Girvan.		
Tr.	vetustus, Hall.	(N. York) Jefferson county.		
	sp. ind. Salter.	.....	.....	(Arctic Amer.) Griffith's Isl.
	,, =*inordinatus* ?	Ireland.		
	Helopora, *Hall,* 1852.			
Div.2,A.G., Llan.	armata, Billings.	.....	(Anticosti) East Point.	
Div. 2, 3, A. G....	bellula, ,,	.....	,, South Pt. &c.	
Div.3,A.G.Mayh.	Circe, ,,	.....	,, Jupiter River.	
Div. 2, 3, Llan., Mayhill.	concava, ,,	.....	,, East Point &c.	
CL., L. H. G. ...	fragilis, Hall.	.....	(N. York) Rochester &c., Canada West.	Arisaig (Nova Scotia).
,, ,, ...	var. Acadiensis, ,,	.....	.....	,, ,,
Div. 2, 3, A. G., Llan., Mayhill.	formosa, Billings.	.....	(Anticosti) East Point.	
Div.3,A.G.Mayh.	irregularis, ,,	.....	,, Challoupe Riv.	
Div.1, A.G. Llan.	lineata. ,,	.....	,, Junction Cliff.	
Div.3,A.G.Mayh.	lineopora, ,,	.....	,, Jupiter River.	
?	micropora, Eichw.	Lower Silesia (drift).		
Div. 2, 3, A. G. Llan., Mayhill.	nodosa, Billings.	.....	,, Jupiter, R. &c.	
Div.3,A.G.Mayh.	striatopora, ,,	.....	,, near S.W. Pt.	
Div.1, A.G. Llan.	strigosa, ,,	.....	,, Junction Cliff.	
Div. 1, 2, 3, A. G. Llan., Mayhill.	varipora, ,,	.....	,, East Pt. &c.	
	sp. ind. Hall.	.....	(Nova Scotia) Arisaig.	
	Heteropora, *Blainville,* 1830.			
W.	crassa, Lonsdale.	.....	.....	Benthal Edge.
	Labechia, *M.-Edw. & H.,* 1851 ; MONTICULARIA, *Lonsdale.*			
Llandov., W. ...	conferta, Lonsd.	.....	England, Galway	Wenlock, Benthal Edge, &c.
Tr.	dendrosa, Billings.	Lake St. John (Can. East).		(Engl.), (Isle Oesel) Hoheneichen.
Corall. Lst.	radula, Eichw.	.....	.....	Kamenetz (Podolia).
	Sternbergii, Lonsd.	.....	Esthonia.	
	Laceripora, *Eichw.,* 1859.			
,, ...	cribrosa, Eichw.	.....	.....	Isle Oesel, Hoheneichen (Baltic).
	Lithostrotion, *Lhwyd,* 1699 ; *Fleming,* 1827.			
,, ...	antiquum, M.-Edw. & H.	.....	.....	Petschora, River Oukhta (Russia).
	Lonsdaleia, *M'Coy,* 1849.			
W.	Wenlockensis, M'Coy.	.....	.....	Dudley (England).
	Lyellia, *M.-Edw. & H.,* 1851.			
	Americana, M.-Edw. & H.	.....	(L. Huron) Drummond's Island.	
	glabra, D. D. Owen.	.....	.....	Iowa (U.S.A.)
	sarcinula.			
	Millepora, *Linné* (not at all likely ; one of the *Milleporidæ* ; probably *Chætetes*, J.W.S.).			
G. g. 1.....	Bohemica, Barr.	.....	.....	(Bohemia) Chotecz.
W.	repens, Sow.	.....	.....	Dudley (Engl.), Coalbrook Dale, &c.
G. g. 1.....	sp. ind. Barr.	.....	.....	(Bohemia) Chotecz.
	Myriolites, *Eichw.,* 1859.			
Pleta	fastigiatus, Eichw.	Poulkova (Russia).		
	Nebulipora, *M'Coy,* 1849 ; MONTICULIPORA, *D'Orb.,* 1850 ; MONTICULARIA.			
	Bowerbanki, M.-Edw.	.....	.....	England ?
Tr.	dendrosa, Billings.	(Canada W.) Mid. Ottawa R.		

Subdivision.	Genera, Species, and Author.	Lower Stage.	Middle Stage.	Upper Stage.
Carad.	explanata, M'Coy. =*Monticulipora.*	Coniston (Lancashire), N. Wales.		
Llan.	favulosa, Phill.	(N. & S. Wales) Llan Mill, Dolwyddelan, &c.		
ULlan., Carad.	var. lens, M'Coy. =*Monticulipora.*	(Wales) Horderley, Bala, &c., Scotland, Ireland, &c., Leisley (Westmoreland).		
Pleta, Pent. Lst.	ovulum, Eichw.	Poulkova (Russia).....	Talkhof (Livonia).	
Car., W., UL....	papillata, M'Coy. =*Monticulipora.*	Coniston Flags (Lancash.).	.....	Dudley, Kendal (Westmoreland).
Tr.	Petropolitana, Pander.	(Can. W.) Mid. Ottawa River.		
	sp. ind. Duncan.	Tasmania West.		
Longmynd	**Oldhamia,** *Forbes*, 1850.			
,, ...	antiqua, Forbes.	Wicklow (Ireland).		
,, ...	discreta, Kinahan.	,, ,,		
,, ...	radiata, Forbes,	Wicklow, St. David's (S.W.).		
,, ...	sp. ind. Wyatt-Edgell.	,,		
	Omphyma, *Rafinesque & Clifford*, 1820; *M.-Edw.*, 1851.			
Car. Llandov. W.	canina, Billings. =*turbinata*, Linn.	.....	.....	Dudley (England).
CL., Niag.	congregata, Billings.	.....	Huronia P^t, Lake Huron (Canada W.).	Lake Huron, Cockburn Isl.
Corall. Lst.	discus, Eichw.	.....	.....	Hoheneichen, Isle Oesel (Baltic).
CL., Niag.	Drummondi, M.-Edw. & H.	.....	L. Huron, Cockburn Isl.	Lake Huron, Cockburn Isl.
,, ...	fastigiatum, ,, ,,	.....	.....	Ficht, Isle Oesel.
	grandis, Barr. =*Cyathophyllum.*	.....	.....	(Bohemia) Beraun.
W.	Murchisoni, M.-Edw. & H. =*Cystiphyllum.*	.....	.....	Wenlock, Dudley (England).
Corall. Lst.	septigerum, Eichw.	.....	.....	Lodé, Isle Oesel (Baltic).
Pleta, W.	subturbinatum, D'Orb.	Réval (Baltic).	.....	Lodé, Ficht, Oesel I., Ural (Russia), Gothl. Djupviken, (Engl.) Ledbury &c.
Car., U.Llandov., W.	turbinatum, Goldf.	(Wales) Llangollen, Westml.	(Wales) Cefn, Marloes Bay &c.	Wenl.Edge, Dudley, Westml. (Engl.), Wales, Gothl.
	verrucosa, M.-Edw.	.....	.....	(Lake Huron) Drummond's Island.
	Orbipora, *Eichw.*, 1856.			
Pleta	distincta, Eichw.	Poulkova (Russia), Wesenberg (Esthonia).		
,, ...	fungiformis, ,,	Popowa (R.), I. Dago (Balt.).		
	Pachyphyllum, *M.-Edw. & H.*, 1850.			
Corall. Lst.	gibberosum, Eichw.	.....	.....	Hoheneichen, I. Oesel (Balt.).
	Palæocyclus, *M.-Edw. & H.*, 1849.			
Pleta, Corall. Lst., W.	Fletcheri, M.-Edw.	Poulkova (Russia).....	.....	Dudley (England), Kamenetz (Podolia).
Pleta	mitreolus, Eichw.	,, ,,		
U. Llandov, W....	porpita Linn.	.....	Mayhill, Tortworth, Malv.	Dudley, Shropsh., Gothland.
,, ,, ...	præacutus, Lonsd.	....	Marloes Bay, Malvern. ...	Dudley.
W.	rugosus, M.-Edw. & H.	.....	.....	Dudley, Isle Dago (Baltic), (drift).
	Palæophyllum, *Billings*, 1858.			
Tr.	rugosum, Billings.	Lake St. John (Canada E.).		
	Petraia, *Münster*, 1839;	TURBINOLOPSIS, *Phill.*; STREPTELASMA, *Hall.*		
Car., U.Llandov.	æquisulcata, M'Coy.	Westmoreland, Lancashire, (N. Wales) Glyn Ceriog, (S.W. Scotl.) Mulock.	(Wales) Builth.	
H. R. G.	angulata, Billings.	Anticosti Isl. west end (G. St. Lawr.).		
B., BL.....	aperta, ,,	Mid-Ottawa R. (Canada W.).		
Car., Llandov., L.	bina, Lonsdale.	Malvern (Engl.), Horderley (W.), (Engl.) Shropshire, Hope Quarry, Lancashire.	Mayhill, Malvern, Galway.	Downton (Shropsh.), Moel Scisiog, Presteign, Fury Point, Arctic America.
G. g. 1, 2.....	Bohemica, Barr.	.....	.....	(Bohemia) Vavrovitz, Hlubocep, &c.
Niag.	calicula, Billings.	.....	.....	Thorold (Can. W.), (N. York) Lockport, Walcot, Esthon.
Tr., H. R. G. ...	corniculum, Hall.	L. St. John (Can. E.), Mid-Ottawa (Can. W.), N.W. Michigan, New Mexico, Missouri.		
	costata, Meneghini.	Sardinia.		
Car., Llandov., W.	elongata, Phill.	Tyrone ?, (Wales) Bala ?. ...	S.W.Scotl., (Wales) Pen-y-lan &c., (Engl.) Tortworth.	
Llandov., Mayhill = Div. 2, 3, 4, A. G.	latuscula, Billings.	.....	White Cliff &c., Anticosti Isle (G. St. Lawr.).	

Subdivision.	Genera, Species, and Author.	Lower Stage.	Middle Stage.	Upper Stage.
Tr.	Ottawa-ensis, Billings.	Ottawa City (Can. W.).		
BL., Tr.	profunda, Hall.	Wisconsin, Mid-Ottawa R. (Can. W.).		
Llandov. = Div. 1, A. G.	pulchella, Billings,		Anticosti (G. St. Lawr.), White Cliff &c.	
	pygmæa, ,,		(Anticosti) Challoupe R.	
ULlandov.	reticulata, Salter.		(Wales) Pen-y-lan, Llandovery.	
Car., Llandov.	rugosa, Phill.	(N. Wales) Peniarth, Castel Craig &c.	(Wales) Penlas, Llandovery.	
H. R. G.	rustica, Billings.	Lake St. John (Can. E.).		
H. R. G., Div. 1, A. G., Llandov.	selecta, ,,	Anticosti, West end	Anticosti, Gamache Bay.	
Car., U.Llandov., W., L.	subduplicata,	(S.W.Scotl.) Mulock, (Westmorel.) Leisley, Pullscar (Westmoreland).	(N. & S.Wales) Cefn, Pan-y-lan, Shropshire.	(Wales) Plas Madoc.
Carad. &c.	var. crenulata, Salter.	(Wales) Cyrn-y-Brain.	(Wales) Denbighshire&c.	
Car., L.ULlandov.	uniserialis, M'Coy.	(Wales) Denbighshire.	Pen-y-Craig, Llangynyw &c. (Wales).	
,, ,,	var. gracilis, ,,	(Wales) Montgomeryshire.	(Wales) Llandovery.	
L.ULlandov.	ziczac ? ,,			Ardaun, Galway (Irel.)
	sp. ind. Menegh.	Sardinia.		
?	,, ,, Selwyn.		Victoria (Australia).	
	Phacites ? *Wahlenberg.*			
	Gothlandica, Wahlenb.			Gothland.
	Plasmopora, *M.-Edw. & H.*, 1849 = *Palæopora*; *Propora*, M'Coy.			
Niag.	follis, Rœmer.			(Tennessee W.) Perry and Decatur counties.
W.	petaliformis, M.-Edw.&H.			Dudley, Walsall, (Ireland) Egool &c., Lake Huron, Drummond's Island.
Niag.	scita, ,, ,,			Dudley (England).
	Propora, *M.-Edw. & H.*, 1849 = Heliolites.			
	conferta, De Vern.			Borckholm &c. (Esthonia).
Car., Llandov., Pleta, W.	tubulata, Lonsd.	Isle Dago (Baltic), Canada.	AnticostiIsle(G.St.Lawr.).	Shropshire, Dudley, N. & S. Wales, Gothland, (Bohemia) Beraun.
	Protarea, *M.-Edw. & H.*, 1849 = Porites.			
	Verneuili, M.-Edw. & H.	Alexanderville (Ohio).		
BL., Tr.	vetusta, Hall.	Canada, (Ohio) Cincinn. &c., (Indiana) Madison, (N. York) Jefferson Co.		
	Ptychophyllum, *M.-Edw. & H.*, 1850 = Strombodes, pars.			
Div. 4 = Mayhill.	Canadense, Billings.		AnticostiIsle(G.St.Lawr.), S.W. Point.	
V.	contrarium, Salter.			Arctic America.
W.	patellatum, M.-Edw. & H.			(Irel.) Doonquin, Dudley, Malvern, Gothl., Norway.
Niag.	Stokesii, ,, ,,			(Lake Huron) Drummond's Island.
	sp. ind. Salter.			(Arctic America) Griffith's Isle.
	Rhinopora, *Hall*, 1852.			
CL.	angulata, Hall ?		New York, U.S.A.	
Niag.	tuberculosa, ,,			New York.
CL.	tubulosa, ,,		New York.	
CL., Niag.	verrucosa, ,,		New York.	New York.
	Rhizophyllum, *Lindström*, 1866.			
	Gothlandicum, Lindström.			Gothland.
	Sarcinula, *Lamarck*, 1816 = Syringophyllum, *M.-Edw. & H.*, 1850.			
	costata, D. D. Owen.			Upper Mississippi River.
Tr.	obsoleta, Hall.	(Wisconsin) Green Bay.		
Pleta, Corall.Lst.	organum, Linn.	(Britain) Coniston &c., Lower Silesia, Sweden, Norway, Esthonia.		Norway, Dudley, Westmoreland, Isle of Worms, Hapsal (Esthonia).
(A group ?)	**Stauria,** *M.-Edw. & H.*			
CH., B., Corall. Lst.	astræaformis, M.-Edw.	(N. York) Watertown, Chazy Village.		Isle Dago, Pyhalep (Baltic), Gothland, Esthonia.
	Stellipora, *Hall*, 1847.			
Tr.	antheloidea, Hall.	(N. York) Lewis County, Up. Mississippi River.		
	Stenopora, *Lonsdale*, 1845.			
CH.	adhærens, Billings. = *incrustans* ?	Canada.		
	bulbosa, ,,		Gamache Bay, Anticosti.	
Tr.	concava, Chapman	(Canada West) Bellville.		

Subdivision.	Genera, Species, and Author.	Lower Stage.	Middle Stage.	Upper Stage.
Llan., Carad., Llandov., W., L., Queb. Gr., CS., Div. P.	fibrosa, Goldf.	N. Wales *passim*, S.W. Scotland, (S.Wales) Pembrokeshire &c., Lancash., Norway, Réval (Baltic), Sardinia, Newfoundl. West, (Can. E.) Murray Bay, (Can. W.) Bellville, Anticosti.	Bohemia ?, (Wales) Mathyrafal, (Engl.) Mayhill, Anticosti Isl. *passim*.	(Engl.) Dudley, Westmoreland, (Wales) Moel Seisiog &c., Spain, Esthonia, Scotland, Ireland, Ural, Thorold, (Can. W.) Tennessee.
	var. incrustans, M'Coy.	.....	.....	Ludlow, Hereford, Wales,
Carad.	var. Lycoperdon, Hall.	Wales, Westmoreland, Norway, N. York, Canada.		Westmoreland.
Car., W.	var. ramulosa, Phill.	(Shropshire) Aston Scott, Westmorel., S.W. Scotl.	.....	Dudley, Westmorel., (Wales) Mercklin.
	var. lycopodioides, Say. Meneg.	Sardinia, (Wales) Conway, Meifod &c.		
UL.	var. regularis, M'Coy.	.....	.....	Kendal, Dent (Yorkshire).
H. R. G.	Huronensis, Billings.	Cape Smith, Lake Huron.		
Tr.	globosa, Chapman.	(Can. W.) Bellville.		
H. R. G.	mammulata, Billings.	Wreck Point, Anticosti.		
CH.	patula, ,,	Canada.		
H. R. G.	papillata, M'Coy.	English Head, Anticosti.		
CH., B., BL., Tr.	Petropolitana, Pand.	Canada.		
	ramosa, Chapman.	(Can. W.) Bellville.		
Llan., Car., Llandov., W.	regularis, Goldf. var. *fibrosa*.	Wales, Shropshire, Yorksh. Lancashire, Westmorel.		
Queb. G.	rugosa, Billings.	Newfoundland West.		
	Tasmaniensis, Lonsd.	Tasmania (C. Darwin).		
L. H. G.	sp. ind. Honeyman.	.....	.....	Arisaig (Nova Scotia).
UL.	,, Billings.	.....	.....	(North New Brunswick) Restigouche.
?	,, Selwyn.	.....	Victoria (Australia).	
	Strephodes, *M'Coy*, 1848.			
	Austini, Salter.	.....	.....	Fury Point (Arctic America).
	Craigensis, M'Coy.	(S.W. Scotland) Girvan.		
	Pickthornii, Salter.	.....	.....	Griffith's Isl. (Arctic Amer).
W.	plicatus, Goldf.	.....	.....	Wenlock, Malvern, Ireland, Gothland, Sweden.
,, ...	pseudoceratites, M'Coy.	.....	.....	Dudley (Engl.), Presteign (Wales).
,, ...	trochiformis, "	.....	.....	Dudley.
	undulatum, Rœmer.	.....	.....	Lower Harz (Germany).
W.	vermiculoides, M'Coy. = *Cyathoph. truncatum.*	.....	.....	Aymestry (Herefordshire), Wenlock (Shropshire).
U. Llandov.	sp. ind. Salter.	.....	(Wales) Llandovery, Castel Craig, Gwyddon.	
	Streptelasma, *Hall*, 1847 = *Petraia*.			
Tr.	crassum, Hall.	N. York (U.S.A.).		
CH.	expansum, ,,	(N.York, N.E.) Chazy Village.		
	Europæum, Rœmer.	Lower Silesia (drift).		
Tr.	multilamellosum, Hall.	(N.York) Jefferson Co. &c.		
,, ...	parvulum, ,,	,, ,,		
B., BL.....	profundum, ,,	Tennessee, (N.York) Watertown, N.W. Michigan, (Can. E.) Lake St. John.		
	Striatopora, *Hall*, 1852.			
Niag.	flexuosa, Hall.	.....	.....	Dundas (Can. W.), (N.York) Lockport.
	Strombodes, *Schweigger*, 1820.			
Mayhill, W., Div. 1, A. G.	diffluens, M.-Edw. & H.	.....	(Anticosti) S.W. Point....	Much Wenlock (Shropsh.).
CL., Niag.	eximius, Billings.	.....	(Lake Huron) Manitoulin, West Point.	(L. Huron) Cockburn Isl.
Niag.	gracilis, Billings.	.....	.....	Manitoulin Isl., L. Huron (Can. N.W.)
CL., Niag.	Labechii, M.-Edw.	.....	.....	Dudley &c. (England).
W.	Murchisoni, M.-Edw. & H.	.....	.....	Dudley &c., Egool &c. (Irel.).
Niag.	pentagonus, Billings.	.....	.....	Canada, Up. Mississippi R.
W.	Phillipsi, Phill.	.....	.....	Wenlock (England).
Niag.	striatus, Billings.	.....	.....	(Can. N.W.) L. Tematscaming, L. Huron, West End.
W.	Wenlockensis, M'Coy.	.....	.....	Wenlock (England), Hapsal (Esthon.), Dudley (Engl.).
	Syringophyllum, *M.-Edw. & H.*, 1850 (Sarcinula, *Dana*).			
Pleta, Corall. Lst.	organon,	Gothland, (Esthon.) Réval &c.	.....	Dudley (England).
	Syringopora, *Goldf.*, 1826 (including AULOPORA, its creeping stem, J.W.S.).			
Tr.	arachnoidea, Hall.	N.W. Michigan, Ohio, Kentucky.		
Llandov.. W., L.	bifurcata, Lonsd.	.....	Llandovery (Wales). ...	Wenlock, Dudley, Scotland, Ireland, Dingle, (Kamenetz Podolsk) Orynine.

Subdivision.	Genera, Species, and Author.	Lower Stage.	Middle Stage.	Upper Stage.
G. g. 1, 2.....	Bohemica, Barr.	.....	.....	(Bohem.) Pekarkov., Chotecz.
W.	cæspitosa, Lonsd.	.....	.....	Wenlock, Dudley &c. (Engl.).
Pentam. Lst. ...	cancellata, Eichw.	.....	Fennern (Livonia).	
Niag.	compacta, Billings.	.....	.....	(Can. E.) Gaspé, L'Anse de la Vielle, (C.E.) Dudswell.
(W.) Pleta.	conglomerata, Goldf. = *Aulopora*.	Isle Dago &c. (Baltic). ...	.....	Dudley (Engl.), (*Lonsdale*).
Niag.	Dalmanni, Billings.	.....	.....	Anticosti, L. Tematscaming, Up. Ottawa R. (Can. W.).
Pleta.	dichotoma, = *Aulopora*.	Isle Dago &c. (Baltic).		
Corall. Lst.	elegans, Eichw.	.....	.....	Orynine, Kamenetz (Podolia)
U. Llandov., W...	fascicularis, Goldf., Linn. = *geniculata*, Haughton.	.....	.....	Dudley, Usk, Ledbury, Benthal Edge (Engl.), S. Wales, Isle Oesel (Baltic), Gothland, Arctic America, Griffith's Island.
W.	filiformis ?, Goldf.	.....	.....	Gronigren (Germ.), (Engl.) Ledbury, Usk &c.
Pleta, Mid-Sil., Cor. Lst.	intricata, Eichw.	Lyckholm (Esthonia).	Fennern (Livonia).	Orynine, Kamenetz (Podolia)
	irregularis, D'Orb. = *Aulopora*.	.....	.....	Benthal Edge (Westmorel.).
Car., W.	Lonsdaleana, M'Coy.	Portrane (Ireland).	.....	Gleedon Hill, Wenlock Edge (England).
Niag.	Lyelli, Billings.	.....	.....	Canada.
,, ...	multicaulis, Hall.	.....	.....	N.W. Michigan (L. Superior).
H. R. G.	obsoleta, ,,	N.W. Michigan (L. Superior).		
Corall. Lst.	repens, Knorr & Walch. = *Aulopora*.	.....	.....	Isle Oesel (Baltic).
	reticulata ?, Haughton.	.....	.....	(Arctic Amer.) Beechey Isle.
L.	,, Goldf.	.....	.....	Aymestry, Ludlow (Engl.).
Niag.	retiformis, Billings.	.....	.....	(L. Huron) Isthmus Bay.
U. Llandov., W...	serpens, Lonsd.	.....	Wales.	Ireland, Dudley, Woolhope, Benthal Edge, S. Wales, Upper Mississippi River.
Corall. Lst.	serpuloides, Eichw. = *Aulopora*.	.....	.....	Esthonia.
	tabulata, Verneuil.	.....	.....	Ohio, Delaware &c. (U.S.A.).
Corall. Lst.	tenuissima, Eichw.	.....	.....	Borolowsk, Ural (Russia).
,, ...	tubus, Eichw. = *Aulopora*.	.....	.....	Isle Oesel (Baltic).
Niag.	verticillata, Goldf.	.....	.....	(Can. E.) Gaspé, L. Huron, Drummond's Island.
	sp. ind. Billings.	.....	.....	Isl. L. Tematscaming (Up. Ottawa River).
	,, Meek.	.....	.....	Arctic America, Kennedy's Channel.
	,, Salter.	.....	.....	(Arctic America) Griffith's Island &c.
	,, Whitney.	.....	.....	Hot Creek, Nevada (Calif.).
	,, Salter.	.....	.....	(Wales) Moel Seisiog.
UL.	,, Billings.	.....	.....	(North New Brunswick) Restigouche.
	Thecia, *M.-Edw. & H.*, 1849.			
Corall. Lst.	approximata, Eichw.	.....	.....	Ficht, Isle Oesel (Baltic).
Pentam. Lst.	cauliculus, ,,	.....	Fennern (Livonia).	
Pleta.....	confluens, ,,	D'Erras, Wesenberg (Estho.).		
W.	expatiata, Lonsd. = *Palæopora*, M'Coy.	.....	.....	Dudley, Benthal Edge (Westmoreland).
Car., W.	Grayana, M.-Edw.	.....	.....	Dudley (England).
,, ,, ...	petaliformis, Lonsd.	Coniston (Lancashire), Mandinam (Wales).		
Woolhope, W., L.	Swindernana, Goldf.	.....	.....	(Tennessee) Decatur Co., Dudley, Benthal Edge, Coalbrook Dale, Woolhope, Gothland.
	sp. ind. Vern.	.....	.....	(Tennessee) Perry Co.
	Thecostegites, *M.-Edw. & H.*, 1850.			
Niag.	hemisphærica, Rœmer.	.....	.....	Tennessee, West Decatur Co. (U.S.A.).
	Zaphrentis, *Rafinesque*,	1820 = CANINIA.		
H.R.G., Llandov.	affinis, Billings.	Anticosti I., Wreck Point, &c.	Anticosti Isle, Div. 1.	
,, Div. 1, 2.	bellistriata, ,,	Anticosti I., Wreck Point....	Anticosti I., Wreck P^t &c.	
CL., Niag.	Bigsbyi, ,,	.....	(L. Huron) Huronia Point.	(L. Huron) Cockburn Isl. &c.
,, ,, ...	bilateralis, Hall.	Anticosti I. (G. St. Lawr.).	(N. York) Lockport &c., Canada, Anticosti Isle.	
H. R. G.	Canadensis, Billings.	Drummond's Isl., L. Huron.		
CL., Niag.....	cinctosa, ,,	.....	(L. Huron) Owen's Sd. &c.	

Subdivision.	Genera, Species, and Author.	Lower Stage.	Middle Stage.	Upper Stage.
Niag.	denticulata, M.-Edw. & H.			Niagara River (Can. W.), Middle Carboniferous Kalouge (Russia).
Pleta	dilatata, Eichw.	I. Dago, Hohenholm (Balt.).		
	Hayesi, Meek.			Cape Frazier, Kennedy Channel, Arctic Seas.
W.	lata, M'Coy.			Wenlock (England).
CL.	Marcoui, Billings.		Canada, (N.York) Lockp^{t}.	
Pentam. Lst.	ornata, Eichw.		Talkhof (Livonia).	
Mayhill	patens, Billings.		Cormorant Point, Anticosti Island.	
Del. Sh. Lst.	Rœmeri, M.-Edw. & H.			(N. York) Bethlehem, Helderb. M^{ts}.
CH.	Stokesii, Billings.			Canada, Drummond's Island (L. Huron).
	,, M.-Edw. & H.		(Anticosti) Jumpers.	
Corall. Lst.	tenuilamellata, Eichw.			Pyhalep, Isle Dago (Esthon.).
U.Bala, W.	turbinata, Linn., Hall.	Craighead (Ayrshire).		Dudley, Ledbury (England), N. York, Chicago, Illinois.
	sp. ind. Hitchcock.	North Vermont (U.S.A.).		
Niag.	,, Hall.			N.W. Michigan (L. Superior).
UL.	,, Billings.			(North New Brunswick) Restigouche.

Summary (Geographical).

Genera.	Species.						Genera.	Species.					
	America.	Europe.	Australia.	India.	Tasmania.	Common.		America.	Europe.	Australia.	India.	Tasmania.	Common.
Acervularia	...	4	...	...	...	...	*Continued*	130	102	1	1	1	11
Alveolites	2	10	...	...	...	2	Fletcheri	...	1	...	...	...	...
Amplexus	2	...	...	...	...	...	Goniophyllum	...	3	...	...	1	...
Anisophyllum	1	...	...	...	...	...	Halysites	5	8	...	...	...	3‡
Arachnophyllum	1	1	...	...	...	...	Heliolites	14	20	...	1	...	5
Astrocerium	4	2	...	...	...	...	Helopora	15	1	...	...	...	...
Aulacophyllum	...	1	...	...	...	...	Heteropora	...	1	...	...	...	...
Bolboporites	1	5	...	...	...	...	Labechia	1	3	...	...	...	...
Calceola	3	2	...	...	...	...	Laceripora	...	1	...	...	...	...
Callopora	6	...	...	...	...	...	Lithostrotion	...	1	...	...	...	...
Calophyllum	1	...	...	...	...	...	Lonsdaleia	...	1	...	...	...	...
Calopoecia	3	...	...	...	...	...	Lyellia	3	...	...	...	...	...
Campophyllum	...	1	...	...	...	...	Millepora	...	3	...	...	...	...
Cannopora	1	...	...	...	...	...	Myriolites	...	1	...	...	...	...
Chætetes	17	11	...	1	...	1	Nebulipora	2	6	...	...	1	...
Chonophyllum	1	1	...	...	...	...	Oldhamia	...	4	...	...	...	...
Cladopora	7	...	...	...	...	...	Omphyma	3	8	...	...	...	...
Clathropora	3	...	...	...	...	...	Orbipora	...	2	...	...	...	...
Clisiophyllum	3	5	...	...	...	...	Pachyphyllum	...	1	...	...	...	...
Cœnites	5	10	...	...	...	...	Palæocyclus	...	5	...	...	...	...
Columnaria	13	2	...	...	...	1	Palæophyllum	...	1	...	...	...	...
Conophyllum	1	...	...	...	...	...	Petraia	13	16	1	...	...	1‡
Constellaria	1	...	...	...	...	...	Phacites ?	...	1	...	...	...	...
Corynoides	...	1	...	...	...	...	Plasmopora	2	2	...	...	...	1
Cyathaxonia	...	2	...	...	...	...	Propora	1	1	...	...	...	1
Cyathophyllum	13	10	...	...	...	1	Protarea	2	...	...	...	...	...
Cyclolites	1	...	...	...	...	...	Ptychophyllum	4	1	...	...	...	...
Cylindropora	...	2	...	...	...	...	Rhinopora	4	...	...	...	...	...
Cystiphyllum	4	8	...	...	...	...	Rhizophyllum	...	1	...	...	...	...
Dania	1	...	...	...	...	...	Sarcinula	2	1	...	...	...	...
Dekayia	1	...	...	...	...	...	Stauria	1	1	...	...	...	1
Dendropora	...	1	...	...	...	...	Stellipora	1	...	...	...	...	...
Dianulites	...	2	...	...	...	...	Stenopora	15	9	...	...	1	2
Diphyphyllum	1	...	...	...	...	...	Strephodes	2	7	...	...	...	...
Diplophyllum	4	1	...	...	...	...	Streptelasma	5	1	...	...	...	...
Discophyllum	2	...	...	...	...	...	Striatopora	1	...	...	...	...	...
Emmonsia	2	...	...	...	...	...	Strombodes	5	5	...	...	..	1
Enallopora	...	1	...	...	...	...	Syringophyllum	...	1	...	...	...	...
Eridophyllum	1	1	...	...	...	...	Syringopora	18	16	...	...	...	4
Favistella	6	1	...	...	...	...	Thecia	2	7	...	...	...	1
Favosites	18	16	1	...	1	6†	Thecostegites	1	...	...	...	...	...
Fistulopora	...	1	...	...	...	...	Zaphrentis	17	6	...	...	...	1
	130	102	1	1	1	11		269	249	2	2	4	32

† America and Europe.

‡ America and Esthonia.

SUBKINGDOM ANNULOSA. PROVINCE ANNULOIDA. CLASS ECHINODERMATA. ORDER CRINOIDEA.

Subdivision.	Genera, Species, and Author.	Lower Stage.	Middle Stage.	Upper Stage.
	Actinocrinus, *Miller,* 1821.			
Corall. Lst., Pleta.	costatus, Eichw.	Poulkova (Russia).		
Orthoc. Lst.	dubius, „	„ „		(Isle Oesel) Hoheneichen.
Niag.	Meeki, Lyon.			(Kentucky) Louisville, Oernant &c.. Kendal (Westmorel.), Llangollen (W.).
„	obpyramidalis, Winchell &	Marcy		Chicago (Illinois, U.S.A.).
U Llandov., W.	pulcher, Salter.	Gameswell, Ulverston (Lancashire).		
CH.	tenuiradiatus, n. s. Hall.	(N. York) Chazy Village.		
Niag.	Whitfieldi, „			(Wisconsin) Racine, Waukesha, Indiana.
CH.	sp. ind. „	Canada, N. York.		
	„ Salter.			Griffith's Island &c. (Arctic America).
?	„ Selwyn.		Victoria (Australia).	
	Aspidocrinus, *Hall,* 1859.			
Delth. Sh. L.	callosus, Hall.			Schoharie Co., N. York.
„ „	digitatus, n. s. „			„ „
Scutella Lst., L. H. G.	scutelliformis, „			„ „
	Asterocrinus, *Münster,* 1843 (see Pterocrinus).			
L. Pleta with green grains.	Münsteri, De Vern.	Poulkova (Russia).		
L. Pent. Lst.	pachydactylus, Vanuxem.			N. York.
L. Pleta with green grains.	priscus, De Vern.	Poulkova (Russia).		
	Balanocrinus, *Agassiz,* 1845.			
	inflatus, Hall.	Canada?		Wisconsin.
	Blastoidocrinus, *Billings,* 1859.			
CH.	carchariædens, Billings.	(Canada E.) Montreal.		
	Brachiocrinus, *Hall,* 1859.			
Delth. Sh. L.	nodosarius, n. s. Hall.			(N.York) Helderb. Mts &c.
	Calliocrinus, *D' Orb.,* 1847.			
	costatus, Durocher?			Norway, Gothland.
	Calyx, *Rouault,* 1850.			
	Sedgwickii, Rouault.	(France) Vitré, La Couyère.		
	Carabocrinus, *Billings,* 1857.			
Tr.	radiatus, Billings.	Ottawa City (Can. W.).		
H. R. G.	tuberculatus, „	Ottawa City (Can. W.), or Anticosti, Charleton Point.		
Tr.	Van-Courtlandti, „	Ottawa City (Can. W.).		
	Caryocrinus, *Say,* 1825.			
Niag.	globosus? Troost.			(Tennessee) Decatur Co.
„	granulatus, „			„ „
„	hexagonus, „			„ „
„	insculptus, „			„ „
„	loricatus, Say.			Lockport (N. York).
„	meconoideus, Troost.			(Tennessee) Decatur Co.
CL., Niag.	ornatus, Say.		Lockport (N.York), Southeast Wisconsin.	Lockpt., (Tennessee) Decatur Co., Grimsby (Can. W.), Chicago (Illinois), Kentucky.
	Cheirocrinus, *Salter,* 1859.			
Niag.	chrysalis, Hall.			N. York.
	giganteus, D. de Leuchtenb.	Popova, Poulkova (Russia).		
	ornatus, Eichw.	Poulkova (Russia).		
Pleta	penniger, „	Wesenberg (Esthonia), Poulkova (Russia).		
W.	serialis, Austin.			England.
Niag.	stigmatus, Hall.			(Indiana) Waldron.
W., Niag.	sp. ind. Fletcher.			(England) Dudley.
Niag.	„ Salter.			„ „
	Cleiocrinus, *Billings,* 1857.			
Tr.	grandis, Billings.	(Canada) Ottawa River.		
„	magnificus. „	„ „		
„	regius, „	„ „		
	Closterocrinus, *Hall,* 1852.			
CL.	elongatus, n. s. Hall.		(N. York) Lockport.	
	Coccocrinus, *Rœmer,* 1860.			
Niag.	Bacca, n. s. Rœmer.			(Tennessee W.) Perry and Decatur Counties.
	Condylocrinus, *Eichw.,* 1859.			
Orthoc. Lst.	verrucosus, Eichw.	Bogolowsk (Ural).		
	Cophinus, *König,* 1839 (	the markings made by the t	ransverse motion of the st	ems in mud, J.W.S.).
UL.	dubius, König.			England.

Subdivision.	Genera, Species, and Author.	Lower Stage.	Middle Stage.	Upper Stage.
	Coronocrinus, *Hall*, 1859.			
Delth. Sh. Lst....	polydactylus, n. s. Hall.	.....	.....	Schoharie Co. (N. York).
	Crotalocrinus, *Austin*, 1843.			
Corall.Lst.,Pleta.	rugosus, Salter.	Russia	.....	Russia, Sweden, Norway, Isle Oesel (Baltic), Esthonia, (England) Dudley.
	sp. ind. ,,	.....	.....	(Arctic America) Wellington Channel.
	Cryptocrinites, *Von Buch*, 1845.			
	cerasus, Von Buch.	Popova, Poulkova &c. (Russ.).		
Orthoc. Lst.....	lævis, Pander.	Popova, Poulkova (Russia).		
	Ctenocrinus, *Bronn*, 1840.			
Orthoc. Lst. = Pleta.	notatus, Eichw.	Poulkova (Russia).		
,, ,,	punctatus, ,,	,, ,,		
,, ,,	stellaris, Rœmer.	,, ,,		
Orthoc., Corall. Lst.	typus, Bronn.	Réval, D'Erras (Balt.), Poulkova (Russia).	.....	(Isle Oesel, Baltic) Moustel Pank.
	Cyathocrinus, *Miller*, 1821.			
W.	arthriticus, Phillips.	.....	.....	Dudley &c. (England).
,, ...	capillaris, ,,	.....	.....	Dudley.
Niag.	Cora, Hall.	.....	.....	(Wisconsin) Racine.
Pleta, Corall. Lst.	exilis, Eichw.	Poulkova (St. Petersburg, Russia).	.....	(Isle Oesel, Baltic) Ficht.
W.	goniodactylus, Phill.	.....	.....	Dudley.
Niag.	ornatus, Billings.	.....	.....	Canada West.
	penniger, De Vern.	.....	.....	Russia.
Corall. Lst.	pinnatus, Goldf.	.....	.....	(Isle Oesel) Ilpen &c.
,, ...	Polyxo, Hall.	.....	.....	(Indiana) Waldron.
,, ...	pusillus, ,,	.....	.....	,, ,,
Niag.	Waukoma, Hall.	.....	.....	Niagara, Racine, Wisconsin.
	? sp. ind. Selwyn.	.....	Victoria (Australia).	
	Cyclocrinus, *Eichw.*, 1859 (Pasceolus, *Billings*, 1857).			
Tr.	globosus, Billings.	Ottawa River (Can. W.).		
Mid.-Silurian ...	Halli, ,,	Anticosti Isle (G. St. Lawr.).		
Low. Silurian ...	Sparki, Eichw.	St. Petersburg and Réval.		
	Cystocrinus, *Rœmer*, 1860.			
Niag.	Tennessee-ensis, Rœmer.	.....	.....	(Tennessee West) Decatur Co.
	Cytocrinus, *Rœmer*, 1860.			
,, ...	lævis, Rœmer.	.....	.....	,, ,,
	Cupressocrinus, *Goldf.*, 1832.			
Orthoc. Lst. (= Pleta).	pentaporus, Eichw.	Narva, Poulkova and Gdow (Russia).		
	Dendrocrinus, *Hall*, 1852.			
Tr.	acutidactylus, Billings,	Ottawa City (Can.W.), Montreal ?, Shum.		
,, ...	angulatus, ,,	Ottawa City (Can. W.).		
,, ...	conjugans, ,,	,, ,,		
,, ...	cylindricus, ,,	Montreal (Can. E.).		
,, ...	gregarius, ,,	Ottawa City (Can. W.).		
,, ...	humilis, ,,	Montreal (Can. E.), Ottawa City.		
,, ...	Jewetti, ,,	Quinté Bay, Lake Ontario.		
H. R. G.	latibrachiatus, ,,	(Anticosti Isle) Charlton P^{t}.		
Niag.	longidactylus, n. s. Hall.	.....	.....	(N. York) Lockport Shale.
Tr.	proboscidiatus, Billings.	Ottawa City (Can.W.) Montreal.		
,, ...	rusticus, ,,	Ottawa City (Can. W.).		
,, ...	similis, ,,	,, ,,		
H. R. G.	tener, ,,	Anticosti, West end.		
	Dictyocrinus, *Conrad*, 1841.			
H. R. G., Delth. Shaly Lst.	squamiferus, n. s. Hall.	New York.	.....	(N. York) Schoharie Co.
	Dimerocrinus, *Phillips*, 1839.			
W.	decadactylus, Phillips.	.....	.....	Dudley (England).
,, ...	icosidactylus, ,,	.....	.....	,, ,,
	Echinocrinus, *Agassiz*, 1841.			
? Corall., Dolom. Lst.	striatus,	.....	.....	Bogoslowsk, N. Ural ?
	Edriocrinus, *Hall*, 1859.			
H. R. G., Delth. Shaly Lst.	pocilliformis, n. s. Hall.	New York.	.....	(N. York) Albany Co.
	Enallocrinus, *D'Orbigny*, 1847.			
W.	punctatus, Hising.	.....	.....	Dudley (England), Sweden.
,, ...	scriptus, ,,	.....	.....	,, ,, ,,
	Eugeniacrinus, *Miller*, 1821.			
W., L.	mespiliformis, Goldf.	.....	.....	Dudley (England).

Subdivision.	Genera, Species, and Author.	Lower Stage.	Middle Stage.	Upper Stage.
	Glyptocrinus, *Hall*, 184	7 = SAGENOCRINUS, *Austin*, 1	843.	
Carad. &c.	basalis, M'Coy.	Wales, Shropsh., Horderley.	Wales.	
Niag.	Carleyi, Hall.			(Indiana) Waldron, Chicago (Illinois).
H. R. G.	decadactylus, „	(Can. W.) Humber R.,(Can. E.) Montreal, (Ohio) Cincinnati,Madison(Indiana), Kentucky.	New York, Pennsylvania.	
W.	expansus, Phillips.			England.
	fimbriatus, Shumard.			Cape Girardeau (Missouri).
Tr.	lacunosus, Billings.	Ottawa City (Can. W.).		
„	marginatus, „	„ „		
Niag.	nobilis, Hall.			Racine (Wisconsin).
Tr.	ornatus, Billings.	Ottawa City (Can. W.).		
CL.	plumosus, Hall.		(N. York) Medina, Canada West.	
Tr.	priscus, Billings.	Mid-Ottawa (Can. W.).		
„	quinque-partitus, „	Ottawa River (Can. W.).		
B., BL.	ramulosus,	(Can.W.) Ottawa R. (lower).		
Niag.	siphonatus, Hall.			N. York.
„	sp. ind. Winchell & Marcy.			Chicago (Illinois, U.S.A.), Waukesha (Wisconsin).
„	„ Hall.			(N. York) Reynale's Basin.
ULlandov.	„ Salter.		(Wales) Llangadock.	
W.	„ „			(Wales) Mwdwl Eithin, Plas Madoc &c.
	„ Portlock.			
	Grammocrinus, *Eichw.*,	1859.		
Corall. Lst.	clathratus, Eichw.			Isle Oesel (Baltic).
Orthoc. Lst.	lineatus, „	Poulkova (Russia).		
	Haplocrinus, *Steininger*,	1834 ; *Rœmer*, 1863.		
„	annularis, Eichw.	Poulkova (Russia).		
Pleta „	monilis, „	„ „		
	Heliocrinites, *Eichw.*, 1	859.		
„ „	Balticus, Eichw.	Réval (Baltic).		
„ „	echinoides, De Vern.			
	echino-sphærites.			
Inflamm. Shale.	radiatus. Eichw.	Réval (Balt.), D'Erras (Esthonia).		
	Heterocrinus, *Hall*, 18	47.		
Tr.	articulosus, Billings.	(Can. W.) Ottawa River.		
„	Canadensis, „	(Canada) Mid-Ottawa River.		
H. R. G.	crassus, Meek & Worthen.	(Illinois) Kendall Co.		
„	gracilis, Hall.	(N. York) Lake Saratoga.		
„	heterodactylus, „	(N. York) Lewis Co. &c., (Ohio) Cincinnati, Upper Mississippi, Rockingham.		
„	inæqualis, Billings.	(Canada) Ottawa River.		
„	? incurvus, Meek&Worthen.	Cincinnati (Ohio).		
„	simplex, Hall.	(Canada) Montreal, N.York, River Ottawa,Cinc.(Ohio).		
„	subcrassus,Meek&Worthen.	Cincinnati (Ohio)		
Tr.	tenuis, Billings.	(Canada) Ottawa River.		
H. R. G.	sp. ind. Rogers.	Pennsylvania.		
Carad.	„ Salter.	Montgomeryshire, Meifod.		
	Homocrinus, *Hall*, 1852	(a most simple form ; 5 ar	ms, J.W.S.).	
Tr.	alternatus, Hall.	(N. York) Herkimer and Lewis Counties.		
Niag., Tentaculite Lst.	cylindricus, n. s. „			(N. York) Lockport &c.
Pleta, Infl.Schist.	depentas, D. de Leuchtenb.	Poulkova (Russia), D'Erras (Esthonia).		
L.Held. G.	flexuosus, Shumard.			Cape Girardeau (Missouri).
Niag.	parvus, n. s. Hall.			N. York, Lockport.
H. R. G.	polydactylus, Christie.	Richmond (Indiana).		
Tentaculite Lst.	scoparius, n. s. „			Schoharie and HerkimerCos. (N. York).
Tr.	sp. ind. Swallow.	Missouri.		
	Hybocrinus, *Billings*, 1	857.		
Tr.	conicus, Billings.	(Can. W.) Ottawa River.		
CH.	pristinus, „	(Can. E.) Montreal Isle.		
Tr.	tumidus, „	(Can. W.) Ottawa River.		
	Hypanthocrinus, *Phill*	*ips*, 1839 = EUCALYPTOCRINU	S, *Goldfuss*, 1826.	
Racine Lst.	armosus, n. s.	Racine (Wisconsin).		
UL.	cælatus, Hall.			(N. York) Lockport, Waukesha (Wisconsin).
Niag.	Chicago-ensis,Winch.&Mar			Chicago (Illinois).
„	conicus, Troost.			Decatur Co., (Tennessee).

Subdivision.	Genera, Species, and Author.	Lower Stage.	Middle Stage.	Upper Stage.
Niag.	cornutus, Hall.	.....	.....	Waukesha, Racine (Wisconsin).
,, ...	crassus, ,,	.....	.....	Waldron, Racine (Wisconsin).
CL.,Niag.,UL....	decorus, Phill.	.....	.....	Dudley, England, Norway, N. Gothl., Can. W., (N.Y) Lockport, Rochester &c., Decatur County (Tennessee).
Niag.	extensus, Troost.	.....	.....	Decatur Co. (Tennessee).
,, ...	gibbosus, ,,	.....	.....	,, ,,
,, ...	Goldfussi, ,,	.....	.....	,, ,,
W.	granulatus, Lewis.	.....	.....	Walsall (England).
Niag.	lævis, Troost.	.....	.....	Decatur Co. (Tennessee).
,, ...	Nashvillæ, ,,	.....	.....	,, ,,
,, ...	obconicus, Hall.	.....	.....	Racine (Wisconsin).
Niag., Waterlin Group.	ornatus, ,,	.....	.....	New York, Wisconsin, Chicago (Illinois), Gothland.
Niag.	ovalis, Troost.	.....	.....	Decatur Co. (Tennessee).
,, ...	papullosus, Hall.	.....	.....	(N. York) Monro Co.
,, ...	Phillipsii, Troost.	.....	.....	Decatur Co. (Tennessee).
W.	polydactylus, M'Coy.	.....	.....	Dudley (Engl.), Norway.
Niag.	ramifer, Rœmer.	.....	.....	(Tennessee W.) Decatur Co.
W.	rosaceus, Goldf.	.....	.....	England, Scotland?, Norway, Sweden.
Niag.....	splendidus, Troost.	.....	.....	(Tennessee) Decatur Co.
,, ...	Tennesseeæ, ,,	.....	.....	,, ,,
	Ichthyocrinus, *Conrad,*	1842 (a very compact Crinoid: no intermediate plates, J.W.S.).		
CL.	? Clintonensis, Hall.	.....	(N. York) Wayne Co.	
Niag.	corbis, Winchell & Marcy.	.....	.....	Chicago (Illinois).
,, ...	lævis, Conrad.	.....	.....	(N. York) Lockport, South Wisconsin, N.A.
W., UL.	pyriformis, Phillips.	.....	.....	Dudley, Kendal, Underbarrow (Westmoreland), New York.
Niag.	subangularis, Hall. =*corbis.*	.....	.....	Waldron (Indiana), Chicago (Illinois).
	Lampterocrinus, *Rœmer,* 1860.			
,, ...	inflatus, Hall.	.....	.....	Racine (Wisconsin).
,, ...	Tennessee-ensis, Rœmer.	.....	.....	(Tennessee W.) Decatur Co.
	Lecanocrinus, *Hall,* 1852.			
Niag.,Corall.Lst., Schoh.	caliculus, Hall.	.....	.....	(N. York) Lockport Shale.
Tr.	elegans, Billings.	(Canada W.) Ottawa River.		
,, ...	lævis, ,,	(Canada W.) Ottawa City.		
Niag.,Corall.Lst., Schoh.	macropetalus, Hall.	.....	.....	,, ,,
Niag. ,, ...	ornatus, ,,	.....	.....	,, ,,
Niag.	pusillus, Winchell&Marcy.	.....	.....	Chicago (Illinois).
Niag.. Schoh.Lst.	simplex, Hall.	.....	.....	(N. York) Lockport.
	Lepocrinus, *Conrad,* 1840 (or LEPADOCRINUS).			
	Gebhardii, Vanuxem, Conrad.	.....	.....	(N. York E.) Cherry Valley &c., Cumberland (Maryland).
Subgenus of *Rhodocrinus.*	**Lyriocrinus,** *Hall,* 1852	(MARSUPIOCRINITES, *Hall,* 1843, non *Phill.,* 1839.		
Niag.	dactylus, Hall.	.....	.....	(N.York) Lockport, Grimsby (Can. W.).
,, ...	sculptilis, ,,	.....	.....	(Wisconsin) Waukesha.
	Macrostylocrinus, *Hall,* 1852.			
,, ...	ornatus, Hall.	.....	.....	(N. York) Lockport.
,, ...	striatus, ,,	.....	.....	(Indiana) Waldron.
	Mariacrinus, *Hall,* 1859	(near to PERIECHOCRINUS,	but with more compound	arms, J.W.S.).
U Pentam. Lst....	macropetalus, Hall.	.....	.....	Schoharie County &c. (N. York).
Pentam. ,, ...	nobilissimus, ,,	.....	.....	Herkimer Co. (N. York).
Pentam. ,, L. H. G.	pachydactylus, ,,	.....	.....	Schoharie Co. &c. (N. York).
,, ,,	paucidactylus, ,,	.....	.....	(N. York) Herkimer Co.
W.	penniger, Salter.	MSS.....	.....	Dudley (England).
Pentam. Lst. Sh., L. H. G.	plumosus, Hall.	.....	.....	Herkimer Co. (N. York), England, Sweden?.
L. H. G.	ramosus, ,,	.....	.....	,, ,,
Delth. Sh. L. ...	stoloniferus, ,,	.....	.....	Schoharie Co. (N. York).
?	sp. ind. Oldham.	.....	.....	Shalkar, Spiti, Himalaya (E.I.).

Subdivision.	Genera, Species, and Author.	Lower Stage.	Middle Stage.	Upper Stage.
	Marsupiocrinus, *Phillips* (allied to HYPANTHOCRINUS, J.W.S.)			
W.	cælatus, Phillips			Dudley (Engl.), Tennessee, New York.
	Megistocrinus, *Owen & Shumard.*			
Niag.	infelix, Winch.& Mar.			Chicago (Illinois).
,,	Marcouanus, ,, ,,			,, ,,
,,	necis, ,, ,,			,, ,,
	Melocrinites, *Goldfuss,* 1826 (MELOCRINUS).			
Pleta,Corall.Lst., Pentam. Lst.	lævis. Goldf.	Nyby (Esthonia).	Kirna and Kattentak (Esthonia).	Isle Oesel, Ficht (Baltic), (Podolia) Orynine.
Corall. Lst.	lamellosus, Eichw.			Isle Oesel (Baltic), Ficht.
Niag.	obconicus, Hall.			Waldron (Indiana).
,,	sculptus, ,,			(N. York) Lockport.
,,	Verneuili, ,,			Decatur Co. (Tennessee).
	Myelodactylus, *Hall,* 1852.			
,,	brachiatus, n. s. Hall.			(N. York) Lockport.
,,	convolutus, n. s. ,,			,, ,,
,,	sp. ind. ,,			,, ,,
	Nucleocrinus, *Hall,* 1862; *Conrad,* 1843.			
Tr.	sp. ind. Hall.	New York.		
	Pachyocrinus, *Billings,* 1859.			
CH.	crassi-basalis, Billings.	(Canada E.) Montreal.		
	Palæocrinus, *Billings,* 1859.			
Tr.	angulatus, Billings.	Montreal (Canada E.).		
,,	pulchellus, ,,	Ottawa City (Canada W.).		
,,	rhombiferus, ,,	,, ,,		
,,	striatus, ,,	Montreal (Canada E.).		
	Pentremites, *Say,* 1820 = PENTREMATITES, *Rœmer,* 1860.			
Niag.	Reinwardtii, Troost.			(Tenness.) Decatur Co.,(Kentucky) Louisville.
	Periechocrinus, *Austin,* 1843 (the large cup-like pelvis, and long snake-like stems are very conspicuous on the slabs of Dudley Limestone, J.W.S.).			
W.	articulosus, Austin.			Dudley (England).
Llandov., W., W.	moniliformis, Miller.	(Upper part of Lower Silurian), (Engl.) Gt. Barr, Staffordshire.	Llandovery (W.).	Dudley, Norway (Sweden), Hoburg &c.
Llandov.	sp. ind.		,, ,,	
ULlandov.	,, Salter.		Tortworth, Gloucestersh.	
	Phialocrinus, *Eichwald,* 1859.			
Pleta.	impressus, Eichw.	Poulkova (Russia).		
	Pisocrinus, *Koninck,* 1858.			
Niag.	Anne Dixoni, Troost.			Decatur Co. (Tennessee).
W.	ornatus, Koninck.			Dudley (England).
Woolh., W.	pilula, ,,			,, ,,
	Platycrinus, *Miller,* 1821 = ACTINOCRINUS.			
Corall. Lst.	insularis, Eichw.			Isle Oesel (Baltic), Ilpen.
Pentam. Lst., L. H. G.	parvus, Hall.			Herkimer Co. (N. York).
L. H. G.,Pentam. Lst. (Shale).	plumosus, ,,			Herkimer Co. (Tennessee).
,, ,,	ramulosus, ,,			,, ,,
W.	retiarius, Phillips.			(England) Dudley.
Pleta.	stellatus, Eichw.	D'Erras (Esthonia).		(Isle Oesel) Taggamois.
Niag.	Tennessee-ensis, Rœmer.			(Tennessee W.) Decatur County.
Delth. Sh. Lst.	tentaculatus, Hall.			Scholarie Co. (E. New York).
Ludlow	sp. ind. Salter.			Shropshire (England).
	,, Meek & Worthen.	Illinois.		
	CUPELLÆCRINUS (subgenus of *Platycrinus*), Troost, 1850; *Platycrinus,* Rœmer, 1860.			
Niag.	Buchii, Troost.			Decatur Co. (Tennessee.)
,,	corrugatus, ,,			,, ,,
,,	inflatus, ,,			,, ,,
,,	lævis, ,,			,, ,,
,,	magnificus, ,,			,, ,,
,,	pentagonalis, ,,			,, ,,
,,	rosæformis, ,,			,, ,,
,,	stellatus, ,,			,, ,,
,,	striatus, ,,			,, ,,
	Poteriocrinus, *Miller,* 1821.			
Tr.	alternatus, n. s. Hall.	(N. York) Herkimer Co. &c.		
Pleta	biblex, Eichw.	Poulkova (Russia).		
	crassiformis. Eichw.	,, ,,		
W.	Dudleyensis, Austin.			Dudley (England).
	Cyathocrinus.			
Tr.	gracilis, Hall.	(N. York) Herkimer Co.		
Niag.	pisiformis, Rœmer.			(Tennessee W.) Perry Co.

Subdivision.	Genera, Species, and Author.	Lower Stage.	Middle Stage.	Upper Stage.
	Porocrinus, *Billings*, 185	7.		
H. R. G.	crassus, Meek & Worthen.	Kendall Co., Illinois.		
Tr.	conicus, Billings.	(Can. W.) Ottawa River, Montreal, near Quebec.		
„	pentagonus, Meek&Worth.	Dixon (Illinois).		
	Protocrinus, *Eichw.*, 185	9.		
Pleta	foveolatus, Eichw.	Poulkova (Russia).		
„	fragum, „	Czarskoe-selo (Russia).		
„	Leuchtenbergii, Volborth.	Popowa, Poulkova (Russia).		
„	oviformis, Eichw.	Spitham (Esthonia), Narva (Russia).		
	Pterocrinus, *Billings*?			
	Retiocrinus, *Billings*, 18	59.		
H. R. G.	fimbriatus, Billings.	(Anticosti Island) Charleton Point.		
Tr.	stellaris, „	(Can. W.) Ottawa River.		
	Rhodocrinus, *Miller*, 18	21 (THYSANOCRINUS). (It is	rather doubtful whether	these be *Rhodocrini*, J.W.S.)
CH.	asperatus, Billings.	(Can. E.) Montreal.		
L. H. G.	Halli, Lyon.			Jefferson Co. (Kentucky).
Niag.	Melissa, Hall.			Waldron (Indiana).
Tr.	microbasalis, Billings.	Middle Ottawa (Can. W.).		
B., CH.	pyriformis, Billings.	Ottawa City (Can. W.).		
Llan. Fl., Carad.	quinquangularis, Miller.	England (or Wales).		
Pleta	tesseracontadactylus, Goldf.	St. Petersburg(Russ.),Estho.		
	sp. ind. Rouault.	Vitré &c. (France).		
	Saccocrinus, *Hall*, 1852.			
Niag.	speciosus, Hall.			(N. York) Lockport Shale, (Tennessee) Decatur Co.
	Sagenocrinus, *Austin*, 1	843.		
W.	giganteus, Austin.			Dudley (England).
	Schizocrinus, *Hall*, 184	7.		
Tr.	nodosus, Hall.	(N.York) Mohawk Valley &c., Wisconsin, River Escanaba, Mid-Ottawa, Canada W.		
(Shales) Tr.	striatus, „	(N. York) Middleville.		
?	sp. ind. „	(N. York) Lewis Co.		
	Scyphocrinus, *Hall*, 18	47 (non SCYPHOCRINUS, *Zenker*).		
Tr.	heterocostalis, Hall.	(N. York) Herkimer Co.		
	elegans, Zenker.		Sweden.	
?	sp. ind. Meneghini.	Sardinia.		
	Sphenocrinus, *Eichwald*, 1859.			
Orthoc. Lst. with green grains.	obtusus, Eichw.	Poulkova (Russia), Odinsholm Isle (Baltic).		
	Stephanocrinus, *Hall*,	1852; *Conrad*, 1842.		
Niag.	angulatus, Conrad.			(N.York) Lockport, Grimsby (Can. W.), and Thorold.
Niag., Corall. L., Schoharie.	gemmiformis, Hall.			(N. York) Lockport.
	Synbathocrinus, *Phillips*, 1839.			
Niag.	Tennessee-ensis, Rœmer.			(Tennessee W.) Decatur Co.
	Syringocrinus, *Billings*,	1859.		
Tr.	paradoxicus, Billings.	Beauport, Quebec (Can. E.).		
	Taxocrinus, *Phillips*,	1843.		
UL.	Orbignyi, M'Coy.			Kendall, Highthorns, Underbarrow (Westmoreland).
W.	simplex, Phillips.			Dudley, Gothland.
„	tesseracontadactylus, His.			Dudley, Russia, Sweden.
„	tuberculatus, Miller.			Dudley, New York.
	= *Cyathocrinus.*			
	Tetrameocrinus, *Austin*, 1843.			
W.	formosus, Austin.			Dudley (England).
Subgenus of Rhodocrinus.	**Thysanocrinus**, *Hall*, 1	852.		
Niag.	aculeatus, Hall.			(N. York) Lockport.
„	caniculatus, „			„ „
„	immaturus, „			„ „
Niag.	lilliiformis, Hall.			„ „
Tr.	microbasalis, Billings.	Ottawa City (Can. W.).		
„	pyriformis, Billings.	Ottawa River (Can. W.).		
	Trochocrinus, *Portlock*,	1843 (probably only GRYPT	OCRINUS, J.W.S.)	
W.	Gothlandi, Pander.			Gothland.
Carad.	lævis, Portlock.	Desertcreate (Tyrone).		

Summary.—(Geographical.)

Genera.	Species.				Genera.	Species.			
	America.	Europe.	Australia.	Common.		America.	Europe.	Australia.	Common.
Actinocrinus	6	3	1	...	*Continued*	95	50	2	...
Aspidocrinus	3	...	...	...	Hybocrinus	3	...	...	...
Asterocrinus	1	2	...	...	Hypanthocrinus	19	5	...	1
Balanocrinus	1	...	...	...	Ichthyocrinus	3	1	...	1
Blastoidocrinus	1	...	...	...	Lampterocrinus	2	...	...	...
Brachiocrinus	1	...	...	...	Lecanocrinus	7	...	...	...
Calliocrinus	...	1	...	...	Lepocrinus	1	...	...	...
Calyx	...	1	...	...	Lyriocrinus	2	...	...	...
Carabocrinus	3	...	...	...	Macrostylocrinus	2	...	...	...
Caryocrinus	6	1	...	...	Mariacrinus	7	3	...	2
Cheirocrinus	2	6	...	...	Marsupiocrinus	1	1	...	1
Cleiocrinus	3	...	...	...	Megistocrinus	3	...	...	...
Closterocrinus	1	...	...	...	Melocrinites	3	2	...	...
Coccocrinus	1	...	...	...	Myelodactylus	3	...	...	...
Condylocrinus	...	1	...	...	Nucleocrinus	1	...	...	...
Cophinus	...	1	...	...	Pachyocrinus	1	...	...	...
Coronocrinus	1	...	...	...	Palæocrinus	4	...	...	...
Crotalocrinus	1	1	...	...	Pentremites	1	...	...	...
Cryptocrinus	...	2	...	...	Periechocrinus	...	3	...	...
Ctenocrinus	...	4	...	...	Phialocrinus	...	1	...	...
Cyathocrinus	5	6	1	...	Pisocrinus	...	2	...	...
Cyclocrinus	2	1	...	...	Platycrinus	6	4	...	...
Cystocrinus	1	...	...	...	Porocrinus	3	...	...	...
Cytocrinus	1	...	...	...	Poteriocrinus	3	3	...	...
Cupellæcrinus	9	...	...	...	Protocrinus	...	4	...	...
Cupressocrinus	...	1	...	...	Reteocrinus	2	...	...	...
Dendrocrinus	12	...	...	...	Rhodocrinus	5	3	...	...
Dictyocrinus	1	...	...	...	Saccocrinus	1	...	...	...
Dimerocrinus	...	2	...	...	Sagenocrinus	...	1	...	...
Echinocrinus	...	1	...	...	Schizocrinus	3	...	...	...
Edriocrinus	1	...	...	...	Scyphocrinus	1	2	...	...
Enallocrinus	...	2	...	...	Sphenocrinus	...	1	...	...
Eugeniacrinus	...	1	...	...	Stephanocrinus	2	...	...	...
Glyptocrinus	15	4	...	...	Synbathocrinus	1	...	...	...
Grammocrinus	...	2	...	...	Syringocrinus	1	...	...	...
Haplocrinus	...	2	...	...	Taxocrinus	1	4	...	1
Heliocrinites	...	3	...	...	Tetramerocrinus	...	1	...	...
Heterocrinus	9	1	...	...	Thysanocrinus	6	...	...	...
Homocrinus	7	1	...	...	Trochocrinus	...	2	...	...
	95	50	2	...		193	93	2	6

SUBKINGDOM ANNULOSA. PROVINCE ANNULOIDA. CLASS ECHINODERMATA. ORDER CYSTIDEA.

Subdivision.	Genera, Species, and Author.	Lower Stage.	Middle Stage.	Upper Stage.
	Amygdalocystites, *Billings*, 1854.			
Tr.	florealis, Billings.	Ottawa City (Can. W.).		
,,	radiatus, ,,	,, ,,		
,,	tenuistriatus, ,,	,, ,,		
	Anomalocystites, *Hall*, 1859.			
Pentam. Lst., L. H. G.	cornutus, Hall.			(N. York) Herkimer Co.
	Apiocystites, *Forbes*, 1848.			
Niag.	Canadensis, Billings.			(Central Can.) Grimsby.
,,	elegans, ,,			(N. York) Lockport only.
L. H. G.	Gebhardi, Dana.			(N. York) Ulster & Schoh. Co.
CL., Niag.	Huronensis, Billings.		Cabots Head (L. Huron).	Cabots Head (L. Huron).
Niag.	imago, Hall.			(Wisconsin) Racine.
W.	pentremitoides, Forbes.			Dudley (England).
	scriptus, Hising.			New York, Gothland.
Niag.	Tecumseth, Billings.			(Can. W.) L. Huron, Manitouline Isle, South Bay.
,,	sp. ind. Rœmer.			(Tennessee W.) Decatur Co.

Subdivision.	Genera, Species, and Author.	Lower Stage.	Middle Stage.	Upper Stage.
	Ateleocystites, *Billings,*	1858.		
Tr.	Huxleyi, Billings.	(Can. W.) Mid-Ottawa R.		
W.	sp. ind. Salter.	.....	.....	England.
	Callocystites, *Hall,*	1852.		
Niag.	Jewettii, n. s. Hall.	.....	.....	(N. York) Lockport, (Can. W.) Grimsby.
,,	,, var. ,,	.....	.....	N. York.
	Caryocystites, *Von Buch,* 1845 (a subgenus of Echinosphærites, J.W.S.).			
Niag.	cylindricus, Hall.	.....	.....	Wisconsin, Chicago (Illin.).
Carad.	Davisii, M'Coy.	Yspatty Evan (Wales), Coniston (Lancashire).		
,,	granatum, Wahl.	Dalecararlia (Sweden).		
	=*granatum*, Forbes.			
Orthoc. Lst.	pumilus, Eichw.	Poulkova (Russia).		
	testudinarius, Durocher.	Sweden, Norway.		
	Comarocystites, *Billings,* 1854.			
Tr.	punctatus, Billings.	Mid-Ottawa (Can. W.).		
,,	Shumardi, Meek & Worth.	Cape Girardeau (Missouri).		
,,	var. obconicus, ,, ,,	,, ,,		
	Crinocystites, *Hall,* 1864.			
Niag.	chrysalis, Hall.	Racine, Wisconsin.		
?	rectus, ,,	,, ,,		
	Cryptocrinites, *Von Buch,* 1845.			
Pleta	lævis, Pander.	(Russia) St. Petersburg, &c.		
	var. cerasus, Von Buch.	(Russia) Poulkova, Narowa.		
	var. regularis, ,,	Russia.		
	Cyclocystoides, *Billings & Salter,* 1858 (a most anomalous genus; its relations not yet clear, J.W.S.).			
ULlandov.	Davisii, Salter.	.....	(Wales) Radnorshire.	
Tr.	Halli, Billings.	(Canada) Ottawa River, Lake St. John.		
H. R. G.	Huronensis, ,,	Lake Huron (N.A.).		
Carad.	sp. ind. Salter.	Horderley (Shropshire).		
,,	Marstoni, Salter.	N. Wales.		
	Echinocystites, *Wyv. Thompson,* 1861.			
Llandov.	Phillipsii, Forbes.	.....	Malvern (England).	
L.	pomum, Wyv. Thompson.	.....	.....	Leintwardine.
,,	uva, ,,	.....	.....	,,
	Echino-encrinus, *Von Meyer,* 1826=Sycocystites, *Von Buch*; Gonocrinus, *Eichwald*; Echinosphærites, *Pander.*			
Tr., H. R. G.	anatiformis, n. s. Hall.	(Can. E.) Montreal, (N. York) Lewis Co., Upper Mississippi River.		
Pleta	angulosus, Pander.	Poulkova, Popova &c., St. Petersburg.		
W.	arenatus, Forbes.	.....	.....	(Engl.) Walsall, Malvern.
,,	baccatus, ,,	.....	.....	(Engl.) Dudley.
	? fenestratus, Verneuil.	Russia, Tennessee? (Troost).		
	giganteus, ,,	Russia.		
Pleta	intermedius, Eichw.	(Russia) Ontolowo near Paulowsk.		
,,	Senkenbergii, ,,	(Russia) St. Petersburg.		
,,	striatus, Volborth.	(Russia) Poulkova, Popova.		
Ut. Slate	sp. ind. Hall.	N. York.		
	Echinosphærites, *Wahlenberg,* 1821=Sphæronites, *Hising.* 1837. (Surface covered all over with pore-channels, J.W.S.)			
Carad.	arachnoides, Forbes.	(S. Wales) Pembrokeshire.		
	aranea, Schloth.	(Esthon.) Réval, D'Erras.		
Carad., Orthoc. Lst.	aurantium, Wahlenb. Gyllenhall.	(S. Wales) Pembrokeshire, Norway, Sweden, Esthon., Poulkova &c. (Russia).		
Carad., Pleta	Balticus, Vern. =*granatus*, Wahlenb.	Ireland, (N. Wales) Llanfyllin, Norway (Esthonia), Réval &c., Paulowsk (Russia).		
Carad.?	citrus, Klöden.	Sweden.		
Pleta	ellipticus, Eichw.	Réval (Baltic).		
Carad.	granulatus, M'Coy.	Carrickadaggan (Ireland).		
	Murchisoni, Verneuil.	(Spain) Romeral, Almadenos.		
Pleta	pomum, Gyllenhall.	Poulkova, Tosna (St. Petersburg), (Swed.) Isle Œland, Réval, (Esthonia).		
Carad.	punctatus, Forbes.	N. & S. Wales.		
	radiatus, Gyllenhall.	?		
	Wahlenbergii, Esmark.	Norway.		
	Glyptocystites, *Billings,* 1854 (allied to Echinocrinus, but with many rhombs, J.W.S.)			
CH.	Forbesi, Billings.	Montreal (Can. E.).		
Tr.	Logani, ,,	(Can. E.) Caughnawaga.		
,,	var. gracilis, ,,	Montreal (Can. E.).		

Subdivision.	Genera, Species, and Author.	Lower Stage.	Middle Stage.	Upper Stage.
Carad.	sp. ind. Salter.	Denbighsh., Cerrig-y-Druidn.		
Tr.	multiporus, Billings.	Montreal, Beauport (Can. E.), Ottawa City (Can. W.).		
	Glyptosphærites, *Müller*, 1854.			
Pleta L.	pomum, Müller.	(Russia) Poulkova, Sweden.		
	Gomphocystites, *Hall*, 1864.			
Niag.	clavus, Hall.	.....	.....	Racine, Wisconsin.
,, ...	glans, ,,	.....	.....	,, ,,
,, ...	tenax, ,,	.....	.....	Lockport (N. York).
	Hemicosmites, *Von Buch*, 1840. (The pore-channels only show at their ends as rows of pores, the canals themselves being covered by a shelly plate, J.W.S.)			
Pleta	extraneus, Eichw.	Spitham (Esthonia).		
Carad.	oblongus, Pander.	Sholes Hook (W. Pembrokeshire).		
Pleta	porosus, Eichw.	Czarskoe-selo (Russ.), Hapsal (Esthonia).		
Carad.	pyriformis, Von Buch.	Rhiwlas, Bala (N.W.), Sholes Hook (Pembrokeshire), (Russia) St. Petersburg.		
,, ...	squamosus, Forbes.	Bala (N. W.), Montgomeryshire, Llanfyllin.		
Niag.	subglobosus, Hall.	.....	.....	Racine (Wisconsin).
Pleta	verrucosus, Eichw.	Presquisle Nouk (Esthonia).		
	sp. ind. S. P. Woodward.	North Shore, Lake Superior (N. America), (drift).		
	Hemicystites, *Hall*, 1852. (Probably a sessile Starfish of the same genus as AGELACRINUS; but the whole base seems attached, J.W.S.)			
Tr., Niag., Cor. L. of Schoh.	parasitica, Hall.	N. York?	.....	(N. York) Lockport.
	Heterocystites, *Hall*, 1852.			
Niag.	armatus, n. s. Hall.	.....	.....	,, ,,
	Holocystites, *Hall*, 1861.			
,, ...	abnormis, Hall.	.....	.....	Racine (Wisconsin).
,, ...	alternatus, ,,	.....	.....	,, ,,
,, ...	cylindricus, ,,	.....	.....	Racine and Waukesha (Wis.).
,, ...	ovatus, ,,	.....	.....	Waukesha (Wisconsin).
,, ...	scutellatus, ,,	.....	.....	,, ,,
,, ...	sphæricus, Winchell & Mar.	.....	.....	Chicago (Illinois).
,, ...	Winchelli, Hall.	.....	.....	Waukesha (Wisconsin).
	Lepadocrinus, *Conrad*, 1840 (LEPOCRINUS). (A Cystid, J.W.S.)			
Pentam. Lst., L. H. G.	Gebhardi, Conrad.	.....	.....	Schoharie Co. &c. (N. York), Cumberland (Maryland).
	Malocystites *Billings*, 1858.			
CH.	Barrandei, Billings.	Montreal Island (Can. E.).		
,, ...	Murchisoni, ,,	,, ,,		
	Palæocystites, *Billings*, 1858.			
CH.	Chapmanni, Billings.	Clarence (Can. W.).		
,, ...	Dawsoni, ,,	Montreal (Can. E.).		
,, ...	pulcher, ,,	Canada.		
,, ...	tenui-radiatus, Hall.	Montreal (Can. E.), N.E. New York.		
	Pleurocystites, *Billings*, 1854. (A prone species, the lower surface minutely plated, the upper largely plated, J.W.S.)			
H. R. G.	Anticostiensis, Billings.	Isle Anticosti (G. St. Lawr.), Charleton Point.		
Tr.	elegans, ,,	Ottawa City (Can. W.), Montreal (Can. E.).		
,, ...	exornatus, ,,	Ottawa City (Can. W.), Montreal.		
,, ...	filitextus, ,,	,, ,,		
,, ...	robustus, ,,	Ottawa City (Can. W.).		
Carad.	Rugeri, Salter. *Glyptocystites.*	.....	Llandovery (Wales).	
Carad	sp. ind. ,,	Rhiwlas (Bala).		
Tr.	squamosus, Billings.	Ottawa City (Can. W.), Montreal (Can. E.).		
	Protocystites, *Salter*, 1865.			
L. Lingula	sp. ind. Salter.	St. David's (Wales).		
	Prunocystites, *Forbes*, 1849. (Subglobular, small, with three rhombs only, J.W.S.)			
W.	Fletcheri, Forbes.	.....	.....	Dudley (England).
	Pseudocrinites, *Pearce*, 1842; *Forbes*, 1848. (Bodies compressed, arms 2–4, tentacles, 3 rhombs, carried back and covered with J.W.S.)			
	bicopula-digiti, Garnet.	.....	.....	Staffordshire?
W.	bifasciatus, Pearce.	.....	.....	Dudley (England).
,, ...	magnificus, Forbes.	.....	.....	,, ,,
,, ...	oblongus, ,,	.....	.....	,, ,,
,, ...	quadrifasciatus, Pearce.	.....	.....	,, ,,

Subdivision.	Genera, Species, and Author.	Lower Stage.	Middle Stage.	Upper Stage.
	Sphærocystites, *Hall*, 1859.			
L. H. G.	multifasciata, Hall.			Cumberland (Maryl. U.S.A.).
	Sphæronites, *Hisinger*,	1828–37. (Globular bodies consisting of many tessellated plates, J.W.S.)		
	aurantium, Wahlenb.	Dalecarlia, Isle Soller.		
	= *Sphærocystites*, Gyllenh.			
Pleta	Leuchtenbergi, Volborth.	(Russia) Popova, Poulkova.		
Carad.	Litchi, Forbes.	(N. & S. Wales) Merioneth, Bala, Sholes Hook.		
,,	munitus, ,,	Rhiwlas (N. Wales).		
,,	punctatus, ,,	,, ,,		
,,	pyriformis, ,,	,, ,,		
,,	stelliferus, ,,	Sholes Hook (S. Wales).		
	Sycocrinites, *Austin*, 1843.			
	Sycocystites, *Von Buch.*			
	angulosus, Von Buch.	(Russia) Poulkova.		
	= *Senkenbergii.*			
	granatus, ,,	(Sweden) Œland.		
	Trochocystites, *Barr.*	(The oldest known Cystidean save PROTOCYSTITES, J.W.S.)		
Primord.	Bohemicus? Barr.	Bohemia, (Spain) Almaden.		

Summary (Geographical).

Genera.	Species.				Genera.	Species.			
	America.	Europe.	Australia.	Common.		America.	Europe.	Australia (Selwyn).	Common.
Amygdalocystites	3	...	...	...	*Continued*	37	44	Species unknown.	3
Anomalocystites	1	...	...	...	Hemicystites	1	...		...
Apiocystites	9	2	...	1	Heterocystites	1	...		...
Ateleocystites	1	1	...	...	Holocystites	7	...		...
Callocystites	2	...	...	...	Lepadocrinus	1	...		...
Caryocystites	1	4	...	...	Malocystites	2	...		...
Comarocystites	3	...	...	...	Palæocystites	4	...		...
Crinocystites	2	...	...	...	Pentatrematites	1	...		...
Cryptocrinites	...	3	...	...	Pleurocystites	6	2		...
Cyclocystoides	3	2	...	1	Protocystites	...	1		...
Echinocystites	...	3	...	...	Prunocystites	...	1		...
Echino-encrinus	3	8	...	1	Pseudocrinites	...	5		...
Echinosphærites	...	12	...	...	Sphærocystites	1	...		...
Glyptocystites	4	1	...	...	Sphæronites	...	7		...
Glyptosphærites	...	1	...	...	Sycocystites	...	2		...
Gomphocystites	3	...	...	..	Trochocystites	...	1		...
Hemicosmites	2	7	...	...					
	37	44	...	3		56	63	20	3

SUBKINGDOM ANNULOSA. PROVINCE ANNULOIDA. CLASS ECHINODERMATA. ORDER ASTERIDEA.

Subdivision.	Genera, Species, and Author.	Lower Stage.	Middle Stage.	Upper Stage.
	Agelacrinites, *Vanuxem*, 1842 (EDRIOASTERIDÆ, *Billings*).			
	Billingsii, Chapman.	Canada West.		
Carad., Tr.	Buchianus, Forbes.	Ypatty-Evan (N.W.).		
	= *Edrioaster.*			
H. R. G.	Cincinnatiensis, Rœmer.	Cincinnati (Ohio).		
	Dicksoni, Billings.	Ottawa City (Can. W.)		
	Bothriocidaris, *Eichw.*, 1859.			
Pentam. Lst.	exilis, Eichw.		Talkhof (Livonia).	
Pleta	globosus, ,,	Poulkova (Russ.), Isle Dago (Baltic).		
	Edrioaster, *Billings.*	(Subglobular depressed Starfishes, J.W.S.)		
Tr.	Bigsbyi, Billings.	Ottawa City (Can.W.), Lake St. John (Can. E.).		
	Glyptaster, *Hall*, 1852.			
CH., H. R. G., CL., Niag.	brachiatus, n. s. Hall.	New York.	New York.	(N. York) Lockport Shale.
Niag.	inornatus, ,,			(Indiana) Waldron.

Subdivision.	Genera, Species, and Author.	Lower Stage.	Middle Stage.	Upper Stage.
Niag.	occidentalis, Hall.			Waldron (Indiana), Racine (Wisconsin).
,,	pentangularis, ,,			,, ,,
	Lepidaster, *Forbes*, 1850 (a many-armed tubercular Starfish, J.W.S.).			
W.	Grayi, Forbes.			Dudley (England).
,,	n. spec. Salter.			,, ,,
	Palæaster, *Hall*, 1842.	(The palæozoic form of Starfish, the ambulacra very simple, J.W.S.)		
Carad.	asperrima, Salter.	(W.) Welchpool, Guilsfield.		
LGreen Schists.	constellata, Thorent.	Mondrepuis (Aisné, France).		
ULlandov.	coronella, Salter.		(Malvern) Gunwick Mill.	
L.	Hirudo, Forbes.			Potter's Fell, Kendal (Westmoreland).
Carad.	imbricata, n. s. Salter.	(Wales) Montgomeryshire, Llanfyllin.		
Tr., H. R. G.	matutina, n. s. Hall.	(N. York) Trenton Falls &c.		
Niag.	Niagarensis, n. s. ,,			(N. York) Lockport.
Carad.	obtusa, Forbes.	Drumcannon, Waterf. (Irel.), Bala (N. Wales).		
CL.	parviuscula, Billings.		(Nova Scotia) Arisaig.	
L.	primæva, Forbes.			Underbarrow (Westmorel.).
Tr.	pulchella, Billings.	Ottawa City (Can. W.).		
Pleta.	pygmæa, Eichw.	Poulkova (Russia).		
L.	Ruthveni, Forbes.			Kendal, Highthorns (Westmoreland)
	Palæchinus, *Scouler*, 1840.			
ULlandov.	Phillipsii, Forbes. = *Echinocystites.*		Malvern (England).	
	Palæocoma, *Salter.*	(Membranous Starfish, flat like the duck's foot: star		"Palempes," J.W.S.)
W.	Colvini, Salter.			Shropshire.
L.	cygnipes, ,,			England.
Tr.	cylindrica, Billings.	Mid-Ottawa River (Can. W.).		
W.	Marstoni, Salter.			Shropshire.
,,	pyrotechnica, ,,			,,
Tr.	spinosa, Billings.	(Can. E.) Falls of Montmor.		
L.	vermiformis, Salter.			Ludlow (England).
	Palæodiscus, *Salter*, 1859.			
,,	ferox, Salter.			,, ,,
	gothicus, ,,			,, ,, ?
	Palasterina, *M'Coy*, 1851.	(Flat, discoid Starfish, J.W.S.)		
	antiqua, Hising.			Sweden.
H. R. G.	,, Locke.	Cincinnati (Ohio).		
,,	Jamesii? Dana.	,, ,,		
L.	primæva, Forbes.			Leintwardine (Shropshire), Kendal (Westmoreland).
Tr.	rigida, Billings.	Ottawa City (Can. W.).		
H. R. G.	rugosa, ,,	Anticosti Isle, Charlton Point.		
Tr.	stellata, ,,	Ottawa City (Can. W.).		
	Petraster, *Billings*, 1858.			
,,	? antiqua, Troost.	Davidson Co. (Tennessee).		
Niag.	bellulus, ,,			Grimsby (Can. W.).
Tr.	rigidus, ,,	Mid-Ottawa (Can. W.).		
Tr. or H. R. G.	Wilberanus, Meek & Hayd.	(N. York) Oswego, Kendal Co. (Illinois).		
	Protaster, *Forbes*, 1849.	(Long-armed Ophiurid-looking Starfishes of the group *Asteriadæ*, J.W.S.)		
L. H. G.	Forbesi, Hall.			(N. York) Herkimer County.
L.	leptosoma, Salter.			Leintwardine.
,,	Miltoni, ,,			,,
Carad.	Salteri, Forbes.	(Wales) Denbighshire, Cerrig-y-Druidion.		
W., L.	Sedgwickii, ,,			(N. Wales) Dinas Bran, Docker Park, and Benson Knot, Kendal.
	Stenaster, *Billings*, 1858.	(Closely allied, if not identical with *Palæaster*, J.W.S.)		
Div. 1. Queb. Gr.	Huxleyi, Billings.	(Newfoundland W.) Port Rich.		
Tr.	pulchellus ,,	Mid-Ottawa (Can. W.).		
,,	Salteri, ,,	Belleville, Lake Ontario, (Can. W.).		
	Tæniaster, *Billings*, 1858.	(Very like *Protaster*, J.W.S.)		
,,	cylindricus, Billings.	Ottawa City (Can. W.).		
,,	spinosus, ,,	Montmorenci Falls (Can. E.), (Can. W.) Ottawa River.		

Summary (Geographical).

Genera.	Species.			Genera.	Species.		
	America.	Europe.	Common.		America.	Europe.	Common.
Agelacrinites	3	1	1	*Continued*	14	21	1
Bothriocidaris	...	2	...	Palæodiscus	...	2	...
Edrioaster	1	1	...	Palasterina	5	2	...
Glyptaster	4	...	...	Petraster	4	...	...
Lepidaster	...	2	...	Protaster	1	4	...
Palæaster	4	9	...	Stenaster	3	...	...
Palæchinus	...	1	...	Tæniaster	2	...	...
Palæocoma	2	5	...		25	29	1
	14	21	1				

SUBKINGDOM ANNULOSA. PROVINCE ANNULATA. CLASS ANNELIDA.

Subdivision.	Genera, Species, and Author.	Lower Stage.	Middle Stage.	Upper Stage.
	Aphrodita? *Linnæus*, 17	35; *Portlock*, 1843.		
Carad.	sp. ind. *Portlock.*	Fermanagh (Ireland).		
	Arenicolites, *Salter*, 18	56. (Allied in habits to the	*Arenicola* of our coasts, J.	W.S.)
Longmynd	didymus, Salter.	(Shropshire) Church Stretton &c.		
Potsd. Sa., Llan.	linearis, Hall. = *Scolithus.*	(N. York) Canada, (Engl.) Shropshire.		
Longmynd	sparsus, Salter.	(Shropshire) Church Stretton &c.		
	Boliviana, *Salter*, 1861.			
	bipennis, Salter.	Unduava Valley, Andes (S. America).		
	melocactus, „	Aceromarka Valley, N.E. Illimani (S. America).		
	proboscidea „	„ „		
	Campylites, *Sowerby*, 1	839 (=SERPULITES).		
Corall. Lst.	longissimus, Murch.	.....	.....	Isle Oesel (Baltic), Wales.
„	sp. ind. Sowerby.	.....	.....	Isle Oesel (Baltic) &c.
	Chondrites, *Sternberg*, 1	833. (Almost certainly the	filled up burrows of wor	ms, J.W.S.)
P. LingulaFlags.	acutangulus, M'Coy.	Low Fell, Whitless (Cumberland).		
L.	antiquus. Brongn.	.....	.....	Ludlow (Shropshire).
Pleta.	„ Sternbergii.	Narva, Réval(Balt.), Livonia.		
„ „	informis, „	„ „		
Llandeilo	regularis, Harkness.	(S.W. Scotland) Barlae.		
P. Blue Clay	tener, Eichw.	Paulosk (Russia), Tokenhof (Finland).		
	tribulus, „	.....	Kirna, Wesenberg &c. (Esthonia).	
P.	sp. ind. Salter.	Near Bangor, N. Wales.		
	Cornulites, *Schlotheim*,	1820. (Calcareous tubes, c	ellular, J.W.S.)	
CL., L. H. G.	flexuosus, Hall.	.....	(N. York) Lockpart, (Nova Scotia) Arisaig.	(N. Scotia) Arisaig, Nictaux.
„ „	var. gracilis, „	.....	(Nova Scotia) Arisaig.	(Nova Scotia) Arisa
CL., Niag, L H.G., Car., Llandov., W., L.	serpularius, Schloth.	N. America, Britain, Gothland, Norway.	Scotland, Mayhill, Wales.	. York, Wales, Britain, Ireland, Bohemia, Gothland.
Onondag. S. Gr.	sp. ind. Hall.	.....	.....	N. York (U.S.A.).
	Crossopodia, *M'Coy*, 18	48.		
W., L.	lata, M'Coy.	.....	.....	(S. Wales) Storm hill &c.
Llan., Carad.	Scotica, „	Inverleithen (S.W. Scotl.).		
	Cruziana, *D'Orbigny*, 1	842; FRÆNA, *Rouault.* (An	annelid tube, somewhat c	oriaceous, J.W.S.)
Carad.	Bronni, Rouault.	Taille (France), Castile (Sp.).		
	Carpetana, C. de Prado.	Castile (Spain).		
„	Cordieri, Rouault.	Tailly (France).		
?	cucurbita, Salter.	Unduava and Aceromarka Valleys, Bolivia (South America).		
„	furcifera, Rouault.	Goven &c. (France), Bolivia (S. America?).		
„	Goldfussi, „	Tailly (France).		

Subdivision.	Genera, Species, and Author.	Lower Stage.	Middle Stage.	Upper Stage.
	Harlani, Hall?	N. York (U.S.A.).		
Carad.	Lyelli, Rouault.	Gauné, Guichen (France).		
	Murchisoni, C. de Prado.	Castile (Spain).		
,, ...	Prevostii, Rouault.	Bain &c. (France), Castile (Spain).		
	rugosa, D'Orbigny.	Bolivia (S. America).		
Carad.	St. Hilaire, Rouault.	Guichen &c. (France).		
P. Lingula Flags.	semiplicata, Salter.	(N. Wales) Bangor, Maentwrog, Llanberris.		
	Torrubiæ, C. de Prado.	Castile (Spain).		
?	Unduavi, Salter.	Unduava and Aceromarka Valleys, Bolivia(S.Amer.).		
	Ximenezii, C. de Prado.	Castile (Spain).		
Stiper Stones. ...	sp. ind. Salter.	Shropshire (England).		
	Disophonus, *Eichwald,*	1859.		
Corall. Lst.	paradoxicus, Eichw.	.....	.....	Bogolofsk, Ural (Russia).
	Forallites, *Rouault,* 1850.			
	Hæninghausi, Rouault.	Guichen (France).		
	Pomeli, ,,	Bain, Goven &c. (France.)		
	Fucoides,	(All are burrows of worms	in matrix? J.W.S.)	
	cylindricus, Dalimier.	Calvados(France), Bohemia.		
B.	demissus, Hall?	N. York (U.S.A.).		
P., Potsd.Sa. ...	duplex, ,,	N.W. Michigan, U.S.A., Pennsylvania.		
	gracilis, ,,	Malvern (Engl.), N. York.		
Faun. D. E. G. g. 2, 3, H. 1. h....	Hostinensis, Barr.	Branik, Hostin &c.(Bohem.).	.....	Hostin, Borek &c.
	Haughtonia, *Kinahan,* 1	858.		
?	poecila, Kinahan.	Brayhead (Ireland).		
	Helmintholites, *Salter,*	1866.		
Llan. &c.....	sp. ind.	(Engl.) Stiper Stones, (W.) Tremadoc, (N. Scotland) Durness.		
	Histioderma, *Kinahan,*	1858. (The curved burrow	of a worm with tentacles, J.W.S.)	
	Hibernicum, Kinahan.	Brayhead (Ireland).		
	Humilis, *Rouault,* 1850.			
	Damour, Rouault.	Guichen (France).		
	Heberti, ,,	,, ,,		
	Legalli, ,,	,, ,,		
	Martinsi, ,,	,, ,,		
	Visqueneli, ,,	,, ,,		
	Lumbricaria, *Münster,*	1826. (Only the cast of the	trail on mud, J.W.S.)	
Carad.	antiqua, Portlock.	Desertcreate (Tyrone).		
,, ...	gregaria, ,,	,, ,,		
	Myrianites, *Macleay,* 18	39. (Probably the cast of t	he animal in silty mud, J.	W.S.)
Llan.	Macleayi, Murchison.	Lampeter (S. Wales).		
Carad.	tenuis, M'Coy.	(S.W. Scotland) Grieston.		
	Nemertites, *Macleay,*183	9. (Long, involved, narrow	trails; casts only, J.W.S.)	
Llan.	Ollivantii, Murchison.	Lampeter (Pembrokeshire).		
	Nereites, *Macleay,* 1839.	(Impressions of worms wit	h branchiæ; supposed by	Geinitz to be Graptolites, J.W.S.)
Llan., Carad. ...	Cambrensis, Murchison.	Lampeter (Wales), Ashestiel (S.W. Scotland).		
Carad.?	Loomsi, Emmons.	Waterville (Maine, U.S.A.).		
Llan.	Multiforis, Harkness.	(S.W. Scotl.)Kirkcudbright.		
Carad.	Sedgwickii, Murchison.	Lampeter,Aberystwith (W.).		
,, ...	tenuis, M'Coy.	(S.W. Scotland)		
Llan.	sp. ind. Salter.	Skiddaw (Cumberland).		
P.	,, Harkness.	,, ,,		
	Palæonereis, *Eichwald,*	1859.		
Pleta	prisca. Eichw.	Odinsholm Isle (Baltic).		
	Phytopsis, *Hall,*	1846.		
B.	cellulosum, Hall.	(Can. E.) Port St. Clair, N. York (U.S.A.).		
	tubulosum, ,,	New York.		
	Platysolenites, *Pander,*	1856.		
Oldest Blue Clay.	antiquissimus, Pander.	Narva, Poulkova &c.(Russ.).		
	Psephidium, *Eichwald,*	1859.		
Pleta.....	ambiguum, Eichw.	Poulkova (Russia).		
	Pyrotonema, *M'Coy,* 18	50. (Supposed to be an Alc	yonarian zoophyte by M'	Coy, J.W.S.)
Llan.	fasciculus, M'Coy.	(Wales) Tregib.		
	Scolecoderma, *Salter,*	1866. (Membranous tubes	in mud, J.W.S.)	
P.	tuberculata, Salter.	Tremadoc (Wales).		
Carad.	sp. ind. ,,	(Wales) Bala Lake.		
	Scolicolithus, *Haldeman,*	1847.		
Marly Lst.	chordaria, Haldeman.	Wesenberg, Haljal (Estho.), Lower Silesia.		

Subdivision.	Genera, Species, and Author.	Lower Stage.	Middle Stage.	Upper Stage.
	Scolithus, *Hall*, 1846;	TIGILLITES, *Rouault*, 1850.	(Upright burrows of worms in sand, J.W.S.)	
P., Potsdam Sa.	Canadensis, Billings.	N. Vermont, (C. W.) Brockville, (C. E.) Beauharnois.		
	Danieloi, Rouault. = *Tigillites.*	(France) Aquidam &c.		
	Desfontaines, „ = *Tigillites.*	(France) Guichen &c.		
	Dufresnoyi, „ = *Tigillites.*	„ „		
P. Potsdam., Tremad., Llan., Llandov.	linearis, Safford ?	N. Scotland, (Wales) Stiper Stones, (France) Calvados, Canada E., N. York, Pennsylvania, Tennessee, Wisconsin.	Llandovery (Wales).	
	verticalis, Hall.	.....	(N. York) Monroe Co.	
	Serpula, *Linnæus*, 1758 ?	(Not likely to be the mode	rn genus, J.W.S.).	
Pleta, Pentam. L.	minuta, Eichw.	Isle Odinsholm (Baltic). ...	Talkhof (Livonia).	
Corall. Lst.	striatula, „	.....	.....	Isle Oesel (Baltic), Lodé.
?	Stutchbury-ensis, Stucthb.	Berrigal, New South Wales.		
	Serpulites, *Macleay*, 1839.			
W.	curtus, Salter.	.....	.....	Abberley (Worcester).
	depressus, Giebel.	.....	.....	Harz (Germany).
Car., Llandov., W., L.	dispar, Salter.	(S. Wales) Tan-y-Craig, Hollies, Shropshire.	S. Wales	Ludlow, Benson Knot &c., Llangollen (Wales).
B., BL., Tr.....	dissolutus, Billings.	(Can. E.) Montreal, River Ottawa, lower.		
P., Mid-Lingula Flags	fistula, Hall.	Malvern, Hollybush (Worcester).		
Car., Llandov., W., L., UL.	longissimus, Murchison.	(Wales) Llanwddyn, Berwyn Mountains.	.....	Kington, Ludlow, Radnor, Isle Oesel (Baltic).
	M'Cullochi, Salter.	S. Wales, (N. Scotl.) Durness.		
P., Potsdam.....	Murchisoni, Hall.	La Grange Mountain, Minnesota (U.S.A.).		
W.	perversus, M'Coy.	.....	.....	Tortworth (Gloucester).
CH.	splendens, Billings.	(Can. E.) Montreal.		
	Spirorbis, *Lamarck*, 1818.	(Minute, curled, and attached Serpula, J.W.S.)		
Tentac. Lst., (L. H. G.)	Laxus, Hall.	.....	.....	(Eastern N. York) Schoharie Co.
U Llandov., W., L.	Lewisii, Sowerby.	.....	Galway, Shropshire, Mayhill.	Bohemia, W. Scotland, N. & S. Wales, Ludlow, Ledbury.
Corall. Lst.	Siluricus, Eichw.	.....	.....	Isle Oesel (Baltic), Novogorod (Russia).
L.	tenuis, Sowerby.	.....	.....	Leintwardine, Shropshire.
	Tentaculites, *Schloth.*, 1820.	(Shelly tubes with clavate-headed animal, J.W.S.)		
Faun. G.	acuarius, Richter.	.....	.....	Bohemia, Thuringia.
?	æqualis, Abich.	Mount Ararat (Armenia).		
Llan., Car., Up. Llandov., a. n.	anglicus, Salter.	Bohemia, (N. & S. Wales) Bala &c., Shropsh., Scotl., Coniston (Lancashire).	N. & S. Wales, Presteign, Malvern, Shropshire.	
Car. &c.	annulatus, Hising. Schloth.	Horderley &c., Shropshire, Coniston (Lancashire), (Wales) Glen Ceriog &c.	(S. Wales) Builth.	
?	approximatus, Eichw.	Mount Ararat (Armenia).		
Faun. G.	cancellatus, Richter.	.....	.....	Bohemia, Thuringia.
G. g. 1, 2, H. h. 1.	clavulus, Barr.	.....	.....	(Bohemia) Kozorz, Holin, Vavrovitz, Chotecz, Hluboceps &c.
?	costulatus, Meneghini.	Sardinia.		
CL., L. G. H. ...	distans, Hall.	.....	(Can. W.) Flambro Head, Arisaig (Nova Scotia).	Arisaig (Nova Scotia).
F. G. g. 1, 2, 3, H. h. 1.	elegans, Barr.	.....	.....	(Bohemia) Hlubocep, Hostin, Frantatetin, Lockhov, Dvoratz &c.
Del. Sh. Lst. ...	elongatus, Hall.	.....	.....	(N. York E.) Schoharie Co.
Tr., H. R. G. ...	flexuosus, „	(Kentucky) Mayville, (N.Y.) Lewis Co., (Ohio) Cincinnati, Indiana.		
	fissurellus, „	.....	New York.	
L. H. G.	incurvus, Shumard.	.....	.....	Cape Girardeau (Missouri).
(Tentac. Lst.) „	irregularis, Hall.	.....	.....	(Cent. & E. N. York) Hudson, Carlisle.
F. G. g. 1.....	longulus, Barr.	.....	.....	(Bohemia) Divoretz, Tetin, Slichow, Mnienan, Konieprus.
CL.	minutus, Hall.	.....	.....	(N. York) Rochester Shale.
Niag.	Niagarensis, „	.....	.....	New York.

Subdivision.	Genera, Species, and Author.	Lower Stage.	Middle Stage.	Upper Stage.
Car., Llan., W., UL. (L. H. G.)	ornatus, Sowerby.	(S.W. Scotland) Saugh Hill.	.....	Dudley, Montgomeryshire, Sweden, (N. York) Cherry Valley.
H. R. G.	Oswego-ensis, Meek&Worth	Oswego and Kendall Counties, Illinois.		
	Saienzii, Salter.	.....	.....	Bolivia (S. America).
Carad., UL.	scalaris, Schloth. Conrad.	(Wales) Penmachus &c., (Engl.) Delbury, Bradnor Hill&c., Brittany ?, (Spain) Almadenejos, Entrodicho &c.	.....	(N. York) Herkimer Co., Spain?
	Stirlingensis, Meek&Worth.	Stirling, Illinois.		
	supremus, Salter.	.....	.....	Illampa (Bolivia).
	tenuis, Sowerby.	.....	.....	Russia, Usk, (Monmouthsh.) Kendal, Westmoreland.
H. R. G.	tenuistriatus, Meek&Worth.	Alexander Co., Illinois.		
Carad.	sp. ind. Stevens.	Moffat Shales, Dumfries.		
W.	„ Salter.	.....	.....	(Wales) Plas Madoc.
	„ Hall.	.....	.....	Arisaig (Nova Scotia).
	„ Vern.?	(Spain) Sierra Morena.		
MuthSeries, *Stroliczka.*	„ Stroliczka.	Himalaya, E. Indies, Kumaon.		
	Trachyderma, *Phillips,*	1848. (Coriaceous wrinkled tubes, J.W.S.)		
P. Ling. Flags...	antiquissima, Salter.	Hollybush, Malvern (Worc.).		
L.	coriacea, Phillips.	.....	.....	Abberley (Shropsire).
Carad.	lævis, M'Coy.	Acton Scott (Shropshire).		
„	serrata, Salter.	Normandy, Budleigh S., Devonshire.		
UL.	squamosa, Phillips.	.....	.....	Ireland, Shropshire, Kendal, Westmoreland.
	Vermiculites, *Rouault,*	1850.		
	Panderi, Rouault.	Guichen (France).		

Summary (Geographical).

Genera.	Species.				Genera.	Species.			
	America.	Europe.	N.S.Wales	Common.		America.	Europe.	N.S.Wales	Common.
Aphrodita	...	1	...	...	*Continued*	14	48	...	4
Arenicolites	1	3	...	1	Nemertites.....	...	1	...	...
Boliviana	3	...	...	...	Nereites	1	6	...	...
Campylites.....	...	2	...	...	Phytopsis	2	...	...	...
Chondrites.....	...	8	...	...	Platysolenites	...	1	...	...
Cornulites	4	1	...	1	Psephidium	...	1	...	...
Crossopodia	...	2	...	...	Pyrotenema	...	1	...	...
Cruziana	4	13	...	2?	Scolecoderma	...	2	...	...
Disophonus	...	1	...	...	Scolicolithus	...	1	...	...
Forallites	...	2	...	...	Scolithus	3	4	...	1
Fucoides	2	3	...	...	Serpula	...	2	1	...
Haughtonia	...	1	...	...	Serpulites	3	7	...	...
Helmintholites	...	1	...	...	Spirorbis	1	3	...	...
Histioderma	...	1	...	...	Tentaculites	15	17	...	2
Humilis	...	5	...	...	Trachyderma.....	...	5	...	...
Lumbricaria	...	2	...	...	Vermiculites	...	1	...	...
Myrianites.....	...	2	...	...					
						39	100	1	7
	14	48	...	4					

SUBKINGDOM ANNULOSA. PROVINCE ARTICULATA. CLASS CRUSTACEA. ORDER TRILOBITA.

Subdivision.	Genera, Species, and Author.	Primordial.	Lower Stage.	Middle Stage.	Upper Stage.
	Acanthopyge, *Corda,* 1847.				
W.	anglica,				(England) Dudley.
	Acerocare, *Angelin,* 1852 (see OLENUS).				
P. regio A.	ecorne, Angelin.		(Sweden) Scania.		
	Acidaspis, *Murchison,* 1839.				
Norw. Reg. E.	armatus, Boeck.				Sweden, Norway.
W.	Barrandii, Ketley.				Dudley (England).
regio E.	,, Angel.				Sweden.
Carad.	bispinosus, M'Coy.		(Ireland) Kildare.		
Car., U. Llandov, W., L.	Brightii, Murchison.		(Wales) Glyn Ceiriog, Blain-y-Cwm.	(Wales) Llandovery &c., Glyn Ceiriog.	Wales, Shropshire, Dudley.
D. d. 3	Buchii, Barr.		(France) Angers &c., (Bohemia) Mount Drabow, Winice, Trubin, Zahorzan &c.		
Llandov.	callipareos, Wyv. Thom.		(S.W. Scotl.) Girvan.		
Carad.	Caractaci, Salter.		Wales, (Shropshire) Gretton.		
W., LL.	coronatus, ,,				Ludlow, Vinnal Hill, Dudley.
Corall. Lst., W., Low. L., Reg. E.	crenatus, Lovén.				Gothland, (England) Dudley, Ludlow, Isles Moon & Oesel.
W.	dama, Salter & Fletcher.				(England) Dudley.
Niag.	Danae, D. D. Owen.				U. Mississippi River, Chicago (Illinois).
Fauna G. g. 1, 2. ,, E.	derelictus, Barr.				(Bohemia) Hostin, Hlubocep, Tetin, Pekarkovitz.
,, D.	desideratus, ,,		(Bohem.) Col. Motol.		
,, E. e. 1.	Dormitzerus, Corda.			(Bohemia) St. Iwan.	
,, ,,	Dufrenoyi, Barr.			(Bohemia) St. Iwan, Kolednik, Lodenitz.	
W.	dumetosus, Salt. & Fletch.				(England) Dudley.
Fauna E.	Geinitzianus, Barr.				(Boh.) Dlauha Hora.
Regio D–E.	granulatus, Angel.		Mounts Olleberg and Mosseberg (Vestrogothia).		
Fauna E.	Grayii, Barr.				(Bohemia) Listice.
	Halli, Shumard.				U. Mississippi River.
Delth. Sh. L.	hamatus, Conrad.				(N.Y.) Albany Co. &c.
Fauna E.	Hawlei, Barr.				(Bohemia) Listice.
F. G. g. 1.	Hoernesi, ,,				(Bohem.) Wilkocilka, Mnienian, Hostin.
Tr.	Horani, Billings.		Cape Tourment, St. Lawr. River, L. St. John (Canada E.).		
Upper Bala	hystrix, Wyv. Thomson.		(S.W. Scotl.) Ayrsh.		
Niag.	Ida, Winchell & Marcy.				Chicago (Illinois).
Llan. Flags.	Jamesii, Salter.		(Irel.) Newton, Waterford Co., and Duncannon, Wexford Co.		
Very Micac. Sch., Fauna D.	Keyserlingii, Barr.		(Bohemia) Beraun, Lodenitz &c.		
,, F.	laceratus, ,,				(Bohem.) Konieprus, Mnienian.
Carad.	Lalage, Wyv. Thomson.		Scotl. (S.W.) Ayrsh.	S.W. Scotland.	
Fauna F.	Laportei, Corda.				(Bohem.) Mnienian.
,, E, F.	Leonardi, ,,				(Bohemia) Dlauha Hora, Borek, Kolednick, Tachlowitz, Dworetz, St. Iwan &c.
Reg. E.	Marklini, Angel.				(Sweden) Gothland.
Fauna E.	minutus, Barr.				(Bohemia) Dlauha Hora, Kolednik.
,, E. e. 1.	mirus, ,,			(Bohem.) Tachlowitz, Butowitz &c.	
G. g. 1.	monstrosus, Barrande.				(Bohemia) Dworetz, Lochkov.
Reg. E.	multicuspis, Angelin.				(Sweden) Gothland.

Subdivision.	Genera, Species, and Author.	Primordial.	Lower Stage.	Middle Stage.	Upper Stage.
Reg. E.	pectinatus, Angelin.	.....	.....	.....	(Sweden) Gothland.
Fauna E.	pectiniferus, Barr.	.....	.....	Bohemia?	(Bohemia) Kozel.
„ „	Portlocki, Corda.	.....	.....	.....	(Bohemia) Listice.
„ E. e. 1...	Prevostii, Barr.	.....	.....	(Bohem.) Tachlowitz, Borek, Hinterco-panina &c.	
„ D. d. 3, 4, 5.	primordialis, „	.....	(Bohem.) Mount Drabow, Praskoles Wraz, Lodenitz, Beraun &c.		
„ E.	propinquus, „	.....	.....	.....	(Bohem.) Lodenitz, Kozel, Sedletz.
W.	quadrimucronatus, Murch.	.....	.....	.....	Dudley (England).
„	quinquespinosa, Fletcher.	.....	.....	.....	„ „
Fauna E, F. ...	radiatus, Barr.	.....	.....	.....	(Bohemia) Dlauha Hora, Mnienian.
„ E.	rebellis, „	.....	.....	.....	(Bohemia) Listice.
„ E. e. 1...	Rœmeri, „	.....	.....	(Bohemia) Lodenitz.	
„ G. g. 1...	ruderalis, „	.....	.....	.....	(Bohemia) Tetin.
	Selcana, Rœmer.	.....	.....	.....	Thuringia.
„ E.	solitarius, Barr.	.....	.....	.....	(Bohemia) Dlauha Hora.
Tr.	spinigerus, n. s. Hall.	.....	(N. York) Mohawk Valley, (Canada) Montreal.		
Fauna F.	subter-armatus, Barr.	.....	.....	.....	(Bohemia) Mnienian, Konieprus.
Very Micac. Sch., Fauna D.	tremendus, „	.....	(Bohemia), Praskoles, Lodenitz.		
Tr.	Trentonensis, Hall.	.....	Canada, B. of Quinté, Lake Ontario.		
Fauna E.	tricornis, Barr.	.....	.....	Bohemia?	(Bohemia) Dlauha Hora, Kolednik.
„ F.	truncatus, Corda.	.....	.....	.....	(Bohemia) Mnienian.
Delth. Sh. L. ...	tuberculatus, Hall.	.....	.....	.....	(N. York) Albany and Schoharie Cos.
Fauna E.e.1 &c.	Verneuilli, Barr.	.....	.....	(Bohemia) Butowitz.	(Bohem.) Wohrada, Konieprus, Mnienian &c.
„ F.	vesiculosus, „	.....	.....	.....	(Bohem.) Konieprus, Lochkov &c.
CL.	sp. ind. Hall.	.....	.....	New York.	
	Acontheus, *Angelin*, 1852 (ARIONELLUS?).				
Reg. B.	acutiangulatus, Angelin.	Andrarum, Scania.			
	Actinopeltis, *Corda*, 1847 (CHEIRURUS).				
Carad.	clavifrons, Dalman.	.....	Sweden, (Irel.) Kildare, (Wales) Bala, (Westmorel.) Applethwaite Comm.		
	„ Sars.	.....	Norway.		
D. d. 3, 4, 5. ...	globosus, Barr.		(Bohemia) Königshof, Karlshütte, Lieben &c.		
Carad.	juvenis, Salter.	.....	Ireland, S.W. Scotl., (Wales) Denbighs., Bala, Cerrig-e-Druidion.		
	Æglina, *Barrande*, 1846.				
LLlan.	binodosa, Salter.	.....	(Shropshire) west of Stip. Stones, Outerside near Coldgate, Cumberland.		
Arenig rock ...	Boia, Hicks.	Ramsay Isl., Whitesand Bay, St. David's (S. Wales).			
LLlan., Carad.	caliginosa, Salter.	.....	(N. Wales) Ty-obry.		
Llan.	grandis, „	.....	St. David's Head (S. Wales).		
„	major, „	.....	(N. Wales) Glan-y-gors, Anglesea.		
Llan., Carad....	mirabilis, Forbes.	.....	(Ireland) Portrane.		
Reg. E.	oblongula, Angel.	.....	Sweden	.....	(Sweden) Mount Mosseberg.
D. d. 4	pachycephala, Barr.	.....	(Bohemia) Trubin, Winice &c.		
D. d. 1.	prisca, „	.....	(Bohemia) Rokitzau.		

Subdivsion.	Genera, Species, and Author.	Primordial.	Lower Stage.	Middle Stage.	Upper Stage.
D. d. 3, 4, 5. ...	rediviva, Barr.	.....	(Bohemia) Winice, Lodenitz, Trubin.		
Fauna D. d. 1, 4, 5.	speciosa, Angelin. Corda.	.....	Swed., (Bohem.) Königshof, Karlshütte.		
D. d. 1, 5	sulcata, Barr.	.....	Bohemia.		
	Agacanthus, *Angelin*, 1852 (see ARIONELLUS).				
	Aglaspis, *Hall*, 1863.				
Potsd. Sa.	Barrandii, Hall.	(Minnesota) Minisca, Mazomania.			
„	sp. ind. „	(Wisconsin) Black R.			
	Agnostus, *Brongniart*, 1822.				
Reg. B.	aculeatus, Angelin.	(Sweden) Andrarum.			
Queb. G.	Americanus, Billings.	Point Levi (Can. E.), in Lst. No. 1.			
Menevian G. ...	Barrandei, Salter.	St. David's (S. Wales).			
Fauna C.	bibullatus, Barr.	(Bohemia) Skrey.			
Reg. B.	bituberculatus, Angelin.	Sweden, Andrarum.			
„	brevifrons, „ = *nodiger*.	(Sweden) Andrarum, Okhotzk, Kamskat.			
Lst. 3, Queb. G.	Canadensis, Billings.	Point Levi (Can. E.).			
Potsd.....	Colorado-ensis, B. F. Shum.	Texas, Clear Ch.			
Ling. Flags ...	Davidis, Salter.	(S. Wales) St. Davids.			
Potsd.....	disparilis, Hall.	(Upper Mississippi) Oceola Mills.			
Reg. B.	exsculptus, Angelin.	(Sweden) Andrarum.			
Div. N.P., Queb. G.	Fabius, Billings.	(Newfoundland W.) Portland Creek &c.			
Div. M. N. P., P. L., &c.	Galba, „	„ „			
Reg. D.	glabratus, Angelin.	(Swed.) Mt. Mosseb.			
„ B.	glandiformis, „	(Sweden) Andrarum.			
(Sch.) Fauna C.	granulatus, Barr.	(Bohemia) Skrey, Ginetz.			
Arenig Rocks...	hirundo, Salter.	Whitesand Bay and Ramsay Isl. (S.W.).			
P. Sch., Fauna C.	integer, Barr.	(Bohem.) Skrey, Ginetz.			
Potsd.....	Josepha, Hall.	(L. Pepin, Wisconsin) Trempaleau.			
Reg. C.	lævigatus, Dalm.	.....	(Sweden) Gudhem &c.		
„	lentiformis, Angelin.	.....	(Sweden) Fagelsang, Russia.		
Carad.	limbatus, Salter.	.....	(Ireland) Wexford.		
H. R. G.	lobatus, Hall.	.....	(N. York) Troy, Pennsylvania.		
U. Llan.	Maccoyi, Salter.	.....	(S. & N. Wales) Builth, (Shropsh.) Shelve.		
Llan.	Morei, Salter.	Stiper Stones (Shropshire), Skiddaw, N.E. Westmoreland.			
Pleta	nodiger, Eichw.	.....	Riv. Amour (Kamsk.).		
Fauna C.	nudus, Beyr.	Skrey (Bohemia).			
Lst. No. 1, Queb. G.	Orion, Billings.	Point Levi (Can. E.).			
Pleta	paradoxus, Eichw.	.....	(Russia) Poulkova.		
Potsd. Sa.	„ var. Shumard.	Wisconsin.			
„	parilis, Hall.	Lake Pepin (Up. Mississippi River.			
Alum Schists, Reg. A., Pleta.	pisiformis, Linn.	(Sweden) Andrarum, Malvern (Engl.), (Wales) Pen Cerrig, Builth, Dolgelly.	„ „		
Reg. B.	planicauda, Angel.	(Sweden) Andrarum.			
L. & U. Ling., U. Tremad.	princeps.	England, (Wales) P.-y-Rhaw, Maentwrog, Festiniog, Criccieth, Dolgelly &c.			
Reg. B ?	punctuosus, „	(Sweden) Andrarum.			
„ A	reticulatus, „	„ „			
Fauna C.....	Rex, Barr.	(Bohem.) Skrey, (W.) Dolgelly.			
P. L. Lingula Flags.	scutalis, Salter.	(Wales) St. David's.			
Fauna D.d. 1–5.	tardus, Barr.	.....	(Bohem.) Karlshütte, Beraun, Königshof.		

Subdivision.	Genera, Species, and Author.	Primordial.	Lower Stage.	Middle Stage.	Upper Stage.
P. Carad.	trinodus, Salter.	Dolgelly (Wales). ...	Newfoundland, Irel., (N. & S. Wales) Rhiwlas &c.		
Ling. Flags	trisectus, ,,	Malvern (England).			
Reg. B.	tuberculatus, Angel.	(Sweden) Andrarum.			
L. Ling. Flags.	sp. ind. Salter.	St. David's (Wales).			
	,, (many), De Vern.	.....	Cantabrian Mounts., Spain.		
L. Llan.....	,, Salter.	.....	Tai-hirion (Wales).		
Carad.	,, ,,	.....	Bala Lake (N. Wales).		
	Amphion, *Pander*, 1830.				
Reg. C.	actinurus, Dalman.	.....	(Swed.) Ostrogothia.		
Div. I, K, L, M, N, P, Queb. G.	Barrandei, Billings.	(Newfoundland W.) Cowhead.			
Carad.	benevolens, Salter.	.....	Ireland.		
CH.	Canadensis, Billings.	.....	Canada, Mingan Isles.		
Queb. G.	Caylei, ,,	Point Levi (Can. E.).			
,, ...	convexus, ,,	Staubridge (Can. E.).			
Reg. C., Pleta...	Fischeri, Eichw.	.....	Norw., Swed., (Russ.) Humelasaari &c. near Czarskoe-selo, L. Ladoga.		
Div. G. (CS.), Queb. G.	insularis, Billings.	(Newfoundland W.) Port au Choix.			
Div. P., Queb. G.	Julius, ,,	Newfoundland West.			
Pleta	Lindaueri, Eichw.	.....	(Russia) Poulkova.		
D. d. 1	,, Barr.	.....	(Bohem.) Horzowitz, Rokitzan.		
	Mathesii, Angel.	.....	(Swed.) Vestrogothia.		
Potsd.....	? matutinus, Hall.	(N. Wisc.) Trempaleau.			
Carad.	pauper, Salter.	.....	Ireland.		
,, ...	pseudo-articulatus, Portl.	.....	,,		
CS., Queb. G...	Salteri, Billings.	Phillipsburg, Oxford (Canada E.)			
,, ...	Westoni, ,,	Stanbridge (Can. E.).			
P.	sp. ind. De Prado.	(Spain) Leon Sabero.			
	,, Casiano.				
	Amphytrio, *Corda* (see **Ampyx,** *Dalman*, 1827.	(REMOPLEURIDES).			
(Boulder)	carinatus, Angel.	.....	(Sweden) Mt. Kinnekulle.		
Reg. D. a.	costatus, Boeck.	.....	,, ,,		
Reg. D. E.	foveolatus, Angel.	.....	(Sweden) Mount Osmundb., Dalecarl.		
CH.	Halli, Billings.	.....	New York (Highgate Springs), N. Vermont, Canada.		
Queb. G.	læviusculus, ,,	(Newfoundl.) Tablehead.			
Carad.	latus, M'Coy.	.....	Builth (Wales).		
Carad., Reg. D. a. ?	mammillatus, Sars. =*costatus*, Boeck.	.....	(Ireland) Waterford, (Wales) Garn, Arenig, (Engl.) Dufton Pike, Westmorel., Sweden, (Norway) Christiania.		
Pleta, Carad. ...	nasutus, Dalman.	Newfoundland W.	(Norway) Christiania, Sweden, England, (Russ.) Czarskoe-selo, Popowa &c.		
Div. N, P, Queb. G.	normalis, Billings.	(Newfoundland W.) Tablehead.			
Llan.	nudus, Murch.	.....	Builth (Wales), Tre Gil, Llandeilo.	(Engl.) Abberley.	
Carad., W., L...	parvulus, Forbes.	.....	England.		
Carad.	pinnatus, Salter.	.....	(Engl.) Onny River, Shropshire.		
Fauna D. d. 5...	Portlockii, Barr.	.....	(Bohem.) Königshof.		
U.P., Tremad. Sl.	prænuntius, Salter.	(Wales) Penclogwyn.			
Carad.	rostratus, Sars.	.....	Sweden, Norway, Ireland, Scotland.		
Fauna E. e. 1...	Rouaulti, Barr.	.....	.....	(Bohemia) Borek, Butowitz, Tachlowitz &c.	

Subdivision.	Genera, Species, and Author.	Primordial.	Lower Stage.	Middle Stage.	Upper Stage.
Queb. G.....	rutilius, Billings.	Newfoundland, Portland Creek.			
Div. N = Pt. Levi, Arenig Rocks.	Salteri, Hicks.	Whitesand Bay and Ramsay Isle (S. Wales).			
Div. N, P, Queb. Gr.	semicostatus, Billings.	(Newfoundland W.) Tablehead.			
Reg. D.	tetragonis, Angel.	.....	(Swed.) Mt. Mosseb.		
Carad.	tumidus, E. Forbes.	.....	(Wales) Montgomsh., Llangynnog.		
	Aneuacanthus, *Angelin*, 1852 (see ARIONELLUS).				
	Angelina, *Salter*, 1853.				
Up. Tremad. Slate.	Sedgwickii, Salter.	(Wales) Penclogwyn, Garth, Dendraeth, Dolgelly, Tremadoc &c.			
,, ,,	subarmata, ,,	,, ,,			
	Anomocare, *Angelin*, 1852 = ARIONELLUS, *Barrande*.				
Reg. B	aculeatum, Angelin.	(Sweden) Andrarum.			
,, ...	acuminatum ,,	,, ,,			
,, ...	difforme, ,,	,, ,,			
,, ...	excavatum, ,,	,, ,, &c.			
,, ...	limbatum, ,,	,, ,,			
,, ...	microphthalmum, ,,	,, ,, &c.			
	Anopocare, *Angelin*, 1852 (OLENUS).				
Reg. A	pusillum, Angelin.	(Sweden) Andrarum.			
	Anopolenus, *Salter*, 1863.				
Lingula Flags...	Henrici, Salter.	St. David's, Dolgelly (Wales).			
,, ,,	Salteri, Hicks.	St. David's (Wales).			
	Arethusina, *Barrande*, 1846.				
D, E. e. 1	Koninckii, Barr.	.....	Bohemia	(Bohemia) Dlauha Hora, Beraun, &c.	
E. e. 1	nitida, ,,	.....	.....	(Bohemia) Kozel.	
Niag.	**Arges,** *Goldfuss*, 1839. phlyctænodes, Hall.	.....	.....	.....	(N. York) Albion, Orleans County.
	Arionellus, *Barrande*, 1852.				
P.	acutangulus, Angel.	Sweden.			
Potsd. Sa.	bifurcatus, B. F. Shumard.	Wisconsin.			
Mid. Potsd. ...	bipunctatus, ,,	Root R., Minnesot. &c.			
Fauna C	ceticephalus, Barr.	(Spain) Leon Sabero, (Bohem.) Slap, Skrey.			
Lst. No. 1, Queb. G.	cylindricus, Billings.	Point Levi (Can. E.).			
(Agraulos) Ptsd. Sa.	Oweni, Hayden ?	Dacota Territory, N. America.			
,, ,,	planus, B. F. Shumard.	Burnet Co., Texas.			
Lst. No. 1, Queb. G.	subclavatus, Billings.	Point Levi (Can. E.).			
(Bathyurus) Potsd. Sa.	Texanus, B. F. Shumard.	Burnet Co., Texas.			
,, ,,	sp. ind. Hall.	Wisconsin.			
,, ,,	,, B. F. Shumard.	Texas, U.S.A.			
	Arraphus, *Angelin*, 1852 (HARPES).				
Reg. D, E	corniculatus, Angel.	.....	(Swed.) Mt. Olleberg.	.....	Sweden ?
	Asaphus, *Brongniart*, 1822 (including ISOTELUS, BASILICUS, &c.).				
Pleta, Reg. C...	acuminatus, Boeck.	.....	Norway, Sweden, Russia, Esthonia.		
Up. Tremad. ...	affinis, M'Coy.	(N. Wales) Portmadoc, Cae-Ednyfydd &c.			
Pleta	angustifrons, Dalm.	.....	Réval, Kunda (Balt.), Poulkova &c. (Russia).		
	auriculatus, Barr.	.....	Bohemia.		
	Barrandei, Hall.	.....	N.W. Michigan, St. Mary's River (L. Superior).		
	Boliviensis, D'Orb.	.....	Bolivia (S. America).		
Carad.	brevicaudatus, E. de Beaum.	.....	(Normandy) May.		
,, ...	Brongniarti, ,,	.....	,, ,,		
U. Slate	Canadensis, Chapman.	.....	Lake Huron, East end		
Div. F, G, H, I, K, L, Queb. G., CS.	canalis, Billings.	Newfoundl. W., Point Rich, Kitley (Can. W.).	(Canada E.).		

Subdivision.	Genera, Species, and Author.	Primordial.	Lower Stage.	Middle Stage.	Upper Stage.
Ut. Slate?	caudatus, Chapman.	.....	Collingwood Township (Canada W.).		
Pleta	centron, D. de Leuchtenb.	.....	St.Petersb., Paulowsk (Russia).		
	Cianus,	.....	(Spain) Huerto del Llano.		
	contractus, Vern.	.....	(Sp.)Ciudad Reale&c.		
?	cornutus, ,,	.....	Russia.		
Queb. G.....	curiosus, Billings.	(Can.) Standridge.			
	Delphinus, Lawrow.	.....	Russia.		
	Desmaresti, Sharpe.	.....	(Portugal) Vallongo.		
Pleta	devexus, Vern., Eichw.	.....	(Portugal) Vallongo, I. Odinsh. (Balt.).		
Pleta	dilatatus, Eichw.	.....	I. Odinsholm (Balt.).		
	Emodi, Salter.	.....	Himalaya,Niti(Ind.).		
	Emoryi, Hall.	.....	New Mexico.		
,, ...	expansus, Wahlenb.	(referred to CRYPTONEMUS).	Siles., Sweden, Norway, (Russ.) Ropscha, Tosna &c., Esthonia, Isles Roog and Odinsholm.		
B., Tr.	extans, ,,	.....	N.W. Michigan, New York, Canada W.		
	extenuatus, Dalm.	.....	(Ostrog.) Heda, Husbyfjol, &c.		
Reg. C	fallax, ,,	.....	Sweden, Ljung.		
	frontalis, ,,	.....	(Ostrogoth) Ljung.		
	glabratus, Salter.	.....	(Spain) Ballesteros, W.Asturia, Portug.		
Lst. 3, Queb. G.	goniurus, Billings.	Point Levi (Can. E.).			
P., Reg. A, B.	grandis, Sars.	Norway.			
Carad.	Guettardi, Brongn.	.....	(France) Normandy, May,(Portug.)Vallongo.		
Ut. Slate	Halli, Billings.	.....	Canada.		
	Heros, Dalman.	.....	Esthonia, Husbyfjol (Ostrog.),(Dalecarlia) L. Siljan.		
Ut. Slate	Hincksii, Billings.	.....	Canada.		
Up. Tremad. Sl. (P.).	Homfrayi, Salter.	N. Wales, Penmorfa, Garth, &c.			
Div.N=Pt.Levi, Queb. G.	Huttoni, Billings.	.....	Canada,(Newfoundl.) Tablehead.		
Pleta	hyorrhinus, Vern.	.....	(Russ.) Humelasaari, Ropscha.		
Lst. 3,Queb. G.	illænoides, Billings.	Point Levi (Can. E.).			
Fauna D. d. 3...	ingens, Barr.	.....	(Bohemia) Wesela on Mount Drabow.		
Carad.	intermedius, ,,	.....	Tramore (Waterf.).		
Tr.?	Iowensis, D. D. Owen.	.....	(Iowa) Turkey River.		
	Kowalowski, Lawrow.	.....	Russia.		
Carad.	læviceps, Dalm.	.....	Sweden, Ireland.		
Reg. D, W.....	lævigatus, Angel.	.....	(Sweden) Vestra, Bestorp.		
Llan.	laticostatus, M'Coy.	.....	(Wales) Builth.		
Ut. Slate	? latimarginatus, Hall.	.....	New York.		
Pleta	latus, Pander.	.....	(Russia) Tosna, Ropscha, &c.		
	mammillatus, D.D.Owen.	.....	Up.Mississippi River.		
CH., BL.	marginalis, Hall.	.....	(N. York) Chazy Vill.		
Carad.	Marstoni, Salter.	.....	Shropshire.		
Tremad.	Menevia, ,,	Ramsay Isle,Tremainhere (S. Wales).			
Div. N, P.=Pt. Levi, Queb. G.	Morrisii, Billings.	Newfoundland West, Tablehead &c.			
	nivalis, Salter.	.....	Himalaya (India).		
D. d. 2, 3, 4, 5.	nobilis, Barr.	.....	(Bohem.) Lieben, Lodenitz, Neumatel, Trubin, Wolmitz &c.,(Spain) Puenta de las Ovejas, Chillon, &c.		
Tr.	nodostriatus, Hall.	.....	(N.York)Watertown.		
H. R. G.	notans, Billings.	.....	(Anticosti) Engl. Hd.	(Anticos.)GamacheB.	
CH., BL.	obtusus, ,,	(N.York) Chazy Vill.			
	palpebrosus, Dalm.	.....	(Ostrogo.) Husbyfjol.		

Subdivision.	Genera, Species, and Author.	Primordial.	Lower Stage.	Middle Stage.	Upper Stage.
Pleta	parallela, Eichw.	.....	Russia.		
Div. P, Point Levi, Queb. G.	Pelops, Billings.	Newfoundland, Isl. of Orleans, N.E. end (Canada E.).			
Ling. Fl.	peltastes, Salter.	St. David's, S. Wales.	Llandeilo, Builth, &c. (Wales).		
CH.,B.,BL.,Tr., Ut.Sl., H.R.G.	platycephalus, Stokes.	.....	(Can.W.)Humber R., (Can. E.) Murray Bay, (Anticosti) English Head, Russia, I. Dago (Balt.).		
	platynotus, Dalm.	.....	(Vestrogoth)Mt. Mosseberg &c.		
Pleta	platyurus, Angel.	.....	(Russia) Poulkova, (Sweden) Kinnekulle, Œland.		
Div. N, P, Queb. G.	quadrati-caudatus, Bill.	Newfoundland West, Tablehead &c.			
Carad.	radiatus, Salter.	.....	(Wales) Bala &c., (Ireland) Louth.		
Reg. C	raniceps, Boeck. =*expansus* var. *raniceps*, Dalman.	.....	Sweden,(Russ.)Poulkova,Tosna &c.,Esthonia.		
Carad.	rectifrons, Portlock.	.....	(Ireland) Desertcreat.		
Reg. C	rimulosus, Angel.	.....	(Swed.) Ostrog., Husbyfjol.		
	rotundifrons, Hoffman.	.....	Russia.		
Pleta.	Schlotheimi, Eichw.	.....	(Russia)Tosna, Ropscha &c., (Esthonia) Réval, D'Erras,&c.	.....	Ledbury (Herefordshire).
Carad.	scutalis, Salter.	.....	(Ireland) Tyrone. ...		
Llan.	Selwynnii, „	.....	(Wales) Tahirion, Arenigbach.		
Tremad.	Solvensis, Hicks.	Solva (S. Wales).			
	Sulzeri ? Dalm.	.....	Œland (Sweden).		
	vetustus, Hall.	.....	New York.		
	Vulcani, Murch.	.....	Russia ?, Corndon Hills (England).		
Pleta, Dolom. L.	Weissii, Eichw.	.....	(Russia) Popowa &c., Isles Odinsholm, Dago, Gatchina.		
Pleta	Worthii, „	.....	(Russia) Popowa &c.		
L. H. G. ?	sp. ind. Shumard.	.....	.....	.....	Up. Mississippi River.
	„ Whitney.	.....	Hot Creek, Nevada (California).		
	Atops, *Emmons*, 1844.				
P.	punctatus, Emmons.	(N.York)Washington Co., Vermont?			
„	trilineatus, „	„ „			
	Atractopyge, *Corda*, 1847 (see CYBELE).				
	Barrandia, *M'Coy*, 1849.				
	Cordai, M'Coy.	.....	(W.)Builth,Radnors.		
Llan.	longifrons, Salter.	Abereiddy Bay, Pembrokeshire.			
	longissima, „	.....	South Wales.		
	radians, M'Coy.	.....	Wales.		
	Basilicus, *Salter*, 1849 (ASAPHUS).				
	Guettardi, Brongn.	.....	(Brittany) Angers, Vitré, (Port.) Oporto.		
	hybridus, Salter.	.....	Cardigansh. (Wales).		
Llan., Carad....	Powisii, Murch.	.....	(Wales) Moel Siabod, Penmachno,(Westmoreland) Ravenstone Dale.		
Llan.	tyrannus, „	.....	(Wales) Lampeter,R. Towy &c., (Russia) Czarsk.-selo, (Dalecarlia) Lake Siljan, (S.W. Scotl.) Peebles-shire.		
	Bathyonotus, *Hall*.				
P.	holopyge, Hall.	Vermont (N.W.).			
	Bathyurellus, *Billings*, 1865.				
Div. F, G, H, Queb.G. = CS.	abruptus, Billings.	Newfoundl. W. and Keppel Island.			
„ „	expansus, „	Stanbridge (Can. E.).			

Subdivision.	Genera, Species, and Author.	Primordial.	Lower Stage.	Middle Stage.	Upper Stage.
Div. P, Queb. G. = CS.	formosus, Billings.	(Newfoundland W.) Cowhead.			
,, ,,	fraternus, ,,	,, ,,			
Band D, ,,	litoreus, ,,	Point Levi (Can. E.).			
Div. F, G, H ...	marginatus, ,,	Newfoundland W., Keppel Island &c.			
,, P, Queb. G. = CS.	nitidus, ,,	(Newfoundland W.) Cowhead.			
,, ,, ,,	rarus, ,,	Point Levi (Can. E.).			
,, L, ,,	validus, ,,	(Newfoundland W.) Point Rich.			
	Bathyurus, *Billings,* 1859.				
CS.	ampli-marginatus, Bill.	.....	Mingan Isles (G. St. Lawr.).		
CH.	Angelini, ,,	.....	Lower Ottawa River (Can.E.), Grenville.		
Queb. G.	arcuatus, ,,	Nr. Queb., St. Antoine.			
Lst. No. 1, Queb. G.	armatus, ,,	Point Levi (Can. E.).			
,, ,,	bi-tuberculatus, ,,	,, ,,			
Div. G, H, ,,	breviceps, ,,	(Newfoundland W.) Tablehead.			
Lst. 3, 4, ,,	capax, ,,	Point Levi (Can. E.).			
Div. G, H, ,,	caudatus, ,,	(Newfoundland W.) Port au Choix.			
CS. ,,	conicus, ,,	Newfoundland, Beauharnois (Can. E.) &c., (N. York) Comstock's Landing.			
Div. P, CS.	Cordai, ,,	Point Levi, Phillipsburg (C. E.), Newfoundland, Cowhead.			
CS.	Cybele, ,,	.....	Mingan Isles, Beauharnois (Can. E.), Lower Ottawa (Canada E.), New York, Vermont.		
P.	depressus, B. F. Shumard.	Burnet Co., Texas.			
Lst. 3, Queb. G.	dubius, Billings.	Point Levi (Can. E.).			
Tr.	extans, ,,	.....	Deschambault (C.E.).		
P.	gregarius, ,,	Newfoundland South.			
CS.	Minganensis, ,,	.....	Mingan Isles (G. St. Lawr.).		
Div. F, G, H, Queb. G., CS.	Nero, ,,	Newfoundl. N. & W., Keppel Island &c.			
In Lst. No. 2, ,,	oblongus, ,,	Point Levi (Can. E.).			
P. Potsdam ...	parvulus, ,,	Straits Belleisle, Forteau Bay (Labrad.)			
Potsdam	perplexus, ,,	Bonne Bay, Newfoundland W.			
,, ...	perspicator, ,,	St. Antoine, Quebec (drift).			
Queb. G.	quadratus, ,,	Point Levi (Can. E.).			
Div. P, Queb. G.	Saffordi, ,,	Point Levi and Philipsburg (Can. E.), Newfoundl. N. W., Cowhead.			
P., Potsd.	senectus, ,,	(Labrador) Straits Belleisle, Forteau Bay.			
B., BL.	Smithii, ,,	.....	(Can. W.) Peterbor., Lake Ontario.		
Queb. G.	solitarius, ,,	Newfoundland, Hare Bay (drift).			
B., BL., Tr. ...	spiniger, ,,	.....	(Can. W.) Lindsay Township.		
Queb. G.	strenuus, ,,	St. Antoine, Quebec (drift).			
Div. G, H, Queb. G., CS.	Timon, ,,	Newfoundl. W., Port au Choix.			
Div. B, C, P. Potsdam.	vetulus, ,,	Newfoundland W., Bonne Bay.			
	Brachyaspis, *Salter,* 1866 (see ASAPHUS).				
	rectifrons, Portlock.	.....	Ireland.		
	Brongniartia, *Salter,* 1865 (see HOMALONOTUS).				

Subdivision.	Genera, Species, and Author.	Primordial.	Lower Stage.	Middle Stage.	Upper Stage.
	Bronteopsis, *Salter*, M	S. 1865.			
	Thomsoni, Salter.		S. Scotland.		
	Bronteus, *Goldfuss*,	1843.			
Fauna F	angusticeps, Barr.				(Bohem.) Konieprus, Mnienian.
Pentam. Lst., L. H. G.	Barrandei, n. s. Hall.				(N.York) Schoharie County.
G. g. 1	Billingsii, Barr.				(Bohemia) Chotecz, Luzetz.
	Bischoffi, Rœmer.				Lower Harz (Giebel).
Fauna F	brevifrons, Barr.				(Bohemia) Lodenitz, Konieprus, Mnienian.
,, F, G. g. 1	Brongniarti, ,,				(Bohemia) Mnienian, Listice, Luzetz, Damily, &c.
,, F	campaniferus, Beyrich.				(Bohemia) Mnienian, Konieprus.
	Canadensis, Billings.				Gaspé (Canada).
,, G. g. 1 ...	Clementinus, Barr.				(Bohem.) Wiskocilka.
,, F	cœlebs, ,,				,, Konieprus.
,, F. f	Dormitzeri, ,,			(Bohemia) St. Ivan?	,, Mnienian.
,, E. e. 2 ...	Edwardsii, ,,				,, DlauhaHora.
,, F	elongatus, ,,				,, Konieprus, Mnienian.
,, G. g. 1 ...	extremus, ,,				(Bohem.) Tetin.
,, ,, ...	formosus, ,,				,, Dvoretz, Lochkov, Slivenetz, Wiskocilka.
,, ,,	furcifer, Corda.				,, Schvagerka, Chotecz.
,, G	gracilis, ,,				Bohemia.
Pentam. Lst. ?...	granulatus, Eichw.			Altai?	
Fauna E. e. 1...	Haidingeri, Barr.			(Bohemia) Butowitz.	
,, F	Hawlei, ,,				,, Konieprus.
Carad.	Hibernicus, Portl.		(Irel.) Desertcreate.		
Fauna G. g. 1...	infaustus, Barr.				,, Dvoretz, (Esthon. W.) Isle of Worms.
Corall. Lst. ...	insularis, Eichw.				
Div. 4, A. Gr...	,, Billings.			Anticosti Island.	
Fauna F	Kutorgai, Barr.				(Bohemia) Bubowitz, Lodenitz.
Carad.	laticauda, Wahl.		Sweden.		
	=*signatus*, Phill.				
Fauna G	lepidus, Barr.				Bohemia.
,, ,,	Loveni, ,,				,,
Tr.	lunatus, Billings.		Nova Scotia, (C. W.) Ottawa City, (C.E.) Murray Bay.		
Fauna G. g. 1...	magus, Barr.				(Bohem.) Lochkov.
,, G	Memnon, ,,				Bohemia.
Niag.	Niagarensis, Hall.				(N.York) Niag. Falls.
Fauna E. e. 1...	nuntius, Barr.			(Bohem.) Butowitz.	
,, F	oblongus, Corda.				(Bohem.) Mnienian.
Niag.	occasus, Winch. & Marcy.				Chicago (Illinois).
Fauna G	Orbignyanus, Barr.				Bohemia.
,, F	palifer, ,,				(Bohem.) Konieprus, Mnienian.
,, E. e. 1, 3	Partchii, ,,			(Bohem.) Butowitz.	(Bohemia) Wohrara, Lochkov, Lodenitz, Kozel, &c.
" E. e. 1?	planus, Corda.			(Bohem.) Lodenitz.	(Bohem.) Kozel, Ratinka, St. Iwan, &c.
Reg. E	platyactin, Angel.				(Sweden) Gothland.
,, ...	polyactin, ,,				,, ,,
Fauna G. g. 1...	porosus, Barr.				(Bohem.) Mount Damily, Tetin.
,, F, G. g. 1	pustulatus, ,,				(Boh.) Tetin, Slichow.
,, G. g. 1...	Richteri, ,,				(Bohem.) Luzetz.
,, G.....	sculptus, ,,				Bohemia.
,, F.....	Sieberi, ,,				(Bohem.) Konieprus, Mnienian.
W.	signatus, Phill.				Esthonia, (Engl.) Aymestry.
	=*laticauda*.				
Fauna E	simulans, Barr.				(Bohem.) Listice.
,, G. g. 1...	spiniferus, ,,				(Bohemia) Prague, Schvagerka?

Subdivision.	Genera, Species, and Author.	Primordial.	Lower Stage.	Middle Stage.	Upper Stage.
Fauna H	superstes, Barr.	.....	.....	.....	Bohemia.
„ F	tenellus, „	.....	.....	.....	(Bohem.) Konieprus.
Yellowish Lst., Fauna F	thysanopeltis, „	.....	.....	.....	(Bohem.) Konieprus, (France) Low. Loire.
Fauna F.....	transversus, Corda.	.....	.....	.....	(Bohem.) Mnienian.
„ „	umbelliferus, Barr.	.....	.....	.....	(Bohem.) Wonoklas, Slivenetz, Lochkov, Dvoretz, Karlstein, &c.
„ „	Viator, „	.....	.....	.....	(Bohem.) Dvoretz, Lochkov, Slichow. Bubowitz, Mnienian &c.
„ „	Zippei, „	.....	.....	.....	(Bohem.) Konieprus.
	Bumastes, *Murchison*, 1839 (ILLÆNUS).				
Niag.	Barriensis, Hall.	.....	.....	.....	Sardinia, Engl. (Westmorel.), Scotl., Anticosti, Canada (L. Huron, East end), N. York (Rochester &c.), Tennessee (Decatur Co.), N. & S. Wisconsin.
W.	carinatus, Salter.	.....	.....	.....	(Engl.) Malvern.
„	insignis, Hall.	.....	.....	.....	England, Upper Mississippi.
Reg. E	Lindströmi, Angel.	.....	.....	.....	Gothland.
?	M'Cullumi, Salter,	.....	.....	Scotland (S.W.).	
Tr.	Trentonensis, Emmons.	.....	Canada, (N. York) Hogansburg.		
	Burmeisteria, 1865 **Calymene,** *Brongniart*, 1822.	(see HOMALONOTUS).			
	actinura, Dalm.	.....	(Ostrogothia) Berg.		
	aculeata, Angel.	.....	Sweden.		
Fauna D. d. 1, Carad.	Arago, Rouault.	.....	(France) La Manche, St. Leonard, La Sarthe &c., Spain, Portugal, (Bohem.) Rokitzan.	.....	Spain ?
Carad., W., E.e.2	Baylei, Barr.	.....	(Wales) Tre Gib, Llandeilo.	(Bohemia) Wahrada &c.	GoldenGrove (Wales)
	bellatula, Sow.	.....	.....	.....	N. Gothland, Russia.
Fauna E. e. 4, F, Llan., Carad., Llandov., W., L. Corall. Lst.	Blumenbachii, Blumenb.	.....	(France) Loire River, England, Ireland, S.W. Scotl., Pentland Hills, (Wales) Dolwyddelan &c., Onny River, Nova Scotia, New York, Anticosti Isle.	New York, Pennsylvania, Anticosti, (Britain) Wrekin, Cefn, Llandovery &c.	Esthonia, Russ., Sweden, Norway, (Bohem.) Slichow &c., France, (Esthonia) Isle Oesel, England, Ireland, Scotland, (Wales) Craig-hir &c., N. Brunswick, Nova Scotia, Tennessee, &c.
	var. Allportiana, Salter.	.....	.....	.....	Dudley.
	„ Cambrensis, Salter.	.....	(N. & S. Wales) Craig-y-Glyn, Shropsh.		
	„ Caractaci, „	.....	Ireland, (Wales) Mathyrafal, Scotland, Shropshire.		
	„ Niagarensis, Hall.	.....	.....	.....	Wisconsin, U. Missis.
Carad.	„ pulchella, Dalm.	.....	Norway.		
Fauna D, Carad., Llandov., W.	brevicapitata, Portlock.		Bohemia, Ireland, Shropshire, Westmoreland, Esthon., (N. Wales) Denbighshire, Wrexham &c., S.W. Scotland, Girvan.		
	callicephala, Green.	.....	New York.		
Corall. Lst., Schoharie.	camerata, Hall.	.....	.....	.....	(N. York) Schoh. Co.
H. R. G.....	Christyi, Hall.	.....	(Ohio) Cincinnati, Oxford (Canada E.).		
CL., Niag.....	Clintoni, „	.....	.....	(N. York) Herkimer Co., Cayuga Co.	Pennsylvania.
	conophthalma, Boeck.	.....	Poulkova (Russia).		
W.	Davisii, Salter.	.....	.....	.....	Builth (Wales).

Subdivision.	Genera, Species, and Author.	Primordial.	Lower Stage.	Middle Stage.	Upper Stage.
Fauna D. d. 3...	declinata, Corda.	.....	(Bohemia) Beraun, Kosow.		
Pleta	denticulata, Eichw.	.....	Poulkova (Russia).		
L.Lud.,Faun. E	diademata, Barr.	.....	.....	.....	Acton, Scotl., Leintwardine, Shropsh., (Bohem.) St. Iwan, Listice, Lodenitz, Wiskocilka, Wahrada.
	=*subdiademata*, M'Coy.				
Llan., Carad., Fauna E.	duplicata, Murch.	Abereiddy Bay (S. Wales).	Wales (Pencerrig, Builth), Ireland.	.....	Bohemia.
	Fischeri, Vern.	.....	(Russia) St. Petersb., (Ostrogoth.) Ljung &c.		
Fauna D.d.3,4,5.	incerta, Barr.	.....	(Bohemia) Praskoles, Wotmitz, (Belg.) Gembloux, Lieben, Radausch, &c.		
,, F, G. g. 1	interjecta, ,,	.....	.....	.....	(Bohemia) Lochkov, Luzetz, Damily, Dvoretz.
W.	macrophthalma, Murch.	.....	.....	.....	Norw., Dudley (Eng.).
	=*Portlockii*.				
	mammillata, Hall.	.....	Wisconsin, N.A.		
	minuta, Salter.	.....	England.		
B.	multicosta, Hall.	.....	(N.York) Lake Champlain.		
Low. Sil.....	nivalis, Salter.	.....	Himalaya, Niti (E.I.).		
Carad.	ornata, Dalm.	.....	(Ostrogothia) Husbyfjol.		
L.Llan.	parvifrons, Salter.	.....	(Wales) Merionethshire, Shropshire.		
,, ...	var. Murchisoni, ,,	.....	Stiper Stones (Shropshire), (N. Wales) Taihirion &c.		
Fauna D	parvula, Barr.	.....	(Bohem.) Mt. Drabow.		
	pediloba, Rœmer.	.....	?		
	polytoma, Dalm.	.....	Russia.		
W., L.	pulchella, Hising.	.....	Periver Quarries, Cornwall.	.....	(Gothl.) Djupviken.
	pulchra, Vern.	.....	(Spain) Ciudad Real.		
	punctata, Brongn.	.....	.....	.....	N. Gothland, Russia.
Tremad.	Ramseia, Salter.	Ramsey Isle &c. (S. Wales).			
Carad.	Salteri, Rouault.	.....	(France) Vitré, La Hunandière.		
Tr., H. R. G....	senaria, Conrad.	.....	Ireland, Engl., Can. W., N.York, Ohio, N.W. Michigan, Penns., L. St. John (Can. E.), Montmorenci, Missouri, Wisconsin, Red R., Rupert's Land.		
Carad.	senex, Salter.	.....	(England) Budleigh Salterton (pebbles).		
	spectabilis, Angel.	.....	.....	.....	Sweden, Esthonia.
E. e. 1, 2	tenera, Barr.	.....	.....	(Bohemia) Dlauha Hora.	
	transiens, Verneuil.	.....	(Spain) Toledo Mns., Romeral, &c.		
Carad.	Tristani, Brongn.	.....	(France) Angers, Lamanche, Mt. Roule, Cherbourg, La Sarthe, May, (Spain) W. Asturia, Ciudad Real, Sierra Morena, (Portugal) Vallongo, England.		
Woolh., W., L...	tuberculosa, Brongn. & Salt.	.....	.....	.....	(Engl.) Underbarrow, Kendal, Aymestry, Ludlow, (Wales) Usk, Spain ?.
Tremad.	vexata, Salter.	Ramsey I., Tremainhere, &c. (S. Wales).			
U.Slate	sp. ind. Hall.	.....	(N.Y) Mohawk Valley.		
?	,, (2) M'Coy.	.....	Victoria (Australia).	Victoria (Australia).	
O. S. Gr.....	,, Hall.	.....	.....	.....	(Canada W.) Galt.

Subdivision.	Genera, Species, and Author.	Primordial.	Lower Stage.	Middle Stage.	Upper Stage.
Carad.	sp. ind. Jermyn St.Museu	m.	Gorvan Haven, Corn	wall.	
	,, Barr.	.....	Gembloux(Belgium).		
	,, Selwyn.	.....	Victoria (Australia).		
	,, Hall.	.....	.....	.....	Arisaig (NovaScotia).
	Carmon, *Barrande*, 185	0.			
	mutilus, Barr.	.....	.....	.....	Bohemia.
	Celmus, *Angelin*, 1852	= PROETUS, *Steininger*.			
Reg. C	granulatus, Angel.	.....	(Swed.) Ostrogothia.		
	Centropleura, *Angelin*,	1852 [=(in part) DIK	ELOCEPHALUS, (in par	t) PARADOXIDES].	
„ B, C	angusticaudata, „	Norway.			
„ „	dicræura, Angel.	Sweden.			
„ „	serrata, Sars.	Norway.			
	Ceratopyge (see OLEN	US).			
	Ceraurus, *Green*, 1832	(see CHEIRURUS).			
	Chariocephalus, *Hall*,	1863.			
Potsd. Sa.	Whitfieldii, Hall.	Trempaleau (Wis- consin).			
	Chasmops, *M'Coy* (see	PHACOPS).			
	Cheirurus, *Beyrich*, 18	15; *Billings*, 1845.			
Inflamm.Schist.	aculeatus, Eichw.	.....	(Esthonia) D'Erras.		
	affinis, Angel.	.....	(Russia) Poulkova, (Baltic) Réval.		
Lst. No. 2, Queb. G.	Apollo, Billings.	Point Lévis (Can.E.).			
Red Lst.	approximatus, Eichw.	.....	.....	.....	Bogoslofsk, Ural.
Fauna E	Beyrichii, Barr.	.....	.....	.....	(Bohemia) Dlauha Hora.
„ E.e.1 ...	bifurcatus, „	.....	.....	(Bohemia) St. Iwan, Ratinka.	
Carad., U Llandov., W., LL.	bimucronatus, Murch.	.....	(Engl.) Leisley, Westmoreland, N. & S. Wales, Bala Lake, Sholes Hook.	(England) Newbury, Malv., (S.W.Scotl.) Girvan, (Wales) Castell, Craig-Gwyddon.	N. York, (Tennessee) Decat. Co., Dudley, Ledbury (Engl.), Ireland.
W.	var. centralis, Salter.	.....	.....	.....	Dudley (*Ketley*).
Carad.	cancrurus, „	.....	(Irel.) Chair of Kild.		
Fauna D	claviger, Beyrich.	.....	(Bohemia) Wohnitz, Wesela, &c., (Brittany) Vitré &c.		
Reg. E	conformis, Angel.	.....	.....	.....	Gothland.
Fauna F	Cordai, Barr.	.....	.....	.....	(Bohem.) Konieprus, Kozor, &c.
	Durocheri, Rouault.	.....	(Brittany) Vitré &c.		
	enurus, Kutorga.	.....	Russia.		
Queb. Gr.	Eryx, Billings.	Point Lévis (Can.E.), Phillipsburg?			
Pleta &c., Reg. C	exsul, Angel. Beyrich.	.....	(Swed.) Œland, (Esthon.) Réval, D'Erras, Odinsholm.		
Up. Tremad. ...	Frederici, Salter.	Tremadoc, Llanerch, &c.	Baltic Drift.		
Carad.	gelatinosus, Portl.	.....	(Irel.) Tyrone, (S.W. Scotl.) Craighead.		
F, G. g. 1	gibbus, Beyrich.	.....	.....	.....	(Bohem.) Konieprus, Listice, &c.
F, G	var. interrupta, Barr.	.....	.....	.....	Bohemia.
Compact Pleta, Reg. D, E	glaber, Angel.	.....	(Sweden) Dalecarlia, (Balt.) Isle Dago.		
Pleta	gladiator, Eichw.	.....	Odinsholm, I. Réval.		
Queb. Gr.	glaucus, Billings.	Stanbridge (Can. E.).			
Fauna E	Hawlei, Barr.	.....	.....	Bohemia?	(Bohemia) Lochkov.
H. R. G	Icarus, Billings.	.....	Canada.	Anticosti, S.W.Point.	
D. d. 4, E	insignis, Beyrich.	.....	(Bohemia) Colonies Bruska, Motol, Gross-Kuckel.	(Bohemia) Tobolka, Kolednic, &c.	
CL., W., A. Gr.	,, Hall.	.....	.....	Anticosti.	
Yellow-grey Sc., fauna D.	insocialis, Barr.	.....	(Bohem.) Kosow Mts.		
Pleta	macrophthalmus, Kutorga.	.....	(Russia) Poulkova, Kopscha, Réval &c.		
	Marianus, Vern.	.....	(Spain) Ciudad Real.		
Div. P, Queb. G.	Mercurius, Billings.	(Newfoundland W.) Cowhead.			
G. g. 1	minutus, Barr.	.....	.....	.....	(Bohemia) Hostin.
	mitis, Salter.	.....	Himalaya, Niti (Ind.).		
Yellow-grey Sc., fauna D.	neglectus, Barr.	.....	(Bohem.) Königshof.		

Subdivision.	Genera, Species, and Author.	Primordial.	Lower Stage.	Middle Stage.	Upper Stage.
Div. 3, A. Gr. Mayhill.	nuperus, Billings.	.....	.....	(Anticosti) East Point.	
E. e. 1	obtusatus, Corda.	.....	.....	(Bohemia) Luzetz, Lodenitz, Tachlowitz, Wiskocilka.	
Carad.	octo-lobatus, M'Coy.	.....	Irel., Scotl., (Wales) Rhiwlas, Cerrig-y-Druidion.		
	ornatus, Angel.	.....	.....	.....	Bohemia, (Sweden) Husbyfjol.
F, G. g. 1	pauper, Barr.	.....	.....	.....	(Bohemia) Mnienian, Luzetz.
L. Llan.	pectinatus,	.....	Shelve, Cefn Gwynnle.		
Div. N, Queb. G.	perforator, Billings.	(Newfoundland W.) Tablehead.			
Div. 1, A. Gr., BL., Tr., Ut. Slate, H. R. G.	pleuxanthemus, Green.	.....	N. York, (Can. W.) Mid-Ottawa River, Tennessee, Missouri, N. Wisconsin, Anticosti.	(Anticosti) Junction Cliff.	
Div. N, P, Queb. G.	Polydorus, Billings.	(Newfoundland W.) Tablehead.			
CH. or BL. ...	Pompilius ,,	.....	Mingan Isles (G. St. Lawr.).		
Chazy & Queb. Gr.	prolificus, ,,	(Newfoundland W.) Cowhead, Can. E.			
Reg. D–E	punctatus, Angel.	.....	Sweden.	.....	Sweden.
Fauna E	Quenstedti, Barr.	.....	.....	.....	(Bohemia) Dlauha Hora, Luzetz, Tachlovitz, Wohrada, Hinter-Kopanina, Wiskocilka.
CH.	satyrus, Billings.	.....	Montreal (Can. E.).		
Black foliated Schist, fauna D	scuticauda, Barr.	.....	(Bohemia) Winice.		
Inflamm. Schist.	scutiger, Eichw.	.....	(Esthonia) D'Erras.		
Llan.	Sedgwickii, M'Coy.	.....	(Wales) Builth, Pembrokeshire.		
Div. N, P, Queb. G. = Pt. Lévis.	sol, Billings.	(Newfoundland W.) Tablehead.			
,, ,,	solitarius, ,,	St. Antoine (drift), Quebec.			
Reg. E	speciosus, Hising.	.....	.....	.....	Sweden.
	,, Dalman.	.....	Réval (Baltic).		
E, F, G. g. 1, 2, H	Sternbergii, Boeck.	.....	.....	Bohemia	(Bohemia) Dlaura Hora, Konieprus, Davoretz, Branik, Hluboceps, Chotecz, Bubowitz, Karlstein, &c.
Fauna D	tumescens, Barr.	.....	(Bohemia) Trubin, Kosow, &c.		
Pleta	tumidus, Angel.	.....	(Russia) Narva &c., Borckholm (Esth.).		
Tr.	vigilans, Hall.	.....	(N. York) Middleville.		
Queb. G.	Vulcanus, Billings.	Stanbridge (Can. E.), (Newfoundl.) Cowhead.			
Up. Bala	Williamsi, M'Coy.	.....	Golengoed, Myddfai (Wales).		
Pleta	Zembnitzkii, Eichw.	.....	(Russia) Poulkova.		
	sp. ind. M'Coy.	.....	.....	Victoria (Australia).	
	,, Salter.	.....	(Portugal) Vallongo.		
	,, Swallow.	.....	.....	.....	Missouri (U.S.A.)
?	,, Selwyn.	.....	.....	Victoria (Australia).	
	Conocephalus (see Conocoryphe).				
	Conocoryphe, *Corda*, 1847 = Conocephalites, *Zenker*.				
Up. Ling. Flags.	abdita, Salter.	(Wales) Griccieth.			
Div. B, C, Potsd. Sa.	Adamsi, Billings.	Highgate, Swanton, N.W. Verm. (U.S.).			
Potsd. Sa.	anatina, Hall.	Trempeleau, L. Pepin (Wisconsin).			
,, ...	antiquata, Salter.	N.W. Vermont (U.S.).			
Lingula Flags...	applanata, Hicks.	(S. Wales) St. David's.			
Potsd. Sa.	arenosa, Billings.	N.W. Vermont (U.S.).			
Ling. Flags ...	bufo, Hicks.	(S. Wales) St. David's.			
Potsd. Sa.	Billingsii, Shumard.	(Texas) Burnet Co.			
,, ?	binodosa, Hall.	Up. Mississippi River, Oceola Mills.			
,, ...	Chippeway-ensis, ,,	Up. Mississippi River, River Chippeway.			
Fauna C	coronata, Barr. Zenker.	(Spain, *Leon*) Sabero, (Bohemia) Skrey.			
Reg. B	Dalmanni, Angel.	Norway ?			
L. Tremad. ...	depressa, Salter.	(Wales) Tremadoc, (Texas) Burnet Co.			

Subdivision.	Genera, Species, and Author.	Primordial.	Lower Stage.	Middle Stage.	Upper Stage.
Potsd. Sa.	diademata, Hall.	(N. Wisconsin) Kickapoo Marine Mills, River St. Croix.			
,, ...	dorsalis, ,,	Up. Mississippi River.			
Fauna C	Emmerichii, Barr.	Bohemia.			
Potsd. Sa.	Eos, Hall.	(N. Wisconsin) Trempeleau.			
,, ...	Eryon, ,,	(N. Wisconsin) La Crosse, Trempeleau.			
Reg. B	glabrata, Angel.	Norway.			
Potsd. Sa.	hamulus, Hall.	(N. Wisconsin) Menisca, Trempeleau.			
Ling. Flags ...	humerosa, Hicks.	(S. Wales) St. David's.			
U. Ling. Flags...	invita, Salter.	(Wales) Penmorfa Church.			
L. Potsd. Sa. ...	Iowensis, Hall.	Iowa, (Wisc.) Trempeleau, River Root.			
,, ...	minor, Shumard.	(Wisconsin) Black River, Trempeleau.			
,, ...	minuta, Bradley.	Keeseville (N. York), Vermont? N. Wisconsin.			
Potsd. Sa.	misera, Billings.	(Labrador) Belleisle Straits, Forteau Bay &c.			
,, ...	nacta, Hall.	Wisconsin.			
,, ...	nasuta, ,,	,, Kickapoo R.			
Up. Tremad. ...	olenoides, Salter.	(Wales) Garth, Portmadoc.			
Potsd. Sa.	optata, Hall.	North Wisconsin,			
,, ...	Oweni, ,,	(N. Wiscons.) Marine Mills, St. Croix Riv.			
,, ...	Pattersoni, ,,	(N. Wisconsin) Trempeleau.			
,, ...	Perseus, ,,	(N. Wisconsin) Chippeway and Kickapoo Rivers.			
Up. Ling. Flags.	Plantei, Salter.	(Wales) Moel Gron.			
P.	Ribeiro, Barr.	(Spain, *Leon*) Sabero.			
Potsd. Sa.	Shumardi, Hall.	(N. Winscons.) Kickapoo Marine Mills.			
?	socialis, Billings.	Canada.			
Fauna C	striata, Barr.	(Bohemia) Slap, Ginetz, Czilla.			
,, ...	Sulzeri, ,, Schloth.	(Bohemia) Czilla, Skrey, Ginetz, &c.			
,, ...	,, var., C. de Prado.	(Spain, *Leon*) Sabero.			
Div. B,C, Potsd. Sa.	Teucer, Billings.	Vermont (U.S.A.), Swanton.			
Ling. Flags ...	variolaris, Salter.	Porth-y-raw (S. W.).			
Up. Tremad. ...	verisimilis, ,,	(Wales) Tremadoc. Penmorfa.			
,, ...	vexata, ,,	,, ,, ,,			
Potsd.	Vulcanus, Hall.	(Vermont) Highgate, Swanton.			
,, ...	Winona, ,,	(Wisconsin) Black River.			
,, ...	Wisconsensis, Shumard.	(Wisconsin) Trempeleau, Chippeway River.			
Lst. No. 1, Queb. G.	Zenkeri, Billings.	Point Lévis (Can. E.).			
	sp. ind. Barr.	Hof (Bavaria).			
Potsd. Sa.	,, Shumard.	Texas (U.S.A.).			
	,, Billings.	Newfoundland.			
	,, ,,	Missisquoi, L. Champlain (Can. E.)			
L. Ling. Flags...	,, Salter.	Criccieth (Wales).			
U. Ling. Flags...	,, ,,	,, ,,			
	,, Plant.	Moel Gron (Wales).			
	Corynexochus, *Angelin*, 1852 (in part only		= ARIONELLUS, J.W.S.).		
Reg. B	spinulosus, Angel.	(Scania) Andrarum.			
,, C	umbonatus, ,,	.....	(Scania) Fagelsang.		
	Crepicocephalus, *D. Owen*, 1852.				
Potsd. Group...	miniscaensis, D. D. Owen.	(Minnesota) Miniska.			

Subdivision.	Genera, Species, and Author.	Primordial.	Lower Stage.	Middle Stage.	Upper Stage.
Potsd.....	Wisconsensis, H. B. Rogers.	Wisconsin, Pennsylvania.			
,, ...	sp. ind. Hall.	N. Wisconsin.			
	Cromus, *Barrande*, 1852.				
Fauna E	Beaumontii, Barr.	.....	.....	(Bohem.) Butowitz.	(Bohemia) Lochkov, Tobolka, &c.
,, ...	Bohemicus, ,,	.....	.....	.....	(Bohemia) Kozor, Lochkov, Wohrada, &c.
E. e. 1 &c.	intercostatus, ,,	.....	.....	(Bohemia) Butowitz.	(Bohemia) Butovitz, Lochkov.
E. e. 1	transiens, ,,	.....	.....	(Bohemia) Reporyje, Leiskow, Wohrada, Dlauha-Hora.	
	sp. ind. ,,	.....	Gembloux (Belgium).		
	Crotalurus, *Volborth*, 1858 (see SPHÆREXOCHUS).				
	Barrandei, Volborth.	.....	Russia.		
	Cryptonomus, *Eichwald*, 1825 (see ENCRINURUS and ASAPHUS).				
	Cybele, *Lovén*, 1845 = ACTRACTOPYGE, *M'Coy*.				
Carad.	arenosa, M'Coy.	.....	(Ireland) Carrick Adaggan.		
?	bellatula, Dalm.	.....	Swed., Poulkova (R.).		
Reg. D–E	brevicauda, Angel.	.....	.....	Norway, Dalecarlia, Osmondberg.	
,, ?	dentata, ,,	.....	.....	Norway.	
Pleta &c.	parallela, Eichw.	.....	(Russia) Poulkova, D'Erras (Esthon.).		
CL., W.	punctata, Hall.	.....	.....	(N.York) Medina Village, Reynal's Basin.	Bishops Castle, Shropshire.
	,, Fletcher.	.....	.....	.....	Dudley (England).
Carad.	rugosa, Portlock.	.....	(Lancash.) Coniston, (Westmorel.) Ravenstone Dale, (Ireland) Carrick Adaggan, Swed., (Wales) Meifod &c.		
,, ...	sexcostata, Salter.	.....	Bala, Rhiwlas (N.W).		
	variolaris, Brongn.	.....	.....	.....	Dudley, (W.) Builth?
Carad., L. Llandov.	verrucosa, Dalm.	.....	Norway, Swed., (Irel.) Dublin, Waterford, S.W. Scotl., (Shropshire) Acton Scott, (W.) Carnedd Dafydd.		
Llan.	sp. ind. Salter.	.....	Arenig Hills, S. side, S. Wales.		
Carad.	,, ,,	.....	Denbighsh., (Wales) Cerrig-y-Druidion.		
	Cyphaspis, *Burmeister*, 1843.				
Faunæ F, G. g. 1	Barrandei, Corda.	.....	.....	.....	(Bohemia) Mnienian, Lochkov, Slichow, Hostin, Tetin.
,, D, E	Burmeisteri, Barr.	.....	Bohemia (colony, Beranka), (Spain) Ciudad Real.	(Bohemia) *passim*.	(France) Lower Loire.
Fauna F.....	Cerberus, ,,	.....	.....	.....	(Bohemia) Mnienian.
,, G. g. 1...	convexus, Corda.	.....	.....	.....	,, Dvoretz, Lochkov.
,, G. g. 2..	coronatus, ,,	.....	.....	.....	(Bohemia) Vavrovitz.
,, F	Davidsoni, ,,	.....	.....	.....	,, Mnienian.
,, E	depressus, ,,	.....	.....	(Bohemia) Listice, Tachlowitz, Wohrada, &c.	
Corall. Lst., W.	elegantulus, Lovén. Angel.	.....	.....	.....	Sweden, Isle Oesel, Karral (Balt.), Dudley (*Ketley MSS.*), Malvern.
L. Held. G.....	Girardeau-ensis, Shumard.	.....	.....	.....	Missouri (U.S.A.).
Fauna E	Halli. Barr.	.....	.....	.....	(Bohemia) Dlauha Hora.
,, ,, ...	humillimus, Barr.	.....	.....	(Bohemia) Listice.	
	hydrocephalus, Römer.	.....	Thuringia (*Giebel*).		
Carad., Llan., W., L.	megalops, M'Coy.	.....	England, Shropshire, Morrell's Wood, Scotland, Sholeshook, Haverfordw. (S. Wales).	England, (Ireland) Galway.	(Engl.) Dudley, Ludlow, Abberley.

Subdivision.	Genera, Species, and Author.	Primordial.	Lower Stage.	Middle Stage.	Upper Stage.
Fauna E	novellus, Barr.	.....	.....	.....	(Bohemia) Dlauha-Hora, Wohrada.
Pleta	planifrons, Eichw.	.....	D'Erras (Esthonia).		
Carad., W.....	pygmæus, n. s. Salter.	.....	Wexford (Ireland)...	.....	(England) Malvern, Eastnor Castle.
	Cyphoniscus, *Salter*, 1852.				
Carad.	socialis, Salter.	.....	(Ireland) Chair of Kildare.		
	Cyrtometopus, *Angelin*, 1852 (CHEIRURUS).				
Reg. C	affinis, Angelin.	.....	(Swed.) Ostrogothia.		
,, ,, ...	clavifrons, Dalm.	.....	,, ,, &c.		
,, D	decacanthus, Angel.	.....	,, Vestrogothia.		
,, C	diacanthus, ,,	.....	,,		
,, D	foveolatus, ,,	.....	,, Munkester.		
,, C	gibbus, ,,	.....	,, Husbyfjol.		
,, D	longispinus, ,,	.....	,, Mount Kinnekulle.		
,, ,, ...	octacanthus, ,,	.....	,, ,,		
,, C	scrobiculatus, ,,	.....	,, Scania.		
,, D. a ?.....	Sarsi, ,,	.....	,, Norway.		
,, C	tumidus, ,,	.....	,, Ostrogothia.		
	Dalmania, *Emmerich*, 1845 (PHACOPS) = ACASTE, *Goldfuss*.				
Tr.	Achates, Billings.	.....	(Canada W.) Ottawa River, Marmora.		
	affinis, Salter.	.....	Ch. Stretton (Shropshire).		
Very Mica.Sch., fauna D	Angelini, Barr.	.....	(Bohem.) Popowitz, Stromky, Gross-Kuchel.		
D. d. 1	atava, ,,	.....	(Bohemia) Rokitzan.		
G. g. 1	auriculata, Dalm.	.....	.....	.....	(Bohemia) Karlstein, Luzetz, Hostin, &c.
Trent.....	Bebrix, Billings.	.....	(Canada W.) Ottawa City, Marmora, N. York.		
	callicephalus, Hall.	.....	N. York, Missouri.		
Cor. Lst., Niag., Pleta, W.	*caudata*, Brünn. Phacops.	.....	(Esthon.) Wesenberg, Jewe.	Wales	Irel., Engl., Scotl., I. Oesel, Chesaare-Pank, (Canada W.) Welland Canal, Tennessee.
G. g. 1	cristata, Corda.	.....	.....	.....	(Bohem.) Lochkov.
	Danæ, Meek & Worthen.	.....	.....	.....	Thebes, Alexander Co. (Illinois).
D. d. 3	Deshayesii, ,,	.....	(Bohemia) Winice Trubin.		
D. d. 2, 4	dubia, Barr.	.....	(Bohem.) Zarhorzan, Lodenitz, Radausch, Stromky, Sterboholy.		
	Dujardini, Rouault.	.....	(France) Angers, La Couyère, (Spain) Peralejo, Sierra Morena.		
Inflamm. Shale.	exilis, Eichw.	.....	D'Erras and Tolks (Esthonia).		
G. g. 1	Fletcheri, Barr.	.....	.....	.....	(Bohemia) Karlstein, Dworetz, Lochkov, Luzetz.
F, G. g. 1	Hausmanni, Dalm.? Hall.	.....	.....	.....	(Bohemia) Dworetz, Wiskocilka, Lochkov, N. York &c.
D. d. 2	Hawlei, Barr.	.....	(Bohemia) Wesela.		
Carad.	incerta, Deslongchamps.	.....	(France) Domfront, Budleigh Saltert., Devonshire.		
Tr., CL., MSa.	limulurus, Hall.	.....	New York	New York, Isle Fitzwilliam, L. Huron, East end.	
L. H. G.....	Logani, ,,	.....	.....	.....	Arisaig (Nova Scotia).
G. g. 1.	Maccoyi, Barr.	.....	.....	.....	(Bohemia) Karlstein, Luzetz, Schvagerka.
Div. 1, A. Gr., Llandov.	macroura ? Angel.	.....	.....	(Anticosti) Junction Cliff.	
	meta, D. D. Owen.	.....	N. Wisconsin.		
Delth. Shale & Pentam. Lst.	m crura, Hall, Conrad.	.....	.....	.....	(New York E.) Albany &c. Cos.
D. d. 5	Morrisiana, Barr.	.....	(Bohemia) Kosow Mountain.		

Subdivision.	Genera, Species, and Author.	Primordial.	Lower Stage.	Middle Stage.	Upper Stage.
Delth. Sh. Lst....	nasuta, Conrad.	.....	.....	.....	(N. York E.) Coeyman's &c. Cos.
Carad.	obtusicaudata, Salter.	.....	Coniston (Westmoreland).		
E. e. 1	orba, Barr.	.....	.....	(Bohemia) Borek.	
Fauna D. 1, 2, 3, 4, 5.	Phillipsii, Barr.	.....	(France) Angers, (Sp.) Asturia West, Guadalmos, Chillon, (Bohem.) Mount Drabow, Praskoles, Zahorzan, Kœnigshof.		
Delth. Shale & Pentam. Lst.	pleuropteryx, Hall.	.....	.....	.....	Helderb. Mountains. (N. York) C. Gaspé.
	proavia, Emmerich.	.....	France, Spain, Bohemia.		
F, G. g. 1–3 ...	Reussi, Barr.	.....	.....	.....	(Bohemia) Konvarka, Mt. Damily, Lochkov, Tetin.
F, G. g. 1	rugosa, Corda.	.....	.....	.....	(Bohemia) Damily, Dvoretz, Tetin.
Pleta	sclerops, Dalm.	.....	(Russia) River Lena, (Asia) Poulkova.		
D. d. 2, 3, 4, 5	socialis, Barr.	.....	(France) La Manche, Vitré, Trebœuf, (Spain) Almaden, Ballesteros &c., (Bohemia) *passim*.		
D (Mica Sch.).	solitaria, „	.....	(Bohemia) Lodenitz, Gross-Kuckel, Lieben.		
G. g. 1	spinifera, „	.....	.....	.....	(Bohem.) Viskocilka, Hinter, Kopan, Lockhov &c.
	Torrubiæ, Verneuil.	.....	(Spain) Ballasteros, Puenta de las Ovegas.		
Delth. Sh. Lst...	tridens, Hall.	.....	.....	.....	(N. York) Schoharie County.
„ „	tridentifera, Shumard.	.....	.....	.....	(Missouri) Cape Girardeau.
M.Sa. &c.	trisulcata, Hall.	.....	Canada	(C.W.) Flamboro Tp.	
Pleta, Carad....	truncato-caudata, Portl.	.....	(Esthon.) Wesenberg, Tyrone, (Shropsh.) Church Stretton, (Wales) Blain-y-cwm.		
	tuberculata, Giebel.	.....	.....	.....	Low. Harz, Germany.
Carad.	Vetillarti, Rouault.	.....	(France) Vitré, Angers, (Spain) Ballesteros &c.		
Niag.	vigilans, Hall.	.....	.....	.....	Wisconsin.
	sp. ind. „	.....	.....	.....	(Nova Scotia) Arisaig.
	„ M'Coy.	.....	.....	.....	Victoria (Australia).
	„ Gosselet, Barrand.	.....	Condros (Belgium).		
	„ C. de Prado.	.....	Sierra Morena (Sp.).		
	„ Swallow.	.....	(Missouri).		
	Deiphon, *Barrande*, 1850.				
W., Fauna E...	Forbesii, Barr.	.....	.....	.....	France, (Engl.) Dudley, Malvern &c., (Bohemia) St. Ivan, Lodenitz, Listice, Beraun &c.
Reg. E	globifrons, Angel.	.....	.....	.....	Gothland.
„	lævis, „	.....	.....	.....	(Sweden) Dalecarlia.
„ D, E	punctatus, „	.....	.....	.....	„ „
	Dikelocephalus, *D. D. Owen*, 1852.				
Lst. No. 2, Queb. G.	affinis, Billings.	Point Lévis (Can. E.).			
Lst. No. 1, Queb. G.	Belli, „	„ „			
U. Ling. Fl. ...	Celticus, Salter. *Centroplura.*	(Wales) Ogof ddu, Criccieth.			
Lst. No. 1, Queb. G.	Corax, Billings.	Point Lévis (Can. E.).			
„ „	cristatus, „	„ „			

Subdivision.	Genera, Species, and Author.	Primordial.	Lower Stage.	Middle Stage.	Upper Stage.
Lst. 2, Queb. G.	Devinei, Billings.	Point Lévis (Can.E.).			
U.Ling. Flags	discoidalis, Salter. *Centroplura.*	(Wales) Criccieth.			
Up. Tremad. ...	furca, „	„ Moel-y-Gest, Penmorfa.			
Potsd. Sa.	granulosus, D. D. Owen.	Minisca R. (Minnes.).			
Lst. 1, Queb. G.	Hisingeri, Billings.	Point Lévis (Can.E.).			
Potsd. Sa.	Iowensis, D. D. Owen.	Black River, near Mountain Island, (Mississ.) Wiscon.			
„	latifrons, B. F. Shumard.	Wisconsin.			
	limbatus, Hall.	N. Wisconsin.			
Lst. 1, Queb. G.	magnificus, Billings.	Point Lévis (Can.E.).			
„ „	megalops, „	„ „			
Potsdam.....	Miniska-ensis, D.D.Owen.	(Minnesota) Miniska River, Pennsylvania.			
„	Minnesotensis, „	(Minnes.) Mazomania, La Grange Mt., Madison, (Wisconsin) L. La Croix, Stillwater.			
„	var. limbatus, „	(Minnes.) La Grange Mountain.			
CS., Potsd.....	var. *a*, „	„ „			
Potsd.	misa, „	Trempeleau, Miniska (Minnesota).			
Queb. G.	Missisquoi, Billings.	Philipsburg (Can.E.).			
Potsd. Sa.	Osceola, D. D. Owen.	Osceola Mills (Wisconsin).			
Lst. 1, Queb. G.	Oweni, Billings.	Point Lévis (Can.E.).			
„ „	pauper, „	„ „			
Potsd. Sa.	Pepinense, D. D. Owen.	Pennsylv., La Grange Mtn. (Minnesota).			
Lst. No.1, Queb. G.	planifrons, Billings.	Point Lévis (Can.E.).			
Potsd. Sa.	Rœmeri, B. F. Shumard.	Texas, Burnet &c.			
Lst. No.1, Queb. G.	selectus, Billings.	Point Lévis (Can.E.).			
Lst. No.1, Queb. G., Potsd.	Sesostris, D. D. Owen.	Up. Mississippi, Point Lévis (Can. E.).			
Calcar. Magn. S., Potsd. Sa.	spiniger, Hall.	Trempeleau, Wisconsin.			
„	sp. ind. D. D. Owen.	S. Wisconsin.			
U.Ling. Flags...	„ Salter.	Criccieth (Wales).			
	Dindymene, *Corda*, 1847.				
Yellow-grey Sh., Fauna D.	Frid-Augusti, Corda.	.....	(Bohemia) Beraun.		
„ „	Haidingeri, Barr.	.....	„ „		
	Dionide, *Barrande*, 1846.				
L.Llan. Flags...	atra, Salter.	.....	(S. Wales) Ty-obry, Portmadoc.		
	euglypta, Angel.	.....	Sweden.		
Faun. D (Boh.).	formosa, Barr.	.....	(Boh.) Winice, Ptak, Trubin, Sweden.		
Div. 4, A. Gr...	perplexa, Billings.	.....	.....	(Anticosti) The Jumpers.	
	Diplorrhina (see AGNOSTUS).				
	Dolichometopus, *Angelin*, 1852 (see ARIONELLUS).				
Div.G,CS.,Queb. G.	convexus, Billings.	(Newfoundland W.) Port au Choix.			
„ „	gibberulus? „	(Newfoundland W.) Port au Choix, (Can. E.) Oxford.			
„ „	rarus, „	Phillipsb. (Can. E.)?			
Reg. E	Suecicus, Angel.	.....	.....	.....	(Sweden) Andrarum.
	Dysplanus, *Burmeister*, 1843.				
Llan.Fl., Reg.C.	centaurus, Dalm.	.....	Swed., (Norw.) Christiania, (Wales) Berwyn Mountains.		
Up. Bala, Pleta.	centrotus, Portl.	.....	(Wales) Berwyns, Sweden, (Norway) Christiania, Irel., (Russ.) St. Petersb., (Esthon.) Jewe, Isle Odinsholm.		
	muticus, Volborth.	.....	Russia.		

Subdivision.	Genera, Species, and Author.	Primordial.	Lower Stage.	Middle Stage.	Upper Stage.
	Eccoptochyle, *Corda,*	1847 (see CHEIVURUS).			
	Ellipsocephalus, *Zenker,* 1833.				
Taconic Group	asaphoides, Emmons.	New York.			
Ling. Flags. ...	depressus, Salter.	(W.)Wern. Penmorfa.			
Fauna C	Germari, Barr.	(Bohem.) Slap,Skrey.			
,, ...	Hoffi, ,,	,, Ginetz, ,,			
	Pradoensis, Verneuil.	Toledo? (Spain).			
	sp. ind. De Prado.	Spain.			
	,, Barrande.	Hoff, Bavaria.			
	Encrinurus, *Emmerich,*	1845 (includes CRYPTONEMUS, in part, J. W.S.).			
	arcticus, Salter.	.....	.....	.....	Gothland? Arctic Seas (America).
L. Held. G. ...	deltoideus, B.F.Shumard.	.....	.....	.....	Up.MississippiRiver.
Div. 4, A. Gr.	elegantulus, Billings.	.....	.....	(Anticosti) The Jumpers.	
W.	Ketleyanus, Salter.	.....	.....	.....	Dudley (England).
	lævis, Angel.	.....	.....	.....	Sweden, Arctic Seas (America).
Div. N,P, Queb. G.	mirus, Billings.	(Newfoundland W. & N.) PistoletBay &c.			
	multisegmentatus, Portl.	(Wales) Montgomsh., Tyrone, Fermanagh (Ireland).	(Anticosti) Junction Cliff, Galway (Ireland), (Wales).	Dudley, Usk &c. (Engl.), Norway.	
Carad., Lland., W., L. Pleta, Cor. Lst.	punctatus, Wahlenb.	Coniston (Lancash.), (Wales) Pwllheli &c., (Russia) L. Ladoga, (Esthonia) Wesenberg, Great Barr, Staffordsh.	Mathyrafal, Galway, (Engl.) Norbury, Malvern,(Anticos.) East Point, &c.	Isle Oesel (Baltic), Walsall, Dudley, &c.(Engl.),(Wales) Marloes Bay.	
,, ,,	var. arenaceus, Brünn.	.....	(Wales) Pen-y-Cau, Mayhill, Malvern, Wooltack,&c.(England).	(Wales) Mwdwl Eithin, Plas Madoc.	
	rex? Nieszk.	D'Erras, Odinsholm, Wesenberg, &c. (Esthonia).			
Carad.	sexcostatus, Salter.	(Wales) Bala, Haverfordwest, S.W. Scotland.			
W.	variolaris, Brongn.	.....	.....	.....	(Engl.) Dudley, Usk, Malvern, Ireland, N. & S. Wales.
	vigilans, Hall.	.....	Lake St. John (Can. E.), Canada, New York.		
CL.	sp. ind. Billings.	.....	.....	Shickshoch Mountains (Can. E.).	
W.	,, Ketley.	.....	.....	.....	Dudley (England).
	,, Hall.	.....	Wisconsin (U.S.A.).		
	,, Salter.	.....	.....	.....	Griffith's Island &c. (Arctic America).
Pleta	Worthii, Eichw.	.....	Poulkova, Popova (Russia), Réval (Esthonia).		
	Endymionia, *Billings,*	1865.			
Div. N,P, Queb. G.	Meeki, Billings.	.....	Point Lévis (Can.E.), Newfoundl. N. & W., Point Rich, &c.		
	sp. ind. Barr.	.....	Gembloux(Belgium).		
	Erinnys, *Salter,* 1865 (HARPIDES).				
Ling. Flags ...	venulosus, Salter.	Britain, St. David's.			
	Eryx, *Angelin,* 1852?				
Reg. B	laticeps, Angelin.	(Scania) Andrarum, Sweden.			
	Euloma, *Angelin,* 1852	(CALYMENE).			
,, C	læve, n. s. Angel.	.....	(Sweden) Berg, Ostrogothia.		
,, B, C	ornatum, ,,	.....	Sweden, Mount Hunneberg, (Norway) Opslo.		
	Eurycare, *Angelin,* 1852 (OLENUS).				
,, A	angustatum, Angel.	Andrarum (Sweden).			
,, ,, ...	brevicauda, ,,	,, ,,			
,, ,, ...	camwricorne, ,,	,, ,,			
,, ,, ...	latum, Boeck.	,, & Westrogothia.			
	Goniopleura, *Corda,* 1847 (PROETUS).				
	Harpes, *Goldfuss,* 1841.				
CH.	antiquatus, Billings.	.....	Mingan Isles, (G. of St. Lawr.).		

Subdivision.	Genera, Species, and Author.	Primordial.	Lower Stage.	Middle Stage.	Upper Stage.
	Bischoffii, Rœmer.				Thuringia.
Div. 4, A. Gr., Mayhill.	consuetus, Billings.			(Anticosti)S.W.Point.	
Reg. D, E	costatus, Angel.				(Sweden) Dalecarlia, Osmundberg.
,, E	crassifrons, Barr.			(Bohem.) Kozel, Listice, Viskocilka.	
Tr.	Dentoni, Billings.		Mid-Ottawa River (Can. W.).		
Carad.	Doranni, Portlock.		England, (Ireland) Desertcreate, Denbighshire, Llangollen, &c.		
Potsd. Sa.?	Escanabiæ, Hall.	N.W. Michigan (U. S.A.).			
Carad.	Flanagani, Portlock.		(Irel.) Tyrone, Desertcreate.		
Queb. G.	Grantii, Billings,	Phillipsburg(Can.E.)			
W.	megalops, M'Coy.				Dudley (England).
Fauna F.	Montagnei, Corda.				(Bohem.) Konieprus, Suchomast.
,, E	Naumanni, Barr.				(Bohem.) Lodenitz.
,, G. g. 1.	Orbignyanus, ,,				,, Dvoretz.
H. R. G.	Ottawa-ensis, Billings.		Ottawa City (C. W.), (Anticosti) Wreck Point, English Hd.		
Carad.	parvulus, M'Coy.		(S.W. Scotl.) Wrae Quarry.		
D. d. 1	primus, Barr		(Bohemia) Rokitzan.		
BL.	pustulosus, Hall.		(N.York)Watertown.		
Fauna 4, F	reticulatus, Corda.				(Bohem.) Konieprus, Mnienian.
Reg. C	Scanicus, Angel.		(Scania) Fagelsang.		Sweden?
Pleta	Spaskii, Eichw.		Réval (Baltic).		
Fauna E.	ungula, Barr.			Bohemia.	
E, F, G. g. 1.	venulosus, Corda.			,, Dlauha-Hora.	Lower Loire, La Féronnière (France). (Bohemia) Konieprus, Chotecz, Mnienian.
E	vittatus, Barr.			(Bohemia) Butowitz, Lochkov.	
Reg. D, E	Wegelina, Angel.		(Sweden) Dalecarlia.		Sweden.
	sp. ind. Salter.		Merioneth, Bala Lake.		
	,, Harkness.		Leisley (Westmorel.).		
	Harpides, *Corda*, 1847.				
Div. P, Queb. G.	atlanticus, Billings.	Canada?, Newfoundland W., Portland Creek.			
Reg. B	breviceps, Angel.	Andrarum (Sweden).			
Div. P, Queb. G.	concentricus, Billings.	(Newfoundland W.) Cowhead.			
,, ,,	desertus, Hall.	(Can. E.) Bedford, Pike River.			
Fauna D. d. 1.	Grimmi, Barr.	(Bohem.) Przibram.			
Reg. B, C	rugosus, Angel.	(Norway) Opslo, (Sweden) Mount Hunneberg.			
Queb. G.	Zenkeri, Billings.	(Can. E.) PointLévis.			
	Hemicrypturus, *Corda*, 1847 (see ASAPHUS).				
	Holocephalina, *Salter*, 1864.				
Ling. Flags	primordialis, Salter.	England, (S. Wales) Port-y-Rhaw, St. David's.			
,,	sp. ind. ,,	(Wales) Maentwrog and St. David's.			
	Holometopus, *Angelin*, 1852.				
Reg. D, E	aciculatus, Angel.		(Sweden)Mount Kinnekulle.		(Swed.) Vestrogothia.
Div. N, P, Queb. G.	Angelini, Billings.	Point Lévis (Can.E.), Newfoundland W., Pt. Rich.			
Reg. B, C	elatifrons, Angel.	(Swed.) Mt. Hunneb.			
,, C	limbatus, ,,		Fagelsang (Scania).		
,, D, E	ornatus, ,,		(Vestrogothia)Mount Kinnekulle.		

Subdivision.	Genera, Species, and Author.	Primordial.	Lower Stage.	Middle Stage.	Upper Stage.
	Homalonotus, *König,*	1820.			
Car., Llandov...	bisulcatus, Salter.	.....	(N. Wales) Garnedd Meifod, Capel Garmon, Tremadoc, &c., (Shropsh.) Acton Scott, (Westmorel.) Ravenstone Dale.		
	var. β minor, ,,	.....	(N. Wales) Bala, Westmoreland.		
Fauna D. d. 2...	Bohemicus, Barr.	.....	(Bohem.) Mt. Drabow.		
Carad.	brevicaudatus, Deslongch.	.....	Normandy, (Budleigh Salt.) Devonshire (*pebbles*).		
Carad.	Brongniarti, Deslongch.	.....	(France) May, (Engl.) BudleighSalterton, (Spain) Almaden, Ballesteras.		
	Dawsoni, Hall.	.....	.....	.....	Arisaig (Nova Scotia).
W.	delphinocephalus, Green.	.....	.....	(N. York) Herkimer Co.	(England) Dudley, Woolhope, (Wales) Usk, Canada, (N. York) Lockport &c., Pennsyl., Virginia.
Carad.	Edgelli, Salter.	.....	(Engl.) Shropshire.		
Pleta	elongatus, Eichw.	.....	Isle Dago (Baltic).		
L.	Johannis, Salter	.....	.....	.....	(Engl.) Usk, Malvern.
L. H. G., Up. Ludl.	Knightii, König.	.....	.....	.....	(Westmorel.) Kendal, Ludlow, Middleton Park, (Wales) Radnorsh., Herefordshire, Golden Gr., Builth, (Nova Scotia) Arisaig, (Hanover) Harz.
	Linares, Salter.	.....	.....	.....	Bolivia, S. America.
L.	Ludensis, Murch. = *Knightii.*	.....	.....	.....	England, Wales.
	minor, Römer.	.....	.....	.....	Thuringia.
Tremad.	monstratus, Salter.	Ramsey I. &c. (S. W.).			
Reg. D, E	platynotus, Dalm.	.....	(Swed.) Vestrogothia, Mts. Mosseberg & Olleberg.	.....	Sweden.
Carad., Fauna D	rarus, Barr.	.....	(Bohemia) Mt. Drabow, (Spain) Almaden, Brittany, Normandy, May.		
Reg. E	rhinotropis, Angel.	.....	.....	.....	(Swed) Scania, Klinta, Gothl., Horburg, Bursvick, &c.
Carad.	rudis, Salter. = *Schusteri?*	.....	(Wales) Capel Garmon, Denbighsh., Nant Yr. &c., (England) Shropshire.		
,, ...	Sedgwickii, ,,	.....	(Engl.) Budleigh Salterton, Devonsh. ?.		
Delth. Sh. Lst.	Vanuxemi, Hall.	.....	.....	.....	(N. York) Helderberg Mns., Albany & Herkimer Cos.
Carad.	Vicaryii, Salter.	.....	(Engl.) Budleigh Salterton, Devonsh.		
Llan.	Vulcani, Murch.	.....	(Engl.) Corndon Hills		
Carad.	Winwoodii, Salter.	.....	,, Budleigh Salterton, Devonsh.		
	sp. ind. ,,	.....	.....	.....	Illampu Mountain, Bolivia (S. Amer.).
,, ...	,, ,,	.....	Capel Garmon (Denbighshire).		
,, ...	,, ,,	.....	(Engl.) Budleigh Salterton, Devonsh.		
Tremad.	,, ,,	Ramsey I. (St. David's).			
,, ...	,, ,,	.....	,, ,,		
W.	,, ,,	.....	.....	.....	(W.) Mwdwl, Eithin.
Carad.	,, Green.	.....	.....	.....	New York?
	,, Dawson.	.....	.....	.....	Arisaig (Nova Scotia).
	Homalopteron, *Salter,*	1865.			
L. Landov.	longifrons, W.-Edgell. = *Barrandia.*	Pembrokesh. (Wales).			
,, ...	Portlockii. Salter.	Wexford (Ireland).			
,, ...	radians, M'Coy.	Builth ,,			
,, ...	sp. ind. W.-Edgell.	Pembrokesh. ,,			
	Hydrocephalus, *Barrande,* 1846.				
Fauna C	carens, Barr.	(Boh.) Skrey Schists.			
,, ...	saturnoides, ,,	,, ,,			

Subdivision.	Genera, Species, and Author.	Primordial.	Lower Stage.	Middle Stage.	Upper Stage.
	Illænopsis, *Salter*, 1865.				
L. Llan.	Thomsoni, Salter.		(Engl.) W. of Stiper Stones, Shelve, &c.		
	Illænurus, *Hall*, 1863.				
Potsd.	quadratus, Owen, Hall.	Osceola Mills, St. Croix River.			
	OCTOILLÆNUS, *Barr.*		Bohemia.		
	Illænus, *Dalman*, 1826	(see BUMASTUS, DYSPLANUS, &c.).			
Carad., Llandov.	æmulus, Salter. = *Dysplanus.*		(Shropshire) Presteign, Radnorshire.	Chirbury, Shropshire.	
Tr.	Americanus, Billings.		(Can. W.) Ottawa City, Lake Huron.		
BL., Tr.	angusticollis, ,,		(Can. E.) Low. Ottawa River, Michigan, St. Joseph's, &c., Lake Huron.		
CH., B., BL.	Arcturus, Hall.		(N. York) Chazy Village, (Can. W.) Mid-Ottawa, (Can. E.) Mingan Isles.		
Queb. G.	arcuatus, Billings.	(Newfoundland W.) Cowhead.			
Niag.	armatus, ,,				Chicago (Illinois).
	,, allied to, D. D. Owen.		Lake Winnipeg (Rupert's Land).		
Pleta	atavus, Eichw. = *Actinobolus atavus.*		Baltischport (Esth.), (St. Petersburg) Ropsha.		
Carad.	Bailyi, Salter.		Ireland (S.) Dunabrattin Head.		
?	Barrandei, D. D. Owen.		U. Mississippi River.		
Corall. L., Niag., Llandov., W.	Barriensis, Murch.			Malverns	(England) Bogmine, Woolhope, Ledbury, Dudley, Malvern, Onny River, (Russ.) L. Ladoga, (Balt.) Isles Oesel & St. Jean, New York, Wisconsin.
CH.	Bayfieldi, Billings.		(Can. E.) Mingan Isles, Montreal.		
	Beaumonti, Rouault.		(Fr.) Angers, Vitré, &c.		
Corall. L., E. e. l.	Bouchardii, Barr.			(Bohem.) St. Iwan &c.	Isle Oesel, St. Jean (Baltic).
,, ,,	var. minutus, Corda.			,, ,,	
Carad., Llandov.	Bowmanni, Salter. = *Dysplanus.*		(Wales) Haverfordw., Berwyns, &c., Kildare (Irel.), (S.W. Scotl.) Drummuck.	(Wales) Llandovery, Gwyddon, Chirbury, Shropshire.	
	brachyoniscus, Salter.		Himalaya, Niti Pass, East Indies.		
W.	carinatus. ,,				Winning's Quarry, Malvern, Dudley (England).
	centaurus, Dalm.		(Œland) Aleböke.		
CH., B., BL.	clavifrons, Billings.		Mingan Isles.		
B., BL.	conifrons, ,,		(Can. E.) River Achigan, Mingan Isles.		
BL., CH.	Conradi, ,,		(Can. E.) R. Achigan, Hull, Ottawa River.		
Div. L, M, N, Queb. G.	consimilis, ,,	(Newfoundland W.) Cowhead.			
Div. P, Queb. G.	consobrinus, ,,	,, ,,			
Pleta	cornutus, Eichw.		Ropscha (Russia).		
,, CH., Tr.	crassicauda, Wahlenb.		(Esthon.) Réval, Wesenb., Lyckholm, &c., Norway, Sweden, (Russia) Lake Ladoga, Ropscha, &c., Angers, La Hunandière (France), Mingan Isles (G. St. Lawr.), Red Riv. (Rupert's Land), Missouri, Prairie du Chien (Wiscons).		

Subdivision.	Genera, Species, and Author.	Primordial.	Lower Stage.	Middle Stage.	Upper Stage.
	Dalmani, Volborth.		Russia.		
Pleta, Carad....	Davisii, Salter.		(Engl.) Westmorel., (Wales) Corvan, Rhiwlas, &c. (S.W. Scotland) Stinchar River &c.		
,, Carad. ...	Desmaresti, Rouault.		(Fr.) Vitré, D'Erce, Angers, (Portugal) Vallongo.		
Very Micaceous Sch., D. d. 4.	distinctus, Barr.		(Bohemia) Wraz, Beraun.		
Div. L, N, P, Queb. G., Pt. Lévis &c.	fraternus, Billings.	(Newfoundland W. & N.W.) Pt. Rich &c.			
Carad.	giganteus, Burm.		(Fr.) Brittany, Vitré, &c. (La Sarthe), Portugal (Vallon.), Spain.		
CH.	globosus, Billings.		(Can. E.) Montreal, Murray Bay, Mingan Isles.		
Div. 4, A. Gr., H. R. G., MSa.	grandis, ,,		Canada (Anticosti, *passim*).	Canada (Anticosti, *passim*).	
Fauna D. d. 5.	Hisingeri, Barr.		(Bohem.) Königshof, Karlshütte.		
	Hispanicus, Verneuil.		(Spain) Ballesteros, Chillon, S.Morena.		
Niag.	imperator, D. D. Owen.				Wisconsin (U.S.A.).
Queb. G.	incertus, Billings.	Stanbridge (Can. E.).			
Niag., W.	insignis, Salter.				Chicago (Illinois), Dudley (England).
D. d. 1	Katzeri, Barr.		(Bohemia) Rokitzan.		
	laticauda, Hising.		(Dalecarlia) Osmunsberg.		
Pleta	laticlavius, Eichw.		Humulassari &c. (Russia).		
Tr.	latidorsatus, Hall.		(N.York) Watertown.		
	latus, M'Coy. = *Bowmanni.*		(S.W. Scotl.) Wrae.		
Carad.	Lewisii, Salter. = *Panderia.*		(Wales) Oswestry.		
	Lusitanus, Sharpe. = *giganteus.*		(Portugal) Vallongo.		
Llandov.	M'Cullumi, Salter. = *Bumastus.*		(S.W. Scotl.) Girvan, Ayrshire.		
B., BL., Tr. ...	Milleri, Billings.		(Can. E.) R. Achigan, Lower Ottawa River, L. Huron, St. Joseph Isl.		
	Minganens ,,		Mingan Isles (G. St. Lawr.).		
Carad.	Murchisoni, Salter.		(Wales) Llandeilo, Coniston, Grug, Birds' Hill, Waterhead (Lancashire).		
Llandov.	nexilis, ,,			Girvan (S.W. Scotl.).	
Pleta	oblongatus, Angelin.		L.Ladoga &c.(Russ)..		
Carad.	ocularis, Salter.		Chair of Kild. (Irel.).		
Div. 1, 2, 3, 4. A.Gr., H.R.G., MSa.	orbicaudatus, Billings.		Anticosti Isle	Canada, Anticosti, Gamache Bay, &c.	
H. R. G., B., BL.	ovatus, Conrad.		(Can.E.) Hull, Ottawa River, (Wisconsin) Mineral Point.		
D. d. 3, 4	Panderi, Barr.		(Bohem.) Sterboholy, Wotmitz, Bracz, Czernin, &c.		
Pleta	Parkinsoni, Eichw.		Poulkova&c.(Russia), Isle Odinsholm.		
L.Llan.	perovalis, Murch.	Corndon Mt. &c., Shropsh., Abereidy Bay, Pembrokesh., and St. David's.			
Carad.	Portlocki, Salter.		(Irel.) Tyrone, Desertcreate.		
	punctulosus, ,,		Himalaya, Niti Pass (India).		

Subdivision.	Genera, Species, and Author.	Primordial.	Lower Stage.	Middle Stage.	Upper Stage.
Pleta, Up. Bala.	Rosenbergii, Eichw.	.....	Coniston, Waterhead (Lancashire), Poulkova &c. (Russia).		
	var. minutus, „	.....	Poulkova &c. (Russia).		
„	Rudolphi, „	.....	Ropscha &c. (Russia), D'Erras (Esthon.).		
Fauna D. d. 4, 5	Salteri, Barr.	.....	(Bohemia) Praskole, Wraz, &c., Spain ?, (Fr.) La Manche.		
	Sanchezi, Verneuil.	.....	(Spain) Ballesteros, Madronal, Sierra Morena.		
	Schmidtii, Volborth.	.....	Russia, Esthonia.		
Queb. G.	simulator, Billings.	Stanbridge (Can. E.).			
E. e. 1	tardus, Barr.	.....	.....	(Bohemia) Listice.	
	tauricornis, Kutorga	.....	Russia.		
Tr.	taurus, D. D. Owen.	.....	Wisconsin.		
Llandov.	Thomsoni, Salter. = *Illænopsis.*	.....	Bogmine, Shelve (Shropshire).	(S.W. Scotl.) Girvan.	
Fauna D	transfugus, Barr.	.....	(Bohemia) Praskoles, Mount Drabow, Lodenitz.		
BL.....	Trentonensis, Emmons.	.....	Hull, Ottawa R. (C.E.)		
	triodonturus, Volborth.	.....	Russia.		
Div. P., Queb. G., Pt. Lévis.	tumidofrons, Billings.	(Newfoundland W.) Cowhead.			
Pleta, Fauna D	Wahlenbergianus, Barr.	.....	(Bohem.) Königshof, Karleshütte, (Russia) Ropscha, Réval.		
Niag.	Wortheanus, Win. & Mar.	.....	.....	.....	(Chicago) Illinois.
CH.	vindex, Billings.	.....	Mingan Isles (G. St. Lawr.).		
L. Llandov.....	sp. ind. Salter.	Shropshire, West of Stiper Stones.			
Queb. G.	„ Billings.	Pt. Lévis (Can. W.)			
	„ Meek.	.....	.....	.....	Kennedy Channel, Arctic Seas (Amer).
	„ Römer.	.....	.....	.....	Decatur Co. (Teness.).
	Isocolus, *Angelin*, 1852.				
Reg. D–E	Sjogreni, Angel.	.....	(Sweden) Dalecarlia.	.....	Sweden.
	Isotelus, *Dekay*, 1824	(see ASAPHUS).			
Tremad., Carad.	affinis, M'Coy.	(Wales) Tremadoc ...	(Ireland) Pomeroy.		
	canalis, Conrad.	.....	Pennsylvania.		
Tr., CH.	gigas, Dekay.	.....	N. York, Tennessee, Penns., Kentucky. Ohio, N.W. Michigan, Up. Mississippi River, (Can. E.) Beauport, Lake St. John, &c., Ireland.		
	Homfrayi, Salter.	(Wales) Tremadoc.			
	Iowensis, D. D. Owen.	.....	Up. Mississippi River.		
Div. 1, A. Gr., Tr.	megistos, Locke.	.....	Anticosti, (Can. W.) Kingston, Ohio, Tennessee, Missouri, Wisconsin.	(Anticosti) Gamache Bay.	
	Powisii ? Sharpe.	.....	(Portugal) Vallongo.		
?	robustus, Römer ?	.....	Silesia ?.		
	Kœnigia, *Salter*, 1865	(see HOMALONOTUS).			
	Leptoplastus, *Angelin*,	1852 (see OLENUS).			
Reg. A	ovatus, Angel.	(Sweden) Andrarum.			
„ „	raphidophorus, „	„ „			
„ „	stenotus, „	„ „			
	Lichas, *Dalman*, 1826.				
„ D. b	aculeatus, Angel.	.....	(Swed.) Vestrogothia. Mount Kinnekulle.		
„ D, E	affinis, „	.....	(Swed.) Ostrogothia, Rosenschalt.	.....	Sweden.
Fauna E, 3 ...	ambiguus, Barr.	.....	.....	.....	(Bohemia) Beraun, Listice, Ratinka.
W. L.....	Anglicus, Beyrich.	.....	.....	.....	Dudley (England).
Dolom. L. with Orthoc.	angustus, Römer.	.....	(Esthonia) Isles of Worms and Dago, (Russia) Gatchina, Silesia.		

Subdivision.	Genera, Species, and Author.	Primordial.	Lower Stage.	Middle Stage.	Upper Stage.
Pleta	aries, Eichw.	.....	(Russia) Poulkova.		
W.	Barrandei, Fletcher.	.....	.....	.....	Dudley, Ledbury (England).
Delth Sh. L. ...	Bigsbyi, Hall.	.....	.....	.....	(N. York) Coeymans, Carlisle &c. Cos.
Niag.	Boltoni, Bigsby.	.....	.....	.....	Canada W., (N.York) Wolcott, Lockport, Sweden.
W., L.Ludl. ...	Bucklandi, Salter.	.....	.....	.....	Whitecliff (Ludlow), Dudley.
Carad.	bulbiceps, Hall.	.....	(Ireland) Chair of Kildare.		
Div. 4, A. Gr., Mayhill.	Canadensis, Billings.	.....	.....	(Anticosti) E. Point.	Gaspé (Canada E.).
Reg. D, E	cicatrosus, Loven.	.....	(Sweden) Dalecarlia.	.....	Sweden.
„ C &c.....	cœlorrhinus, Angel.	.....	„ Ostrogothia, Smoland &c.		
Pleta, Reg. E...	concinnus, „	.....	(Esthon.) Wesenberg.	.....	(Sweden) Gothland.
Reg. D, E	conformis, „	.....	(Sweden) Dalecarlia.	.....	(Sweden) Dalecarlia.
Pleta	coniceps, D. de Leucht.	.....	(Russia) Hummulassaar and Poulkova.		
Reg. C	convexus, Angel.	.....	(Swed.)Ljung, Ostrogothia.	.....	Sweden?
Tr.	cucullus, Meek & W.	.....	Alexander Co. (Illinois).		
Pleta, Reg. D,E	Dalecarlicus, „	.....	Sweden, (Russ.)Poulkova, Esthonia.	(Sweden) Dalecarlia.	
Niag.	decipiens, W. & Marcy.	.....	.....	.....	Chicago (Illinois).
Reg. D. a? ...	deflexus, Sjogren.	.....	Swed., Aland (drift).		
„ „	depressus, Angel.	.....	Norway, „ „		
Pleta &c.	Eichwaldii, Nieszk.	.....	(Russia) Poulkova, (Esthonia) Réval, D'Erras, Kirna, Isle Odinsholm.	.....	Russia.
	eriopis, Hall. *armatus.*	.....	.....	.....	New York.
Reg. E	gibbus, Angel.	.....	.....	.....	(Sweden) Gothland.
„ C	Gothlandicus, „	.....	Russia, Gothland.		
?	grandis, Hall.				
Carad., W.....	Grayii, Fletcher.	.....	.....	.....	Ledbury, Dudley (England).
Faunæ F, G. g.l	Haueri, Barr.	.....	.....	.....	(Bohem.) Konieprus, Mnienian, Dvoretz, Slichow.
	Heberti, Rouault.	.....	(France) Poligné, Bain, &c.		
„ E	heteroclytus, Barr.	.....	.....	.....	(Bohemia) Kozolup.
Carad.	Hibernicus, Portlock.	.....	(Irel.) Dublin, Portrane, Chair of Kildare, Tyrone, Desertcreate.		
W.	hirsutus, Fletcher.	.....	.....	.....	Dudley (England).
	Hispanicus, Verneuil.	.....	(Spain) Ciudad Real.		
Pleta	Hybneri, Eichw.	.....	Russia, (Esthonia) Réval.		
D. d. 1	incola, Barr.	.....	(Bohemia) Rokitzan.		
Queb. G.	Jukesii, Billings.	(Newfoundl.) Cowhead, Stanbridge (Can. E.).			
	Kaiserlichi, Hoffmann.	.....	.....	.....	Russia.
Pleta, Reg.D,E, Carad.	laciniatus, Dalm., Wahl.	.....	Coniston (Westmoreland), (Swed.) Vestrogothia, Mount Olleberg &c.		
Dolom. L. with Platystrophia.	lævis, Eichw.	.....	(Esthonia) Kirna.	?	
Reg. E	laticeps, Angel.	.....	.....	.....	(Sweden) Gothland.
„	latifrons, „	.....	.....	.....	„ „
Carad., L. & U. Llandov.	laxatus, M'Coy.	.....	Dufton(Westmorel.), Denbighsh., Bala, Cerrig-y-Druidion &c., S.W.Scotland, Shropshire, Acton Scott, (Irel.) Wexford, Kildare.	(Ayrshire) Mulloch's Hill. Shropshire.	
Pleta	macrocephalus, Eichw.	.....	(Russia) Poulkova.		
CH. or BL. ...	Minganensis, Billings.	.....	Mingan Isles (G. St. Lawr.).		

Subdivision.	Genera, Species, and Author.	Primordial.	Lower Stage.	Middle Stage.	Upper Stage.
	Nereus, Hall.	.....	.....	.....	N. York (U.S.A.).
Carad.	nodulosus, Salter.	.....	(Wales) Pont-y-Glyn, Corwen.		
Reg. C ?.....	Norvegicus, Angel.	.....	Norway.		
Compact Pleta, Reg. C, Inflamm. Schist.	Alandicus, ,,	.....	(Sweden) Aland, Isle Dago, (Esthonia) D'Erras, Jelgimäggi.		
Dolom., Corall. Lst., Reg. C.	ornatus ,,	.....	Sweden.	.....	Russia (Esthon.) Kerkau, (Swed.) Gothl.
Reg. C	pachyrrhinus, Dalm.	.....	,, Ostrogothia, Husbyfjol.		
Faunæ D, E ...	palmatus, Barr.	.....	(Bohemia) Wohrada, Wiskocilka.	Bohemia.	
Llan.	Patriarchus, Wyatt-Edgell	.....	(S. Wales) Pont Ladies, Llandeilo.		
Reg. D, E	polytomus, Angel.	.....	(Swed.) Vestrogothia, Mount Ollenberg.		
Carad.	propinquus, Barr.	.....	Coniston Waterhead, (Lancashire).		
Niag.	pugnax, Winch. & Marcy.	.....	.....	.....	Chicago (Illinois).
Reg. E	pusillus, Angel.	.....	.....	.....	Gothland.
L. H. G.	pustulosus, Hall.	.....	.....	.....	(N. York) Albany & Schoharie Cos.
,, ...	rotundifrons, ,,	.....	.....	.....	,,
W.	Salteri, Fletcher.	.....	.....	.....	Dudley (England).
Fauna D, E ...	scabra, Beyrich.	.....	Bohemia (colony) ...	.....	(Bohem.) Wiskocilka, Wohrada, Ratinka, Kozel, Listice, St. Iwan, &c.
	scuticauda, Salter (MS.).	.....	.....	.....	Malvern, Dudley, (England).
	sex-lobatus, Römer.	.....	.....	.....	Lower Harz (Giebel).
	sex-punctatus, Hoffmann.	.....	Norway, Russia.		
Reg. D ?.....	sex-spinus, Angel.	.....	Norway.		
,, E	simplex, Barr.	.....	.....	.....	(Bohemia) Dlauha-Hora.
	Tibetanus Salter.	.....	(E. India) Niti Mtns.		
B., BL., Tr. ...	Trentonensis, Billings.	.....	(Pennsylvania) Carlisle, N.W. Michigan, (N.York) Middleville, Canada, (Ohio) Cincinnati.		
Woolh., W. ...	verrucosus, Eichw.	(Sweden) Ljung.	(Esthonia) Réval.		
Pleta	,, Salter.	.....	.....	.....	Mayhill, Worcester Railway, Malvern.
?	sp. ind., Selwyn.	.....	.....	Victoria (Australia).	
Carad.	,, Salter.	.....	Denbighshire, Cerrig-y-Druidion.		
	Liostracus, *Angelin*, 1852 (see ELLIPSOCEPHALUS).				
Reg. A	aculeatus, Angel.	(Sweden) Alandia.			
,, ...	costatus, ,,	,, Ostrogothia.			
,, ...	muticus, ,,	,, Alandia.			
	Loganellus, *Devine*, 1865.				
Queb. G. A. L. 3	Logani or Quebecensis.	Point Lévis (Can. E.).			
	Lonchocephalus, *D. D. Owen*, 1852.				
P.	Chippewa-ensis, D. D. Owen.	Chippewa River, L. Pepin (Mississ.).			
,, ...	hamulus, ,,	(Minnesota) Miniska River-mouth.			
	Lonchodomus, *Angelin*, 1852 (see AMPYX).				
Reg. D. a. ? ...	affinis, Angelin.	.....	Norway.		
,, D. a. ? ...	crassirostris, ,,	.....	Sweden ? Norway.		
,, B, C	domatus, ,,	(Sweden) Mt. Hunneberg, (Norw.) Opslo.			
,, C	jugatus, Sars.	.....	(Sweden) Boda, Alandia.		
Pleta	longirostris, Eichw.	.....	Sweden, Norway, Isle Odinsholm (Balt.), Russia.		
	Megalaspis, *Angelin*, 1852 (see ASAPHUS).				
Reg. C	acuticaudata, Angel.	.....	(Sweden) Alandia.		
,, ...	excavato-zonata, ,,	.....	,, ,,		
	explanata, ,,	.....	Sweden.		
Pleta	extenuata, Wahl.	.....	Sweden, (Russia) L. Ladoga, (Esthon.) Wesenberg.		

Subdivision.	Genera, Species, and Author.	Primordial.	Lower Stage.	Middle Stage.	Upper Stage.
	gigas, Angel.	.....	Sweden.		
Pleta	heros, Dalm.	.....	„ (Russia) L. Ladoga, Gov. St. Petersburg, Wassilkowa.		
	late limbata, Angel.	.....	Sweden.		
Reg. C	limbata, „	.....	(Sweden) Scania, Fagelsang, &c.		
Pleta	longicauda, D. de Leucht.	.....	Sweden, (Russ.) Gostilitzy, &c., (Estho.) Réval.		
„	multiradiata, Angel.	.....	Sweden.		
Reg. C	plano-limbata, „	.....	(Swed.) Olstrop, Ostrogothia.		
Pleta	remigium, Eichw.	.....	Hapsal (Esthonia).		
	rotundata, „	.....	Sweden.		
„ Reg. C ...	rudis, Angel.	.....	(Sweden) Heda &c., Ostrogothia, (Russia) Tosna &c.		
	stenorhachis, „	.....	Sweden.		
Reg. C	zonata, Lawrow.	.....	(Sweden) Alandia.		
	sp. ind. „	.....	Russia.		
	Menocephalus, *D. D. Owen*, 1852.				
Lst. 1, Queb. G.	globosus, Billings.	Point Lévis (Can.E.).			
P.	Minnesotensis, D.D.Owen.	Wisconsin.			
Lst. A. 3, Queb. G.	Salteri, Dèvine.	Point Lévis (Can.E.).			
Lst. 1, Queb. G.	Sedgwickii, „	„ „			
	Metopias, *Eichwald*, 1842 (see LICHAS).				
	Microdiscus, *Emmons*, 1855.				
P., L.Ling. Fl.	punctatus, Salter.	(Wales) Maentwrog, near St. David's, (S.Wales) Dolgelly.			
Queb. G.	quadricostatus, Emmons.	Virginia, Augusta Co. (U.S.A.).			
	Nileus, *Dalmann*, 1826.				
Div. P., Queb. G., Pt. Lévis.	affinis, Billings.	Isle Orleans (Can.E.), (Newfoundl. W.) Cowhead.			
Pleta, Reg. C ...	armadillo, Dalm.	.....	(Sweden) Heda, Berg, &c. (Russia) Humelasaari & Poulkova.		
	Beaumonti, Rouault.	.....	(France) La Couyère.		
	glomerinus, Dalm.	.....	Sweden.		
Reg. C?	lineatus, Angel.	.....	(Swed.) Vestrogothia, Olstorp.		
Div. N, Queb. G., Pt. Lévis.	macrops, Billings.	(Newfoundland W.) Tablehead.			
	nanus, Verneuil.	.....	Russia.		
Reg. C	palpebrosus, Dalm.	.....	(Sweden) Husbyfjol, Olstorp, &c.		
Div. N, P, Queb. G., Pt. Lévis.	scrutator, Billings.	(Newfoundland W.) Tablehead (in grey, drab, and whitish limestone conglm.).			
	Niobe, *Angelin*, 1852.				
Reg. C	emarginula, Angel.	.....	(Swed.) Ostrogothia, Olstrop.		
„ „	explanata, „	.....	„ „		
„ „	frontalis, Dalm.	.....	(Swed.) Ostrogothia, Heda, Ljung, &c.		
L. Tremad. and Passage-beds.	Homfrayi, Salter.	(N.Wales) Tremadoc, Llanerch, &c.			
Pleta, Reg. C...	læviceps, Dalm.	.....	Tosna (Russ.), (Swed.) Heda &c., Ostrogothia.		
Pleta, Reg. D...	lata, Angel.	.....	(Sweden) Mt. Mosseberg, &c., (Russia) Tzarskaya, Slawjanka.		
Pleta	Lichtensteinii, Eichw.	.....	Poulkova, Ropscha, Pontylowa, Lake Ladoga (Russia).		
	Odontopleura, *Emmerich*, 1845 (see ACIDASPIS).				
	Ogygia, *Brongniart*, 1827.				
Llan.	Barrandii, ?	Wellfield, Builth (W).			

Subdivision.	Genera, Species, and Author.	Primordial.	Lower Stage.	Middle Stage.	Upper Stage.
Pleta, Llan., Carad.	Buchii, Brong.	.....	(Spain) Almaden &c., (France) La Couyère, Bain, (Wales) Llandeilo, Builth, Shropshire, Isle Odinsholm (Balt.).		
	bullata, Salter.	Whitesand Bay, St. David's (S. Wales).			
Arenig rocks ...	bullina, ,,	,, ,,			
Llan.	Corndensis, Murch.	.....	(England) Corndon, Shelve.		
Mus. Pr. Geol., Llan.	Davisii?,	.....	Carneddan, Builth, &c.		
Fauna D. d. 1...	desiderata, Barr.	.....	(Bohemia) Rokitzan.		
	Desmaresti, Brongn.	.....	(France) Angers &c., Spain.		
	dilatata, Brünn.	.....	Russia, Sweden.		
	Edwardsi, Rouault.	.....	(France) La Couyère, Bain.		
	Murchisoni, Murch.	.....	New Ross, Co. Wexford.		
L. Lland., Tremad.	peltata, Salter.	(S. Wales) St. David's.			
Llan.	Portlockii, *radians.* M'Coy.	.....	(Wales) Rhiwlas, Builth, Llandegley, &c., (Irel.) Newton Head, Waterford.		
P., Llan., U. & L. Tremad.	scutatrix, Salter.	(Wales) Garth, Penmorfa, &c.			
L. Llan.	Selwynii, ,,	.....	(Engl.) Lord's Hill &c., Shelve &c., Shropshire, (Wales) Tai-hirion, Dolgelly, &c.		
	Ogygiocaris, *Angelin*, 1852.				
Reg. B. a.	dilatata, Brünn.	Norway.			
	Olenus, *Dalmann*, 1827 (SPHÆROPHTHALMUS, &c.).				
,, A	acanthurus, Angel.	(Scania) Sandby.			
,, ,, ...	aciculatus, ,,	(Sweden) Andrarum.			
,, ,, ...	aculeatus, ,,	,, ,,			
U. Ling. Fl. &c.	alatus, Boeck.	(Wales) Penmorfa &c.			
Taconic	asaphioides, Emmons.	(N. York) Greenwich, Washington Co.			
Reg. A	attenuatus, Boeck.	(Sweden) Andrarum.			
L. Ling. Flags...	bisulcatus, Phill.	(England) Malvern, (Wales) Dolgelly.			
,, ,,	cataractes, Salter.	(N. Wales) Maentwrog, Criccieth, Treflys, Dolgelly.			
	flagellifer, ,,	(Wales) Borth &c.			
L. Ling. Flags, Reg. A.	gibbosus, Wahlenb.	(N. Wales) R. Mawddach, Dolgelly, Norway (Scania).			
Queb G.	holopyga, Hall.	(Vermont, U.S.A.) Georgia Tp.			
Ling. Flags ...	humilis, Phill.	(England) Malvern, (Wales) Dolgelly.			
U. Tremad.....	impar, Salter.	(S. Wales) Portmadoc, Penclogwyn.			
Alum Slates ...	latus, Boeck.	Norway.			
Queb. Gr.	Logani, Billings.	(Can. E.) Point Lévis.			
L. Ling. Flags, Llan.	micrurus, Salter.	(Wales) Tremadoc, Maentwrog, Festiniog, Snowdon, Trawsfynydd, &c.			
Alum Slates ...	paradoxides, Wahl.	(Swed.) Scania, Andrarum.			
Llan.	pecten, Salter.	Malvern (England).			
Ling. Fl., Llan.	scarabæoides, var. obesus? Wahl.	Malvern, (Wales) Moel Gron, Borth, &c., Swed. *passim*, Norway.			
Tremad.....	Sedgwickii, Salter.	(Wales) Portmadoc.			
Ling. Flags ...	serratus, ,,	(N. Wales) Cerrigwen, Borth.			
Mid. Ling. Flags	spinulosus, *scarabæoides.* Dalm.	(Scania) Andrarum, (Wales) Dolgelly.			

Subdivision.	Genera, Species, and Author.	Primordial.	Lower Stage.	Middle Stage.	Upper Stage.
Reg. A	sphenopygus, Angel.	(Sweden) Andrarum.			
Ling. Flags ...	subarmatus, Salter. = *Thomsoni*?	N. Wales.			
Alum Slate ...	Tessini, Dalm. = *Paradoxides*.	(Vestrogoth.) Olstorp, Carlsfors.			
Reg. A	truncatus, Brünn.	(Swed.) Aland, Scania, Andrarum.			
H. R. G.	undulo-striatus, Hall.	.....	(N. York) Saratoga Lake.		
U.Ling.Flags...	sp. ind. Salter.	(N. W.) Cerrig-wen.			
?	,, Barr.	.....	Hof (Bavaria).		
	Olenellus, *Billings*, 1865.				
Potsdam Sa. ... Div. B, C.	Thompsoni, Hall.	Vermont (U.S.), Labrador, Anse au Loup.			
,, ,,	Vermontanus, ,,	,, ,,			
	Palæopyge, *Salter*, 1856.				
Harlech Grits	Ramsayi, Salter.	(Shropshire) Callow Hill, Longmynd.			
	Panderia, *Volborth*, 1863.				
	Lewisii, Salter.	Wales.			
	minima, Volborth.	Russia.			
	triquetra, Volborth.	Russia.			
	Parabolina, *Salter*, 1849 (OLENUS).				
Ling. Flags. ...	serrata, Salter.	N. Wales.			
Potsd. Gr.	spinulosa, Angel.	(Swed.) Gudhem, Ostrogothia, Mount Hunneberg.			
	Paradoxides, *Brongniart*, 1822.				
Taconic G.....	asaphoides, Emmons.	(N. York) Washington Co.			
Ling. Flags ...	Aurora, Salter.	(S.Wales) St.David's.			
	Bennettii, ,,	Newfoundland.			
Fauna C	Bohemicus, Barr.	(Boh.) Ginetz Schists.			
L.Ling. Flags...	Davidis, Salter.	(S.Wales) St.David's, Dolgelly.			
Fauna C	desideratus, Barr.	(Bohemia) Ginetz.			
,, ,, ...	expectans, ,,	,, Skrey.			
Ling. Flags ...	Forchhammeri, Angel.	Sweden, Scania, Andrarum.			
Primord. Slate	Harlani, Green.	Massachus. (U.S.A.), Braintree.			
L.Ling.Flags...	Hicksii, Salter.	(S.Wales) St.David's, Dolgelly, &c.			
Fauna C	imperialis, Barr.	(Boh.) Ginetz Schists.			
,, ,, ...	inflatus, Corda.	,, Skrey Schists.			
	Loveni, Angel.	(Sweden) Scania, Andrarum, Thuringia.			
,, ,, ...	Lyelli, Barr.	(Bohemia) Ginetz.			
	macrocephalus, Emmons.	(N. York) Washington Co.			
,, ,, ...	orphanus, Barr.	(Bohemia) Skrey.			
	Pradoanus, De Prado.	(Spain, *Leon*) Sabero.			
,, ,, ...	pusillus, Barr.	(Bohemia) Skrey.			
,, ,, ...	rotundatus, ,,	,, Skrey, Slap-Teyrzowitz.			
,, ,, ...	rugulosus, Corda.	(Bohem.) Skrey, Slap, &c.			
,, ,, ...	Sacheri, ,,	(Bohemia) Felbabka.			
,, ,, ...	spinosus, Boeck.	,, Thuringia, Pennsylvania, Massachusetts.			
,, ,, ...	Tessini, Linnæus.	(Swed.) Ostrogothia, Aland.			
	Thompsoni, Hall.	Swanton (Vermont, U.S.), Bradore and Forteau Bays, Labrador.			
	Vermontanus, ,,	Swanton (Vermont, U.S.), Bradore and Forteau Bays.			
	Peltura (see OLENUS).				
	Pemphigaspis, *Hall*, 1863.				
Potsd.low. beds.	bullata, n. s. Hall.	(Wisc.) Trempaleau.			
	Phacops, *Emmerich*, 1839.				
Reg. E	æquicostata, Angel.	.....	.....	.....	(Sweden) Gothland.

Subdivision.	Genera, Species, and Author.	Primordial.	Lower Stage.	Middle Stage.	Upper Stage.
Carad.	alifrons, Salter.	.....	(N. Wales) Meifod, Llanrwst, Conway, &c.		
,, ...	amphora, ,,	.....	(W.)Grug, Llandeilo.		
	anchiops, Hall.	.....	Up. Mississ. River...	.....	Lake Huron W. and Mackinae, L. Harz.
	angusticeps, Giebel.	.....	.....	.....	L. Harz (Thuringia).
Fauna D, Carad., Llan. Flags.	apiculatus, Salter,	.....	(N. Wales) Merionethshire, Pwllheli, Carnarvonsh., Treiorwith, &c., (Engl.) Church Stretton, Shropsh., (Bohem.) Peraver, Gorwanhaven.		
Carad.	appendiculata, Salter.	.....	(N. Wales) Bala.		
,, ...	Bailyi, Salter.	.....	Tramore (Waterford).		
Fauna F, G. g. 1	Boeckii, Barr.	.....	.....	.....	(Bohemia) Dvoretz, Hostin, Mnienian, &c.
Reg. E, F	breviceps, Angel.	.....	.....	.....	(Sweden) Konieprus, Slichow, Mnienian.
Fauna F.....	,, Barr.				
Carad.	Brongniarti, Portlock.	.....	(Irel.) Bardahissiagh, Chair of Kildare, &c., England, (N. Wales) Bala &c.		
Fauna E, F, G. g. 1	Bronni, Barr.	.....	.....	.....	(Bohemia) Butowitz, Mnienian, Tetin, Dvoretz, Luzetz.
	bucculeata, Sjogreni.	.....	Sweden (drift).		
Carad.	Bucephali, Wahl., Portlock.	.....	Ireland.		
Reg. E.	bulliceps, Barr.	.....	.....	.....	(Bohemia) Dlauha-Hora, Kolednik, Kozel, Wohrada, Butowitz, Wiskocilka.
B., BL., Tr., H. R. G.	callicephalus, Hall.	.....	Lake St. John (Can. E.), Mid-Ottawa R. (Can. W.), N. York, Tennessee, N.W. Michigan.		
Llan., Llandov., W., L., Reg. E, Aymestry Lst.	caudatus, Brünn.	.....	(S. Wales) Llandeilo.	(England) Malvern, (Wales) Usk &c.	(S. Scotland) Lammermuir, (Engl.) Gt. Barr, Staffordshire, Dudley, Ledbury, Ludlow, Bodenham, (Wales) Moel Seisiog, Plas Madoc, Mid-Gothland, Victoria (S. Australia).
	var. aculeatus, Salter.	.....	.....	.....	Dudley (England).
	var. nexilis, ,,	.....	.....	.....	Ludlow, Malvern, (S. Scotl.) Lammermuir.
W.	var. tuberculato-caudatus, ,,	.....	.....	.....	Malvern (England.
Fauna G. g. 1	cephalotes, Corda.	.....	.....	.....	(Bohemia) Dvoretz, Lochkov, Hostin, &c.
?	conatus, Salter (MS.). ...	.....	S. Wales (*Ed.-Wyatt*).		
Llan., Carad., Reg. C.	conicophthalmus, Boeck.	.....	Ireland, (England) Gretton, Cardington, (N. Wales) Carnarvon, Bettws-y-Coed, &c., (Russ.) Poulkova, (Estho.) D'Erras &c., Sweden, Norway.		
Llandov., W., L.	constrictus, Salter.	England?	.....	.....	England?
	cryptophthalmus, Emmer.	.....	Thuringia,		
Carad.	Dalmanni, Portlock	.....	(Irel.) Tyrone, Enniscorhy, Wexford.		
	Diops, Green.	.....	Tennessee (U.S.A.).		
Carad., U. Llandov., W., L. H. G.	Downingiæ, Murch.	.....	Llanwrst (Wales), (Brittany) Bain &c., Sierra Morena (Spain).	Bogmine, Norbury, &c.	Dudley, Malv., Ledbury, Kendal (Westmoreland), (Wales) Plas Madoc, Merchlin, &c., Arisaig (Nova Scotia).

Subdivision.	Genera, Species, and Author.	Primordial.	Lower Stage.	Middle Stage.	Upper Stage.
W.	var. constrictus, Salter.	.....	.....	.....	Dudley (England).
,, ...	,, macrops, ,,	.....	.....	.....	,, ,,
,, ...	,, Musheni, ,,	.....	.....	.....	,, ,,
W., L.L.	,, vulgaris, ,,	.....	.....	.....	Dudley (*Ketley*), and Ludlow.
LL.	,, α ,,	.....	.....	.....	Dudley (England).
,, ...	,, β macrops, ,,	.....	.....	.....	,, ,,
,, ...	,, γ inflatus, ,,	.....	.....	.....	,, ,,
,, ...	,, δ spinosus, ,,	.....	.....	.....	,, ,,
,, ...	,, ϵ cuneatus, ,,	.....	.....	.....	Wales.
	Dujardini, Rouault.	.....	(Portugal) Bussaco, (France) d'Ille et Vilaine, &c.		
Fauna F.....	emarginatus, Barr.	.....	.....	.....	(Bohemia) Konieprus.
Reg. E	excentricus, Angel.	.....	.....	.....	(Sweden) Scania.
Fauna E, F, G, H.	fecundus, Barr.	.....	.....	.....	(Bohemia) Dlauha-Hora, Kolednic, Kozorz, Butovitz, Wohrada, Mnienian, Lochkov, Roblin, &c.
Fauna G. g. 1...	fugitivus, ,,	.....	.....	.....	(Bohemia) Luzetz.
,, D, E ...	Glockeri, Barr.	.....	(Bohemia, colonies) Motol and Krejci.	.....	(Bohemia) Kozel, Wohrada, Luzetz, Butowitz.
Loose Schists...	granulosus, Angel.	.....	.....	.....	(Sweden) Vestrogothia.
L. H. G.	Hausmanni, Hall.	.....	.....	.....	New York (U.S.A).
Fauna E, G. g. 1	Hœninghausii, Barr.	.....	.....	.....	(Bohemia) Dvoretz, Lochkov, Luzetz, &c.
Delth. Sh. Lst.	Hudsonicus, p. s. Hall.	.....	.....	.....	(N. York) Becraft's Mountain, Pennsylvania, Tenness., Wayne Co., Virginia.
U.Llandov. &c.	imbricatulus, *Odontochyle*. Angel.	.....	.....	(England) Malvern, Mayhill, Sweden.	
Reg. E	imbricatus, ,,	.....	.....	.....	(Sweden) Gothland.
Llandov.,Carad,	? incertus, Salter.	.....	Budleigh Salterton (Devonshire).		
Fauna F	intermedius, Barr.	.....	.....	.....	(Bohem.) Mnienian, Bubowitz.
Carad.	Jamesi, Portlock.	.....	(Irel.) Knockmahon, Waterford.		
Carad.	Jukesii, Salter.	.....	England, (Wales) Gelli Grin.		
Tr.	laticauda?, Hall.	.....	(N.York) Lewis Co.		
? Pentam. Lst.	latifrons, Brongn.	.....	.....	Esthonia?	(Esthon.) Wahhoküll, Isle Dago?, Altai (N. Russia).
	limbatus, Richter.	.....	Thuringia?		
CL., Niag.	limulurus, Hall.	.....	.....	Pennsylv., Virginia.	(N. York) Lockport.
D.Sh.L., L.H.G.	Logani, Hall.	.....	.....	.....	(N.York, C.&E.) Catskill, Carlisle, &c., CapeGaspé (C. E.).
Fauna D, W., Carad., L.	longicaudatus, Murch.	.....	Shropshire, Brittany (Bain), Cheney Longueville, Poligné, Bohemia, (Portug.) Braziela.	.....	(Shropsh.) Ludlow, Dudley, Melbourne (Austral.), (Wales) Powell Hall.
W.	var. armiger, Salter.	.....	.....	.....	Dudley (Shropshire).
,, ...	,, Grindrodianus, ,,	.....	.....	.....	Malvern (England).
Pleta	macrophthalmus, Brongn.	.....	France, (Russ.) Poulkova, Humelasaare. &c.		
,, Carad. ...	macroura, Sjogren.	.....	England, Scotland,		
	affinis, Salter.		(Wales) Llangollen &c., (Esthon.) Wesenberg & Erras, Norway, Sweden (drift).		
Llan.	mimus, Salter.	.....	(Cornw.) St. Austel.		
Fauna F.	miser, Barr.	.....	.....	.....	(Bohemia) Lochkov.
,, G. g. 1.	modestus, Barr.	.....	.....	.....	,, Chotecz.
Reg. E, Carad., U.Llandov.	mucronatus, Brongn.	.....	Sweden, England, Bala (Wales)		

Subdivision.	Genera, Species, and Author.	Primordial.	Lower Stage.	Middle Stage.	Upper Stage.
Carad.	Murchisoni, Portlock.	.....	(Ireland) Tyrone.		
W., U.L.	Musheni, Salter.	.....	.....	Gunwick Mill (Alfrick).	(England) Dudley, Walsall.
L.Llan.	Nicholsoni, ,,	.....	Whiteside, Keswick (Cumberland).		
W.	nudus, ,,	.....	.....	.....	Ireland.
Carad.	obtusicaudatus, ,,	.....	Ambleside, Coldwell (Lancashire).		
Llann.?, Pleta	Odini, Eichw.	.....	(S.W.Scotl.) Peeblesshire,(Livo.)Kirna, Fennern, &c., (Esthonia) Réval, Isles Odinsholm, Dago, (Russ.) L. Ladoga.		
Div. 3, A. Gr., CL.	Orestes, Billings.	.....	.....	(Can. E.) Shickshock Mts.,Anticosti Isle, East Point.	
Fauna 2.....	proævus, Emmerich.	.....	Portugal, Spain, Bohemia.		
	protuberans, Barr.	.....	Bohemia.		
Reg. E	quaterlineatus, Angel.	.....	.....	.....	(Gothland) Wisby.
	Rœmeri, Volborth.	.....	Russia.		
	,, Geinitz.	.....	.....	.....	Thuringia.
	sclerops, Dalm.	.....	(Sweden) Dalecarlia &c., Russsia (European and Asiatic).		
Fauna F.....	signatus, Corda.	.....	.....	.....	(Bohem.) Mnienian, Konieprus.
	socialis, Verneuil.	.....	(Spain) Sierra Morena &c.		
Fauna G. g. 1.	Sternbergii, Corda.	.....	.....	.....	(Bohemia) Dvoretz, Viskocilka, Luzetz, &c., Lower Harz (Giebel).
Llan., Carad., W.,L., L.H.G.	Stokesii, M.-Edw.	.....	(S.W. Scotl.) Girvan &c., Mayhill.	.....	S.W. Scotl., (Engl.) Aymestry, Dudley, Great Barr, Staff., Ludlow, (Wales) Llangynyw, Irel., Nova Scotia.
L.	subduplicatus, Salter.	.....	.....	.....	Britain.
Llandov.	sublævis, M'Coy. *Portlockia.*	.....	.....	Ardaun, Cong, &c., Galway.	
Fauna E	trapeziceps, Barr.	.....	.....	.....	(Bohem.) Listice, Kolednic, Wiskocilka.
U.GreenSh.,CL.	trisulcatus, Hall.	.....	Gretton, Acton Scott (Shropshire).	New York.	
Carad.	truncato-caudatus, Portl.	.....	Tyrone, Desertcreate, Killey(Irel.), (Lancashire) Coniston.		
	tumidus, Angel.	.....	(Swed.)Scania (drift).		
Llan.	Verneuilii, D'Orb.	.....	Poligny, Vitré (Fr.).	.....	(S. Amer.) Bolivia.
	vetusta, Hall.	.....	New York (U.S.A.).		
Fauna E. e. 1...	Volborthi, Barr.	.....	.....	(Bohemia) Butowitz, Lochkov.	
U.Llandov., W.	sp. ind. Shumard.	.....	.....	.....	Up.Mississippi River.
Delth. Sh. Lst.	Weaveri, Salter.	.....	.....	(Engl.) Tortworth, (Wales) Marloes Bay, Presteign.	Tortworth, Gaspé Bay (Can. E.).
	Pharostoma, *Corda*, 1847 (CALYMENE).				
Reg. C	? Alandicum, Angel.	.....	(Sweden) Aland.		
Fauna D. d. 3	pulchra, Barr.	.....	(Bohem.) Praskoles, Wesela, Wotnitz, (Spain) Almaden, (France) Rennes.		
	Placoparia, *Corda*, 1847.				
	Tournemini, Rouault.	.....	(Spain) Almaden, (France) May, Angers, Domfront, Orne.		
	Zippei, Corda.	....	(Portugal) Vallongo, (Bohem.) Beraun, France.		
	Platymetopus, *Angelin*, 1852 (LICHAS).				
Reg. D, E	lineatus, Angel.	.....	(Sweden) Dalecarlia.	.....	Sweden.
,, ,, ...	planifrons, ,,	....	,, ,,	.....	,,

Subdivision.	Genera, Species, and Author.	Primordial.	Lower Stage.	Middle Stage.	Upper Stage.
	Platynotus, *Conrad*, 18	38 (see LICHAS).			
	Plesiacoma, *Corda*, 184	7 (HOMALONOTUS).			
?	Kieneri, Rouault.		France.		
	rara, Murch.		,, Spain, Bohem.		
	Pliomera, *Angelin*, 1852	,=AMPHION.			
	Polyeres, *Rouault*, 184	7.			
Fauna D	Dufresnoyi, Rouault.		(France) Brittany, Anjou, Poligné, Bohemia.		
	Polytomurus, *Corda*, 1	847=POLYTOMA (see	DIONIDE).		
Reg. D	euglypta, Barr.		Bohemia, (Sweden) Vestrogothia, Mt. Mosseberg.		
	Proetus, *Steininger*, 1831	; ÆONIA, *Burmeister*	; FORBESIA, *M'Coy*.		
H. R. G.	Alaricus, Billings.		Canada (Anticosti), English Head, &c.		
Fauna E. e. 1	Archiacus, Barr.			(B.)Dlauha-Hora &c.	
,, F	Ascanius, ,,				(Bohem.) Mnienian.
,, ,,	Astyanax, ,,				,, Konieprus.
,, ,,	Bohemicus, ,,				,, Mnienian, Butowitz, Lodenitz, &c.
	brevifrons, Verneuil.		Sweden, Russia	Esthonia.	Sweden.
,, ,,	complanatus, Barr.				(Bohem.) Konieprus, Mnienian.
Corall. Lst.	concinnus, Dalm.				Mid-Gothland, Esthonia, Russia, Isle Oesel, Ficht, Ilpen, &c.
	conspersus, Angel.				Sweden.
Niag.	coryeæus, Hall.				(N.York) Lockport.
Fauna F	curtus, Barr.				(Bohem.) Mnienian.
,, E. e. 1	decorus, ,,			(Bohem.) Tachlowitz, Butowitz, Hinter-Kopanina, &c.	
L.Tremad.	depressus, Shumard.	(N.W.) Port Madoc.			
Fauna F	eremita, Barr.				(Bohem.) Konieprus.
	? excavatus, Angel.	(Sweden) Andrarum.			
,, ,,	fallax, Barr.				,, Konieprus, Mnienian.
W.	Fletcheri, Ketley.				Dudley (England).
Fauna F	frontalis, Barr.				(Bohem.) Kotis, near Konieprus.
,, F, G. g. 1	gracilis ,,				(Bohem.)Chotecz,Konieprus.
W.	Grindrodianus, Salter.				Malvern, Dudley.
Fauna F	heteroclytus, Barr.				(Bohemia) Lochkov.
,, ,,	inæquicostatus, ,,				,, Konieprus.
,, ,,	insons, ,,				,, ,,
,, E	intermedius, ,,			Bohemia?	,, Dlauha-Hora, Kolednik.
,, F	latens, ,,				(Bohem.) Mnienian.
U.Llandov., W., L.U.L.	latifrons, M'Coy.			(England) Malvern, (W.) Craig Gwyddon, &c., (Ireland) Egool, Mayo Co., Newfoundland.	(England) Woolhope, Dudley, Ludlow, Kendal, (Wales) Usk, Glenkerry, Derrymore.
Fauna F, G. g. 1	lepidus, Barr.				(Bohemia) Lochkov, Dvoretz.
,, G. g. 1	Loveni ,,				(Bohemia) Hostin.
,, F	lusor, ,,				,, Konieprus.
,, G. g. 1	Memnoni, ,,				,, Tetin.
,, E, F	micropygus, ,,			(Bohem.) Kolednik, Dvoretz.	,, Lochkov.
,, F	mœstus, ,,				,, Konieprus.
,, ,,	myops, ,,				,, Mnienian.
,, ,,	natator, ,,				,, ,,
,, ,,	neglectus, ,,				,, Konieprus.
,, ,,	orbitatus, ,,				,, Mnienian.
H. R. G.	parviusculus, Hall.		(Ohio) Cincinnati.		Mount Kotis.
?	pictus, Giebel.				L. Harz (Germany).
Faunæ F, G. g. 1	planicauda, Barr.				(Bohem.) Konieprus, Mnienian, &c.
Pentam. Lst., L. H. G.	protuberans, Hall.				(N. York E.) Albany Co.

Subdivision.	Genera, Species, and Author.	Primordial.	Lower Stage.	Middle Stage.	Upper Stage.
Fauna F	retroflexus, Barr.	.....	.....	.....	(Bohemia) Mnienian.
„ E. e. 1	Ryckholtii „	.....	.....	(Bohemia) Dlauha-Hora, Butowitz.	
W.	salutiferus, ?	.....	.....	.....	Britain.
Fauna G. g. 1	sculptus, Barr.	.....	.....	.....	(Bohemia) Hostin, Sous Chotecz.
„ F	serus, „	.....	.....	.....	(Bohemia) Mnienian.
Niag., Llandov., W., LL.	Stokesii, Murch.	.....	.....	Sweden, (Engl.) Malvern, Norbury, &c.	Sweden, (N. York) Lockport, (Engl.) Shropsh., Dudley, Ludlow.
Fauna E	striatus, Barr.	.....	.....	.....	(Bohemia) Dlauha-Hora, Wohrada, &c.
„ G. g. 2, H. h. 1.	superstes, „	.....	.....	.....	(Bohem.) Hlubocep, Vavrovitz, Pekarkovitz.
Fauna F	tuberculatus, „	.....	.....	.....	(Bohemia) Mnienian.
„ „	unguloides, „	.....	.....	.....	(Bohemia) Mnienian, Slichow.
„ E	venustus, „	.....	.....	(Boh.) Dlauha-Hora.	
	sp. ind. Salter.	.....	.....	.....	Arctic Seas (Amer.)
	„ „	.....	.....	.....	Illampu Mountain, Bolivia (S. Amer.)
	„ M'Coy.	.....	.....	Victoria (Australia).	
	Prosopiscus, *Salter*, 1866.				
	minor, Salter.	.....	Himalaya, Niti (E.I.).		
	Psilocephalus, *Salter*, 1866.				
Llan.	inflatus, Salter.	(Wales) Iago, Borthwood, Portmadoc.			
„	innotatus, „	(Wales) Llanerch, Penmorfa, &c.			
	Ptychaspis, *Hall*, 1863.				
Potsdam	Barabuensis, Winchell.	(Wisconsin) River Baraboo.			
„	granulosus, Hall.	(Wisconsin) Trempaleau, Minisca River.			
	Minisca-ensis, „	„ „			
„	Minnesot-ensis, „	N. Wisconsin, Pennsylvania.			
„	var. limbatus, „	N. Wisconsin.			
	subclavatus, Billings.	(Can.E.) Point Lévis.			
„	sp. ind. „	„ Trempaleau.			
	Ptychopyge, *Angelin*, 1852 (ASAPHUS).				
Reg. C	aciculata, Angel.	.....	(Sweden) Aland.		
„ „	angustifrons, Dalman.	.....	(Sweden) Husbyfjol, Heda.		
„ „ Pleta..	applanata, Angel.	Isle Odinsholm (Russia), (Sweden) Mt. Kinnekulle, Vestrogothia.	Tosna, Tzarskaya-Slawjanka.		
„ „ „ ...	elliptica, „	.....	(Sweden) Fagelsang, Scania.		
„ D	glabrata, Angel.	.....	(Sweden) Mt. Kinnekulle, Vestrogothia.		
Pleta	globifrons, Eichw.	.....	Réval (Baltic).		
Reg. C, Pleta...	lata, Angel.	.....	(Swed.) Scania, Ropscha (Russia).		
„ „ „ ...	limbata, „	.....	(Swed.) Aland, (Russia) Poulkova.		
„ „	media, „	.....	(Sweden) Scania, Fagelsang.		
„ „	multicostata, „	.....	„ „		
	punctata, „	.....	Sweden.		
Pleta, Reg. C...	rimulosa, „	.....	(Swed.) Aland, Dalecarlia, (Russ.) Govt. St. Petersburg.		
	Rhaphiophorus, *Angelin*, 1852 (AMPYX).				
Pleta	conulus, Eichw.	.....	(Russia) Poulkova.		
Reg. D. a	culminatus, Angel.	.....	(Sweden) Mt. Kinnekulle.		
„ „	depressus, „	.....	(Swed.) Draggo-bro, Dalecarlia.		
„ D	Scanicus, „	.....	(Sweden) Strapperup, Scania.		
„ D. a ?.....	setirostris, „	.....	(Swed.) Draggo-bro.		
„ D. a	tumidus,	.....	„ Mt. Kinnekulle.		

Subdivision.	Genera, Species, and Author.	Primordial.	Lower Stage.	Middle Stage.	Upper Stage.
	Remopleurides, *Portlock*, 1843.				
Queb. G.	affinis, Billings.	Stanbridge (Can. E.).			
CH.	Canadensis, ,,		Clarence (Can. E.).		
Carad.	Colbyi, Portlock.		(Irel.) Tyrone, Desertcreate, &c., (N. Wales) Bala.		
,,	dorso-spinifer, ,,		(Irel.) Tyrone, Desertcreate, Waterford, &c.		
,,	lateri-spinifer, ,,		(Irel.) Tyrone, Desertcreate, &c.		
	longicapitatus, ,,		(Irel.) Tyrone, Desertcreate.		
,,	longicostatus, ,,		(Irel.) Tyrone, Desertcreate, Kildare.		
,,	longispina, ,,		(Irel.) Tyrone, Desertcreate, (Wales) Bala Lake.		
Pleta	nanus, Duc de Leuchtenb.		(Russia) Poulkova.		
	,, Lawrow.		Silesia (drift).	Russia.	
Carad.	obtusus, Salter.		Desertcreate, Tyrone (Ireland), Rhiwlas (N. Wales).		
Div. N, Point Lévis, Queb.G.	Panderi, Billings.	(Newfoundland W.) Tablehead.			
Carad.	platyceps, Barr.		Wexford &c. (Irel.).		
,, 1	quatuor-lineatus, Angel.		Sweden (drift), Mt. Kinnekulle.		
Fauna D. d. 3, Car. 3, highest	radians, ,,		(N. W.) Bala, Rhiwlas, (Bohem.) Beraun, Carlshütte.		
N.P., Queb. G. ?	Schlotheimi, Billings.	(Newfoundland W.) Tablehead.			
Carad. 2	sexlineatus, Angel.		Sweden (drift), Mt. Kinnekulle.		
Carad.	sp. ind. Salter.		Merionethsh., Bala L.		
	Rhodope, *Angelin*, 1852 (ILLÆNUS).				
Pleta, Corall. L., Reg. C.	lata ?, Angel.		(Sweden) Mt. Mosseberg, Vestrogothia, (Russia) Poulkova.		Isle Oesel (Baltic).
Reg. C	lineata, ,,		(Swed.) Ostrogothia.		
,, D	oblongata ?, ,,		(Swed.) Aland, (Norway) Christiania.		
	Salteria, *Wyv. Thomson.*				
Llan.	involuta, Wyv. Thomson.		Waterford (Ireland).		
U.Llan.	primæva, ,,		Girvan, Ayrshire (S.W. Scotland).		
	Sao, *Barrande*, 1846.				
Fauna C	hirsuta, Barr.	(Boh.) Skrey Schists, (Wales) Dolgelly.			
	Shumardia, *Billings*, 1865.				
Div. P, Queb. G.	glacialis, Billings.	Newfoundl., N. & W.			
Queb. G.	granulosa, ,,	(Can. E.) Point Lévis.			
	Solenopleura, *Angelin*, 1852 (CONOCEPHALUS).				
Reg. B.	brachymetopus, Angel.	(Sweden) Scania, Andrarum.			
,, ,,	caniculata, ,,	,, ,,			
,, ,,	holometopa, Angel.	,, ,,			
,, A	? stenometopa, ,,	(Sweden) Aland, Ostrogothia.			
	Sphærexochus, *Beyrich*, 1845.				
Reg. D, E	angustifrons, Angel.				(Sweden) Mts. Olleberg and Mosseberg, Dalecarlia.
	Boops, Salter.		(S. W.) Sholes Hook.		
Llandov.	calvus, M'Coy.		Chair of Kildare (Ireland).		
Div. 4, Anticos.	Canadensis, Billings.			Anticosti, S.W. Point.	
	clavifrons, Sars.		Norway, Sweden, Isle Dago, Pyhalep (Baltic).		
	cephaloceros, Niekowski.		Russia.		
Reg. D, E	conformis, Angel.		(Sweden) Dalecarlia.		Sweden.
	coniceps, D. de Leuchtenb.		(Russia) Poulkova.		
	cranium, Hoffman (or Kutorga).		,, ,,		

Subdivision.	Genera, Species, and Author.	Primordial.	Lower Stage.	Middle Stage.	Upper Stage.
Reg. C?	deflexus, Angel.		(Swed.) Ostrogothia.		
„ D, E	granulatus, „		„ Dalecarlia		Sweden.
	hemicranium, Hoffman.		(Russia) Pulkova.		
	idiotis, Salter.		Himalaya, Niti Pass (E.I.).		
Carad.	juvenis, Portl., MS.		Chair of Kildare (Ireland).		
Reg. E	latifrons, Angel.				Sweden.
Col.Zippe,E.e.1, CL., Niag.,Carad., Llandov., W.	mirus, Beyrich.		Chair of Kildare, Waterford (Ireland).	(Ohio) Springfield, (Indiana) Madison, (Boh.) Kozel, Listice, Wohrada, St. Iwan, &c.	Dudley, Malvern, Walsall (England), Chicago (Illinois), (Tennessee) Decatur Co.
CH.	parvus, Billings.		Mingan Isles (G. St. Lawr.).		
	platycranium, Hoffman (or Kutorga).		(Russia) Poulkova.		
Reg. E	scabrides, Angel.				(Sweden) Gothland.
„ D, E	Wegelini, „		(Sweden) Dalecarlia.		Sweden.
	sp. ind., Gosselet, Barrande.		Condros (Belgium).		
?	„ Selwyn.			Victoria (Australia).	
	Sphærocoryphe, *Angelin*, 1852 (CHEIRURUS).				
	aries, D. de Leuchtenb.		(Russia) Poulkova.		
	dentata, Angel.		Sweden.		Sweden?
„ D, E	granulata, „		„ Dalecarlia		Sweden.
Div. I, A. G., Llandov.	Salteri, Billings.			(Anticosti) Junction Cliff.	
	Sphærophthalmus(OLENUS).				
Reg. A	*alatus*, Boeck.	(Sweden) Andrarum, Norway, (Wales) Dolgelly.			
U.Ling.	bisulcatus, Phill.	Moel Gron (Wales).			
Reg. A	*flagellifer*, Angel.	England?, (Wales) Dolgelly, (Sweden) Andrarum.			
U.Ling. beds	humilis, Phill.	Rhiwfely Slates (N. Wales).			
Black Shale	pecten, Salter.	Malvern (England), MoelGron(Wales).			
Reg. A	teretifrons, Angel.	(Sweden) Andrarum.			
	Staurocephalus, *Barrande*, 1846.				
Reg. D, E	clavifrons, Angel.		(Sweden) Mt. Olloberg, Vestrogothia.		Sweden.
Woolhope	Davisii, Salter.				Sandbanks, Presteign (Wales).
Carad.	globiceps, Portl.		S.W.Scotland, (Irel.) Desertcreate.		
„	Maclareni, W. Thomson.		Piedmont Glen(S.W. Scotland).		
„ W.,Reg.E.	Murchisoni, Barr.		Rhiwlas (Wales), Ch. of Kildare (Irel.).		(Bohem.) Kolednik, Listice, Kozel, St. Iwan, Lochkov,Lodenitz, &c.
„	unicus, Thomson. *Acidaspis.*		S.W. Scotland.		
	Stygina, *Salter*, 1852.				
Carad., U.Llandov.	latifrons, Portl.		Tyrone, Desertcreate (Ireland).	(Ireland) Galway.	
Llan.	Murchisoni, Murch.		Carmarthen,Pensarn, (S. Wales).		
„	Musheni, Salter.		Shropshire (drift).		
Carad.	sp., „		Sholes Hook, Haverfordwest(S.Wales).		
	Symphysurus, *Goldfuss*, 1843.				
Reg. C?	breviceps, Angel.		(Sweden) Vestrogothia, Olthorp.		
	læviceps, Dalm.		Sweden.		
Reg. C	palpebrosus, „		(Sweden) Scania.		
	Telephus, *Barrande*, 1852.				
Div. N, P,Queb. G.	Americanus, Billings.	(Newfoundl. W.&N.) Pistolet Bay &c.			
Reg. D. a?	bicuspis, Angel.		Norway.		
Fauna D, very Micac. Schists, yellow-grey.	fractus, Barr.		(Bohemia) Lodenitz, Königshof.		
Reg. D. a?	granulatus, Angel.		Norway.		
„ D. a	Wegelini, „		(Sweden) Dalecarlia.		

Subdivision.	Genera, Species, and Author.	Primordial.	Lower Stage.	Middle Stage.	Upper Stage.
	Tiresias, *M'Coy*, 1846.				
Carad.	insculptus, M'Coy.		(Irel.) Chair of Kild.		
	Trapelocera, *Corda*, 1847 (ACIDASPIS).				
W.	Barrandei, Salter, Fletcher.				Dudley (England).
Reg. E	bicuspis, Angel.				(Sweden) Gothland.
,, D, E	? breviloba, ,,				,, Dalecarlia.
	Portlockii, Barr.				Bohemia.
	Verneuilli, ,,				,,
	vesiculosa, ,,				,,
	Triarthrellus, *Hall*, 1863.				
Potsdam	Aurora, Hall.	(N. Wisconsin) La Grange Mountain.			
	Triarthrus, *Green*, 1846.				
Tr., Utica Slate, H. R. G.	Beckii, Green.		(New York) Middlev. &c., Pennsylvania, Ohio, (C. E.) Montreal, R. St. Anne, Henrysville, (Can. W.) Russell.		
Utica Slate	Canadensis, Smith.		(Can. W.) Whitby.		
Div. N, P, Queb. G.	Fischeri, Billings.		(Newfoundl. W & N.) Pistolet Bay &c.		
Utica Slate	glaber, ,,		(Can. E.) L. St. John, Grondines.		
,, ,,	spinosus, ,,		(Can. E.) Gloucester Township, (Can. W.) Russell.		
	Trilobites, *Schloth.* 1820 (Genera dubia).				
Reg. B, C	acicularis, Angel.	Sweden.			
Alum Slates	alatus, Boeck.	Norway.			
	depressus, Angel.		Sweden.		
	elegans, Boeck.		,,		
	elliptifrons, Esmark.		,,		
Fauna E	ferus, Barr.				(Bohemia) Listice.
Reg. B, C	forficula, Angel.	Sweden.			
Fauna D	inchoatus, Barr.		(Bohem.) Königshof.		
,, ,,	infaustus, ,,		,, Trubin.		
Reg. B, C	lyra, Boeck.	Sweden.			
Fauna D	musca, Barr.		,, Königshof.		
,, ,,	mutilus, ,,		,, ,,		
,, ,, ?	ornatus, ,,		Bohemia.		
,, E	orphanus, ,,			Bohemia?	(Bohemia) Ratinka.
Alum Slates	pusillus, Sars.	Norway.			
Fauna D ?	Sternbergii, Barr.		Bohemia.		
,, ,, ?	ungula, ,,		,,		
,, ,,	zippe, ,,		,,		
	Trimerus, *Green*, 1832 (see HOMALONOTUS).				
	Trinodus, *M'Coy* (see AGNOSTUS).				
	Trinucleus, *Lhwyd*, 1698; *Murchison*, 1839.				
Reg. D. b	affinis, Angel.		(Sweden) Dalecarlia.		
Fauna D	Bohemicus, Barr.		(Boh.) Colony Zippe.		
Reg. B. a	bucculentus, Angel.	Sweden, Norway.			
Fauna D	Bucklandi, Barr.		(Bohem.) Königshof, Swed., Engl., Irel.		
,, ,,	Caractacus, ,,		Bohemia, (France) Normandy, St. Brigitte.		
Up. Bala	,, Murch.		(England) Malvern, (W.) Meifod, Alt-y-Anker, &c., Wexford, Tyrone (Irel.).		
Reg. D. a	carinatus, Angel.		(Swed.) Mt. Kinnek.		
Fauna D. a	ceriodes, Barr.		(Swed.) Kinnekulle, (Norw.) Christiania.		
Tr., H. R. G., Llan., Carad.	concentricus, Eaton.		Highg. Springs (Vt.), N. York, Pennsylv., (Can. E. & W.) Beauport, Murray Bay, Montreal, L. Simcoe, (Irel.) Tirnaskea, S.W. Scotland, (Engl.) Chirbury &c., Coniston Lake, (W.) Bala, Pen-y-Craig, Llangywyw, Glandwr, &c., Boh.		

Subdivision.	Genera, Species, and Author.	Primordial.	Lower Stage.	Middle Stage.	Upper Stage.
Carad.	var. elongatus,	.....	(Irel.) Bardahessiagh.		
Llan.	„ favus,	.....	(Wales) Maerdy bach, Cornden Grits, &c.		
Carad.	„ latus, M'Coy.	.....	N. Wales.		
	„ Portlocki, Salter.	.....	Ireland.		
Reg. C	coscinorhinus, Angel.	.....	(Sweden) Scania, Fagelsang.		
„ D. a	discors, „	.....	Norway.		
U.Llan.	favus, Salter.	.....	.....	The Berwyns, and N. & S. Wales.	
Llan.	fimbriatus, Murch.	.....	(Ireland) Wexford, Tyrone, (Wales) Radnorsh., Builth, Bala, Welchpool.		
Reg. D. a	foveolatus, Angel.	.....	Norway.		
Carad., W.....	gibbifrons, M'Coy.	.....	(Wales) Pen-y-Craig, Tre Gill, &c.	.....	Wales.
L.Llan.	Gibbsii, Salter.	(Wales) St. David's Head.			
Fauna D. 2, 4, 5	Goldfussii, Barr.	.....	(Bohem.) Mt. Drabow, (Spain) Sierra Morena, N. York, Can.		
	granulatus, Wahlenb.	.....	(Sweden) Dalecarlia.		
Llan.	Lloydii, Murch.	.....	(Wales) Builth, Langadock, &c., (Shropshire) Chirbury.		
„	Murchisoni, Salter.	.....	(Engl.) Shelve, (W.) Cefn Gwynlle.		
	ornatus, Sternberg.	.....	(Bohem.) Trubin, Lodenitz, &c., Belgium, (Fr.) Angers.		
„	Pongerardi, Rouault.	.....	(Brittany) Poligné, Vitré, &c.		
Fauna D	Pragensis, Barr.	.....	(Boh.) Colony Zippe.		
	quatuor-lineatus, Angel.	.....	Sweden.		
Reg. D ?.....	quatuor-spinus, „	.....	Sweden ?, Norway.		
Llan., Carad....	radiatus, Murch.	.....	(Ireland) Wexford, Tyrone, Shropsh., (W.) Welchpool, Dinas, Mowddy, Merioneth.		
D. d. 1	Reussii, Barr.	.....	(Bohem.) Rokitzan.		
L.Llan.	Sedgwickii, Salter.	(Wales) Festiniog.			
Carad., D. d ...	seticornis, Hising.	.....	(Wales) Bala, Tynant, &c., (Irel.) Waterford, Tyrone, Wexford, S.W.Scotland, Sweden, Bohemia, (Belg.) Gembloux.		
Carad.	Thersites, Salter.	.....	(Irel.) Tramore, Waterford.		
Fauna D. d. 4	ultimus, Barr.	.....	(Bohem.) Königshof.		
Reg. D. b	Wahlenbergi, Rouault. =*granulatus*, Lovén.	.....	(Sweden) Mts. Mosseberg, Olleberg, Billingen.		
	sp. ind. Gosselet.	.....	Condros, Namur (Belgium).		
	„ Barr.	.....	Gembloux (Belgium).		
	Zethus, *Pander*, 1832.				
Pleta ?	biplicatus, Eichw.	....	(Russia) Poulkova, Popova.		
„ Inflamm. Schist.	rex, Nieszk.	.....	(Esthonia) D'Erras, Wesenberg, Isle Odinsholm.		
	sp. ind. Barr.	.....	(Belgium) Gembloux.		

The following important addition to the list of Trilobites is due to the great kindness of M. Barrande. Sixteen species have been omitted because they are already registered from M. Barrande's several "Défenses des Colonies" recently published.

A TABLE OF TRILOBITES DISCOVERED IN BOHEMIA SINCE 1852.

Stage.	Genus, Species, and Author.	Locality.
	Acidaspis, *Murch.*	
E. e. 2	carens, Barr.	Bubowitz.
D. d. 5	peregrina, ,,	Leiskow.
F. f. 2.	pigra, ,,	Mnienian.
E. e. 2	rara, ,,	Lodenitz.
F. f. 2, G. g. 1	spoliata, ,,	Mnienian, f. 2, Branik, g. 1.
F. f. 2.	ursula, ,,	Mnienian.
G. g. 1	victima, ,,	Branik.
	Æglina, *Barr.*	
D. d. 5	armata, Barr.	Leiskow.
,,	gigantea, ,,	Königshof.
D. d. 1	princeps, ,,	St. Benigna.
	Agnostus, *Brongn.*	
D. d. 1	caducus, Barr.	St. Benigna.
,,	perrugatus, ,,	,,
,,	similaris, ,,	,,
	Amphion, *Pander.*	
D. d. 1	senilis, Barr.	Wosek.
	Ampyx, *Dalm.*	
D. d. 5	gratus, Barr.	Leiskow.
,,	tenellus, ,,	,,
	Areia, *Barr.*	
D. d. 5	Bohemica, Barr.	Leiskow.
,,	margaritata, ,,	Nussle.
	Asaphus, *Brongn.*	
D. d. 1	alienus, Barr.	Wosek.
,,	quidam, ,,	,,
	Bohemilla, *Barr.*	
D. d. 1	stupenda, Barr.	St. Benigna.
	Bronteus, *Goldf.*	
G. g. 1	acupunctatus, Barr.	Branik.
F. f. 2.	asperulus, ,,	Srbsko.
E. e. 2	expectans, ,,	Dworetz.
G. g. 1	Gervilleicans, ,,	Lockhow.
F. f. 2	indocilis, ,,	Srbsko.
,,	innocuus, ,,	,,
,,	perlongus, ,,	Mnienian.
,,	Rhinoceros, ,,	,,
,,	Scharyi, ,,	,,
E. e. 2	Sosia, ,,	Kolednik.
	Calymene, *Brongn.*	
D. d. 2.	bifida, Barr.	Trubsko.
D. d. 5	desolata, ,,	Kosow.
	Carmon, *Barr.*	
D. d. 1	primus, Barr.	St. Benigna.
	Cheirurus, *Beyrich.*	
D. d. 1	comes, Barr.	Wosek.
D. d. 2	completus, ,,	Mount Drabow.
D. d. 5	fortis, ,,	Königshof.
D. d. 1	Fritschi, ,,	St. Benigna.
D. d. 5	gryphus, ,,	Leiskow.
,,	neuter, ,,	Butowitz.
	Cheirurus, *Beyrich.*	
D. d. 1	pater, Barr.	Wosek.
D. d. 5	pectinifer, ,,	Königshof, Leiskow.
D. d. 1	vinculum, ,,	St. Benigna.
	Dalmanites, *Emmer.*	
D. d. 1	oriens, Barr.	St. Benigna.
,,	perplexus, ,,	Wosek.
	Dindymene, *Barr.*	
D. d. 1	Bohemica, Barr.	Wosek.
	Harpes, *Goldf.*	
D. d. 1	Benignensis, Barr.	St. Benigna.
H. h. 1	transiens ,,	Srbsko, Hostin.
	Homalonotus, *König.*	
D. d. 5	inexpectatus, Barr.	Königshof, Leiskow.
D. d. 4	medius, ,,	Zahorzan.
,,	minor, ,,	Wraz.
	Illænus, *Dalm.*	
D. d. 1	advena, Barr.	Wosek.
,,	aratus, ,,	St. Benigna.
,,	Bohemicus, ,,	Wosek.
,,	calvus, ,,	,,
D. d. 5	hospes, ,,	Königshof.
,,	oblitus, ,,	Kosow.
,,	puer, ,,	Wosek, St. Benigna.
	Zeidleri, ,,	Loiskow.
	Lichas, *Dalm.*	
D. d. 1	avus, Barr.	Wosek.
G. g. 1	Branikensis, ,,	Branik.
D. d. 5	rudis, ,,	Leiskow.
	Ogygia, *Barr.*	
D. d. 1	crassa, Barr.	St. Benigna.
,,	discreta, ,,	Wosek.
D. d. 5	sola, ,,	Königshof.
	Placoparia, *Corda.*	
D. d. 2	grandis, Barr.	Trubskow.
	Proetus, *Steininger.*	
G. g. 1	comatus, Barr.	Branik.
D. d. 5	perditus, ,,	Leiskow.
D. d. 1	primulus, ,,	St. Benigna.
D. d. 5	solus, ,,	Königshof.
,,	vicinus, ,,	Branik.
	Sphærexochus, *Beyrich.*	
E. e. 2.	Bohemicus, Barr.	Listice.
D. d. 5	latens, ,,	Königshof.
F. f. 2	ultimus, ,,	Mnienian.
	Trinucleus, *Lhwyd.*	
D. d. 1	Reussi, Barr.	Wosek.
	Trilobites indeterminate.	
D. d. 1	contumax, Barr.	Wosek.
D. d. 5	expectatus, ,,	Königshof.

The Table subjoined, showing the vertical Distribution of Trilobites in Bohemia, greatly enriches the 'Thesaurus.' It has been drawn up by M. Barrande, and by him presented for insertion here. Its principal object is position and vertical range; but he has also inserted the stages of many species with a particularity beyond my power. The 'Thesaurus' usually supplies the localities.

Stage.	Genus, Species, and Author.	Stage.	Genus, Species, and Author.	Stage.	Genus, Species, and Author.
	Acidaspis, *Murch.*	F. f. 2, G. g. 1	Hoernesi, Barr.	E. e. 2	orphana, Barr.
D. d. 1, 2, 3, 4, 5	Buchii, Barr.	D. d. 4	Keyserlingi, ,,	,,	pectinifera, ,,
D. d. 5	desiderata (Col.), ,,	F. f. 2	lacerata, ,,	F. f. 2	pigra, ,,
E. e. 2	Dormitzeri, Corda.	,,	Laportei, Corda.	E. e. 2	Portlocki, Corda.
,,	Geinitziana, ,,	E. e. 2, F. f. 1, 2	Leonardi, Barr.	E. e. 1, 2	Prevosti, Barr.
,,	Grayi, Barr.	E. e. 2	minuta, ,,	D. d. 2, 3, 4	primordialis, ,,
,,	Hawlei, ,,	,,	mira, ,,	E. e. 1, 2	propinqua, ,,

Stage.	Genus, Species, and Author.
E. e. 1, 2, F. f. 2	radiata, Goldfuss.
E. e. 2	rebellis, Barr.
„	Roemeri, „
„	solitaria, „
F. f. 2	subterarmata, „
D. d. 4	tremenda, „
E. e. 2	tricornis, „
F. f. 2	truncata, Corda.
E. e. 1, 2	Verneuilli, Barr.
F. f. 2	vesiculosa Beyrich.
	Æglina, *Barrande.*
D. d. 3, 5	pachycephala, Corda.
D. d. 1, 3, 4, 5	rediviva, Barr.
D. d. 1, 5	speciosa, „
	Amphion, *Pander.*
D. d. 1	Lindaueri, Barr.
	Ampyx, *Dalman.*
D. d. 5	Portlocki, Barr.
	Arethusina, *Barr.*
E. e. 2	nitida, Barr.
	Bronteus, *Goldfuss.*
F. f. 2	angusticeps, Barr.
„	asperulus, „
„	brevifrons, „
F. f. 2, G. g. 1	Brongniarti, „
F. f. 2	campanifer, Beyr.
„	cœlebs, Barr.
„	Dormitzeri, „
E. e. 2	Edwardsi, „
F. f. 2	elongatus, „
E. e. 2	Haidingeri, „
F. f. 2	Hawlei, „
„	Kutorgai, „
„	oblongus, Corda.
„	palifer, Beyrich.
E. e. 1, 2, 3	Partschi, Barr.
E. e. 2	planus, Corda.
F. f. 2, G. g. 1	pustulatus, Barr.
„ „	Sieberi, Corda.
E. e. 2	simulans, Barr.
F. f. 2	tenellus, „
„	thysanopeltis, „
„	transversus, Corda.
F. f. 1	umbellifer, Beyrich.
F. f. 2, G. g. 1	viator, Barr.
F. f. 2	Zippei, „
	Calymene, *Brongn.*
D. d. 1	Arago, Rouault.
E. e. 2, F. f. 2	Blumenbachi, Brongn.
D. d. 3, 5	declinata, Corda.
E. e. 2	diademata, Barr.
F. f. 2, G. g. 1	interjecta, Corda.
D. d. 2, 4	parvula, Barr.
D. d. 1, 2, 4	pulchra, „
E. e. 1, 2	tenera, „
	Carmon, *Barrande.*
D. d. 5	mutilus, Barr.
	Cheirurus, *Beyrich.*
E. e. 2	Beyrichi, Barr.
E. e. 1, 2	bifurcatus, „
D. d. 2, 3, 4	claviger, Beyrich.
F. f. 2	Cordai, Barr.
F. f. 1, 2, G. g. 1	gibbus, Beyrich.
D. d. 4, 5	globosus, Barr.
E. e. 2	Hawlei, „
D. d. 4, Col. E. e. 1, 2.	insignis, Beyrich.
D. d. 4	insocialis, Barr.
„	neglectus, „
E. e. 2	obtusatus, Corda.
F. f. 2, G. g. 1	pauper, Barr.
E. e. 2	Quenstedti, „
D. d. 3	scuticauda, „
E. e. 2, F. f. 1, 2, G. g. 1, 2.	Sternbergii, Boeck.
D. d. 2, 3, 4, 5	tumescens, Barr.
	Cromus, *Barrande.*
E. e. 2	Beaumonti, Barr.
„	Bohemicus, „
	Cyphaspis, *Burm.*
F. f. 1, 2, G. g. 1	Barrandei, Corda.
D.d.5,Col.E.e.1,2	Burmeisteri, Barr.
F. f. 2	Cerberus, „
„	Davidsoni, „
E. e. 2	depressa, „
„	Halli, „
„	humillima, „
„	novella, „
	Dalmanites, *Emmer.*
D. d. 5	Angelini, Barr.
G. g. 1	cristata, Corda.
D. d. 2, 3	Hawleyi, Barr.
D.d.5, Col.E. e. 1	orba, „
D. d. 1	perplexus, „
F. f. 2, G. g. 1, 3	Reussi, „
F. f. 2, G. g. 1	rugosa, Corda.
D. d. 4, 5	solitaria, Barr.
	Deiphon, *Barrande.*
E. e. 2	Forbesi, Barr.
	Dindymene, *Barr.*
D. d. 5	Frederici-Augusti, Corda.
D. d. 1, 5	Haidingeri, Barr.
	Dionide, *Barrande.*
D. d. 1, 3, 5	formosa, Barr.
	Harpes, *Goldfuss.*
E. e. 2	crassifrons, Barr.
F. f. 2	Montagnei, Corda.
E. e. 2	Naumanni, Barr.
F. f. 2	reticulatus, Corda.
E. e. 2	ungula, Sternberg.
E. e. 2, F. f. 1, 2, G. g. 1.	venulosus, Corda.
E. e. 2	vittatus, Barr.
	Harpides, *Beyrich.*
	Homalonotus, *König.*
D. d. 2	rarus, Corda.
	Illænus, *Dalman.*
E. e. 1, 2	Bouchardi, Barr.
D. d. 5	hospes, „
D. d. 2, 3, 4, 5	Panderi, „
D. d. 3, 4, 5	Salteri, „
E. e. 2	tardus, „
D. d. 2, 4	transfuga, „
D. d. 5	Wahlenbergianus, „
	Lichas, *Dalman.*
E. e. 2	ambigua, Barr.
F. f. 2, G. g. 1	Haueri, „
E. e. 2	heteroclyta, „
D. d. 5, Col.E. e. 2	palmata, „
D. d. 5	rudis, „
D. d. 5, Col.E. e. 2	scabra, Beyrich.
E. e. 2	simplex, Barr.
	Ogygia, *Barrande.*
D. d. 1	desiderata, Barr.
	Phacops, *Emmerich.*
F. f. 2, G. g. 1	Boecki, Corda.
F. f. 2	breviceps, Barr.
E. e. 2, F. f. 2, G. g. 1.	Bronni, „
E. e. 1, 2	bulliceps, Barr.
F. f. 2	emarginatus, „
E. e. 2, F. f. 2, G. g. 1, 2, 3.	fecundus, „
D. d. 4, 5, Col. E. e. 1, 2,	Glockeri, „
F. f. 2	intermedius, „
F. f. 1	miser, „
F. f. 2	signatus, Corda.
E. e. 2	trapeziceps, Barr.
„	Volborthi, „
	Phillipsia, *Portlock.*
D. d. 5	parabola, Barr.
	Placoparia, *Corda.*
D. d. 1	Zippei, Corda.
	Proetus, *Steininger.*
E. e. 2	Archiaci, Barr.
F. f. 2	ascanius, Corda.
„	Astyanax, „
„	Bohemicus, „
F. f. 2, G. g. 3	complanatus, Barr.
F. f. 2	curtus, „
E. e. 1, 2, F. f. 1	decorus, „
F. f. 2	eremita, „
„	fallax, „
„	frontalis, Corda.
F. f. 2, G. g. 1	gracilis, Barr.
F. f. 1	heteroclitus, „
F. f. 2	inæquicostatus, „
„	insons, „
E. e. 2	intermedius, „
F. f. 2	latens, „
E.e.2, F.f.1, G.g.1	lepidus, „
F. f. 2	lusor, „
E. e. 2, F. f. 1	micropygus, „
F. f. 2	mœstus, „
„	myops, „
„	natator, „
„	neglectus, „
„	orbitatus, „
F. f. 2, G. g. 1	planicauda, „
F. f. 2	retroflexus, „
E. e. 1, 2	Ryckholti, „
F. f. 2	serus, „
G. g. 2, H. h. 1	superstes, „
F. f. 2	tuberculatus, „
„	unguloides, „
E. e. 2	venustus, „
	Remopleurides, *Portlock.*
D. d. 5	radians, Barr.
	Sphærexochus, *Beyr*
D.d. 4,Col. E. e. 2	mirus, Barr.
	Staurocephalus, *Barrande.*
E. e. 2	Murchisoni, Barr.
	Telephus, *Barrande.*
D. d. 5	fractus, Barr.
	Trinucleus, *Lhwyd.*
D. d. 5	Bucklandi, Barr.
D. d. 2, 3, 4	Goldfussi, „
D. d. 3, 4	ornatus, Sternb.
D. d. 4, 5	ultimus, Barr.
	Trilobites undetermined.
D. d. 1	contumax, Barr.
D. d. 5	expectatus, „
„	inchoatus, „
D. d. 3	infaustus, „
D. d. 5	musca, „

Summary (Geographical).

AMERICA.

Genera.	Bolivia, S. America.	Arctic America.	Rupert's Land.	N.W. Michigan.	Minnesota.	Wisconsin.	Iowa.	Missouri.	Illinois.	Indiana.	Ohio.	Texas.	Tennessee.	Kentucky.	Pennsylvania.	New York.	Canada West.	Canada East.	New Brunswick.	Nova Scotia.	Anticosti Island.	Mingan Islands.	Labrador.	Newfoundland.	Vermont.	Total (America).
Acanthopyge																										...
Acerocare																										...
Acidaspis					1	1			2							4	1	2								11
Acontheus																										...
Actinopeltis																										...
Æglina																										...
Aglaspis					1	2																				3
Agnostus						5						1			1	1		4						3		15
Amphion						1												4				1		3		9
Ampyx																1		1						6	1	9
Angelina																										...
Anomocare																										...
Anopocare																										...
Anopolenus																										...
Arethusina																										...
Areia																										...
Arges																1										1
Arionellus					2	2						3						2								9
Arraphus																										...
Asaphus	1			2	1	2	1		2							5	6	8			2			4	1	35
Atops																1									1	2
Barrandia																										...
Basilicus																										...
Bathyonotus																									1	1
Bathyurellus																		3						6		9
Bathyurus						1						1				2	3	15				3	2	10	1	38
Bohemilla																										...
Brachyaspis																										...
Bronteopsis																										...
Bronteus									1							2	1	2		1	1					8
Bumastes						2	1						1			2	1	1			1					9
Calymene			1	1		3	1	1		1	2		2	1	3	7	2	2	1	2	1					31
Carmon																										...
Celmus																										...
Centropleura																										...
Chariocephalus						1																				1
Cheirurus					1	2		2	1		1		2			4	2	8			4	1		6		34
Conocoryphe					1	20	1					3				1		2					1	1	6	36
Corynexochus																										...
Crepicocephalus					1	2									1											4
Cromus		1																								1
Crotalurus																										...
Cybele																1										1
Cyphaspis								1																		1
	1	1	1	3	8	44	4	4	6	1	3	8	5	1	5	32	16	54	1	3	9	5	3	39	11	268

EUROPE &c.

Genera.	Ireland.	Scotland.	England.	Wales.	France.	Spain.	Portugal.	Sardinia.	Bohemia.	Thuringia, Harz.	Podolia.	Belgium.	Baltic Russia.	Russia proper.	Sweden.	Norway.	India.	Australia.	Bavaria.	Total Appearances (Europe).	Great Total of Appearances.	Number of Species.	Number of Countries inhabited.
Acanthopyge			1																	1	1	1	1
Acerocare															1					1	1	1	1
Acidaspis	2	3	9	2	1				39	1			1		8	1				67	78	77	15
Acontheus															1					1	1	1	1
Actinopeltis	2	1	1	2					1						1	1				9	9	3	7
Æglina	2		1	5					8						2					18	18	15	5
Aglaspis																				...	3	2	2
Agnostus	3	2	6	14		1			10					2	12	2				52	67	56	15
Amphion	3					2			2					2	3	1				13	22	20	9
Ampyx	3	2	5	6					4					1	7	3				31	40	24	12
Angelina				2																2	2	2	1
Anomocare															6					6	6	6	1
Anopocare															1					1	1	1	1
Anopolenus				2																2	2	2	1
Arethusina									2											2	2	2	1
Areia									2											2	2	2	1
Arges																				...	1	1	1
Arionellus						1			1						1					3	12	11	8
Arraphus															1					1	1	1	1
Asaphus	5		4	9	3	4	4		6				11	16	14	2	2			80	115	92	24
Atops																				...	2	2	2
Barrandia	1			4																5	5	5	2
Basilicus		1	1	3	1		1							1	1					9	9	4	7
Bathyonotus																				...	1	1	1
Bathyurellus																				...	9	9	2
Bathyurus																				...	38	30	8
Bohemilla									1											1	1	1	1
Brachyaspis	1																			1	1	1	1
Bronteopsis		1																		1	1	1	1
Bronteus	1		1		1				52	1	1		2	1	2					62	70	66	13
Bumastes		2	3					1			1				2					9	18	6	12
Calymene	5	3	12	10	5	5	2		15		1	1	4	7	9	3	1	3		86	117	61	29
Carmon									2											2	2	2	1
Celmus															1					1	1	1	1
Centropleura															1	2				3	3	3	2
Chariocephalus																				...	1	1	1
Cheirurus	4	3	5	7	2	1	1		27		1		10	6	6		1	2		76	110	86	26
Conocoryphe		3		14		3			4							2			1	27	63	55	13
Corynexochus															2					2	2	2	1
Crepicocephalus																				...	4	3	3
Cromus									4			1								5	6	6	3
Crotalurus														1						1	1	1	1
Cybele	3	1	4	5									1	3	4	3				24	25	12	10
Cyphaspis	1	1	3	1	1	1			10	1			2		1					22	23	16	9
	36	23	56	86	14	18	8	1	190	3	4	2	31	40	87	20	4	5	1	629	897	695	44

N.B. New Mexico, California, an Asaphus each; Dacota Territory (U. S. A.), an Arionellus.—See Thesaurus.

Summary (Geographical) (*continued*).

Genera.	AMERICA. Bolivia.	Arctic America.	Rupert's Land.	N.W. Michigan.	Minnesota.	Wisconsin.	Iowa.	Missouri.	Illinois.	Ohio.	Virginia.	Kentucky.	Texas.	Tennessee.	Pennsylvania.	New York.	Canada West.	Canada East.	Vermont.	Nova Scotia.	Anticosti Island.	Mingan Isles.	Labrador.	Newfoundland.	Total Appearances (America).	EUROPE &c. Ireland.	Scotland.	England.	Wales.	France.	Spain.	Portugal.	Bavaria.	Bohemia.	Thuringia, Harz.	Podolia.	Belgium.	Baltic Russia.	Russia.	Sweden.	Norway.	India.	Australia.	Total Appearances (Europe).	Great Total of Appearances.	Number of Species.	Number of Countries inhabited.
Cyphoniscus																									...	1																		1	1	1	1
Cyrtometopus																									...															10	1			11	11	11	2
Dalmania						2		3	1					1		9	6	1		2	1				26	2	1	4	2	6	7			21	1	1		3	1				1	50	76	54	21
Deiphon																									...			1		1				1						3				6	6	4	4
Dikelocephalus					6	9							1		1			14							31				4															4	35	32	6
Dindymene																									...	1								3										4	4	4	2
Dionide																					1				1				1					1						1				3	4	4	4
Dolichometopus																		2						2	4															1				1	5	4	3
Dysplanus																									...	1			2									1	1	2	2			9	9	3	6
Ellipsocephalus																1									1				1		2		1	2										5	6	7	6
Encrinurus		3			1	1										1	1	2			3			1	13	2	1	6	6							1		3	2	2	1			24	37	19	16
Endymionia																		1						1	2												1							1	3	2	2
Erinnys																									...				1															1	1	1	1
Eryx																									...															1				1	1	1	1
Euloma																									...															2	1			3	3	2	2
Eurycare																									...															4	1			5	5	4	2
Harpes				1												1	2	1			2	1			8	2	1	3	2	1				11	1			1		3				25	33	31	14
Harpides																		3						2	5									1						2	1			4	9	7	5
Holocephalina																									...			1	2															3	3	2	2
Holometopus																		1						1	2															3				3	5	5	3
Homalonotus	2										1				1	3	1			3					11			11	10	3	2			6	2					3			1	38	49	39	13
Homalopteon																									...	1			3															4	4	4	2
Hydrocephalus																									...									2										2	2	2	1
Illænopsis																									...			1																1	1	1	1
Illænurus						1																			1																			...	1	1	1
Illænus		1	2	1	2	4	1	1	3				1			3	5	13			2	8		4	51	5	6	11	6	5	6	3		26	2	1		7	14	4	1	1		96	147	100	28
Isocolus																									...															1				1	1	1	1
Isotelus				1	1	2	1	1		2		1		2	2	1	1	1			1				17	2			2			1												5	23	7	14
Leptoplastus																									...															3				3	3	3	1
Lichas				1					3	1					1	7	1	2			1	1		1	19	5	1	11	4	1	1	1		13	1	1		9	11	21	3	1	1	85	104	82	24
Liostracus																									...															3				3	3	3	1
Loganellus																		1							1																			...	1	1	1
Lonchocephalus					2	1									1										4																			...	4	3	2
Lonchodomus																									...													1	1	2	4			8	8	5	4
Megalaspis																									...													3	5	15				23	23	17	3
Menocephalus					1													3							4																			...	4	4	2
Microdiscus											1														1				1															1	2	2	2
Nileus																		1						3	4					1									2	4				7	11	9	4
Niobe																									...				1										3	5				9	9	7	3
Octo-Illænus																									...									1										1	1	1	1
Ogygia																									...	2		3	8	3	2			4				1	1	1				25	25	18	9
Ogygiocaris																									...																1			1	1	1	1
Olenellus																			2				2		4																			...	4	4	2
Olenus																2		1	1						4			4	12				1							10	5			32	36	30	7
Total	2	4	2	4	13	20	2	5	7	3	2	1	2	3	6	28	17	47	3	5	11	10	2	15	214	24	10	56	68	21	20	5	2	92	7	4	1	29	41	106	21	2	2	507	722	543	43

Summary (Geographical) (*continued*).

Genera.	AMERICA.																				
	Bolivia.	Arctic America.	N.W. Michigan.	Minnesota.	Wisconsin.	Illinois.	Indiana.	Ohio.	Tennessee.	Virginia.	Pennsylvania.	New York.	Canada West.	Canada East.	Vermont.	Nova Scotia.	Anticosti Island.	Massachusetts.	Labrador.	Newfoundland.	Total Appearances (America).
Palæopyge																					...
Panderia																					...
Parabolina																					...
Paradoxides											1	2			2			2	2	1	10
Pemphigaspis					1																1
Phacops	1		1	2	1				3	2	2	8	2	4		2	1				29
Pharostoma																					...
Placoparia																					...
Platymetopus																					...
Plesiacoma																					...
Polyeres																					...
Polytomurus																					...
Proetus	1	1						1				3		1			1		1	1	10
Prosopiscus																					...
Psilocephalus																					...
Ptychaspis					6									1							7
Ptychopyge																					...
Raphiophorus																					...
Remopleurides														2					1		3
Rhodope																					...
Salteria																					...
Sao																					...
Shumardia														1						1	2
Solenopleura																					...
Sphærexochus						1	1	1	1							1	1				6
Sphærocoryphe																1					1
Sphærophthalmus																					...
Staurocephalus																					...
Stygina																					...
Symphysurus																					...
Telephus																			1		1
Tiresias																					...
Trapelocera																					...
Triarthrellus			1																		1
Triarthrus								1			1	1	3	3						1	10
Trilobites																					...
Trinucleus											1	2	2	1	1						7
Zethus																					...
Total	2	1	2	2	8	1	1	3	4	2	5	16	7	13	3	4	3	2	5	4	88

Genera.	EUROPE &c.																					
	Ireland.	Scotland.	England.	Wales.	France.	Spain.	Portugal.	Bohemia.	Thuringia, Harz.	Podolia.	Belgium.	Baltic Russia.	Russia.	Sweden.	Norway.	India.	Australia.	Silesia.	Total Appearances (Europe).	Great Total of Appearances.	Number of Species.	Number of Countries inhabited.
Palæopyge			1																1	1	1	1
Panderia				1									2						3	3	3	2
Parabolina				1										1					2	2	2	2
Paradoxides				3		1		12	2					4					22	32	27	11
Pemphigaspis																			...	1	1	1
Phacops	11	5	32	16	5	4	3	21	7			4	5	12	2		2		129	158	96	26
Pharostoma	1				1	1		2						1					6	6	4	5
Placoparia					2	1	1	2											6	6	4	4
Platymetopus														2					2	2	2	1
Plesiacoma					2	1		1											4	4	2	3
Polyeres					1			1											2	2	1	2
Polytomurus								1						1					2	2	1	2
Proetus	1		5	2				44	1	1		3	2	5			1		65	75	66	18
Prosopiscus																1			1	1	1	1
Psilocephalus				2															2	2	2	1
Ptychaspis																			...	7	7	2
Ptychopyge												1	4	10					15	15	12	3
Raphiophorus													1	5					6	6	6	2
Remopleurides	8			5				1					2	2				1	19	22	18	8
Rhodope													1	3	1				5	5	3	3
Salteria	1	1																	2	2	2	2
Sao				1				1											2	2	1	2
Shumardia																			...	2	2	2
Solenopleura														4					4	4	4	1
Sphærexochus	3		1	1				7		1	1	1	4	8	1	1	1		30	36	29	18
Sphærocoryphe													1	2					3	4	4	3
Sphærophthalmus			?2	5										3	1				11	11	6	?4
Staurocephalus	2	3		2				1						1					9	9	6	5
Stygina	1		1	2															4	4	4	3
Symphysurus														3					3	3	3	1
Telephus								1						1	2				4	5	5	4
Tiresias	1																		1	1	1	1
Trapelocera			1					3						2					6	6	6	3
Triarthrellus																			...	1	1	1
Triarthrus																			...	10	5	6
Trilobites								13						6	4				23	23	22	3
Trinucleus	9	2	6	13	3	1		11			4			10	8				67	74	38	15
Zethus											1	1	1						3	3	3	3
Total	38	11	49	54	14	9	4	122	10	2	6	10	23	86	19	2	4	1	464	552	401	38

Subkingdom ANNULOSA. Province ARTICULATA. Class CRUSTACEA. Orders:—1. PHYLLOPODA (Merostomata, *Dana*); 2. OSTRACODA.

Subdivision.	Genera, Species, and Author.	Lower Stage.	Middle Stage.	Upper Stage.
	Astacoderma, *Harley*, 1861.			
U.L. Bonebed....	bicuspidatum, Harley.	.....	.....	Ludlow, Norton (Shropsh.).
,, ,,	declinatum, ,,	.....	.....	,, ,,
,, ,,	var. depressum, ,,	.....	.....	,, ,,
,, ,,	,, expanso-accumina-tum, Harley.	.....	.....	,, ,,
	,, expansum, ,,	.....	.....	,, ,,
,, ,,	planum, ,,	.....	.....	,, ,,
,, ,,	var. monotuberculatum, Harley.	.....	.....	,, ,,
,, ,,	,, trituberculatum, Harley.	.....	.....	,, ,,
,, ,,	remiforme, ,,	.....	.....	,, ,,
,, ,,	serratum, ,, *Gnathodus*, *Pander*.	.....	.....	Ludlow.
,, ,,	spinosum, Harley.	.....	.....	,,
,, ,,	terminale, ,,	.....	.....	,,
,, ,,	triangulare, ,,	.....	.....	Ludlow, Norton (Shropsh.).
,, ,,	undulatum, ,,	.....	.....	,, ,,
	Bairdia, *M'Coy*, 1844.			
Corall. Lst.	protracta, Eichw.	.....	.....	(Kamenetz-Podolsk) Orynine.
	Beyrichia, *M'Coy*, 1850.			
L. H. G.	æquilatera, Hall.	.....	.....	Arisaig (Nova Scotia).
Llan.	affinis, Jones.	(Irel.) Waterford, Tramore.		
P. Div. L, Queb. G.	Atlantica, Billings.	(Newfoundl. W.) Tablehead.		
L.Llan., Carad...	Barrandiana, Jones.	England, Beddgelert (North Wales).		
Llan.	bipunctata, ,,	Hellpool, Wyford, Builth.		
?	Bohemica, Barr.	?		
	Buchiana, Jones.	.....	.....	Scandinavia.
	Bussacensis, Salter.	(Portugal) Bussaco, near Coimbra.		
	clathrata, Jones.	.....	.....	(Arctic Amer.) Beechey Isl.
Llan., Carad., L. Llandov.	complicata, Salter.	(N. & S. Wales) Ciln Park, Twllddu, Pont-y-Meibion, &c., England.	(Wales) Mathyrafal.	
	var. decorata, Jones.	Abermarchnant (Wales).		
	concinna, ,,	.....	.....	Arisaig (Nova Scotia), Canada, Gothland.
	Dalmaniana, ,,	(Can.W.)Mid. Ottawa River.	.....	Scandinavia.
Div. 3, 4, Mayhill, A. Gr.	decora, Billings.	.....	(Anticosti) East Point &c.	
	Forbesii, Salter.	.....	.....	Illampu Mountain, W. side, Bolivia (S. America).
W.	gibba, Jones ?	.....	.....	Slate Mills, Pembrokeshire.,
Pentam. Lst., L. H. G.	granulata, Hall.	.....	.....	(N. York) Schoharie Co., (Wales) Llanfair, Mechlin.
Llandov., W., U. L.	Kloedeni, M'Coy.	Isle Oesel, Baltischport (Esthonia), (S. Wales) Gaer Fawr &c.	(Irel.) Boscaun, Galway.	Dudley, Ludlow, Woolhope, Kendal, Downton (Engl.).
	var. antiquata, Jones.	.....	.....	(W.) Garth, Montgomerysh.
	,, torosa, ,,	.....	.....	Stapleton, nr. Presteign(W.).
CL., Niag.	lata, Vanuxem, Hall.	.....	(N.York)Sodus &c., Oneida County.	Pennsylvania.
Onondag. S. Gp.	Maccoyiana, Jones.	.....	.....	Sweden, N.York, Pennsylv. ?
Delth. Sh. L. ...	notata, Hall.	.....	.....	(N. York) Herkimer County.
L.	var. ventricosa, ,,	.....	.....	,, ,,
	oblonga,	.....	.....	Sweden, N. Germany (drift).
	obsoleta,	.....	.....	,, ,,
Pentam. Lst., L. H. G.	oculina, Hall.	.....	.....	(N. York) Schoharie County.
	ovata,	.....	.....	Sweden, N. Germany (drift)
Onondag. S. Gp.	Pennsylvanica, Jones.	.....	.....	Pennsylvania, N. York.
	plagosa, ,,	.....	.....	(Arctic Amer.) Beechey Isl.
L. H. G.	pustulosa, Hall.	.....	.....	Arisaig (Nova Scotia).
	Ribeiriana, Jones.	(Portugal) Porta de Louza, Coimbra.		
W.	rugulifera, ,,	.....	.....	(Arctic Amer.) Beechey Isl.
	semicircularis,	.....	.....	Sweden, N. Germany (drift).
	sigillata, Jones.	.....	.....	(Arctic Amer.) Beechey Isl.

Subdivision.	Genera, Species, and Author.	Lower Stage.	Middle Stage.	Upper Stage.
Tr., W., L.	siliqua, Jones.	Allumette Island (Mid-Ottawa River).		(Engl.) Malvern, Onnibury, Ludlow, Woolhope.
	Cytheropsis, ,,			
Niag.	symmetrica, Hall.			N. York (U.S.A.), Lockport.
Tentac. L., L. H. G.	trisulcata, ,,			Tennessee,(N. York, central) Herkimer County.
Corall. Lst.	tuberculata, Klöden.			Gothland, Norway, Esthonia, Isle Oesel, N. & S. Wales, Ireland, (Engl.) Dudley, Kendal, (S. Scotl.) Lammermuir.
	var. antiquata, ,,			Gothland, Norway, Esthonia.
Delth. Sh. L.	ventricosa, Hall.			New York (U.S.A.).
Div. 3, 4, A. Gr., Mayhill.	venusta, Billings.		(Anticosti) Chaloup River &c.	
	Wilckensiana, Jones.			England, Russia, Esthonia.
	var. plicata, ,,			Scandinavia.
?	sp. ind. Selwyn.		Victoria (Australia).	
	,, Bonissent.	Angers (France).		
L. H. G., U.L.	,, (2) Honeyman.			Arisaig (Nova Scotia).
Carad.	,, Salter.	(N. Wales) Bala Lake.		
	Bunodes, *Eichwald*, 1860.			
Eurypt. Lst.	lunula, Eichw.			Roodzikulle, I. Oesel (Balt.).
,,	rugosus, Nieszk.			,, ,,
U.L.	sp. ind. Salter.			Shropshire, Hereford.
	Caryocaris, *Salter*, 1862.			
	Salteri, M'Coy.	Victoria (Australia).		
	Hymenocaris.			
L. Llan.	Wrightii, Salter.	Skiddaw (Cumberland).		
	Ceratiocaris, *M'Coy*, 1850; LEPTOCHELES pars, *M'Coy*.			
Waterl., L. H. G.	aculeatus, Hall.			(N.York)Oneida, Waterville.
,, ,,	acuminatus, ,,			(N. York, N.W.) Buffalo.
P.	brevicauda, Salter.	Wales.		
L.L.	cassia, ,,			Trippleton, Ludlow.
	debilis, Barr.			Bohemia.
U.L.	ellipticus, M'Coy.			(Eng.) Kendal(Westmorel.).
L.L.	gigas, Salter.			Danefield, Kington (Radnorshire).
U.L.	inornatus, M'Coy.			(Engl.)Kendal, Benson Knot.
L. & U. Tremad.	insperatus, Salter.	Penmorfa, Portmadoc (W.).		
U. Tremad.	latus, ,,	Garth (Wales).		
	legumen, ,,			Wales?
L.L.	leptodactylus, M'Coy.			(Engl.)Kendal(Westmorel.), Leintwardine, Shropshire.
Waterlime, L. H. G.	Maccoyanus, Hall.			(N. York, N.W.) Buffalo.
U.L.	Murchisoni, M'Coy, Agass.			Ludlow (Shropshire), Combe Wood, Presteign.
,,	papilio, Salter.			(W. Scotland) Lesmahago.
,,	perornatus,			Benson Knot, Kendal.
,,	robustus, Salter.			Leintwardine (Herefordsh.).
,,	solenoides, ,,			Benson Knot (England).
,,	solen-rectus, M'Coy.			Kendal.
,,	Stygius, Salter.			Logan Water, Lesmahago (W. Scotland).
L.L., U.L.	vesica, ,,			Leintwardine (Herefordsh.).
Llan., Up. Bala?	umbonatus, ,,	Bala, Corwen, &c. (Wales).		
	Cythere.			
CL.	sp. ind. Hall.		New York (U.S.A.).	
L. H. G.	,, Billings.			(Can. W.) Jones's Tract.
Niag.	,, Hall.			New York.
	,, (5) ,,			,, ?
?	,, Bonissent.	La Manche (France).		
	Climactichnites, *Logan*, 1861.			
	Wilsoni, Logan.	Near Perth (Can. W.).		
	Cythere, *Müller*, 1785 (LEPERDITIA).			
Carad.	Phaseolus, Hising	Chair of Kildare (Ireland), Leisley (Westmoreland).		
Tr.	sublævis, Shumard.	Missouri (U.S.A.).		
Carad.	umbonata, Salter.	(N. Wales) Bala, Conway Falls, &c.		
	Ceratiocaris.			
Tr.	sp. ind. Swallow.	Missouri (U.S.A.).		
	Cytherina, *Morris*, 1854 (LEPERDITIA).			
	alata, Verneuil.			Sweden.
Tentac. Lst., L. H. G.	alta, Conrad.			(N.Y., centre) Cherry Valley.
	Baltica, Hising.	Normandy, Brittany?		N.Gothl., Timan Range, Russ.

Subdivision.	Genera, Species, and Author.	Lower Stage.	Middle Stage.	Upper Stage.
M.Sa.	cylindrica, Hall.		(N. York) Medina Village.	
Tr.	fabulites, Conrad.	(Wisconsin) Mineral Point, N.W.Michigan(L.Super.).		
	? hemisphærica, Richt.			Thuringia ?
	intermedia, Römer.			Thuringia.
D. d. 1. 5.	prunella, Barr.	Bohemia.		
Niag.	spinosa, Hall.			(N. York) Lockport.
	subrecta, Portl., Geinitz.	Tyrone, Gunzenberg (Sax.).		
	Cytheropsis, *M'Coy*, 1855.			
	Aldensis, M'Coy.	Aldeans, Ayrshire (S.W. Scotland).		
Tr. &c.	concinna, Jones.	Allumette Island, R.Ottawa.		Gothland, Arisaig (Nova Scotia).
,,	siliqua, ,, *Beyrichia.*	,, ,,		
,,	rugosa, ,,	,, ,,		
	Dictyocaris, *Salter*, 1863.			
L.	Ramsayi, Salter.			Pentland Hills (Scotland).
U.L.	Slimoni, ,,			Lesmahago (Lanarkshire).
,,	sp. ind. ,,			,, ,,
	Discinocaris, *H. Woodward*, 1866.			
	Browniana, H. Woodw.	Moffat Shales, Dumfries.		
	Dithyrocaris, *Scouler*, 1835.			
Carad.	aptychoides, Salter.	Duffkinnell, Dumfriesshire.		
,,	longicauda, Sharpe.			Sazes (Bussaco, Portugal).
?	Murchisoni,	Ebendaselbst.		
	Entomis, *Jones*, 1861.			
U.L.	divisa, Jones.	Builth.		
L.Llan.	tuberosa, ,,	Mocktree Hill, Builth.		
	Eurypterus, *Dekay*, 1825 (EIDOTHEA, SCOULERIA, DOLICHOPTERUS, *Hall*).			
Passage-beds	abbreviatus, Salter.			(England) Ludlow, Kington.
,,	acuminatus, ,,			(England) Ludlow.
Fauna E	Bohemicus, Barr.		Bohemia.	
L., U.L.	cephalaspis. Salter.			Kirkby Moor, Kendal (Westmoreland).
L.	chartarius, ,,			Scotland, (Lanarkshire) Lesmahago.
(Waterlime) L.H. G.	Dekayi, Hall.			(N.W.New York) Black Rock.
Eurypt. Lst.	Fischeri, Eichw.			Kamenetz-Podolsk, Roodzikulle (I. Oesel), Livonia.
U.L.	Imhoffi, Reuss.			Russia ?
(Waterlime) L.H. G.	lacustris, Harlan.			(N.W. New York) Williamsville, Buffalo.
,, ,,	var. robustus, Hall.			(N.W. New York) Buffalo, Erie County.
U.L.	lanceolatus, Salter.			England, (Scotl.) Lesmahago.
Passage-beds	lateralis, ,,			Ludlow Railway.
U.L.	linearis, ,,			(Engl.) Kington, Ludlow, Ludford.
,,	megalops, ,,			(Engl.) Kington, Ludlow.
L.	nanus,			South Gothland.
(Tentacul.) L. H. G.	microphthalmus, Hall.			(New York) Cazenovia.
(Waterlime) L.H. G.	pachycheirus, ,,			(N.W. New York) Buffalo.
,, ,,	pustulosus. ,,			,, Black Rock, near Buffalo (N. York).
U.L.	pygmæus, Salter.			(Engl.) Kington, Ludlow.
(Waterlime) L.H. G.	remipes, Dekay.			(Can. W.) Bertie, (N.York) Herkimer County.
	tetragonophthalmus, Fisch.			Russia &c., Poland, I. Oesel.
	sp. ind. Salter.			Kington, Radnorshire.
	Subgen. DOLICHOPTERUS, *Hall*, 1849.			
	macrocheirus. Hall.			(N.W. New York) Buffalo.
	Exapinurus, *Nieszk*, 1859.			
Passage-beds	Schrenkii,			Isle Oesel.
	Hemiaspis, *H. Woodward*, 1865.			
L., U.L	limuloides, H. Woodward.			Leintwardine (Herefordsh.).
U.L.	optata, Salter.			,, ,,
,,	Salweyi, ,,			Shropshire.
,,	sperata, ,,			Leintwardine, Downton, Shropshire.
,,	tuberculata, ,,			Leintwardine.
W.	sp. nova. H. Woodward.			Dudley (England).
	Himantopterus, *Salter*, 1856 (PTERYGOTUS).			
U.L.	acuminatus, Salter.			Lesmahago. W. Scotland.

Subdivision.	Genera, Species, and Author.	Lower Stage.	Middle Stage.	Upper Stage.
U.L.	Banksii, Salter.			Kington, Radnorshire.
„	bilobus, „			Lesmahago (W. Scotland).
„	perornatus, „			„ „
„	var. plicatissimus, „			„ „
	Hymenocaris, *Salter*, 1852.			
P., L.Ling. Flags	vermicauda, Salter.	(N. Wales) Dolgelly, Penmorfa, Festiniog, &c.		
	Leperditia, *Rouault*, 1851.			
Tentac. Lst., L. H. G.	alta, Conrad.			(Can. W.) Cayuga, N. York, *passim*, Pennsylvania, (Arc. Amer.) Wellington Straits.
P., Queb. G., CH. CS.	amygdalina, Jones.	(Can. E.) R. Ottawa-mouth.		
„ „	Anna, „	„ „		
Div. 3, 4, A. Gr., Mayhill.	Anticostiana, „		(Anticosti) East Point &c.	
W.	Arctica, „			(Arctic Amer.) Wellington Straits.
Pentam. Lst., Corall. Lst.	Baltica, Hising.		Fennern (Livonia).	(Gothland) Wisby, Sweden, (Isle Oesel) Randifer &c., England, (Irel.) Ferriter's Cove, Petschora, Podolia.
	var. Arctica, Jones.			(Arctic Amer.) Griffith's Island &c.
	Biensis, „	Bussaco (Portugal).		
P., L.Ling. Flags	buprestis, Salter.	(S. Wales) St. David's.		
CS., BL.	Canadensis, Billings.	(Anticosti) Charlton Point, (Can. E. & W.) Montreal, Grenville, Moira & Ottawa Rivers &c.		
	var. Anticostinia „	Eastern Anticosti (Gulf St. Lawr.).		
P., Div. L, M, Queb. G.	concinnula „	(Newfoundland W.) Point Rich.		
	cylindrica, Hising.	Canada.		
	ISOCHILINA, *Jones*, 1858.			
Pentam. Lst.	foveolata, Eichw.		Talkhof (Livonia).	
?	gigantea, Römer, F.	Eastern Prussia (boulder).		
B.	gracilis, Jones. *Isochilina.*	(Can. E.) White Horse Rapids, Montreal.		
Corall. Lst.	grandis, Schrenk.			Lummada, I. Oesel (Balt.).
L. H. G.	Hudsonica, Hall.			(N. York) Becraft's Mountain, near Hudson.
Cor.L., Schoharie Tr.	Jonesi, „			(N. York) Schoharie and Herkimer Counties.
	Josephiana, Billings.	N.W. Lake Huron (Can.W.).		
	var. fabulites, „	N. Wisconsin, Pennsylvania.		
	„ gibbera, „			Beechey Island (Arctic Seas).
	„ labrosa, „	(Can. W.) L. Ottawa River.		
	„ Louckiana, „	„ Russell, Louck's Mills.		
	„ nana, Jones.	(Can. W.) L. Ottawa River.		
	„ Paquettiana, Bill.	Paquette Rapids (Ottawa R.).		
Waterlime, L.H. G.	„ scalaris, „			Pennsylvania, (N. Y.) Williamsville.
	Maccoyana, Jones.			New York.
Pleta, U.L.	marginata, Keyserling.	Canada, Rupert's Land, Esthonia, St. Petersb. (Russ.).		Ludlow, Kington (Radnorshire), Petschora (Russia).
	minuta, „	D'Erras (Esthonia).	Talkhof (Livonia).	
Corall. Lst.	ornata, Eichw.			Isle Oesel, Randifer (Balt.).
CS.	Ottawa-ensis, Jones. *Isochilina.*	(Can. E.) Isle Jesus, Grenville, Lower Ottawa.		
BL.	ovata, „	New York, Pennsylvania.		
	ovulum, Eichw.	D'Erras (Esthonia)		
Delth. Shaly Lst.	parasitica, Hall.			(N. York) Herkimer Co.
Tentac. L., L. H. G.	parvula, „			„ „
CL.	Pennsylvanica, Jones.		New York, (Pennsylvania) Barre Forge.	(Russia) Poulowsk &c., Kamenetz-Podolia, (Esthon.) Randifer.
Pleta, Cor. Lst.	phaseolus, Hising.	Russia		
	scalaris, „			Mid-Gothland.
L. H. G.	sinuata, Hall.			Arisaig (Nova Scotia).
P., L.Ling. Flags	Solvensis, Jones.	(S. Wales) Port Solva, St. David's.		
P., near G. H., Queb. G.	turgida, Billings.	(Newfoundland N.) Cape Norman &c.		
CS., Gp.	ventralis, ?	(Newfoundl. W.) Bonne Bay.		
„ Menevian...	vexata, „	St. David's (S. Wales).		
	sp. ind. De Prado.	Spain.		

Subdivision.	Genera, Species, and Author.	Lower Stage.	Middle Stage.	Upper Stage.
U.L.	sp. ind. (marginata), Jones.			Kington (Herefordshire).
	Limuloides, *M'Coy.*			
L.	Three species, M'Coy.			Britain.
	Lingulocaris, *M'Coy.*			
U.Tremad.	lingulæcomes, Salter.	Garth, (N.Wales) Tuwrst-y-bwlch.		
	Myocaris, *Salter*, 1864.			
Carad.	lutraria, Salter.	Normandy, Budleigh Salterton, Devonshire.		
,,	quadrata, ,,	,, ,,		
,,	Valpii, ,,	,, ,,		
	Peltocaris, *Salter*, 1863.			
Llan.	aptychoides, Salter. *Dithyrocaris.*	(S.W. Scotland) Dumfriesshire. (Wales) Builth.		
,,	Harknessi, ,,	(S.W. Scotl.) Dumfriesshire.		
	Primitia, *Jones & Holl*, 1865.			
W.	Beyrichiana, Jones.			Sweden.
Carad.	bicornis, ,,	(Shropsh.) Harnage, Shrewsbury.		
	concinna, ,,	Canada, Ottawa River.		
W.	cristata, ,,			Croft's Quarry, Malvern.
CH.	Logani, ,,	(Can. E.) Lower Ottawa Riv.		
,,	var. leperditioides, ,,	,, ,,		
,,	var. reniformis, ,,	,, ,,		
Carad.	matutina, ,,	River Onny, Shropshire.		
W.	mundula, ,,			Malvern, Sweden (drift).
,,	muta, ,,			Beechey Island (Arct. Amer.).
Carad.	nana, ,,			Harnage, Shrewsbury.
,,	oblonga, ,,			Baltic, Russia (drift), Sweden.
	obsoleta, ,,			,, ,,
	ovata, ,,			,, ,,
W.	pusilla, ,,			West Malvern (Worcestershire).
,,	renulina, ,,			Croft's Quarry, W. Malvern.
,,	Roemeriana, ,,			,, ,,
	Salteriana, ,,	Pembrokeshire, Baltic Provinces (Russia).		
	semicircularis, ,,			Sweden, Baltic, Russia (drift).
Carad.	semicordata, ,,	Shropshire, Baltic Provinces (Russia).		
W.	seminulum, ,,			Town Hills, Montgomeryshire (Wales).
	simplex, Jones.	Shropshire, (Portugal) Bussaco.		
Carad.	strangulata, Salter.	Coniston Waterhead (Lancashire), Dufton (Westmorel.), Bala Lake (Wales), Esthonia.		
,,	var. *α*, ,,	Pembrokeshire, Robeston Wathen.		
	,, *β*,	(Wales) Sholes Hook, Haverfordwest.		
	,, *γ*,	,, ,,		
W.	tersa, Jones.			Croft's Quarry, W. Malvern.
,,	trigonalis, ,,			,, ,,
L.	umbilicata, ,,			(Malvern) Chance's Pitch.
W.	variolata, ,,			Near Malvern (Worcestersh.).
,,	var. paucipunctata, ,,			,, ,,
	Protichnites, *R. Owen*, 1852.			
P., Potsd. Sa.	alternans, R. Owen.	(Can. E.) Beauharnois &c.		
,, ,,	latus, ,,	,, ,,		
,, ,,	lineatus, ,,	,, ,,		
,, ,,	multinotatus, ,,	,, ,,		
,, ,,	octonotatus, ,,	,, ,,		
Sandstone	Scoticus, Salter.	(S.W. Scotl.) Roxburghshire.		
P., Potsd. Sa.	septem-notatus, R. Owen.	(Can. E.) Beauharnois &c.		
	Pseudoniscus, *Nieszk*, 1859?			
Dolom. Lst.	aculeatus, Nieszk.			Roodzikulle, I. Oesel (Balt.).
	Pterygotus, *Agassiz*, 1844 (including HIMANTOPTERUS).			
Eurypt. Lst., Passage-beds.	Anglicus, Agassiz.			,, ,,
U.L.	arcuatus, Salter.			(Engl.) Church Hill, Leintwardine, (Shropshire) Ludford Lane.
U.L. Passage-beds	Banksii, ,,			Ludford Lane (Ludlow), Kington (Herefordshire).
,, ,,	bilobus, ,,			Lesmahago (W. Scotland).

Subdivision.	Genera, Species, and Author.	Lower Stage.	Middle Stage.	Upper Stage.
(Waterlime L.H. H. G.	Cobbi, Hall.	.....	.....	(N.W. New York) Buffalo.
Downt. Sa., U.L.	gigas, Salter.	.....	.....	Kington (Radnorshire).
(Omitted in 'Siluria,' 4th ed.).	lanceolatus, „	.....	.....	Lesmahago (W. Scotland).
Passage-beds	Ludensis, „	.....	.....	Ledbury Tunnell, Kington, Ludlow, &c.
(Waterlime) L. H. G.	macrocephalus, Hall.	.....	.....	(Central N. York) Waterville, Herkimer Co.
„ „	Osborni, „	.....	.....	(N. York) Oneida County.
L.L.	perornatus, Salter.	.....	.....	Lesmahago (W. Scotland).
„	var. plicatissimus, „	.....	.....	„ „ and Kington.
Llan. ?, W., U.L.	problematicus, Agass.	.....	Malvern	Kington, Dudley, Ludlow, Hagley Park.
L.L.	punctatus, Salter.	.....	.....	(Engl.) Kendal, Leintwardine.
Tilestone	stylops, „	.....	.....	Kington(Radn.),Herefordsh.
	Særichnites, *Billings*, 1866.			
H. R. G.	abruptus, Billings.	(Anticosti Isl.) Otter's Cove, Observation Bay, &c.		
	Slimonia, *Page*, 1856.			
U.L.	acuminata, *maxima.* Salter.	.....	.....	Lesmahago (Lanarkshire).
L.	punctata, „	.....	.....	Church Hill, Leintwardine (Shropshire).
„	scorpioides, Salter (MS.).	.....	.....	Lesmahago (Lanarkshire).
	Stylonurus, *Page*, 1855.			
U.L.	spiniceps, *Logani.* Page.	.....	.....	(W.Scotl.) Lanarkshire, Lesmahago.
	Turrilepas, *H. Woodward*, 1865 (CHITON).			
W.	Wrightiana, De Koninck.	.....	.....	Dudley (England).

Summary (Geographical).

Genera.	Species. America.	Europe.	Asia.	S. Australia.	Common.	Genera.	Species. America.	Europe.	Asia.	S. Australia.	Common.
Astacoderma	...	14	...	...	...	*Brought forward*	47	91	...	2	4
Bairdia	...	1	...	...	...	Himantopterus	...	5	...	...	...
Beyrichia	24	22	...	1	3*	Hymenocaris.....	...	1	...	...	...
Bunodes.....	...	3	...	...	...	Leperditia	14	31	...	...	1*
Caryocaris	...	1	...	1	...	Limuloides...	...	3			
Ceratiocaris	6	14	...	...	...	Lingulocaris	...	1	...	...	...
Climactichnites	1	...	...	...	...	Myocaris	...	3	...	...	...
Cythere	2	2	...	...	...	Parka	...	1	...	...	...
Cytherina	4	6	...	...	...	Peltocaris	...	2	...	...	...
Cytheropsis	3	...	...	...	...	Primitia.....	5	26	...	...	...
Dictyocaris	...	3	...	...	...	Protichnites	6	1	...	...	...
Discinocaris	...	1	...	...	...	Pseudoniscus	...	1	...	...	...
Dithyrocaris	...	2	...	...	...	Pterygotus.....	3	7	...	...	...
Entomis.....	...	1	...	...	...	Særichnites	1	...	...	...	...
Eurypterus	7	15	...	...	1*	Slimonia	...	3	...	...	...
Exapinurus	...	1	...	...	...	Stylonurus.....	...	1	...	...	...
Hemiaspis	...	5	...	...	...	Turrilepas	...	1	...	...	...
	47	91	...	2	4		76	178	...	2	5

* To Europe and America.

SUBKINGDOM MOLLUSCA. PROVINCE MOLLUSCOIDA. CLASS POLYZOA.

Subdivision.	Genus, Species, and Author.	Lower Stage.	Middle Stage.	Upper Stage.
	Alecto, *Lamouroux*, 1821	. (Minute creeping fronds,	on stones or shells, *J.W.*	*S.*).
Tr.	inflata, Hall.	State of N. York, Oneida Co.		
	Archæopora, *Eichwald*,	1859.		
Pentam. Lst. ...	acerosa, Eichwald.	.....	(Livonia) Fennern.	
Pleta	angulosa, ,,	Poulkova (Russia), Wesenberg (Esthonia).		
Pleta, Corall.Lst.	lamella, ,,	Czarskoe-selo (Russia), Wesenberg, D'Erras.	.....	Ficht (Isle Oesel, Baltic), Kamenetz-Podolsk.
,, ...	punctata, ,,	St. Petersburg, Government Gdow (Russia).		
,, ...	radicans, ,,	Poulkova (Russia), Wesenberg (Esthonia).		
	Arthroclema, *Billings*,	1865.		
Tr.	pulchella, Billings.	Ottawa City, Peterboro T. (Can. W.).		
	Berenicea, *Lamouroux*,	1821 = DIASTOPORA, *Lamou*	*roux* (flat, creeping fronds,	*J.W.S.*).
W.	consimilis, Lonsd.	.....	.....	Dudley, Mayhill (England).
Carad.	heterogyra, M'Coy.	Coniston Waterhead, Lancash. (Engl.), Merionethshire, Bala Lake.		
W.	irregularis, Lonsd.	.....	.....	Dudley, Benthal Edge (England).
	Cellepora, *Gmelin*, 1789.			
,, ...	favosa, Goldf.	.....	.....	Dudley (Engl.), Gothland.
	Ceramopora, *Hall*, 1852.			
Niag.	foliacea, Hall.	.....	.....	(N.York) Lockport Shale.
,, ...	imbricata, ,,	.....	.....	,, ,,
,, ...	incrustans, ,,	.....	.....	,, ,,
Pleta	socialis, Eichw.	Poulkova (Russia).		
	Ceriopora, *Goldfuss*, 182	6. (Thin cylindrical fronds,	like branching corals, *J.*	*W.S.*)
W.	affinis, Goldf.	.....	.....	Dudley (England),
Pleta	bicornis, Eichw.	Poulkova (Russia).		
?	foraminosa, Meneghini.	Sardinia (Island).		
W.	granulosa, Goldf.	.....	.....	Dudley, Ledbury (England).
?	limarioides, Meneghini.	Sardinia.		
,, ...	oculata, Goldf.	.....	.....	England.
	Favosites.			
,, ...	punctata, ,,	.....	.....	Dudley (England).
	Chasmatopora, *Eichwald*, 1856.			
Pleta.....	tenella, Eichw.	Baltisch Port and Spitham (Esthonia).		
	Cladopora, *Hall*, 1852.			
Pleta	ædilis, Eichw.	Wesenberg (Esthonia).		
Niag.	fibrosa, Hall.	.....	.....	(N. York) Lockport, (Illinois) Chicago.
Pentam.L., Niag.	macrophora, ,,	.....	Zmeinogorsk (Altai). ...	(N. York) Lockport.
,, ,,	multipora, ,,	.....	.....	,, ,,
,, ,,	reticulata, ,,	.....	.....	(N. York) Lockport, (Illinois) Chicago, (Kentucky) Louisville.
,, ,,	seriata, ,,	.....	.....	,, ,,
	Clathropora, *Hall*, 1852.			
Niag.	alicornis, Hall.	.....	.....	(N. York) Lockport Shale.
Tr.	flabellata, D. D. Owen.	(N. Wiscon.) Escanaba River.		
Niag.	frondosa, Hall.	.....	.....	,, ,,
,, ...	lichenoides, Winch. & Mar.	.....	.....	Chicago (Illinois).
,, ...	verticillata, ,, ,,	.....	.....	,, ,,
	Coccoseris, *Eichwald*, 18	59.		
? Dolom.Lst., *Sp. lynx.*	approximata, Eichw.	.....	Kirna (Esthonia).	
Orthoc. Lst., Dolom. Lst.	Ungerni, ,,	Lyckholm (Esthonia).	Kirna, Borkholm (Esthonia).	
	Corynoides, *Nicholson*, 1	867.		
Llan.	calicularis, Nicholson.	Dobb's Linn &c., Moffat, Dumfries.		
	Diamesopora, *Hall*, 185	2.		
Niag.	dichotoma, Hall.	.....	.....	(N. York) Lockport.
	Diastopora, *Lamouroux*,	1821 (see BERENICEA).		
	Diplastrea, *Eichwald*, 18	59.		
Fixed on *Leptæna imbrex.*	diffluens, Eichwald.	Wesenberg (Esthonia).		
	Discopora, *Lamarck*, 18	16.		
W.	antiqua, Lamarck.	.....	.....	Dudley (England).
,, ...	? favosa, Lonsd.	.....	.....	,, ,,

Subdivision.	Genus, Species, and Author.	Lower Stage.	Middle Stage.	Upper Stage.
W.	squamata, „			Dudley &c., Shropshire.
	Disteichia, *Sharpe*, 1853	(reticulated branches; many rows of pores, *J.W.S.*).		
	reticulata, Sharpe.	Bussaco (Portugal).		
	Escharapora, *Hall*, 184	7 = PTILODICTYA.		
	Escharina?, *Lonsdale*, 1	836.		
„	angularis, Lonsd.			Dudley (England).
	Fenestella, *Lonsdale*, 18	39. (Frond reticular; the branches connected by bars, *J.W.S.*)		
Niag.	acuticosta, Römer.			(W. Tenness.) Decatur Co.
Carad., U.Llandov., W.	assimilis, Lonsd.	(Engl.) Harnage, Westmoreland, Wales, Chair of Kildare (Ireland).	Norway, (Wales) Llandovery.	Dudley (England).
	bipinnata, Billings.	Isle Anticosti (G. St. Lawr.).		
Carad.	capillaris, Portl.	Desertcreate (Tyrone).		
	colonus, Meneghini.	Sardinia Island.		
CL.	cribrosa, Hall.		Zmeinogorsk, Altai, (N. York) Lockport.	
CL., Niag.	elegans, „		Zmeinogorsk, Altai.	(N. York) Rochester &c.
Corall. Lst.	exilis, Eichw.			Isle Oesel, Ficht (Baltic).
CH., BL.	gracilis, Hall.	New York.		
„	incepta, Billings.	Mingan Isles (G. St. Lawr.).		
Carad., W.	Lonsdalei, D'Orb.	North Wales.		Dudley (Engl.), Wales, Dormington Wood.
„ „	Milleri, Lonsd.	(Wales) Blain-y-cwm, Glyn Ceiriog &c.		Dudley, (Wales) Denbigh.
W.	patula, M'Coy.			Dudley.
„	prisca, Sowerby, Billings.			Dudley, (Can. W.) Dundas.
CL.	prisca?, Hall.		(N. Y.) Wayne Co., (Can. W.) Flambro' Head.	
Carad.	regularis, Portlock.	Kildare, Desertcreate, &c. (Ireland).		
W.	reticulata, Lonsd.			Dudley, Dormington Wood, Gothland.
„	rigidula, M'Coy.			Dudley (England).
Pentam. Lst., siliceous.	striolata, Eichw.		Talkhof (Livonia).	
Carad., L.U.Llandov., W.	subantiqua, *antiqua.* D'Orb.	(Wales) Denbighshire, Cerrig-y-Druidion &c.	(Wales) Mayhill, Mathyrafal.	Dudley &c. (Engl.), (Wales) Denbighshire.
CL., Niag.	tenuis, Hall.		(N. York) Wayne Co.	N.York, (Can.W.)Flamboro.
„ „	tenuiceps, „		„ Lockport.	
Carad.	undulata, Portl.	Desertcreate (Tyrone).		
„	sp. ind. (2), Salter.	Bala Lake, Llanfyllin, Carnedd, Daf, &c.		
	„ Billings.			(New Brunsw.) Restigouche.
Niag.	„ Hall.			(N. York) Lockport.
	„ Salter			Leopold'sI. &c.(Arct.Amer.).
	Glauconome, *Lonsdale* = PTILOPORA, *M'Coy.* (Frond pinnated, each pinna with two rows of cells, *J.W.S.*).			
Carad., Llandov., W.	disticha, Goldf.	(Wales) Glyn Ceiriog &c., Westmoreland.	Wales, Shropshire	Dudley, Shropshire, Herefordshire, Malvern, Ludlow, &c.

GRAPTOLITIDEA.

	Graptolithus, *Linnæus*	(*Hall*), 1751; including MONOPRION, *Barrande*; MONOGRAPSUS, *Geinitz*, 1853. (Frond simple, cells on one side of axis, *J.W.S.*)		
P., Queb. G.	alatus, Hall.	Point Lévis (Can. E.).		
?	antennarius, Meneghini.		(Isle of Sardinia) Goni.	
„ „	arcuatus, Hall.	Point Lévis (Can. E.).		
	Barrandei, Scharenburg.	Christiania (Norway).		
Carad., Col. Haidinger.	Beckii, Barr. See *lobiferus.*	Thuringia, (Saxony) Wilsdruff, Bohemia, S.W.Scotl.		
	belophorus, Meneghini.		N.E. end of Sardinia.	
D, E, Col. Haidinger.	Bohemicus, Barr.	Bohemia.		
P., Div. P, Queb. G.	Bryonoides, Hall.	(Can. E.) Point Lévis, (Newfoundland W.) Cowhead.		
Fauna E. e. 3	chimæra, Barr.			Bohemia.
CL.	Clintonensis, „		N. York, Rochester, &c., Arisaig, Merigomish (Nova Scotia).	
Faunæ D,E; Col. Haidinger, LL.	colonus, „	(Brittany) La Manche, Angers, Poligné, La Couyère, (N.E. Sardinia) Goni, Bohemia, (Saxony) Gunzenb.		Vinnal Hill (Ludlow).

Subdivision.	Genus, Species, and Author.		Lower Stage.	Middle Stage.	Upper Stage.
P., Queb. G. ...	constrictus,	Hall.	Point Lévis (Can. E.).		
Carad.	convolutus,	Hising.	Lockerby (S.W. Scotland), Fermanagh, Tyrone, Tipperary (Irel.), (Sweden) Furudal,(Saxony)Ronneb.		
Carad.	Conybeari,	Portl.	Fermanagh, Tyrone, Desertcreate (Irel.).		
CS., CH., Div. P, Queb. G.	denticulatus,	Hall.	Newfoundland W., Point Lévis (Can. E.).		
Carad.	distans,	Portl.	Tyrone(Irel.),S.W.Scotland.		
?	falcatus,	Meneg.	.....	(Sardinia) Goni.	
Utica Slate	flaccidus,	Hall.	Lake St. John (Can. E.).		
W.	Flemingii,	Salter.	.....	.....	Balmae, Kirkcudbright (S. Scotland).
Queb. G.	flexilis,	Hall.	Point Lévis (Can. E.).		
Div. P, Queb. G.	fruticosus,	Billings	Newfoundland W.		
?	Gonii,	Meneg.	.....	(N.E. Sardinia) Goni.	
Llan., H. R. G...	gracilis,	Hall.	(S.W. Scotl.) Dumfrieshire, Belvoir, Clare (Irel.), S. Australia,Canada,N.York.		
Carad.	Greistonensis,	Nicol.	(S.W. Scotl.) Greiston, Peeblesshire.		
E. e. 1.....	Halli,	Barr.	.....	Bohemia, Ronneburg &c. (Saxony).	
Llan.	hamatus, *coronoides.*	Baily.	Ireland.		
Div. P, Queb. G.	Headi,	Hall.	Point Lévis (Can. E.), Newfoundland N.W., Point Rich &c.		
?	hemiprestis,	Meneg.	.....	(N.E. Sardinia) Goni.	
,, ...	Hisingeri, *sagittarius,*	Carruthers. Hisinger.	Same localities as "sagittarius."		
	Huebneri,	Geinitz	Plauen (Saxony).		
Carad.	incisus,	Harkness.	(S.W. Scotl.) Moffat &c.		
Queb. G.	indentus,	Hall.	Point Lévis (Can. E.).		
Utica Slate	lævis,	Hall.	Lewis County (N. York).		
	LaMarmora,	Meneg.	.....	(N.E. Sardinia) Goni.	
Llan.	latus,	M'Coy.	Builth (Wales), Skiddaw (Westmorel.), Thuringia (Saxony), Grafenwarth, S. Australia.	Bohemia.	
Carad.	laxus,	Nicol.	Thornielea, Selkirkshire (Scotland).		
	Linnæus,	Barr.	Bohemia, (Saxony) Heinrichsruhe.		
Llan. (not in 4th ed. 'Siluria').	lobiferus,	M'Coy.	Lockerby, Moffatt, Dumfries (S.W. Scotland).		
Carad.,Llandov., W., L.	Ludensis,	Murch.	S. Australia, Long Sleddale (Westmoreland).	Chambéry (Savoy), Sardinia.	(S. Scotland) Lammermuir, Balmae, Aymestry, Builth (Wales), South Australia, (Portugal) Bussaco.
	var. minor,	,,	.....	.....	Llangynwyw (Montgomeryshire).
CH.	Milesi,	Hall.	N.E. Vermont (U.S.A.).		
Carad.	millipeda,	M'Coy.	Dumfries (S. Scotland), Oelnitz &c. (Saxony).	Bohemia ?.	
H. R. G.	multifasciatus,	Hall.	New York.		
Carad.	Murchisoni,	Beck.	Pont Seiont (Carnarvonsh.), Welchpool (Wales), (Norway) Christiania.		
?	mutuliferus,	Meneg.	(N.E. Sardinia) Goni.		
,, ...	Nicoli,	Harkness.	Dumfriesshire (S. Scotland).		
Fau. E.e.1, Llan.	Nilssoni,	Barr.	Braithwaite Brow, Skiddaw (Engl.),Bohemia,(Saxony) Oelnitz &c., Dumfriesshire, Thuringia, Wales.	Bohemia.	
Queb. G.	nitidus,	Hall.	Point Lévis (Can. E.).		
Fauna E. e. 1....	nuntius,	Barr.	(Saxony) Wilsdruff, N.York, S. Scotland.	Bohemia.	
	peregrinus,	Barr.	Heinrichsruhe &c. (Saxony), Bohemia.		
	personatus,	Scharenburg.	(Norway) Christiania.		
Car., L.U.Llandov., W., L.L.	priodon,	Bronn.	S.W. Scotland, Westmorel., (Denbighsh.) Nantyr &c., (Saxony) Wilsdruff.	(Sardinia) Flumini, Maggiore, Goni, Bohemia, Mayh., Tortw., Wrekin, (Radnor) Cefn Grugos &c., Mandinam.	Ludlow, Builth, Ulverstone, Tipperary and Kerry(Ireland).
Col. Haidinger.	Proteus,	Barr.	(Saxony) Zwickau &c., Thuring.,Norw.,Swed.,Bohem.		

Subdivision.	Genus, Species, and Author.	Lower Stage.	Middle Stage.	Upper Stage.
	quadri-mucronatus, Hall.	Lake St. John (Can. E.).		
Col. Haidinger...	Roemeri, Barr.	Bohemia.		
Utica Sl., H.R.G., Llan., Carad., U.Llan., W.	sagittarius, Hising. *Hisingeri*, Carruthers.	S. Australia, Skiddaw (Cumberl.), (S.Scotl.)Duff, Kinnel, (Irel.) Reaffada, Tipperary, (Swed.) Furudal, (Norway) Heinrichsruhe, (Sax.)Thuring., (W.)Llanfaelrhys, (N.York)Albany.	Bohemia	(Wales) Moel Seissiog.
Llan.	Salteri, Geinitz.	Britain.		
H. R. G.	scalaris, Hall.	(N. York) W. Canada Creek, (Scania) Fogelsang &c.		
Llan., Carad. ...	Sedgwickii, Portl. *Rastrites triangulatus.*	Heinrichsruhe(Saxony), Ireland, (S.W. Scotl.) Rae Hills &c., Thuringia.		
H. R. G.	serratulus, Hall.	New York (U.S.A.).		
	spina, Murch.	Thuringia.		
	spiralis, Geinitz.	Saxony	Bohemia.	
	tænia, Salter.	(S.W. Scotl.) Wigtownshire.		
Llan., H. R. G., Carad.	tenuis, Portl.	„ Lockerby, Moffat, &c., (Irel.) Tipperary, Tyrone, Desertcreate, S. Australia, Wrekin, Shropshire, Skiddaw, Keswick (Engl.), New York.		
H. R. G., fauna E. e. 1.	testis, Barr.	N. York, Brittany, (France) Angers, Neuvillette, &c.	Bohemia.	
„	triangulatus, Harkness. *Rastrites.*	S.W. Scotland, Wilsdruff (Saxony).	„	
Fauna E. e. 1 ...	turriculatus, Barr.	Thuringia (Saalf^{d}, Saxony).		
	virgulatus ?, Beck.	Christiania (Norway).		
H. R. G.	Whitfieldii, Hall.	Albany (N. York).		
	sp. ind. Leymerie.	Luchon (Pyrenees).		
L.Llan.....	„ Salter.	Skiddaw (Westmoreland).		
„	„ ?	Barf, Keswick (Westmorel.)		
	Buthograptus, *Hall,* 1862?			
Tr.	laxus, Hall.	N. York, N. Winconsin.		
	Callograptus. *Hall,* 1865.			
P., Div. P, Queb. G.	elegans, Hall.	Gros Maule, near Quebec, Newfoundland.		
„ „ „	Salteri, „	Gros Maule, near Quebec.		
	Cladograpsus, *Hall,* 1861.			
Llan.	gracilis, Hall.	Ireland.		
„	linearis, Carruthers.	S. W. Scotland.		
	Climacograptus, *Hall,* 1865.			
CH.	antennarius, Hall.	Point Lévis (Can. E.).		
L.Llan., H. R. G.	bicornis, „	Haverfordwest, Penmorfa (S. Wales), N. York, (Can. E. & W.) Montreal, Ohio, &c., Bohemia ?.		
Carad.	bullatus, Salter.	Ardwell (S.W. Scotland).		
„	parvus, Hall.	Canada.		
Llan., Carad. ...	scalaris, Linnæus.	Moffat (Dumfries).		
H. R. G.	typicalis „	Canada.		
	Coronoides, *Nicholson,* 1867.			
Llan.	calicularis,	Moffat Shales.		
	cyrtograpsus, Carruthers.	„ „		
Carad.	hamatus, Baily.	Ireland.		
W.	Murchisoni, Carruthers.	Moffat Shales.		
	Dendrograptus, *Hall,* 1865. (Frond ramose, bushy,		irregular, *J.W.S.*)	
P., Arenig rock.	arbuscularis, Salter.	Whitesand Bay and Ramsay Isle (S. Wales).		
P., Queb. G. ...	diffusus, Hall.	Point Lévis (Canada E.).		
Queb. G.	divergens, „	„ „		
P., Queb. G. ...	erectus, „	„ „		
„ „ ...	flexuosus, „	„ „		
„ „ ...	fruticosus, „	Point Lévis (Can. E.), Newfoundland.		
L.Llan.	furcatulus, Salter.	(N.Wales)Ty-obry, Penrhyn.		
P., Queb. G. ...	gracilis, Hall.	Point Lévis (Can. E.).		
Potsd. Sa.	Hallianus, Prout.	(Wisconsin) Osceola Mills.		
Carad.	lentus, Carruthers.	?		
P., Queb. G. ...	striatus, Hall.	Point Lévis (Can. E.).		
P., Arenig rock.	sp. ind. Salter.	Whitesand Bay and Ramsay Isle (S.Wales), (N.Wales) Ty-obry, Portmadoc.		

Subdivision.	Genus, Species, and Author.	Lower Stage.	Middle Stage.	Upper Stage.
	Dichograptus, *Salter*, 1861, including GRAPTOLITHUS, *Hall*, in part. (Frond on one side of the rachides only.—*J.W.S.*)			repeatedly branched; cells
P., Queb. Gr. ...	abnormis, Hall.	Point Lévis (Can. E.).		
Llan.	aranea, Salter.	Skiddaw (Cumberland).		
P., Queb. G. ...	bifidus, Hall.	Point Lévis (Can. E.).		
,, ,, ...	Bigsbyi, ,,	,, ,,		
,, ,, ...	extensus, ,,	,, ,,		
,, ,, ...	extenuatus, ,,	,, ,,		
H. R. G., Auriferous Shales.	gracilis, ,,	Albany (N. York), Melbourne (S. Australia).		
Llan.	intricatus, Salter (MS.).	Skiddaw (Cumberland).		
P., Queb. G. ...	Logani, Hall.	Point Lévis (Can. E.), Melbourne (S. Australia).		
,, ,, ...	var., ,,	Point Lévis (Can. E.).		
,, ,, ...	octobrachiatus, M'Coy.	,, ,, Melbourne (S. Australia).		
,, ,, ...	octonarius, Hall.	Point Lévis (Can. E.).		
,, ,, ...	patulus, ,,	,, ,,		
,, ,, ...	pennatulus, ,,	,, ,,		
,, ,, ...	quadribrachiatus, M'Coy.	,, ,,		
,, ,, ...	ramulus, Hall.	,, ,,		
,, ,, ...	Richardsoni, ,,	,, ,,		
,, ,, ...	rigidus, ,,	,, ,,		
?	Sedgwickii, Salter (MS.).	Braithwaite (Cumberland).		
P., Queb. G. ...	similis, Hall.	Point Lévis (Can. E.).		
	sp. ind. Salter.	Keswick (Cumberland).		
	,, ?	Skiddaw.		
	Dictyonema, *Hall*, 1852 =GRAPTOPORA, *Hall*. (Frond reticulate, like FENESTELLA, *J.W.S.*)			
Fauna E. e. 2, Niag.	Bohemica, Barr.	.....	.....	Bohemia, New York ?.
Onond. S. Gp.?	fenestrata, Hall.	.....	.....	Mackinac (Lake Huron), N. York.
Alum Slates ...	flabelliformis, Pander.	St. Petersburg (Rus.), Sweden, Esthonia, Lower Silesia (drift).		
Fauna E, Niag...	gracilis, Hall.	.....	.....	(N. York, central) Lockport Shale, Bohemia.
P., Queb. G. ...	irregularis, ,,	Point Lévis (Can. E.).		
,, ,, ...	Murrayi, ,,	,, ,,		
Tr.	Neenah, D. D. Owen.	Upper Mississippi, N. Wisconsin.		
P., Queb. G. ...	quadrangularis, Hall.	Point Lévis (Can. E.).		
Niag., Onond. S. Gp.	retiformis, Billings.	.....	.....	(S. Wisconsin) Chicago, (N. York) Lockport, Rochester &c., Grimsby (Can. W.).
P., Queb. G. ...	robusta, Hall.	Point Lévis (Can. E.).		
U.Ling. Fl.	sociale, Salter. *Graptopora.*	(N.Wales) Gelli-fwyog, Festiniog, &c., Malvern.		
Niag.	Websteri, Dawson.	.....	.....	(Nova Scotia) Kentville.
P., Arenig rocks.	sp. ind. ,,	S. Wales.		
	Didymograpsus, *M'Coy*, 1851; TETRAGRAPSUS, *Salter*; DICRANOGRAPTUS, *Hall*, 1865; CLADOGRAPTUS, *Geinitz*. (Frond once branched from the base, *J.W.S.*)			
Llan.	anceps, Nicholson.	Dobbs's Lynn, Moffat (S.W. Scotland).		
Queb. G., Carad.	caduceus, Salter.	Point Lévis (Can. E.), Wexford (S.E. Irel.), Keswick (Westmorel.), Melbourne (S. Australia).		
H. R. G.?, Auriferous Shales.	denticulatus, M'Coy?	Melbourne (S. Australia).		
H. R. G.	divaricatus, Hall.	Albany County (N. York).		
Llan.	flaccidus, Nicholson.	Dobbs's Linn &c., Moffat (S.W. Scotland).		
H. R. G.	,, Hall.			
Llan.	Forchhammeri, Geinitz.	Kilnacreagh, Clare Co. (Irel.).		
Ut. Slate	furcatus, Hall.	Albany Co. (N. York), Melbourne (S. Australia).		
Llan.	geminus, Salter, Hising.	(Swed.) Aher, Russia, (Norway) Christiania, (Westmorel.) Eggbeck, (Shropshire) Shelve.		
,, ...	hamatus, Baily.	Reaffada, Garrangrena, Tipperary Co.		
,, ...	hirundo, Hising.	(Westmorl.) Ellengill &c., Sweden, S. Wales.		
,, ...	Moffatensis, Carruthers.	(Scotl.) Moffat Beds, (Shropshire) W. of Stiper Stones.		
L. & U.Llan. ...	Murchisoni, Beck.	(Irel.) Bellew's Town, Meath, (Wales) Abereiddy Bay, Caernarvon, Builth.		

Subdivision.	Genus, Species, and Author.	Lower Stage.	Middle Stage.	Upper Stage.
Llan.	quadri-mucronatus, Nich.	Dobbs's Linn, Moffat (Scotl.).		
Ut. Slate, H. R. G.	ramosus, Hall.	Canada, N. York, Loch Ryan (S.W. Scotland).		
H. R. G.	serratulus, Hall, M'Coy.	Albany (N. York), Melbourne (Australia).		
Llan., Ut. Slate, H. R. G.	sextans, Hall.	Albany (N. York), Kilmacreagh &c., Clare (Irel.), L. Ryan (S.W. Scotland), (England) Braithwaite, Skiddaw.		
	Whitfieldii, Nicholson.	Glenkiln, Dumfries, N. York.		
?	sp. ind. Selwyn.	Victoria (Australia).		
	,, Bonissent.	(France) Angers.		
	Diplograpsus, *M'Coy*, 1850. (Two opposite rows of cells on one rachis, *J. W. S.*)			
Llan.	acuminatus, Nicholson.	Dumfriesshire (S.W. Scotl.).		
Tr.	amplexicaulis, Hall.	(N. York) Middleville, (Can. E.) Montreal, Tennessee, N.W. Michigan.		
	angustifolius, ,,	N. York, Canada.		
Llan.	barbatulus, Salter.	(N. Wales) Ty-obry, Garth.		
Llan., H. R. G...	bicornis, Hall.	S.W. Scotland, (N. & S. Wales) Ty-obry, Melbourne (Australia), (Can. W.) Humber Valley, Ohio, L. Huron, N.E., (Can. E.) R. St. Anne, I. Orleans.		
Carad.	bullatus, Salter. *dentatus.*	Ayrshire, Ardwell, &c. (Scotland).		
P. or H. R. G...	ciliatus, Emmons.	N. York, (Virg[a]) Augusta Co.		
	cometa, Geinitz.	Heinrichsruhe &c. (Saxony).		
?	dentatus, Brongniart.	Weckensdorf (Saxony).		
Pleta	distichus, Eichw.	Russia, I. Odinsholm (Balt.).		
Llan., Carad., L.	foliaceus, Murch. *pristis*, Hisinger.	(Cumberl.) Skiddaw, (Shropshire) Meadow's Town, (N. Wales) Corwen &c., (S.W. Scotl.) Dumfriessh.	.....	Pentre, Montgomeryshire.
Llan., Carad. ...	folium, Hising.	Melbourne (Australia), (Sweden) Furudal, (Norway) Christiania, (S.W. Scotl.) Lockerby &c., (Irel.) Fermanagh, (Cumberl.) Skiddaw. Thuringia.		
Llan.	Harknessi, Nicholson.	Hartfell, Moffat (S.W. Scotl.)		
P., Queb. Gp. ...	inutilis, Hall.	Point Lévis (Can. E.).		
H. R. G.	marcidus, ,,	Albany County (N. York).		
Llan., Ut. Slate.	mucronatus, ,,	(Can. W.) Pt. Rich, L. Huron, Albany Co. (N. York), Melbourne (Australia), Lake St. John (Can. E.), (Engl.) Skiddaw, (S.W. Scotland) Hartfell &c., (S. & N. Wales) Builth, Ty-obry, &c.		
Llan.	nodosus, Harkness.	(S.W. Scotl.) Dumfriesshire, Bran Burn.		
Fauna E. e. 1 ...	ovatus, Barr.	Melbourne (Austr.), Schleiz (Saxony), Thuringia.	Bohemia.	
,, ,, Col. Haidinger.	palmeus, ,,	Thuringia, Bohemia, Schleiz (Saxony).	,,	
	var. lata, ,,	,, ,,	,,	
Pleta	paradoxus, Eichw.	Isle Odinsholm (Baltic).		
Llan.	pennatus, Harkness.	(S.W. Scotland) Dumfries.		
Pentam. Lst. ...	pennula, Eichw.	.....	Talkhoff (Livonia).	
	peosta, Hall.	Wisconsin, New York.		
U.L. Llan., Car., L. Llandov.?	pristis, Hising., Hall.	(N. York) Albany Co. &c., (Can. E.) River St. Anne, Montmorency, Rivers Marsouin and Magdalen, Melbourne (Australia), Loch Ryan (S.W. Scotl.), (Westmoreland) Ireleth Moor, (Irel.) Belvoir, Clare Co., &c., (N. & S. Wales) Tahirion, Conway, Tremadoc, (Shropsh.) Soudley, Stiper Stones, Norway, (Saxony) Schleiz.		

Subdivision.	Genus, Species, and Author.	Lower Stage.	Middle Stage.	Upper Stage.
	var. β, Hall.	New York, Builth (Wales).		
P., Queb. G. ...	pristiniformis, „	Point Lévis, Bolton (Can. E.).		
H. R. G.	putillus, „	Iowa (U.S.A.)		
Llan., Ut. Slate	quadri-mucronatus, „	Lake St. John (Can. E.), Ayrshire (S.W. Scotland).		
L.Llan., H. R. G.	ramosus, „	(Can. E.) Riv. St. Anne &c., Albany Co. (N. York), Melbourne (Australia), (S.W. Scotl.) Cairn Ryan, Westmoreland, (N. & S. Wales) Ty-obry &c., Anglesea.		
Llan.	rectangularis, M'Coy.	Victoria (Australia), (Scotl.) Dumfries, Lockerby.		
CH.	secalinus, Eaton.	(N. Y.) Baker's Falls, (Vermont) Georgia Township.		
Ut. Slate	sextans, Hall.	(S.W. Scotl.) Cairn Ryan, (N. York) Albany.		
H. R. G.	spinulosus, „	(N. York) Albany County.		
Fauna D	tectus, Barr.	Bohemia.		
P., Alum Slate, Llan., Carad.	teretiusculus, Hising.	(Saxony) Heinrichsruhe &c., Thuringia, Sweden, (Norway) Christiania, (N. & S. Wales) Anglesea, Ty-obry &c., (S.W. Scotl.) Glenkiln &c.		
	var. *a.* secundus, Schar.	(Norway) Christiania.		
	„ *b.* distichus, „	„ „		
	„ *c.* contractus, „	„ „		
L.Llan.	tricornis, Carruthers.	Moffat Shales.		
Llan.	tubuliformis, Nicholson.	(S.W. Scotl.) Wamphray.		
Silic.Pentam.Lst.	tumidus, Eichw.	.....	Talkhoff (Livonia).	
Llan.	Whitfieldii, Hall.	(N.York) Albany Co., Britain.		
?	sp. ind. „	(N. York) Albany County.		
?	„ Meneghini	Sardinia.		
	Graptotheca.			
P., Queb. Gp. ...	Geinitziana, Hall.	Point Lévis (Can. E.).		
„ „	plumosa, „	Point Lévis (Can. E.), Newfoundland (Div. P.).		
„	punctata,	.....	.....	Church Hill.
LL.	punctulata,	.....	.....	Leintwardine.
	Rastrites, *Barrande*, 185	5. (Spiral, with very thin	rachis, and the cells on th	e convex side, *J.W.S.*)
Llan. (not in 'Siluria,' 4th ed.).	Barrandei, Harkn., Hall.	S.W. Scotland.		
Fauna E. e. 1 ...	fugax, Barr.	(Bohem.) Col. Haidinger ...	Bohemia.	
„ „ ...	gemmatus, „	.....	„	
Llan., Fau. E. e. 1	Linei, „	Col. Haidinger (Bohemia), Britain.	„	
Llan.	maximus, Carruthers.	S.W. Scotland.		
Faunæ D, E. e. 1, Llan.	peregrinus, „	Bohemia, Thuringia, (S.W. Scotland) Dumfriesshire, Bran Burn, Moffat, &c.	„	
Llan., Carad. (not in 'Siluria,' 4th ed.).	triangulatus, Harkness.	(S.W. Scotland) Moffat.		
	sp. ind. „	S.W. Scotland.		
	Retiolites, *Barrande*, 18	50; includes RETIOGRAPTUS,	*Hall*; GLADIOLITES, *Barr*	*ande*, 1850. (Frond reticular only, *J.W.S.*)
P., Queb. Gp. ...	ensiformis, Hall.	Point Lévis (Can. E.).		
Ut. Slate	Eucharis, Billings.	Lake St. John (Can. E.).		
?	foliaceus, Geinitz.	Montgomeryshire (Wales).		
Fauna E.e.2, CL., Llandov., Woolhope, W.	Geinitzianus, Barr. *venosus.*	Bohemia, Brittany, (Saxony) Raitshain &c., Thuringia.	Bohemia, New York	Norway, (Engl.) Ulverstone, Radnorshire (Wales).
	gracilis, Römer.	Sadewitz (Lower Silesia).		
P., Queb. Gp. ...	tentaculatus, Hall.	Point Lévis (Can. E.).		
CL., U. Llandov., W., Fau. E. e. 1.	venosus, „	.....	(Wales) Pen-y-lan, Llandovery, Bohemia, (New York) Rochester.	England?
	Tetragrapsus, *Salter*, 18	63. (Four branches, *J.W.*	*S.*)	
	bryonoides, Salter?	Frozen Gill (Westmorel.).		
Llan.	crucialis, Salter.	Keswick (Westmoreland).		
P., Queb. Gp. ...	crucifer, Hall.	Point Lévis (Can. E.).		
	POLYZOA (*continued*).			
	Helopora, *Hall* 1852.			
Div. 2, A. Gr., Llandov.	formosa, Billings.	.....	(Anticosti) East Point.	

Subdivision.	Genus, Species, and Author.	Lower Stage.	Middle Stage.	Upper Stage.
CL.	fragilis Billings.		(Can. W.) Dundas, (New York) Lockport &c.	
Div. 1, A.G., Llandov.	lineata, „		(Anticosti) Junction Cliff.	
	Heteropora, *Blainville,*	1830. (Perhaps a sponge, *J.W.S.*)		
W.	? crassa, Lonsd.			(England) Benthall Edge.
Corall. Lst.	foraminosa, Eichw.			Isle Oesel (Baltic), Ficht.
(Pleta) Orth. Lst.	gibbosa, „	Poulkova (Russia).		
	Hornera ?, *Hall,* 1852.			
CL.	dichotoma, Hall.		(N.York) Rochester, Lockport.	
	Inocaulis, *Hall,* 1852.			
Niag.	plumulosa, Hall.			(N.York, central) Rochester, Lockport, &c.
	Intricaria, *Defrance,* 182	2.		
Carad.	obscura, Portl.	Tyrone (Ireland) ?.		
Tr.	reticulata, Billings.	(Canada E.) Montreal.		
	Lichenalia, *Hall,* 1852.			
Niag.	concentrica, Hall.			(N. York) Rochester, (Illinois) Chicago.
	Mastopora, *Eichwald,* 18	59.		
Pleta	concava, Eichw.	Réval (Baltic), D'Erras, Wesenberg.		
	Micropora, *Eichwald,* 18	59 = ESCHARA, *Eichwald.*		
„	cyclostomoides, Eichw.	Wesenberg, D'Erras (Estho.).		
„	gracilis, „	Réval &c. (Baltic), Iswoss, St. Petersburg.		
„	rhombica, „	Réval, &c. (Baltic).		
	Phænopora, *Hall,* 1852.			
CL.	costellata, Hall.		(N. York) Wayne Co. &c.	
M.Sa., CL.	ensiformis, „		New York, (Canada W.) Flambro'.	
CL.	explanata, „		(N. York) Lockport &c., (Can. W.) Flambro'.	
Tr.	multipora, „	(N. Wisconsin) Escanaba R.		
	Phyllopora, *King,* 1849.			
Carad.	Hisingeri, M'Coy.	Coniston Waterhead (Lancashire), (N. Wales) Glyn Ceiriog &c.		
„	proæva, Salter. (*Ptilodictya*).	Wales, Corntown, Wexford (Ireland).		
„	sp. ind. (2), „	(Montgomerysh.) Llanwddn.		
	Polypora, *M'Coy,* 1844 (	including HORNERA, *Lonsdale,* not *Lamouroux*).		
W.	? crassa, Lonsd.			Dudley (England).
Niag.	dichotoma, Hall. *Hornera.*			New York.
Inflam. Cl. Slate.	furcata, Eichw.	D'Erras (Esthonia).		
	gracilis, Billings.	Canada.		
Niag.	incepta, Hall. *Retepora.*			(N. York) Rochester &c., Chicago (Illinois).
	Protovirgularia, *M'Coy,* 1855.			
Llan., Carad.	dichotoma, M'Coy.	Lockerby, Dumfries, Griestone, Peebles, Thuringia.		
	Pteropora, *Eichwald,* 18	59.		
Carad.	exilis, Eichw.	D'Erras (Esthonia).		
„	pennula, „	(Esthonia,) Spitham (Baltic).		
	Ptilodictya, *Lonsdale,* 1	839; STICTOPORA, *Hall,* 1846; ESCHAROPORA, *Hall,* 1	847. (Leaf-like expansions, branching or simple, with two rows of opposite cells attached to a central plate, *J.W.S.*).	
B., BL., Tr., Ut. Slate, H. R. G., M.Sa., Car., U. Llandov.	acuta, Hall.	Highgate Springs, N. Vermont, Montreal, Lake St. John (Can. E.), Canada, W. Missouri, Wisconsin, New York, Pennsylvania, Wales, Ireland, S.W.Scotl., Russia, Chair of Kildare (Ireland).	Esthonia.	
Carad.	var. minor.	Llanfyllin, Montgomeryshire (Wales).		
Div. 4, A.G., Mayh.	Alcyone, Billings.		(Anticosti) Chicotte River.	
Div. 2, Llandov., A. Gr.	arguta, „		(Anticosti) Cape Sandtop Bay.	
H. R. G.	Canadensis, „	Charleton Pt., Anticosti Isle.		
Car., L., U. Llandov.	costellata, M'Coy.	(S.W. Scotl.) Girvan, Denbighshire, Llansaintffraid, &c., Sardinia.	(Wales) Mathyrafal.	
CL.	crassa, Hall.		(N. York) Wayne Co. &c.	(Can. W.) Flambro' Head, Lake Ontario.

Subdivision.	Genus, Species, and Author.	Lower Stage.	Middle Stage.	Upper Stage.
H. R. G.	decipiens, Meek & Worth.	Madison, Richmond (Indiana).		
Llan., U.L.Llandov., Carad.	dichotoma, Portl.	Chair of Kildare, Desertcreate(Irel.),(Wales)Llanfyllin &c., Scotland, (England) Westmoreland.	Cong (Galway).	
Tr.	elegantula, Hall.	(N. York) Mohawk Valley, N.W. Michigan, Chair of Kildare (Ireland).		
Niag.	ensiformis, Billings.	.....	.....	Dundas (Canada W.).
Antic., Divs. 1, 2, 3, 4.	excellens, ,,	.....	Anticosti Isle, Jupiter R., Gamache Bay &c.	
Carad., H. R. G., U.Llandov.	explanata, M'Coy.	Coniston (Westmoreland), (N. Wales) Wrexham &c., Anticosti (West end).	Canada, (Wales) Mathyrafal.	
Pleta	exserta, Eichw.	(Baltic) Réval, (St. Petersburg) Dhow.		
B., BL., CH. ...	fenestrata, Hall.	Canada, (N.Vermont) Highgate Springs, New York, N.W. Lake Huron, Camp d'Ours, N.W. Michigan (Lake Superior).		
	ferrea, Salter.	Niti Pass, Himalaya Mountains (E. I.).		
Compact Orthoc? Lst.	flabellata, Eichw.	Isle Dago (Baltic).		
H. R. G. &c. ...	fragilis, Billings.	(Anticosti) Charlton Point.	(Anticosti) Junction Cliff.	
Carad.	fucoides, M'Coy.	Gelli Grin, Llansaintffraid, Bala, Denbighsh. (Wales).		
H. R. G. &c. ...	gladiola, Billings.	Anticosti Light House	Anticosti, Divs. 1, 2, 3.	
CH.	glomerata, Hall.	(N. York) Chazy Village, (Vermont) Granville.		
B., BL.....	labyrinthica, ,,	(Can. W.) Camp d'Ours, L. Huron, (N. York) Clinton County.		
Carad., Llandov., W.L., H.R.G., Pleta, Cor. Lst.	lanceolata, Lonsd., Goldf.	Sardinia, Coniston (Westmorel.),N.York,Lyckholm (Esthonia), Anticosti Isle (West end).	(Wales) Pen-y-Craig &c., (Engl.) Tortworth, (Esthonia) Borkholm, Galway (Irel.).	(Norway) Christiania, Isle Oesel, (Wales)Llangynyw, (Engl.) Malverns, Shropshire, Clungunford, Aymestry.
	lobata, Meneghini.	(Sardinia) Fontana Mare.		
B., BL.	multipora, Billings.	Camp d'Ours, L. Huron.		
	nitida, ,,	Anticosti, Point Charleton.		
	pinnata, Römer.	.....	.....	Thuringia, Lower Silesia (drift).
	plumula, Salter.	Niti Pass, Himalaya Mountains (E. I.).		
?	potamogeton, Eichw.	(Isle Dago) Hohenholm.		
	prismatica, Meneghini.	(Sardinia) Fontana Mare.		
Carad.	proeva, Jermyn Cat.	Yspatty Evan (Wales).		
	pulchella, Verneuil, Hall.	(Russia) St. Petersburg.....	(Esthonia) Isle Dagden.	
Niag.	punctipora, Hall.	.....	.....	(N. York) Lockport, (Illinois) Chicago.
Tr., CL.	ramosa, ,,	N.W. Michigan, New York.		
CL., Niag.	raripora, Hall.	.....	(N.York) Rochester,(Can. W.) Flambro'.	(N. York) Rochester.
Tr.	recta, Meneghini, Hall.	Sardinia, Isle Dago, N.York, Missouri, (Can.W.) Moira River, (Can. E.) Montmorenci Falls, N. Wisconsin, Kildare (Ireland).		
Tr., CL.	var. nodosa, Hall.	(N.York) Herkimer County.	New York.	
Tr.	reticulatum, ,,?			
Div.4,A.G.,Mayh.	rustica, Billings.	.....	(Anticosti) The Jumpers	
Pleta	scalpelliformis, Eichw.	Réval, D'Erras (Esthonia).		
,, ...	scalpellum, D. de Leucht.	Poulkova (Russia).		
U.Llandov.,Pleta Woolhope., W.	scalpellum, Lonsd.	Norway?, (Russ.)Wotchana, St. Petersburg, &c., Lower Silesia (drift).	Malverns (England).....	Dudley, Martley, Linsway Bay (Pembroke).
	simplex, Meneghini.	Fontana Mare (Sardinia).		
Div.4,A.G.,Mayh.	sulcata, Billings.	.....	(Anticosti) The Jumpers.	
,,	superba, ,,	.....	Becsie River Bay &c. (Anticosti).	
,,	tenera, ,,	.....	Gamache Bay (Anticosti).	
,,	variabilis, Prout.	.....	.....	Columbus (Ohio, U.S.).
	sp. ind. Hitchcock.	.....	.....	North Vermont (U.S.).
	,, Hall.	N.W.Michigan (Lake Sup.).		
	Ptylopora, *M'Coy*, 1844.	(A variation of FENESTELLA, with a central rachis, *J. W.S.*)		
Inflam. Clay Sl.	disticha, Eichw.	D'Erras (Esthonia).		

Subdivision.	Genus, Species, and Author.	Lower Stage.	Middle Stage.	Upper Stage.
	Retepora, *Lamarck*, 181	6. (All Silurian RETEPOR	Æ belong to other gener	a, but it is convenient to retain this common name for those which cannot be properly referred, *J.W.S.*)
CL., Niag.	angulata, Hall.	.....	(N.York) Sodus, (Can.W.) Flambro' Head.	(Can. W.) Flambro'.
Niag.	asperato-striata, ,,	.....	.....	(N. York) Lockport Shale.
CL.	Clintoni, Vanuxem.	.....	New York.	
Niag.	diffusa, Hall.	.....	.....	(N. York) Lockport Shale.
	fenestrata, Safford.	Tennessee, New York.		
Tr.	? foliacea, Hall.	(N. York) Lewis County.		
CH.	gracilis, ,,	,, Clinton Co. (in Lst.).		
,, ...	incepta, ,,	,, Galway and Clinton Counties, Pennsylvania.		
W.	infundibulum, Lonsd.	.....	.....	(England) Dudley.
?	retiformis, Verneuil.	.....	.....	(France) Ile Ronde, Brest.
	reticulata, Hising.	.....	.....	Gothland.
	Rhabdinopora, *Eichwald*, 1859.			
Clay Sh. in Obolus Sandstone.	flabelliformis, Eichw.	Czarskoe-selo, Narwa (Russ.), Réval (Baltic).		
Pentam. Lst. ...	undulata, ,,	.....	Fennern (Livonia).	
	Rhinopora, *Hall*, 1852.			
CL., Niag.	tuberculosa, Hall.	.....	.....	(N. York) Lockport.
Niag.	tubulosa, Billings.	.....	(N. York) Wayne County.	Dundas (Can., central).
Niag., CL.	verrucosa, ,,	.....	(Can. W.) Dundas	(Can. W.) Flambro'.
	Sagonella, *Hall*, 1852.			
Niag.	membranacea, Hall.	.....	.....	(N. York) Rochester shale and Lockport.
	Synocladia, *King*, 1849.			
	hypnoides, Sharpe.	Bussaco (Portugal).		
	Lusitanica, ,,	,, ,,		
	Thamniscus, *King*, 184	9.		
Inflam. Clay Sl., H. R. G.	bifidus, Eichw.	D'Erras (Esthonia).		
	Trematopora, *Hall*, 185	2.		
Niag.	aspera, Hall.	.....	.....	New York (Lockport shale).
,, ...	coalescens, ,,	.....	.....	,, ,,
Orthoc Lst., Pleta	colliculata, Eichw.	Réval (Baltic).		
Niag.	granulifera, Hall.	.....	.....	N. York (Lockport shale).
,, ...	ostiolata, ,,	.....	.....	New York (Lockport shale), Rochester.
,, ...	punctata, ,,	.....	.....	New York (Lockport shale).
,, ...	solida, ,,	.....	.....	,, ,,
,, ...	sparsa, ,,	.....	.....	,, ,,
,, ...	spinulosa, ,,	.....	.....	,, ,,
,, ...	striata, ,,	.....	.....	,, ,,
CL., Niag.	superba, Billings.	.....	Cabot's Head (L. Huron).	
Niag.	tuberculosa, Hall.	.....	.....	New York (Lockport shale).
,, ...	tubulosa, ,,	.....	.....	,, ,, and Clinton Co. (Green shale).
L. H. G.	sp. ind. (2), Shumard.	.....	.....	Cape Girardeau (Missouri).
	Urceopora, *Eichwald*, 18	59.		
Corall. Lst.	arbuscula, Eichw.	.....	.....	Kamenetz (Podolia).
Pleta	furcata, ,,	Nyby (Esthonia).		
	Vincularia, *Defrance*, 1	829. (Most likely these are	CEREOPORA, *J.W.S.*)	
Pentam. Lst., Cor. Lst.	? megastoma, ,,	.....	,, ,, ...	Isle Oesel (Baltic).
Pentam. Lst. ...	? nodulosa, Eichw.	.....	Talkhof (Livonia).	

Summary (Geographical).

Genera.	Species. America.	Europe.	India.	Australia.	Common.	Genera.	Species. America.	Europe.	India.	Australia.	Common.
Alecto	1	...	...	...	...	*Brought forward*	112	123	...	18	17
Archæopora	...	5	...	...	...	Phyllograptus**	5	2	...	2	2‖
Arthroclema	1	...	...	...	...	Ptilograptus	2	...	...	...	...
Berenicea	...	2	...	...	...	Rastrites	...	4	...	...	...
Cellepora	...	1	...	...	...	Retiolites	5	4	...	...	1
Ceramopora	3	1	...	...	...	Tetragrapsus	1	2	...	...	...
Ceriopora	...	6	...	...	...						
Chasmatopora	...	1	...	...	...	Helopora	13	...	...	...	...
Cladopora	1	5	...	...	1	Heteropora	...	3	...	...	...
Clathropora	5	...	...	...	...	Hornera	1	...	...	...	...
Coccoseris	...	2	...	...	...	Inocaulis	1	...	...	...	...
Diamesopora	1	...	...	...	...	Intricaria	...	...	...	...	...
Diastopora	...	2	...	...	...	Lichenalia	1	...	...	...	...
Diplastrea	...	1	...	...	...	Mastopora	...	1	...	...	...
Diplophyllum	1	...	...	...	...	Micropora	...	3	...	...	...
Discopora	...	3	..	...	...	Phænopora	4	...	...	...	...
Disteichia	...	1	...	...	...	Phyllopora	...	3	...	...	...
Eschara	...	1	...	...	...	Polypora	3	3	...	...	...
Escharina	..	1	...	...	...	Porpora	1	...	...	...	...
Fenestella	12	17	...	...	3	Protovirgularia	...	1	...	...	...
Glauconome	...	1	...	...	...	Pteropora	...	2	...	...	...
						Ptilodictya	28	19	2	...	4¶
Graptolithus	22	32	...	3	2*	Ptylopora	...	1	...	...	...
Buthograptus	1	...	...	...	...	Retepora	7	3	...	...	...
Callograptus	2	...	...	...	...	Rhabdinopora	...	2	...	...	...
Cladograpsus	...	2	...	...	...	Rhinopora	2	...	...	...	...
Climacograptus	4	...	...	...	...	Sagonella	1	...	...	...	...
Coronoides	...	4	...	...	...	Synocladia	...	2	...	...	...
Dendrograptus	8	1	...	...	...	Thamniscus	...	1	...	...	...
Dichograptus	17	2	...	3	3†	Trematopora	14	1	...	...	...
Dictyonema	9	5	...	...	...	Urceopora	...	2	...	...	...
Didymograpsus	6	8	...	5	4‡	Vincularia	...	2	...	...	...
Diplograpsus	18	19	...	7	4§						
	112	123		18	17	Total	201	184	2	20	24

* Common to America, Europe, and Australia. † Common to America and Australia.
‡ 1 common to Europe, Australia, and America; 2 to Europe and America; 1 to America and Australia.
§ Common to Europe and Australia.
‖ Australia and America: one species common to Australia, America, and Europe. ¶ America and Europe.
** See Errata.

SUBKINGDOM MOLLUSCA. PROVINCE MOLLUSCOIDA. CLASS BRACHIOPODA.
ORDERS:—1. ARTICULATA; 2. INARTICULATA.

Subdivision.	Genus, Species, and Author.	Lower Stage.	Middle Stage.	Upper Stage.
	Acrotreta, *Kutorga*, 1847.			
P., Queb. G. ...	gemma, Billings.	Newfoundland W. (Div. P.), Portland Creek.		
Pleta	subconica, Kutorga.	Poulkova (Russia).		
P., Queb. G. ...	sp. ind. Logan.	Point Lévis (Canada E.).		
	Athyris, *M'Coy*, 1844.			
Delth. Sh. L. ...	bella, Hall. *Merista.*	.....	.....	New York State, (Can. E.) St. Helen's Island.
H. R. G.	borealis, Billings.	Lake St. John (Can. E.).		
	cassidea, Dalm.	.....	.....	Isle Oesel (Baltic), Moustel Pank Lode, &c.
Fauna F, W. ...	Circe, Barr. *Merista?*	.....	.....	(Bohem.) Konieprus, Mnienian, (Engl.) Walsall.
W.	compressa, Sowerby.	.....	.....	(Wales) Presteign &c., Deer Hope Burn, Pentland Hills (Scotl.), Tirnaskea, Tyrone (Irel.)
CL., Niag.	congesta, Bill. (MS. 1866).	.....	Canada	Canada, Anticosti Isle (CL).
Niag.	crassirostra, Hall.	.....	.....	(Can. W.) Thorold.
CL.	cylindrica, ,,	.....	.....	(Can. W.) Dundas.
Carad., W.	? depressa, Sowerby. *Rhynchonella.*	.....	.....	Malvern, Walsall (Engl.), Gothland.

Subdivision.	Genus, Species, and Author.	Lower Stage.	Middle Stage.	Upper Stage.
Pleta, Corall.Lst.	didyma, Dalm.	Isle Dago (Baltic).....	.....	(Isle Oesel) Ficht.
W.L.	didyma, Sowerby. *Rhynchonel'a.*	.....	.....	Malverns, Ludlow, Fownhope, &c. (Engl.).
Faunæ E, F.....	ephemera, Barr.	.....	Bohemia	(Bohemia) Beraun, St. Ivan.
?	Ferroneciensis, Verneuil.	.....	.....	(France) Lower Loire, Debray.
Fauna F	granulifera, Barr.	.....	.....	(Bohemia) Konieprus, Mnienian.
H. R. G.	Headi, Billings.	(Can. E.) St. Gregoire, Anticosti, Three Rivers, St. Lawrence, Lake St. John.		
,, ...	var. Anticostiensis, ,,	(Anticosti Isle) English Head.		
Fauna F	inelegans, Barrande.	.....	.....	(Bohemia) Mnienian.
	Julia, Billings.	.....	(Anticosti) The Jumpers.	
Div.2, 3, 4, A.Gr.	Junia, ,,	.....	,, Otter River, The Jumpers, &c.	
Fauna E. e. 1, 3	Juno, Barr.	.....	(Bohemia) Beraun	(Bohemia) Beraun, Kozel, Wohrara, &c.
L. H. G.	lævis, Billings.	.....	Cape Gaspé.	
Div. 2, A. Gr., Llandov.	Lara, ,,	.....	(Anticosti) Gull Cape.	
Fauna F	melonica, ,,	.....	.....	(Bohem.) Konieprus, Mnienian, Thuringia.
CL., Niag.	naviformis, Hall?	.....	(Can. W.) Dundas	(Can.W.)Flambro' Head &c.
Niag.	nitida, ,, *Merista?*	.....	.....	,, Thorold, Bohemia.
	nucella, Römer.	.....	.....	Lower Harz (Giebel).
Fauna E	obolina, Barr.	.....	Bohemia.....	Bohemia?
W., L.L.	obovata, Sowerby.	.....	.....	Ledbury, Malvern (Engl.), (Bohem.) Prague, I. Oesel.
Faunæ F. f. 1, G	passer, Barr.	.....	.....	(Bohemia) Mnienian &c.
Fauna E	Philomela, ,,	.....	Bohemia.	
Div. 1, A. Gr., Llandov.	Prinstana, Billings.	.....	Prinster Bay (Anticosti Isle).	
	prisca, Giebel.	.....	.....	Lower Harz (Germany).
Fauna F	securis, Barr.	.....	.....	(Bohemia) Mnienian.
Div. 4, A. Gr., Mayhill.	solitaria, Billings.	.....	Anticosti, S.W. Point.	
Corall. L.,W., L.	tumida, Dalm. *Meristella.*	.....	.....	(Engl.) Dudley, Tortworth, Malvern, Woolhope, Ludlow, &c., (Gothland) Djupviken, (I. Oesel) Lodé &c., (Irel.) Ferriter's Cove.
Div. 3, A. Gr., Mayhill.	tumidula, Billings.	.....	(Anticosti) Jupiter R. &c.	
	turgida, Shaler.	.....	,, Ellis Bay.	
Div. 1, A. Gr., Llandov.	umbonata, Billings.	.....	,, Junction Cliff.	
	undata, Defrance.	.....	.....	Brest (France) (*Frapolli*).
Pleta, Corall. L.	ungula, Eichw.	Isle Oesel (Baltic).	.....	(Isle Oesel) Hoheneichen.
Fauna F.	vultura, Barr.	.....	.....	(Bohemia) Mnienian.
U.Llandov.	sp. ind. ?	.....	Nash Scar, Presteign.	
	Atrypa, *Dalman*, 1827;	SPIRIGERINA, *D'Orbigny*. (T	his genus and RETZIA often	interchange species, *J.W.S.*)
CH.	acutirostra, Hall.	(N. York) Clinton, Saratoga Co., N.W. Michigan (L. Superior).		
CL.	æquiradiata, ,,	.....	(N.York) Oneida County.	
CH.	altilis, ,,	N.W. Michigan, (N. York) Clinton County.		
	Angelina? Lindström.	.....	.....	Wisby (Gothland).
?	Arimaspus, Eichw.	.....	.....	Bohemia, Bogoslofsk, Oural.
	aspera, Schloth. *reticularis.*	.....	.....	(Irel.) Ferriter's Cove, Doonquin, &c., (Engl.) Westmorel., N. York, Sweden, (Gothl.) Korpeklint &c.
W.	Barrandei, Davidson.	.....	.....	Hayhead, Walsall, Dudley (England).
CL.	bidens, ,,	.....	(N. York) Lockport.	
Niag.	bidentata, Hall.	.....	.....	(N. York) Lockport, Gothland, Dudley.
Niag.	bisulcata, Vanuxem.	.....	.....	New York.
Tr.	,, Hall.	(N. York) Jefferson County.		
Niag.	brevirostris?, ,,	.....	.....	,, (Lockport shale).
,, ...	camura, ,,	.....	.....	,, (Lockport).
?	cassidea, Dalm.	(Ostrogothia) Borenshült.		
Tr.	circulus, Hall.	(N. York) Middleville.		

Subdivision.	Genus, Species, and Author.	Lower Stage.	Middle Stage.	Upper Stage.
Car., W., fau. F.	compressa, Sowerby.	Coniston Flags (Lancashire).	.....	(Engl.) Dudley, Wales, (Irel.) Tirnaskea, Bohemia.
L. H. G.	concentrica, Hall.	.....	.....	New York.
CL., Div. 3, A. Gr.	congesta, Conrad.	.....	(N. York) Rochester, Medina, (Can. W.) Flambro', Anticosti, S.W. Point.	
Niag.	corallifera, Hall.	.....	.....	(N. Y.) Lockport, Rochester.
	cordata, Lindström.	.....	.....	Mid-Gothland, Isle Oesel (Baltic).
Llandov.	crassa, Hall.	.....	Cefn Rhyddw, Haverfordwest (Wales), Lockport, Rochester (N. York).	
Niag.	crassirostra, Conrad.	.....	.....	(N. York) Lockport.
CL.	cylindrica, „	.....	(N. York) Niagara Co.	
Tr.	dentata, „	(New York) Lewis County.		
„	deflecta, „	„ „		
Llandov., W., L.	didyma, Dalman.	.....	Glasnevin (Irel.), Llandovery (Wales).	(Engl.) Dudley, Malvern, Ledbury, (Wales) Llansannan, (Gothland) Frojel, New York.
Niag.	disparilis, Hall. *Leptocelia.*	.....	.....	(N. York) Wolcott County.
CH.	dubia, „	(N. New York) Chazy Village.		
CL.	emacerata, Dawson, „ *Leptocelia?*	.....	(N. York) Oneida County, (Nova Scotia) Arisaig.	
Tr.	exigua, „	(New York) Lewis County.		
?	fibrosa, Billings.	Canada.		
H. R. G.	filitexta, Hall.	Missouri (U.S.A.).		
Up. Div. E., CL.	flabella, Shaler. *hemisphærica.*	.....	New York, (Anticosti I.) S.W. Point &c.	
	galeata, Römer.	.....	.....	Tennessee W., (N. York) Fort Plain.
W., L.	„ Sowerby.	.....	.....	Wenlock Edge, Aymestry, Shropshire.
Tr.	glabella, Hall?	New York.		
Car., Llandov., W.	Grayi, Davidson.	..... ?	..... ?	Wisby (Gothl.), (Engl.) Walsall, Dudley.
H. R. G.	Headii, Billings.	Lake St. John (Can. E.)		
Carad.	var. anglica, Davidson.	Grangegeeth, Meath (Ireland).		
Tr.	hemiplicata, Hall.	L. St. John (Can. E.), Tennessee, Upper Mississippi.	.....	South Wales.
Carad., Divs. 3, 4, A. Gr., CL., Niag., L.U. Llandov.	hemisphærica, Sowerby.	(Wales) Pwllheli &c., (Engl.) Malvern &c., (S.W. Scotl.) Girvan &c.	(Anticosti) The Jumpers, (W.) Llangadoc, Builth, &c., (Irel.) Galway Co., Canada W., (N. York) Wolcott &c., (England) Mayhill &c.	
Carad....	var. Scotica, M'Coy.	(S.W. Scotland) Girvan.		
Fauna E, L. & U. Stages.	imbricata, Sowerby.	Chair of Kildare (Irel.). ...	Bohemia	(Norw.) Christiania, Mid-Gothland, Baltic, Russia.
	var. lamellosa, Lovèn.	.....	.....	(Gothland) Wisby &c.
Delth. Sh. Lst...	inflata, Vanuxem.	.....	.....	(N. York) Herkimer County.
CL.	intermedia, Dawson.	.....	(N. Scotl.) Arisaig, Iowa, Ohio, (N. York) Lockport, Pennsylvania, S. Wisconsin.	
Niag.	interplicata, Hall.	.....	.....	(N. York) Lockport.
L. H. G.	lacunosa, Conrad.	.....	.....	„ Cherry Valley.
Llandov., U.L...	„ Sowerby.	.....	Boocaun, Cong (Galway)	(Ireland) Ferriter's Cove, (England) Ludlow &c.
Delth. Sh. Lst....	lævis, Mather.	.....	.....	New York, Ferriter's Cove, (Ireland).
Cor. Lst., Schoh.	limæformis, Hall.	.....	.....	(New York) Schoharie.
Car., L. Llandov., Cor. Lst., Oneida Conglom.	marginalis, Dalman.	(Wales) Diffwys, Corwen &c., (Irel.) Chair of Kildare &c., (Yorkshire) Dent &c., Silesia, Russia, Esthonia.	(Anticosti) Junction Cliff, Ural, Ireland, Scotland, (Wales) Llanfyllin &c., (England) Chirbury.	Tennessee, New York, (Engl.) Mayhill, Dudley, Wales, (Gothl.) Klinteberg &c., Bohemia, (Esthonia) Nyby, Isle Dago, &c., Ural.
?	marginiplicata, Giebel.	.....	.....	Lower Harz (Germany).
Niag., CL.	medialis, Hall.	.....	New York.	(N. York) Cherry Valley.
Tr., U.Sl., H. R. G.	modesta, „	New York, Ohio, Indiana, Kentucky, Up. Mississippi River, Tennessee.		
CL.	naviformis, Hall.	.....	(N. New York) Sodus.	
Niag.	neglecta, „	.....	(N. York) Reynale's Basin.	(N. York) Lockport, Wolcott, &c.

Subdivision.	Genus, Species, and Author.	Lower Stage.	Middle Stage.	Upper Stage.
Niag.	nitida, Hall.			(N. York) Lockport, Wolcott, &c.
„	var. oblata, „			(N. York) Monroe County.
„	nodostriata, „			(N. York) Lockport, Chicago (Illinois).
	nucella, Dalman.			(Ostrogothia) Husbyfjol.
Cor. Lst., Schoh. Tr.	nucleolata, Hall.			(N. York) Schoharie County.
	nucleus, „	(N. York) Jefferson County.		
Corall. Lst.	obovata, Sowerby.			(Isle Oesel) Lodé, Malvern.
Niag.	obtusiplicata, Hall.			S. Winsconsin, (N. York) Lockport.
?	palmata, Morris.	Falkland Isles (S. America).		
L. H. G.	peculiaris, Hall?			Pennsylvania.
	phoca, Salter. *Rhynchonella.*			Arctic Seas (Amer.), Garnier Bay.
H. R. G., CL., Niag.	plano-convexa, Billings.	West Bay, Manitouline I. (Lake Huron).	(Can. W.) Thorold	(Can. W.) Flambro'.
CS., CH.	plena, Hall.	N.W. Michigan, (Can. E.) L. St. Louis.		
M.Sa.	plicata, „		(N. York) Lockport.	
Niag.	plicatella? „ *Terebratula.*			(N. York) Wolcott County.
CL., M.Sa.	plicatula, „		(L.Huron) Manitouline I., (N. Y.) Reynale's Basin.	
	prisca, Conrad.			(N. York, central) Herkimer County.
Tr.	Protea, Hall.	New York.		
	prunum, Hising.		Norway	(Gothl.) Frojel, Ostergarn.
CL.	quadricostata, Hall.		(New York) Lockport.	
Pleta, L. H. G., fau. D, E, F, G. g. 1, Llandov., W., L.	reticularis, Linn. *impressa*, Shaler.	Bohemia, Russia.	Canada, (Nova Scotia) Arisaig, (Anticosti) S.W. Point, Ireland.	S. & N. Gothland, I. Oesel, Sandel, &c. (Baltic), Norway, Russia, (Boh.) Tetin, Harz, (Wales) Usk &c., (Scotl.) Ayrshire, Pentland Hills, (England) Dudley, Walsall, &c., (Irel.) Ferriter's Cove &c., Ural, (Can. E.) Gaspé, N. New Brunswick, (Can. W.) Thorold, Pennsylvania, New York, Nova Scotia, Canada, Tennessee, Indiana, S. Wisconsin, N.W. Michigan (L. Superior), American Arctic Seas, Australia.
	var. aspera.		Britain.	
Llandov., W.	„ orbicularis.		„	Britain.
CL.	robusta, Hall.		(New York) Lockport.	
W.	rotunda, Sowerby.			(England) Wenlock Edge, (Wales) Llanfyllin.
U.Pentam.Lst.	rotundata, Giebel, Münster.		Ardaun, Galway	Lower Harz (Germany).
Niag.	rugosa, Hall.			(N. York) Lockport shale.
L.Llandov.	? Scotica, M'Coy.		Mulloch, Girvan (S.W. Scotland).	
Fauna F	semiorbis, Barr.			(Bohemia) Mnienian.
L.Pentam. Lst.	semiplicata, Vanuxem.			(N. York) HerkimerCounty.
	socialis, Giebel.			Lower Harz (Thuringia).
?	subtrigonalis, Hall.	(N. York) Lewis County.		
	sulcata, Lindström.			South Gothland.
	sulcata, Conrad.			(N. York) Cherry Valley.
	tenuistriata, Sowerby.			N. Gothland, Malvern, Fownhope, &c.
Faunæ E, F.	Thetis, Barr.		Bohemia	Bohemia.
	tumidula, Hising.			(Gothland) Mt. Klinteberg.
	sp. ind. Hall.	New York	(New York) Lockport	(New York) Lockport.
Tr.	„ „	(N. York) Middleville.		
Niag.	„ „			„ „
Cor.L., Schoharie	„ „			(N.York) Schoharie County.
	„ Stuchbury.	Berrigal (New South Wales).		
Delth. Sh. Lst.	„ Swallow.			Missouri (U. S. America).
?	„ (2), Selwyn.		Victoria (Australia).	
W.	„ Salter.			(Wales) Mercklin.
	Aulonotreta, *Kutorga*, 1859; UNGULA, *Pander*; OBOLUS, *Eichwald.*			
P., Obolus Sandstone.	polita, Kutorga. *Apollinis.*	Yambourg, Podolova, Lake Ladoga (Russia).		
Pleta	sculpta, „ *antiquissima.*	Poulkova (Russia), Réval (Esthonia),		

Subdivision.	Genus, Species, and Author.	Lower Stage.	Middle Stage.	Upper Stage.
	Camarium, *Hall*, 1859.	(Species separated, in 1858, from MERISTA, Hall, *J. W.S.*)		
L. H. G.	elongatum, Hall.			Cumberland Co.(Maryland).
„	typum, „			„ „
	Camerella, *Billings*, 1865.	5. (Variously referred to ATRYPA and RHYNCHONELLA, *J.W.S.*)		
P., Potsd.	antiquata, Billings.	(N.W. Vermont) Swanton.		
P., Queb. G.	breviplicata, „	Stanbridge (Can. E.).		
Div. P, CS., Queb. G.	calcifera, „	(Newfoundl. W.) Cowhead, Point Lévis, Beauharnois, Phillipsburg (Can. E.).		
Div. P, Queb. G.	costata, „	Stanbridge (Can. E.), Newfoundland.		
H. R. G.	extans, ?	St. Antoine (Can. E.).		
Tr.	hemiplicata, „	(Can. E.) Montreal, N.York Newfoundland ?.		
Div. 1, Llandov.	lenticularis, „		(Anticosti) Reef Point.	
CH.	longirostra, „	Newfoundl. ?, Mingan Isles.		
Tr.	nucleus, „ *Atrypa.*	Canada, (N. York) Jefferson County.		
Div.4, A.G., Mayhill.	Ops, „		(Anticosti I.) The Jumpers, South-west Point.	
B., BL.	Panderi, „	(Can. E.) Montreal, Murray Bay.		
P., Div. N, Queb. G.	parva, „	(Newfoundl. W.) Tablehead, Portland Creek.		
P., Queb. G.	polita, „	Isle of Orleans, Stanbridge (Can. E.).		
Carad.	productoides, M'Coy.	(Irel.) Tramore, Waterford.		
?	reversa, Billings. *Brachymerus*, Shaler.		Anticosti Isle.	
Div. N, P, CH.	varians, Billings.	(Newfoundland W.) Tablehead, New York, Mingan Isles (Gulf St. Lawr.).		
B., BL.	Volborthi, „	(Canada E.) Montreal.		
P., Potsd.	sp. ind. B. F. Shumard.	Burnet County (Texas).		
	Chonetes, *Fischer*, 1837.			
Fauna F. f. 2	Bohemicus, Barr.			(Bohemia) Konieprus.
?	Boulangeri, Rouault.	(France) Gahard.		
	cingulata, Lindström.			Middle Gothland.
L. H. G.	complanata, Hall.			New York.
CL.	cornuta, „ *Strophomena.*		(N.York) Sodus, Wayne Co.	
Tr., H. R. G. ?	elegantula,	(Can.W.) Toronto, (N.York) Jacksonsburg.		
Fauna F.	embryo, Barr.			(Bohemia) Mnienian.
Fauna G. g. 1	Hostinensis, „			(Bohemia) Hostin, Luzetz, Chotecz.
Llandov., W., U.L.	lata, Von Buch.		Norway	Norway, Thuringia, S.W. Scotland, (Irel.) Ferriter's Cove, (Wales) Llangadoc, (Engl.) Benson Knot, Ludlow, &c.
	lepisma, Dalman.			Sweden.
W., L.L.	levigata, Sowerby.		(Wales) Welchpool, Devil's Bridge.	Wales, (Engl.) Clungunford, Ludlow, Malvern.
Faunæ E, F, W.	minima Sowerby.		Bohemia ?, Beraun	(Bohemia) Prague, (Wales) Llantsilio, (Engl.) Dudley.
Pleta &c.	nana ?, Verneuil. *striatella*, Dalm.	(Russia) Popova &c.		
L. H. G.	Nova-Scotica, Hall.			Arisaig (Nova Scotia).
Fauna G. g. 2, 3	novella, Barr.			(Bohem.) Trzebotow, Hlubocep, Kozorz, Vavrovitz, Pekarkovitz.
?	semicircularis, Römer.			Lower Harz (Germany).
?	squamatula, Barr.			Russia, Bohemia.
Pleta, Llandov., L.	striatella, Dalm.	(Russia) Popova, Poulkova, (Spain) Almaden.	(Norw.) Christiania, Talkhoff (Livonia).	(Scotland) Pentland Hills, Gothland, (Podolia) Orynine, (Russia) Ural.
	var. cingulata, Lindström.			Middle Gothland.
Faunæ E, F, G. g. 1, 2, 3.	tarda, Barr.			(Bohemia) Hlubocep, Kozorz, Vavrovitz, Chotecz.
CL., L. H. G.	tenuistriata, Hall.		Nictaux (Nova Scotia).	Nictaux, East River (Nova Scotia).
Fauna F	Verneuilli, Barr.			(Bohemia) Mnienian.
?	sp. ind. Morris & Sharpe.	Falkland Isles (S. America).		
?	„ Selwyn.		Victoria (Australia).	
?	„ Giebel.			Lower Harz (Germany).

Subdivision.	Genus, Species, and Author.	Lower Stage.	Middle Stage.	Upper Stage.
	Crania, *Retzius*, 1781; ORBICULA, PSEUDOCRANIA, *M'Coy*, 1851; PALÆOCRANIA.			
	Acadiensis, n. s. Hall.			Arisaig (Nova Scotia).
	antiquissima, Verneuil.	Poulkova &c. (Russia), (Esthonia) Wesenberg &c.		
Carad.	catenulata, Salter.	Ireland.		
W.	craniolaris? M'Coy. *Spondylobolus.*			(Wales) Builth Bridge.
Pleta	depressa, Eichw.	Réval, Odinsholm I. (Balt.).		
Llan., Carad.	divaricata, M'Coy.	(Wales) Bala, Corwen, &c., (Irel.) Chair of Kildare.		
W.	? Grayii, Davidson.			(Engl.) Dudley, Walsall.
Carad., U.Llandov., W., L., U.L.	implicata, Sowerby.		(Wales) Mandinam	Russia?, (Wales) Presteign, (Engl.) Walsall, Ledbury, (Scotl.) Deer Hope, Pentland.
?	papillata, Römer.	Silesia (drift).		
Pleta	planissima, Eichw.	Esthonia, D'Erras, Réval, Silesia (drift), Russia.		
W.	? Sedgwickii, Davidson (not a brachiopod, *T. Davidson*).			(Engl.) Walsall, (Gothland) Wisby.
	Cryptonema, *Hall.*			
„	Siluriana, „			Falfield (England?).
	Cyrtæna (see SPIRIFERA).			
(Subg. SPIRIFER).	**Cyrtia**, *Dalman*, 1827.			
Delth. Sh. Lst.	Dalmani, Hall.			(N. New Brunswick) Restigouche, (New York, east) Helderberg Mountains.
	exporrecta, Dalm.			Wales (Llandeilo), Malvern, Adderley, Gothland.
Div. 4, A. Gr., Mayhill.	myrtea, Billings.		(Anticosti) S.W. Point.	
W., L., fauna E.	trapezoidalis, Dalm.		England, Norway.	England, Djupviken (Gothland), Bohemia.
	Discina, *Lamarck*, 1817 = ORBICULA, *Cuvier*; ORBICULOIDEA, *D'Orbigny*, 1847.			
W.	Beckettiana, Davidson.			Dudley, Malvern.
	Bischofi, Römer.			Lower Harz (Germany).
Faunæ F, G. g. 1	Bohemica, Barr.			(Bohem.) Konieprus, Hostin.
P., Obolus Sandstone.	Buchii, Verneuil.	Podolova, River Ischora, St. Petersburg (Russia), Esthonia.		
Tr., H. R. G.	cælata, Hall.	(Can. E.) Montreal, (N. York) Troy, (Ohio) Cincinnati.		
Tr.	Circe, Billings.	(Can. W.) Belleville, (Can. E.) Lake St. John.		
Delth. Sh. Lst.	Conradi, Hall.			(Eastern N. York) Becraft's Mountain.
Carad., H. R. G.	crassa, „	(N. York) Troy, (Wales) Builth, Pinnhapple, Glen Ayr (S.W. Scotland).		
CH.	deformata, „	New York.		
Faunæ E, F, G. g. 1.	depressa, Barr.			(Bohem.) Lochkov, Hostin, Koledník, Listice, &c.
Delth. Sh. Lst.	discus, Hall.			(Eastern N. York) Becraft's Mountain.
Pleta	elliptica, Kutorga.	(Russia) Popova, Poulkova.		
Carad.	elongata, Portlock.	Irel., Shropsh. (Horderley).		
Ut. Slate	filosa, Billings.	Lake St. John (Canada E.).		
W.	Forbesii, Davidson. *Orbiculoidea.*		Shropshire?	(Engl.) Walsall, Malvern, Dudley, Dormingt. Wood, Mid-Gothland, Thuringia,
Carad.	granulata, ?	Horderley (Shropshire).		
P., Potsd. Sa.	inutilis, Hall.	North Wisconsin.		
P., Low. Ling. Fl.	labiosa, Salter.	(South Wales) St. David's.		
Ut. Slate, Tr.	lamellosa, Hall.	(Can. E.) Lake St. John &c., (N. York) Middleville.		
Carad.	lingulæformis, ?	Chair of Kildare (Ireland).		
P., Potsd. Sa.	microscopica, B. F. Shum.	(Texas) Burnet County.		
W., L.	Morrisii, Davidson.			Wales, (Engl.) Dudley, Leintwardine, &c.
Carad.	oblongata, Portlock.	(Ireland) Pomeroy, Tyrone, (Wales) Horderley.		
„	var. lævigata, „	Desertcreate, Tyrone.		
„	„ subrotunda, „	„ Llanfyllin (Montgomeryshire).		
Fauna D	obsoleta, Barr.	(Bohemia) Beraun.		
Delth. Sh. Lst.	ovata, Hall.			New York.
Tr.	Pelopæa, Billings.	(Canada E.) Montreal.		
Carad., Llandov.	perrugata, M'Coy.	(Irel.) Tyrone, Desertcreate, Kildare, &c., (S.W. Scotl.) Girvan.	Cong (Galway).	
P., Low. Ling. Fl.	pileolus, Salter.	(South Wales) St. David's.		

Subdivision.	Genus, Species, and Author.	Lower Stage.	Middle Stage.	Upper Stage.
	pilidium, Lindström.	.....	.....	(South Gothland) Hoburg.
P., Potsd. Sa. ...	prima, D. D. Owen.	(Minnesota) Fallsof St. Croix.		
P.	primæva, Verneuil.	(Spain, *Leon*) Sabero.		
Carad.	punctata, Sowerby.	Chatwell, Shropshire.		
Pleta.....	reversa, ,,	Ireland, (Russia) St. Petersburg, Esthonia, L. Harz.	.....	(Bohemia) Konieprus.
Llandov., U.L....	rugata, ,,	.....	Mayhill (England).	Deer Hope Burn, Pentland Hills (Scotland), (Kendal) Benson Knot, Shropshire, Usk (Montgomeryshire), Ireland, Lower Harz.
L.	,, Hall.	.....	.....	Arisaig (Nova Scotia).
Carad.	Siluriana, Davidson.	Horderley, Marshbrook (Shropshire).		
	sinuata, D. de Leuchtenb.	(Russia) Popova, Poulkova.		
Fauna G. g. 1 ...	sola, Barr.	.....	.....	(Bohemia) Tetin, Chotecz.
,, D &c. ...	squamosa, ,,	(Bohemia) Beraun.		
W., U.L.	striata, Sowerby, Ketley.	.....	.....	(Engl.) Dudley, Hagley Park, Delbury, Westmoreland, Benson Knot.
Carad.	subrotunda, Portlock.	Tyrone &c. (Irel.), Montgomeryshire, Llanfyllin.		
H. R. G.	subtruncata, Hall.	(New York) Loraine &c.		
Fauna G.g. 1, 2, 3	tarda, Barr.	.....	.....	(Bohem.) Trzebotov, Hlubocep, Kozorz, Chotecz, Vavrovitz.
Niag., L. H. G...	tenuilamellata, Hall.	.....	.....	(N. York) Lockport, (Nova Scotia) Arisaig.
	var. subplana, ,,	.....	.....	(Nova Scotia) Arisaig.
	truncata, Barr.	.....	(Bohemia) Beraun ?	
	ungula, Barr.	.....	.....	Bohemia.
Orthoc. Lst.....	ungula, Eichw.	Réval (Baltic).		
Waterlime Gr....	Vanuxemi, Hall.	.....	.....	(Central N. York) Manlius Square.
W.	Verneuilli, Davidson.	.....	.....	(England) Ledbury.
	sp. ind. Schmidt.	Esthonia.		
	,, Shumard.	Texas.		
L. Llandov.	,, Salter.	.....	(Wales) Quakers' Burying Ground, Welchpool,	
P.	,, Stuchbury.	Berrigal, New South Wales.		
	,, Barr.	Hof (Bavaria).		
	,, Hall.	North Wisconsin.		
?	,, Selwyn.	.....	Victoria (Australia).	
L. Llandov.	,, Salter.	Shropsh. W. of Stiper Stones.		
	Eatonia, *Hall*, 1857.			
L. H. G., Delth. Sh. Lst.	eminens, Hall.	.....	.....	Tennessee (U.S.A.).
,, ,,	medialis, ,,	.....	.....	(N. York, eastern) Helderberg Mountains.
,, ,,	peculiaris, Conrad.	.....	.....	(Can. E.) Cape Gaspé, (N. York) Hudson, Maryland, &c.
,, ,,	singularis, Hall.	.....	.....	(N. York, eastern) Helderberg Mountains, Wayne County, Tennessee W.
	Eichwaldia, *Billings*, 1858.			
H. R. G.	Anticostiensis, Billings.	West-end Lighthouse, Anticosti Isle (Gulf St. Lawr.).		
B., BL., Tr. ...	subtrigonalis, ,,	(Can. E.) Montreal, River Ottawa.		
	Leptæna, *Dalman*, 1827.	(Much confused with STROPHOMENA by authors, *J. W.S.*)		
	acutistriata, Giebel.	.....	.....	Lower Harz (Germany).
Tr., Ut. Slate, H. R. G., CL.	alternata, Conrad.	Ohio, Canada W., (N.York) OswegoCo., Pennsylvania, Missouri, N.W. Michigan. N. Wisconsin, (Rupert's Land) Red River, (Russ.) Petschora, Gatchina, (Esthonia) Paggart, (S.W. Scotl.) Girvan, Balmae, &c., Shropshire.	Talkhof (Livonia), Pennsylvania ?	
Fauna D	aquila, Barr.	Wales, (Bohemia) Beraun.		
,, F	armata, ,,	.....	.....	Bohemia (Konieprus).
	Beirensis, Sharpe.	(Portugal) Bussaco.		
Cor. Lst., Schoh.	bipartita, Hall.	.....	.....	(New York) Schoharie.
	Bischofi, Römer.	.....	.....	Lower Harz (Thuringia).

Subdivision.	Genus, Species, and Author.	Lower Stage.	Middle Stage.	Upper Stage.
Faunæ E, F.....	var. Bohemica, Barr.	.....	.....	(Bohemia) St. Ivan, Konieprus, Mnienian.
	borealis, ,,	.....	.....	Thuringia.
,, F	Boueii, ,,	.....	.....	Bohemia, (France) Derbray.
Llan., Carad. ...	calcarata, M'Coy.	Slieve Roe, Wicklow, Enniscorthy, Wexford.		
Tr.	camerata, Hall.	(New York) Trenton Falls.		
	clausa, Verneuil.	.....	.....	(France) Ebray. (Devonian in Spain.)
Faunæ E, F, G. g. 1, 2, 3, H.	comitans, Barr.	.....	.....	(Bohem.) Trzebotov, Hlubocep, Vavrovitz, Hostin, &c.
Delth. Sh. Lst....	concava, Hall.	.....	.....	(N. York, east) Albany Co.
Faunæ F, G.....	consobrina, Barr.	.....	.....	(Boh.) Konieprus, Mnienian.
Pleta	convexa, Pander.	Poulkova (Russ.), Sardinia.		
Fauna F	convoluta, Hall.	.....	.....	(Bohemia) Mnienian.
CL.	cornuta, Hall.	.....	New York.	
,, ...	corrugata, Goldfuss.	.....	(N. York) Rochester, Sodus, Wolcott.	
U.Bala	,, Portlock.	Golden Grove, Llandeilo (Wales).		
Fauna E	costulata, Barr.	.....	Bohemia.	
	cratera, Salter.	Niti Pass, Himalaya (E. I.).		
CL.	crenistria, Hall?	.....	New York.	
Fauna E. e. 1	cuspidata, Barr.	.....	(Bohemia) Beraun.	
Div. P.....	decipiens, Billings.	Point Lévis (Can. E.), (Newfoundl.W.) Portland Creek.		
	detrita, Salter.	Niti Pass, Himalaya (E. I.).		
L.Pent. Lst.....	elongata, Vanuxem.	.....	.....	New York.
	enigma, Verneuil.	.....	.....	(Sweden) Osmundberg, Dalecarlia.
CH.	fasciata, Hall.	(N.York) Clinton & Saratoga Counties, N.W. Michigan.		
	Fischeri, Davidson.	.....	.....	(Sweden) Grotlingbo.
Carad., Llandov., W.	Fletcheri, ,,	..... ?	..... ?	Sweden, Norway, (England) Dudley.
Fauna D. d. 5...	folium, Barr.	Königshof, Mt. Kosow.		
,, F	fugax, ,,	.....	.....	(Boh.) Mnienian, Konieprus.
Pleta	gemella, Eichw.	Popova, Poulkova (Russia).		
U.Llandov., W., L.L.	Grayi, Davidson.	.....	Llangadoc (Wales).	Dudley, Ludlow (England).
Fauna E	Haueri, Barr.	.....	Bohemia.	
CH.	Humboldti, Verneuil.	Esthonia, (Russ.) St. Petersburg, Mingan Isles (Gulf St. Lawrence).		
	ignava, Sharpe.	Portugal, Bussaco.		
	imbrex, Davidson.	River Volkof (Russ.), Réval (Baltic).	.....	Gothland, England.
L.Pent. Lst.....	impressa, Hall.	.....	.....	New York (U.S.A.).
Fauna F	inconstans, Barr.	.....	.....	(Bohemia) Mnienian.
CH.	incrassata, ,,	(N. York) Clinton Co., Tennessee, Pennsylvania.		
U.Llandov., W.	lævigata, Sowerby. *Chonetes.*	.....	Devil's Bridge (N.Wales), Buildwas, &c.	(Wales) Gwyddelwern, (England) Ledbury, Ludlow.
B., BL.	lævis, Emmons.	.....	.....	N. York (northern).
W.	lævissima, M'Coy.	.....	.....	Doonquin, Ferriter's Cove (Kerry County).
CH.	laticosta, Hall.	New York.		
	Loveni, Verneuil.	.....	.....	(Sweden) Gothland.
	margaritacea, Angel.	.....	.....	Mid Gothland.
	membranacea, Hall?	.....	.....	New York.
L. H. G.	mesacosta, Shumard.	.....	.....	Cape Girardeau (Missouri, U.S.A.).
W.	minima, Sowerby.	.....	.....	(Wales) Gwyddelwern, Riv. Dee, &c.
Fauna E	miranda, Barr.	.....	(Bohemia) St. Ivan.	
L. H. G.	Missouriensis, Shumard.	.....	.....	Cape Girardeau (Missouri).
	Murchisoni, Verneuil.	.....	.....	Nantes (France). (Devonian in Spain.)
Pleta	Nafedyevi, Eichw.	Poulkova, Tosna, &c., (Russ).		
,, ...	nasuta, Emmons. *alternata.*	N. York, Poulkova (Russ.).		
Fauna F.....	nebulosa, Barr.	.....	.....	(Bohem.) St. Ivan, Beraun, Lower Harz (Thuringia).
,, ...	neutra, ,,	.....	.....	(Bohemia) Mnienian.
,, D. d. 5...	nuntia, ,,	Königshof, Mt. Kosow.		
	nux, Salter.	Niti Pass, Himalaya (E. I.).		
Carad., Pleta ...	oblonga, Pander.	Poulkova, L.Ladoga (Russ.), Esthonia, Wales?		

Subdivision.	Genus, Species, and Author.	Lower Stage.	Middle Stage.	Upper Stage.
CL.	obscura, Hall.	.....	(N.York)OneidaCy,Utica.	
	Orbignyi, Davidson.	.....	.....	Wales, (England) Dudley.
Pleta	ornata, Eichw.	Poulkova &c. (Russ.), Lower Silesia (drift).		
,,	orthididæa, Hall.	.....	(N. York) Oneida County.	
L.L.	Ouralensis, M. v. Keys.	.....	.....	(Russia) Oural, River Serebrianka, &c., Bohemia, Presteign (Wales).
CL.	patenta, Hall, Rogers.	.....	Pennsylvania, (N. York) Medina Village.	
Fauna E. e. 1	patricia. Barr.	.....	(Bohemia) Beraun, &c.	
,, F	Phillipsii, ,,	.....	.....	(Bohem.)Mnienian,(France) Derbray.
Carad.	plicata, M'Coy. *Leptagonia.*	(Ireland) Kildare &c.		
CH.	plicifera, Hall.	(New York) Chazy Village.		
Carad.	Polleti, Rouault.	(France) Vitré.		
	productoidea, Meneghini.	Sardinia.		
CL.	profunda, Hall.	.....	(N.York)Lockport, (Can.) Anticosti Isle.	
Fauna D	pseudoloricata, Barr.	(Bohem.) Beraun, Praskoles.		
Pleta	pyron. Eichw.	Réval &c. (Baltic).		
?	quadrilateralis. Shaler. *Strophomena rhomboidalis.*	.....	(Anticosti) Ellis Bay.	
Llan., Carad., U. Llandov.?, W.	quinquecostata, M'Coy.	(Esthon.) Paschlep, Ireland, (S.W. Scotland) Ayrshire, (Yorksh.) Dent, (Wales) Cefn Rhyddan, Garn, &c.	Llandovery	Llangynyw (Montgomeryshire).
	recta. Hall.	Mineral Point (Wisconsin).		
L.Pentam. Lst...	rectilateralis, Vanuxem.	.....	.....	New York.
	repanda, Salter.	Niti Pass, Himalaya (E. I.).		
	robusta, Römer.	.....	.....	Thuringia.
	rugosa, ,,	.....	.....	Tennessee W.
	,, Dalman.	Russia	.....	(Gothl.) Klinteberg, (Dalecarlia) Osmondberg &c.
Carad., U.L.	sarcinulata, Schloth.	.....	.....	Hagley Park (Engl.), Lammermuir (S. Scotland).
Carad., U.Llandov.	scissa, Salter (MS.).	Desertcreate, Tyrone, Merionethshire, Bala Lake, &c. (Wales).	(Wales) Haverfordwest, Builth,&c., (Engl.) Norbury.	
	segmentum, Angel.	.....	.....	Mid Gothland.
Tr., Ut. Sl., H. R. G., Carad., Llandov., W., U.L., Pleta, &c.	sericea, Sowerby.	Esthonia, (Russ.) Poulkova &c., Norw., Swed., Thrace, Saalfield,(Spain)Almaden, (Engl.) Acton Scott, Ireland, Scotland, (Wales) Builth, Moel Uchlas, &c., Isle Anticosti, L. St. John, Montreal (Can. E.), Toronto (Can.W.), C. Smyth, L. Huron, Pennsylvania, Ohio, Tennessee, Missouri, (Illinois) Dunleith, S.Wisconsin, N.W. Michigan.	Cong, Galway, (Wales) Haverfordwest, Mathyrafal, Canada, (Bohem.) St. Ivan, Anticosti (Div. 1.).	Pomeroy, Derrymore Glen, Kerry (Ireland).
	var. *a*, rhombica, M'Coy.	(Wales) Meiford &c., Horton (Yorkshire).		
Carad.	var. *b*, spinangula, Phill.	Bala &c. (Wales).		
	solitaria, Barr.	.....	.....	(Bohemia) Konieprus.
Queb. G.	sordida, Billings.	Point Lévis (Canada E.).		
Fauna F	Stephani, Barr.	.....	.....	(Boh.) Konieprus, Mnienian.
Niag.	striata, Hall.	.....	.....	(N. York) no place given.
Car., L.Llandov.	? sublævis, M'Coy.	Chair of Kildare (Ireland).	Galway.	
Tr., Niag.	subplana, Römer.	Tennessee ?,Can. ?,Anticos. ?.	.....	(New York) Wolcott, &c.
Fauna F	tenera, Barr.	.....	Norway	Norway, (Bohem.)Mnienian.
Llan., Carad.	tenuicincta, M'Coy.	(Irel.) Chair of Kildare, (W.) Llanfyllin, Montgomerysh., Cerrig-y-Druidion, &c.		
Llan., Car., Pleta, Inflam. Schist.	tenuissime-striata, M'Coy.	(Wales) Llanrwst, Llandeilo, Bala, Shropsh., Coniston (Lancash.), France, D'Erras (Esthonia).		
Tr.	tenuistriata, Hall.	Indiana, (Ohio) Cincinnati, (Kentucky) Maysville, (N. York) Jefferson Co. &c., N.W. Michigan, (S.W. Scotl.) Peeblessh., (Wales) Glyn Diffwys &c.		

Subdivision.	Genus, Species, and Author.	Lower Stage.	Middle Stage.	Upper Stage.
Carad.	var. Sowerby.	Narbeth (Pembroke), Marloes Bay &c. (Wales).		
Pleta	transversa, Verneuil.	(Russ.) St. Petersburg, Baltishport, &c.		
Carad., U.Llandov., W., Pleta, Niag., Div. 2, 3, 4, A. Gr.	transversalis, Dalm.	(Wales) Bala, Glyn Ceiriog, (Lancashire) Coniston.	(Anticosti) S.W.Point, Bohemia, Norway, Ural, Ireland, England, (Anticosti) East Point &c.	Esthonia, (Gothland) Wisby &c., Bohemia, Thuringia, (Ireland) Ferriter's Cove, (Wales) Plas Madoc &c., (Engl.) Dudley, Malvern, &c., Pentland Hills (Scotl.), Thorold, (Can. W.) Anticosti, (New York) Wolcott, &c.
	Plectambonites arca, Shaler			
	P. tenera, ,,			
	var. undulata, ,,	(Wales) Alt-y-Anker, Meifod, &c.	(W.) Mathyrafal, Builth &c.	
	,, Duvalii, Davidson.	.....	.....	England.
	,, Sowerbyana, Barr.	.....	.....	Bohemia.
	trilobata, D. D. Owen.	Turkey River, Iowa (U.S.A.).		
	trimera, Meneghini.	Sardinia.		
Carad.	ungula, M'Coy.	(Wales) Denbighshire, Llansaintffraid, Llangollen, &c.		
	Leptagonia.			
Fauna F.....	Verneuilli, Barr.	.....	.....	(Bohemia) Mnienian.
	Vicaryi, Salter.	(France) May, Caen, Budleigh Salterton.		
W.	Waltoni, Davidson.	.....	.....	Wenlock, Falfield (Engl.).
Corall.L., Schoh.	sp. ind., Hall.	.....	.....	(N.York) Schoharie County.
Tr.	,, D. D. Owen.	Lower Missouri River.		
,, ...	,, ,,	,, ,,		
,, ...	,, ,,	,, ,,		
P., Quebec Gr...	,, Logan.	Point Lévis (Canada E.).		
Tr.	,, D. D. Owen.	Fort Garry (Rupert's Land).		
,, ...	,, ,,	Lake Winnipeg ,,		
Delth. Sh. Lst...	,, Swallow.	.....	.....	Missouri (U. S. America).
,, ,, ...	,, Meneghini.	Sardinia.		
	,, Stuchbury.	Berrigal (New South Wales).		
?	,, Selwyn.	.....	Victoria (Australia).	
	Leptocelia, *Hall*, 1856.			
Delth. Sh. Lst....	concava, Hall.	.....	.....	(N. York, E.) Schoharie &c. Cos., (Can. E.) C. Gaspé.
	Duboisii, Murchison.	.....	Esthonia.	
L. H. G.	flabellites, Hall ?	.....	.....	(Canada E.) Cape Gaspé.
CL.	hemisphærica, Murchison.	.....	Arisaig, Nova Scotia, &c.	
	Atrypa flabella, Shaler.			
L. H. G.	imbricata, Hall.	.....	.....	(N. York, E.) Schoharie Co.
CL.	intermedia, ,,	.....	Arisaig (Nova Scotia),	
?	lepida, Goldfuss.	.....	Germany ?.	
CL.	plano-convexa, Hall.	.....	New York.	
?	sublepida, Murchison.	Russia.		
U.L.....	sp. ind. Billings.	.....	.....	(North New Brunswick) Restigouche County.
	Lingula, *Bruguière*, 178	9 (includes many genera, *J. W.S.*).		
P., Div.D, Potsd., CS.	acuminata, Conrad.	(Newfoundl.) Hawkes Bay, (Can.) Bastard, Lansdowne, &c., Upper Missouri.		
P.	acuti-angula, Hall ?	New York, Texas (*Römer*).		
CL.	acuti-rostra, ,,	.....	New York.	
Tr.	æqualis, ,,	N.W. Michigan (L. Superior).		
P., Potsd.....	ampla, D. D. Owen.	R. St. Croix and Trempeleau (Minnesota), Wisconsin.		
Corall. Lst.	anatinæformis, Pusch.	.....	.....	(Poland) Lagoff near Kielce.
H. R. G.	ancyloidea, Shumard.	(Missouri) Louisiana Bluffs.		
	ancyloides, Salter.	Niti, Himalaya (E. I.).		
P., Potsd. Sa. ...	antiqua, Hall.	Nebraska (U.S.A.), Upper Missouri River, (Can. W.) Bastard, Lansdowne, N.W. Michigan, (N.Y.) Jefferson.		
Fauna D. d. 4. E, Llan.	attenuata, Sow., Barr.	(Bohem.) Beraun, (N.Wales) Bala, Golden Gr., Shropshire, Chirbury.	(Bohem.) Beraun, Cong, Galway.	
P., U.Potsd. ...	Aurora, Hall.	(Wisconsin) Mazomania.		
U. Potsd.....	,, var. ,,	,, ,,		
U.Llandov.	Bechei, Salter.	Marloes Bay (Wales).		
CH.	Belli, Billings.	(Can. E. & W.) Montreal, Middle & Lower Ottawa R.		
Carad.	brevis, Portlock.	(Tyrone) Desertcreate, (Waterford) Tramore.		

Subdivision.	Genus, Species, and Author.	Lower Stage.	Middle Stage.	Upper Stage.
Carad.	Brimonti, Rouault.	(Normandy) May, Guichen, Bain, Budleigh Salterton (pebbles).	(Silurian, *Davidson.*)	
Tr.	Briseis, Billings.	(Can. E.) River Bayonne, Portneuf.		
H. R. G.	Canadensis, ,,	Isle Anticosti, Black Point (G. St. Lawr.).		
Delth. Sh. Lst...	centrilineata, Hall.	.....	.....	(N. York, eastern) Albany County.
Tr.	Cobourgensis, Billings.	(Can.E.) Bay St. Paul, (Can. W.) Cobourg, (L. Huron) Collingwood.		
Faunæ G. g. 3, H. h. 1, U.L.	cornea, Sowerby.	.....	.....	Doonquin (Kerry Co.), Esthonia, (Bohem.) Hostin, Trzebotov, (Engl.) Ludlow, Malvern, Downton, Kington, Benson Knot, Wales, Lesmahago (S.W. Scotland).
Tr.	crassa, Hall.	(New York) Middleville.		
U.Llandov.	crumena, Phillips.	.....	Howler's Heath, Malvern, Kinley (Shropshire).	
M.Sa.	cuneata, Hall.	.....	(N. York) Medina, Rochester, Canada, Pennsylvania.	
Ut. Sl., Tr.	curta, Conrad.	(Can. E.) Montreal, N.York, Pennsylvania, Builth &c. (Wales).		
Div. P, Queb. G.	cyane, Billings.	(Newfoundl. W.) Portland Creek.		
Tr.	Daphne, Billings.	(Can. E.) Montreal.		
	dubia, D'Orbigny.	Bolivia (South America).		
,, ...	elongata, Hall.	(Can. E.) Bay St. Paul, (N. York) Lewis County.		
B., BL., Tr.	Eva, Billings.	(Can. E.) Malbay.		
Pleta.....	exunguis, Eichw.	Réval (Baltic), Poulkova(St. Petersburg Gov^{t}).		
H. R. G., M.Sa.	Forbesii, ,,	(IsleAnticosti) EnglishHead.	(Isle Anticosti) Junction Cliff.	
H. R. G.	fragilis, Shumard.	Grassy River, Missouri (U. S.A.).		
Lland., Bala ...	granulata, Phillips.	Llandeilo, Dynevor Park, Tregib, &c. (Wales).		
Fauna G. g. 1....	gratiola, Barr.	.....	.....	
Armorican Sandstone.	Hawkei, Rouault.	(Normandy) Guichen, Budleigh Salterton (pebbles).	..... (Silurian, *Davidson.*)	(Bohemia) Chotecz.
	Himalensis, Salter.	Niti, Himalaya (E. I.).		
BL., CH.	Huronensis, Billings.	(Can. W.) St. Joseph, (Lake Huron) Lower Ottawa River.		
Div. 1, A. G., Llandov.	insularis, ,,	.....	(Anticosti) White Cliff &c.	
Div. P, Queb. G.	Iole, ,,	(NewfoundlandW.)Portland Creek.		
CS.	Irene, ,,	(Can. E.) Montreal (drift), Point Lévis.		
P.,Lst.2,Queb.G.	Iris, Billings.	Point Lévis (Can. E.).		
	Kali, Salter.	Niti, Himalaya (E. I.).		
BL.	Kingstonensis, Billings.	(Can. W.) Kingston, Long Island.		
CL., Niag.	lamellata, Hall.	.....	(N. York) Oneida County.	(N. Y.) Lockport, Rochester.
Carad., L.	lata, Sowerby.	Plas-hen, Pwllheli (Wales), Desertcreate (Ireland).	.....	Wales, (Shropsh.) Ludlow, Woolhope, &c., Leintwardine,Deerhope Burn,Pentland Hills (Scotland).
Pleta	,, Pander.	Popova &c. (Russia).		
Carad.	Lesueurii, Rouault.	(Normandy)May, Caen, Guichen.		
Fauna F, W., L., U.L.	Lewisii, Sow., Barr.	.....	Outerard, Cong, Galway.	Dingle (Ireland), Aymestry, Shropsh., Ledbury, Westmoreland, Bohem., Wisby (Gothland), Radnorshire, Herefordshire, Malvern.
Fauna G. g. 1 ...	lingua, Barr.	.....	.....	(Bohemia) Hostin.
Pleta, Carad. ...	longissima, Pander ?	(Wales) Chirk, St. Petersburg (Russia), Sweden, (Esthonia) Baltishport.		
CH.	Lyelli, Billings.	(Can. E.) Lower and Middle Ottawa River.		

Subdivision.	Genus, Species, and Author.	Lower Stage.	Middle Stage.	Upper Stage.
P., CS.	Mantelli, Billings.	(Can.E.) Point Lévis, Lower Ottawa River.		
	marginata, D'Orb.	Bolivia (South America).		
?	minima, Römer.	.....	.....	Thuringia (Jasche, *auct.*).
U.L.	,, Sowerby.	.....	.....	(Engl.) Hagley Park, Ludlow, Delbury, &c., (S.W. Scotland) Lanarkshire.
P., Potsd. Sa.	Mosia, D. D. Owen.	La Grange Mountain (Minnesota), N. Wisconsin.		
	Muensterii, D'Orb.	Bolivia (South America).		
Corall. Lst.	nana, Eichw.	.....	.....	I. Oesel, Roodzekulle (Balt.).
Div. N, Queb. G.	nympha, Billings.	(Newfoundl. W.) Tablehead.		
CL.	oblata, Hall.	.....	(N.York) Sodus, Wolcott.	
,,	oblonga, ,,	.....	Pennsylvania, (N. York) Cayuga Co., Arisaig (Nova Scotia).	
Pleta	,, Pander.	(Russia) Poulkova &c.		
Llan., Bala, Tr.	obtusa, Hall.	(N.York) Herkimer County, Llandeilo (Wales), (Can. E.) St. Paul's Bay.		
Pleta	orbicularis, Eichw.	(Esthon.) Presqu'ile de Neuk.		
Ling. Sl., Carad.	ovata, M'Coy.	Tremadoc, Bala, Llanfyllin, &c. (N.Wales), Wexford&c. (Ireland), Dufton (Westmoreland), &c.		
U.Llandov.	parallela, Phill.	.....	Wrekin, Shropshire, Malvern (England).	
Delth. Sh. Lst.	perlata, Hall.	.....	.....	(New York, eastern) Albany &c. Counties.
CL.	perovata, ,,	.....	(New York) Rochester.	
BL.	Perryi, Billings.	Highgate Springs (N. Vermont).		
Tr.	Philomela, ,,	(Can.E.) Montmorenci Falls, Montreal, St. Paul's Bay.		
P., Potsd.	pinnæformis, D. D. Owen.	River St. Croix (Minnesota).		
	polita, *Obolella*? Hall.	Upper Mississippi River.		
P., Potsd.	prima, Conrad.	(N. York) Keeseville, Tequamenon Bay, L. Superior.		
Tr., Ut. Sl.	Progne, Billings.	(Can. E.) Montreal, (Can. W.) Collingwood, Lake Huron.		
Pleta, Inflam.Sh.	pusilla, Eichw.	(Esthonia) D'Erras &c.		
P., Black Shales.	pygmæa, Salter.	Malvern Hills (England).		
Div.1,A.G.,Llandov., H. R. G.	quadrata, Hall.	(Can. E.) Montreal, Beauport, N.W.Michigan, Missouri (Ohio), (Iowa) Dubuque, (N. York) Trenton Falls, Russia.	(Anticosti) Charlton Point.	Presteign (Wales).
Div. P., Queb. G.	Quebecensis, Billings.	(Newfoundl. W.) Cowhead, Point Lévis (Can. E.).		
Llan.	Ramsayi, Salter.	(Wales) Pembrokeshire, Abereidy Bay.		
Delth. Shaly Lst.	rectilatera, Hall.	.....	.....	(N. York, eastern) Schoharie &c. Counties.
Tr.	riciniformis, ,,	(Can. E.) Portneuf (St. Lawr. River), (N.York) Herkimer County.		
	var. æqualis, ,,	(New York) Middleville &c.		
Carad.	Rouaulti, Salter.	France, Budleigh Salterton (Devonshire, pebbles).	(Silurian, Davidson).	
Armorican Sa.	? Salteri, Davidson.	Budleigh Salterton, Devonsh.		
L. H. G.	spathulata, (sphathata). Hall.	.....	.....	(New York, eastern) Helderberg Mountains.
Delth. Sh. Lst.	spatiosa, ,,	.....	.....	(N. York, eastern) Becraft's Mountain, Hudson.
Hollyb. Sandst.	squamosa, ,,	Malvern, Worcestershire.		
W., L.	striata, Sowerby.	.....	.....	(Shropsh.) Aymestry, Ludlow, &c.
Pleta	subcrassa, Eichw.	D'Erras, Lyckholm (Estho.).		
Fauna D. d. 1	sulcata, Barr.	(Bohemia) Rokitzan.		
U.Llandov., W., L.	Symondsii, Salter.	.....	Pen-y-lan (Wales), Mandinam.	Wales, Dudley, Ludlow, Malvern, Presteign, &c. (England).
Carad.	tenuigranulata, M'Coy.	(Wales) Meifod, Hirnant, Llanwddyn, Dufton, Westmoreland, &c.		
	textilis, Salter.	Niti, Himalaya (E. I.).		
Tr.	Trentonensis, Hall.	Pennsylvania.		

Subdivision.	Genus, Species, and Author.	Lower Stage.	Middle Stage.	Upper Stage.
Aymestry Lst. ...	unguicula, Salter. *Lingulella.*	.....	.....	(S.W. Scotland) Lesmahago.
P., Potsd.....	Winona, Hall.	Lancing (Iowa).		
	sp. ind. Abich.	.....	.....	Ararat (Armenia).
	,, Hall.	New York.		
	,, Verneuil.	Sardinia.		
U.Llandov.	,, Salter.	.....	Wooltack Park, Pembroke.	
	,, Verneuil.	France.		
P.....	,, Barrande.	Hof (Bavaria).		
	,, Shumard.	Missouri (U.S. America).		
P., Potsd.	,, Meek & Hayden.	Fort Laramie, Upper Missouri River.		
?	,, (many), Selwyn.	.....	Victoria (Australia).	
Tr. ?.....	,, D. D. Owen.	Lake Winnipeg (Rupert's Land).		
	Lingulella, *Salter*, 1865.	(Distinct from LINGULA,	by having a pedicle-form	, *J.W.S.*)
L.Ling. Flags, U. & L.Tremad.	Davisii, M'Coy.	(S. Wales) Ramsay Isl. &c., (N. Wales) Borth, Maentwrog, Bangor, Festiniog, &c.		
Menevian Rocks.	Eskriggii, Hicks.	St. David's (South Wales).		
L.Llan.	ferruginea, Salter.	St. David's (South Wales).		
L. & U.Ling. Fl., U.Tremad.	lepis, ,,	(Wales) Borth, Moel-y-Gest, Tahirion, Penrhyn, &c.		
Arenig Rocks ...	petalosa, Hicks.	Whitesand Bay, Ramsay I. (South Wales).		
L.Lingula Flags.	unguicula, Salter.	Whitesand Bay, Ramsay I., St. David's.		
,, ,,	sp. ind. ,,	,, ,,		
	,,	,, ,,		
	Lingulepis, *Hall*, 1863.			
P., Potsd. Sa. ...	pinnæformis, Owen, Hall. *Ling. antiqua.*	Falls of St. Croix &c. (Minnesota), Black Hills (Dacotah, N.A.).		
	prima (Conrad), Hall.	Black Hills (Dacotah, N.A).		
	Meganteris, *Hall*, 1856–57.			
U.Pentam. Lst.	æquiradiata, Hall.	.....	.....	New York.
Delth. Sh. Lst...	elliptica, ,,	.....	.....	,,
,, ,,	lævis, ,,	.....	.....	,,
,, ,,	mutabilis, ,,	.....	.....	,,
	Merista, *Hall*, 1860 = CAMARIUM, *Hall.*			
L. H. G.	arcuata, Hall. *Meristella.*	.....	.....	(New York, eastern) Helderberg Mountains.
Delth. Sh. Lst...	bella, ,,	.....	.....	(New York, eastern) Helderberg Mountains, (Tenness.) Wayne County.
,, ,,	bisulcata ?, ,,	.....	.....	New York, Missouri.
	Calypso, Barr.	.....	.....	Bohemia.
Niag. ?	crassirostra, Hall.	.....	.....	New York.
	cylindrica, ,,	.....	.....	New York?
Faunæ E, F ...	Hecate, Barr.	.....	.....	Bohemia (very rare).
Fauna F	Herculei, ,,	.....	.....	(Bohemia) Mnienian &c.
CL.	intermedia, Hall.	.....	New York (U.S. Amer.).	
Delth. Sh. Lst....	lævis, ,,	.....	.....	(N. York, east and central) Herkimer and Schoharie Counties.
	læviuscula, Sowerby.	?		
L. H. G.	Meekii, Hall.	.....	.....	(Tennessee W.) Wayne Co.
CL., L. H. G. ...	naviformis, ,,	.....	.....	New York, Bohemia, England ?, Sweden, (Can. W.) Dundas.
CL. ?	nitida ?, ,,	.....	.....	New York.
	var. oblata, ,,	.....	.....	,,
CL. ?	nucleolata, ,,	.....	New York ?	
CL.	oblata ? ,,	.....	New York.	
	scalprum, Barr.	Bohemia.		
L. H. G.	subquadrata, Hall.	.....	.....	(N.York, eastern) Schoharie and Carlisle Counties.
,, ...	sulcata, ,,	.....	.....	New York.
U.Llandov. (E), Niag.	tumida, Dalm.	.....	Mayhill (England).	Bohemia, New York, Mid-Gothland, Norw., England.
	sp. ind. Rogers.	.....	.....	Pennsylvania.
U.Pentam. Lst...	,, Hall.	.....	.....	New York.
	Meristella, *Hall*, 1860.			
Carad., Llandov.	angustifrons, M'Coy.	(S.W. Scotl.) Girvan &c. ...	Norway, England, (S. W.) Rhayader.	
L. H. G.	arcuata, Hall.	.....	.....	(N.York, east.) Schoharie Co.

Subdivision.	Genus, Species, and Author.	Lower Stage.	Middle Stage.	Upper Stage.
L. H. G.	bella, Hall.	.....	.....	New York.
W.	Circe, Barr.	.....	.....	(England) Dudley, Walsall, Malvern, (Boh.) Prague.
Llandov.	? crassa, Sowerby.	.....	(Wales) Shelve, Cefn Rhyddan, &c.	
CL., Niag.	cylindrica, Hall.	.....	New York	New York.
Llandov., W., L.	didyma, Dalman.	.....	Glasnevin (Ireland), Llandeilo, Malvern, &c.	(Engl.) Ledbury, Dudley, (Wales) Usk &c., N. Gothland, New York.
Carad., Llandov.	furcata, Sowerby.	Bogmine (Shropshire).	Bogmine, Shelve (Shropshire), The Wrekin.	
L. H. G.	lævis, Hall.	.....	.....	New York.
W. Shale	Maclareni, Haswell.	.....	.....	Deer Hope, Pentland Hills (Scotland).
W., Niag.....	nitida, Winch. & Mar., Hall.	.....	.....	(N. York) Wolcott, Indiana, Canada, (Engl.) Walsall, Dudley, (Ireland) Cahirconree.
CL., Niag.....	oblata, ,,	.....	New York	New York.
U. Pentam. Lst....	princeps, ,,	.....	.....	(N. York, eastern) Helderberg Mountains, (Can. E.) Gaspé.
Llandov.	subundata, M'Coy.	Baltischport (Esthonia). ...	Mathyrafal, Llanfyllin (Wales).	
U. Llandov., W., L., Niag., Fauna E. e. 1.	tumida, Dalm.	.....	Wales, (Bohem.) Prague, (Norway) Christiania.	(Wales) Bryn-Craig &c., Deer Hope, Pentl. Hills (Scotland), (England) Abberley Hills &c., Gothland, New York.
	Nucleospira, *Hall*, 1859.			
Delth. Sh. Lst....	concentrica, Hall.	.....	.....	(Tennessee W.) Decatur Co., (N. York) Helderberg Mts.
,, ,,	elegans, ,,	.....	.....	(N. York, central) Cherry Valley, (Maryland) Cumberland County.
W., Niag.....	pisiformis, ,, *pisum* (*Spirifer*).	.....	.....	(N. York) Wolcott, (France) Debray, (Engl.) Dudley &c., (Scotl) Pentland Hills, Gothland.
L. H. G.	ventricosa,	.....	.....	(N. York, central & east) Helderberg Mountains, (Tennessee W.) Wayne County, (Maryl.) Cumberland Co.
P., Potsd. Sa. ...	sp. ind. Meek & Hayd.	Nebraska (U. S. America).		
	Obolus, *Eichwald*, 1829.	(UNGULA, *Pander*.)		
Pleta	antiquissimus, Eichwald.	(Russ.) Poulkova, (Esthonia) Réval.		
Obolus Sa., Llan.	Apollinis, ,, *polita*, Kutorga.	Up. Mississippi River, (Russ.) Podolova, Yambourg, Lake Ladoga, S. Ural, Esthonia.		
	Bowlesi, Verneuil.	(Spain) Sierra Morena, Ballestera.		
B., BL,, Tr., W.	Canadensis, Billings. *Davidsoni*.	(Can. W.) Mid. Ottawa River.	.....	Walsall (England).
P.	chromatica, ,,	Straits Belleisle (N. America).		
Llandov., W. ...	Davidsoni, Salter.	.....	Mayhill (England).....	(England) Dudley, Ledbury, Ferriter's Cove (Ireland), (Gothland) Wisby, Faroe.
Woolh. Lst., W.	var. transversus, ,,	.....	.....	(England) Dudley, Malvern, Ledbury.
,, ,,	,, Woodwardii, ,,	.....	.....	Shropshire, Woolhope, &c.
Guelph.....	Galtensis, Billings.	.....	.....	(Canada W.) Galt.
Obolus Sa.	Ingricus. Eichw.	(Russia) Podolova &c.		
	intermedius, Salter (MS.).	.....	.....	Walsall.
P., Potsd. Lst....	Labradoricus, Billings.	Straits Belleisle, Anse au Loup (Labrador).		
Queb. G. ?	? Murrayi, ,,	(Newfoundl. N.) Hare Bay.		
	sculptus, Kutorga.	Russia.		
Pyroxenic Sa. or Orthoc. Lst.	Siluricus, Eichw.	Réval (Balt.), Baltischport.		
Queb. G.	Thomsoni, Billings.	Labrador (Straits Belleisle).		
P., Potsd.....	Vermontana, ,,	,, ,,		
	sp. ind., Salter.	.....	.....	England.
L.L.	,, ?	Hellpool, Wyeford, Builth.		
P., Potsd.....	,, Hayden.	Fort Laramie (Upper Missouri).		
P.	,, Owen.	Pennsylvania, Wisconsin.		

Subdivision.	Genus, Species, and Author.	Lower Stage.	Middle Stage.	Upper Stage.
	Obolella, *Billings*, 1861	or 1865.		
P., Potsd.Sandst.	chromatica, Billings.	Up. Mississippi River, Forteau Bay, Straits Belleisle (N. America).		
P., Potsd.....	cingulata, ,, *Kutorgina.*	(Vermont) Swanton, Straits Belleisle, Forteau Bay (N. America).		
P., Queb. G. ...	desiderata, ,,	Point Lévis (Canada E.).		
,, ,, ...	Ida, ,,	,, ,,		
P., L.Ling. Fl....	maculata, Salter.	(S. Wales) St. David's.		
P.?	nana, Meek & Hayden.	Black Hills, Up. Missouri (U.S.A.).		
P., Hollybush Sa.	Phillipsii, Salter.	Malvern (Worcestershire).		
P., Black Shales	var. Salteri, Holl.	,, ,,		
P., Tremad.	plicata, Hicks.	Ramsay Isle &c., St. David's (S. Wales).		
CS., &c., L.Llan.	plumbea, Salter.	(Wales) Portmadoc, (Shropshire) White-grit Mine, Shelve.		
P., L.Llan.	? polita, Hall.	(Minnesota) Trempaleau, Black River, &c.		
Queb. G.	pretiosa, Billings.	Quebec, Carouge, (Can. E.) Isle of Orleans.		
P., L.Ling. Fl...	sagittalis, Salter (MS.).	(S. Wales) St. David's.		
	Salteri, Billings.	Canada.		
	sp. ind., Meek & Hayden.	Kendal County (Illinois).		
L.Llan.....	,, (2), Salter.	(Wales) Llanfaelrhys.		
L.Ling. Fl.	,, ,,	(S. Wales) St. David's.		
	Orbiculoidea, *D'Orbigny*, 1847; SCHIZOTRETA, *Kutorga*, 1847–48. (See DISCINA.)			
	Orthis, *Dalman*, 1827.			
Llan., Car., Llandov.	Actoniæ, Sowerby.	(Wales) Penmachno, Garn, Arenig, Shropshire, Acton Scott, &c., Coniston, Lancashire, Ribblesdale, Yorkshire, Ireland, (Esthonia) Hohenholm, (Russ.) Poulkova.	(Wales) Mathyrafal &c.	
CH.	acuminata, Billings.	(Can. E.) Caughanawaga.		
	acuta, Lindström.	.....	.....	Wisby (Gothland).
Tr., Llandov., W.	æquivalvis, Davidson. *uberis*, Shaler.	N. York, (Ohio) Cincinnati.	.....	(Engl.) Walsall.
Llan.	alata, Sowerby.	Shropsh., W. of Stiper Stones.		
Up. Div. D	,, Shaler.	Salt Lake Bay (Anticosti I.).		
Carad.	alternata, Sowerby. *retrosistria.*	(Wales) Bala, Penmachno, &c., (Shropshire) Harnage, Church Stretton, Westmoreland, Dufton, (Irel.) Waterford County.	Cong &c., Galway.	
Pleta	anomala, Verneuil.	Russia, (Baltic) Réval.		
P., Queb. G. ...	apicalis, Billings.	(Can. E.) Point Lévis.		
P., Queb. G.?...	armanda, ,,	Phillipsburg (Can. E.).		
U.Pentam. Lst...	assimilis, Hall.	.....	.....	(N. York, E.) Schoharie Co.
Tr.	Australis, Salter.	Tasmania West.		
	Aymara, ,,	.....	.....	(Andes) Bolivia, Millepaya Valley.
	Barabuensis, Winchell.	(Wisconsin) River Baraboo.		
Carad., W.	basalis, Dalm. *testudinaria.*	Bala, Glyn Ceiriog (Wales).	.....	Wisby &c. (Gothland).
Queb. G.	Battis, Billings.	(Can. E.) Point Lévis &c.		
	Baylei?, Rouault.	(France) Gahard?.		
Tr.	bella-rugosa, Conrad.	(Can. E.) Lake St. Louis, N. York, (Wisconsin) Mineral Point, Tennessee.		
Carad.	Berthoisii, Rouault.	(Portugal) Bussaco, Spain, (France) La Couyère, Vitré, La Manche.		
	bidens, Wyatt-Edgell.	Westmoreland.		
U. & L. Llan., Carad., Llandov., W.	biforata, Schloth.	S.W. Scotland, (Wales) Arenig Mountains &c., Shropshire, (Irel.) Chair of Kildare, (Yorkshire) Dent, Ohio, Wisconsin.	(Wales) Mathyrafal, Penny-Craig, Norway.	(Engl.) Bogmine, Dudley, Walsall, (Gothl.) Wisby.
	var. terebratuliformis, M'Coy.	Ireland.		
	,, fissicostata, ,,	(Wales) Bala Lake, Meifod &c.		
Tr.	Bigsbyi, Salter.	Tasmania West.		

Subdivision.	Genus, Species, and Author.	Lower Stage.	Middle Stage.	Upper Stage.
Carad., Llandov., W.	biloba, Linnæus.	(Wales) Denbighshire, Glyn Ceiriog, Robeston Wathen, &c.	.....	Middle Gothl., Deer Hope, Pentland Hills (Scotl.).
	var., Lindström.	.....	.....	(Gothl.) Wisby, Ledbury, Buildwas (Shropshire).
Tr.	bisulcata, Emmons.	New York (north).		
CH., Tr.	borealis, Billings.	(Can.E.) Low. Ottawa River, Belleville, Lake Ontario.		
L.Llandov., W.	Bouchardi, Davidson.	.....	(Wales) Cilgwyn	Middle & South Gothland, (Shropsh.) Benthall Edge.
	Bussacensis, Sharpe.	(Portugal) Bussaco.		
	caduca, Barr.	.....	(Bohemia) Beraun.	
Llan., Car., Llandov., W.	calligramma, Dalm.	(Spain) Huerta del Llano, (Russ.) Petschora, S. Ural, N. Gothland, (Ostrogoth.) Skarpaden, (Wales) Anglesea &c., Britain *passim*, (Irel.) Knockmahon.	Cong, Galway (Irel.), Haverfordwest, &c. (W.).	Pentland Hills (Scotland)?, Malvern, Dudley, (Wales) Usk.
Carad.	var. calliptycha, M'Coy.	(Wales) Llansaintffraid &c.		
Div. 4, A. G., U. Llandov., Mayhill.	,, Davidsoni, Vern. *alata*, Shaler.	.....	Canada, Esthonia, (Anticosti) The Jumpers &c., (Wales) Builth, Presteign, (Engl.) Malvern, Mayhill.	Wales, Shropshire, (Baltic) Isle Oesel, Wisby (Gothland).
	,, orthambonites, Pander.	Russia, Wales.		
	,, ovata, ,,	Sweden.		
Carad.	,, plicata, Sowerby.	England, Wales, Ireland.		
U.Llan.	,, proava, Salter.	Llanerchymedd, Anglesea.		
Carad.	,, simplex, M'Coy.	Ireland, Wales, Scotland.		
,, ...	,, virgata, Sowerby.	Cwm-gwynen-uchaf, Montgomerysh., (Irel.) Ballyvorgan.		
Llan.	,, Walsallensis, Davidson.	England, N. & S. Wales ...	Wales (N. & S.)?	
	canaliculata, Lindström.	.....	(Norway) Christiania ...	(South & Middle Gothland) Hoburg &c.
	canalis, Sowerby.	Penmachno, Conway Falls (Wales).		
P., Tremad.....	Caransii, Salter.	Ramsay Isle &c. (S. Wales).		
H. R. G.	Carleyi, Hall.	(Ohio) Oxford County.		
Fauna D	cava, Barr.	(Bohemia) Beraun.		
H. R. G.	centrilineata, n. s. Hall.	(N. York) Jefferson & Lewis Counties.		
Pleta	cincta, Eichw.	Popova, Poulkova (Russia).		
CL.	circulus, Hall.	.....	(N. York) Niagara Co.	
H. R. G.	Clytei, ,,	Kentucky (U.S.A.).		
P., Potsd.	Coloradensis, F. Moore.	(Texas) Burnet County.		
Carad., Fauna D	compressa, Barr.	(Engl.) Shelve, Shropshire, (Bohem.) Beraun.		
	compta, Salter.	Niti & Mamrang Passes, Himalaya Mountains (E. I.).		
	concentrica, Portlock.	Tirnaskee (Tyrone), Tramore (Waterford).		
Delth. Sh. Lst....	concinna, Hall.	.....	.....	(Maryland, U.S.A.), Cumberland County.
Carad.	confinis, Salter.	(S.W. Scotl.) Girvan &c., (Wales) Gaer Fawr, (Cornwall) Gorrans.		
	convexa, ,,	Niti Pass, Himalaya (E. I.).		
P., Queb. G. ...	Corinna, Billings.	(Can. E.) Stanbridge.		
CH.	costalis, Hall.	(N.York, N.E.) Chazy Village.		
Carad.	costata, Sowerby.	(Ireland) Pomeroy, (Wales) Welchpool.		
W.	crassa, Lindström.	.....	.....	Middle Gothland, Woolhope, Shropshire.
U.Bala, Carad....	crispa, M'Coy.	(N. Wales) Bala, Bettws-y-Coed, (Westmoreland) Ireleth Moor, Kendal, (Irel.) Tramore.		
H. R. G.	crispata, Emmons.	New York (north-east).		
Llan.....	Danjoui, Rouault.	(France) Angers, Poligné.		
	Davidis, Bonissent.	(France) La Manche.		
M.Sa., Niag., W.	Davidsoni, Verneuil. *calligramma.*	South Bay, Manitouline Isl., Lake Huron.	Anticosti, S.W. Point	(Gothl.) Wisby, High Hill, Manitouline Island, Lake Huron, (Can.E.) P. Daniel.
Fauna F	decipiens, Barr.	.....	.....	(Bohemia) Konieprus.
B., BL.	deflecta, Conrad.	Tennessee, N. York, Canada.		
Delth. Sh. Lst....	deformis, Hall.	.....	.....	(New York, eastern) Helderberg Mountains.

Subdivision.	Genus, Species, and Author.	Lower Stage.	Middle Stage.	Upper Stage.
Divs. M, P, Queb. G.	delicatula, Billings.	(Newfoundl., W.& N.) Table-head, Portland Creek.		
	demissa, Dalm.	.....	.....	Russia ?, (Gothl.) Hoburg, Oeland, Bodahamn.
	depressa ?, Portlock.	Ireland.		
Fauna D, Pleta	desiderata, Barr.	Komarow (Bohemia), St. Petersburg (Russia).		
Tr.	dichotoma, Hall.	(Ohio) Cincinnati.		
Delth. Sh. Lst...	discus, ,,	.....	.....	(New York, eastern) Catskill &c.
	disparilis, Conrad.	Minnesota, Michigan, N.W., (N. Wisconsin) Mineral Point, N. York, (Canada E.) Mingan Isles, L. St. Louis.		
Fauna F	distorta, Barr.	.....	.....	(Bohemia) Konieprus.
	Duriensis, Sharpe.	(Portugal) Vallongo, Sardinia.		
Divs. H, I, CS., Queb. G.	Electra, Billings.	(Newfoundl. W.) Pt. Rich &c., Phillipsburg, Missisquoi Bay (Can. E.).		
Faunæ E, F, CL., Niag., Llan., Carad., U. Llandov., W., L.	elegantula, Dalm.	(Wales) Madryn Park, Caernarvonsh., &c., S.W. Scotland, Cornwall, Sweden, Norway, Sardinia, Gretton (Shropshire), (Irel.) Clare County.	Mulloch's Hill (Ayrshire), New York, Canada, Ireland, (Wales) Mathyrafal, (Engl.) Mayhill, Norbury, Norway.	(Wales) Craig-hir, Merchlin, &c., (Ireland) Derrimore Glen, Kerry, Thuringia, Bohemia, Russia, (Estho.) IsleOesel, Ficht, Lodé, &c., Mid. Gothland, N. Wisconsin, Canada, N. York, Pennsylvania, Tennessee, Missouri, Arctic Seas (A.), Pentland Hills (Scotland).
Delth. Sh. Lst....	var. eminens, Hall.	.....	.....	(N. York, eastern) Schoharie &c.
W., L.	,, orbicularis, Dalm.	.....	.....	Nova Scotia, (Engl.) Dudley, Tortworth, Buildwas.
	,, parva, Pander.	Ireland, S. Scotland, Wales, Spain, Portugal, Czarskoeselo (Russia).	Canada.	
H. R. G.	Ella, Hall.	(Ohio) Cincinnati.		
Fauna D	ellipsoides, Barr.	(Bohem.) Beraun, Praskoles.		
,, F	elliptica, Billings.	(Can. E.) Lake St. John.		
	elongata, Barr.	.....	.....	Bohemia.
H. R. G.	emacerata, Hall.	(Ohio) Cincinnati, Iowa, Wisconsin.		
,,	? erratica, ,,	(Can. W.) L. Ontario (*Smith*), (N. York) Oswego C.		
Queb. G.	Eudocia, Billings.	Point Lévis (Can. E.).		
	Eurydice, Whiteaves.	(Canada E.) Montreal ?.		
P., Queb. G. ...	Euryone, Billings.	Point Lévis (Canada E.).		
,, ,, ...	Evadne, ,,	,, ,,		
	exornata, Sharpe.	(Portugal) Bussaco.		
Pleta	extensa, *basalis*. Pander.	Poulkova &c. (Russ.), (Esthonia) Lyckholm, Réval, &c.		
Carad.	fallax, Salter.	(Ireland) Pomeroy, Tyrone, Desertcreate.		
Niag.	fasciata, Hall.	.....	.....	(New York) Rochester &c.
Carad.	filicera, Rouault.	Sardinia, Bohemia, (France) Vitré.		
Tr.	fissicosta, Hall.	Portugal ?, N. York, Ohio.		
Niag.	fissiplicata, Römer.	.....	.....	Tennessee West.
Carad., Llandov.	flabellum, Sowerby.	(Westmorel.) Applethwaite, Pull Scar, Yorkshire, Dent, &c., Malvern, (W.) Bala, Bettwys, &c., Norway ?.	Cong, Galway.	
Niag.	var. ?, Hall.	.....	.....	(New York) Lockport, Rochester, &c.
W.	Fletcheri, Davidson.	.....	.....	(Engl.) Benthall Edge, Walsall, Gothland.
	formosa, D. D. Owen.	Turkey River (Iowa).		
P., Queb. G. ...	gemmicula, Billings.	(Can. E.) Point Lévis.		
Fauna F	Gervillii, Barr.	.....	.....	Konieprus (Bohemia).
CH., BL., Tr....	gibbosa, Billings.	(Can. W. & E.) Belleville, Montreal, Lake Huron, Middle Ottawa River.		
Pleta	hemipronites, Von Buch.	St. Petersburg, Popova, &c. (Russia).		
P., Menevian ...	Hicksii, Salter.	St. David's (S. Wales).		
P., Queb. G. ...	Hippolyte, Billings.	(Newfoundl. W.) Cowhead.		
Carad.	Hirnantensis, M'Coy.	(Wales) Bala, Aber Hirnant, Llangedwin.		

Subdivision.	Genus, Species, and Author.	Lower Stage.	Middle Stage.	Upper Stage.
Faunæ D. d. 5, E	honorata, Barr.	.....	.....	Bohemia.
	Huxleyi, Billings.	.....	Anticosti, Junction Cliff, White Cliff, Ellis Bay.	
Carad., Llandov., W., L.L., Faunæ E, F	hybrida, Sowerby.	(Ohio) Cincinnati	(Wales) Mathyrafal, Ireland, Bohemia.	? Bohemia, (Wales) Buildwas, (Engl.) Abberley, Worcestershire, Dudley, Middle & S. Gothland, Norway, Isle Oesel (Baltic), N. & S. Wisconsin, (Can. W.) Thorold, (N. York) Schoharie County, Tennessee.
CH.	imperator, Billings.	(Can. W.) Lower Ottawa (Hawkesbury).		
Carad.	inflata ?, Salter.	Lowick, Crake (Lancashire).		
Pleta	inflexa, Pander.	St. Petersburg (Russ.), Odinsholm.		
Tr., H. R. G. ...	insculpta, Hall.	(N. York) Watertown, (Can. W.) Middle Ottawa River, Cape Smyth, L. Huron.		
Delth. Sh. Lst....	insignis, ,,	.....	.....	(N. York) Helderberg Mns.
Carad., L. Llandov.	insularis, Eichw.	N. York, Russia, Isles Dago and Odinsholm (Baltic), Norway, Silesia (drift), Ch. of Kildare (Irel.), (Wales) Llangynyw, Garn, (Lancashire) Coniston.	(S. Wales) Mathyrafal, Norway.	
Carad.	intercostata, Portlock.	(Ireland) Tyrone, Oswestry, Moelydd.		
,, ...	interplicata, M'Coy.	(Irel.) Kildare, Wales.		
Cor. L., Schoharie	interstriata, Hall.	.....	.....	(N. York) Schoharie County
Tr.	Iphigenia, Billings.	(Can. W.) Ottawa City.		
H. R. G.	Jamesii, Hall.	(Ohio) Cincinnati.		
	jugata, Wahlenb.	.....	.....	England, (Dalecarlia) Osmondsberg.
H. R. G.	jugosa, Swallow.	Missouri (U.S.A.).		
,, ...	Kankakensis, M'Chesney.	Wilmington (Illinois).		
,, ...	Kennicotti, ,,	Cincinnati (Ohio).		
Tr.	lamellosa, Logan.	Lake St. Louis (Can. E.). ...	Norway.	
L. Llandov.	lata, Sowerby.	.....	Llandovery, Golengoed, Penlan (Wales), Wooltack Park, Pembrokesh.	
Div. 1, A. Gr., Llandov.	Laurentina, Billings.	.....	Anticosti Isle (G. St. Lawrence), Junction Cliff.	
?	Lenaica, Verneuil.	Russia.		
P., U. Ling. Fl. ...	lenticularis, Dalm.	Sweden, (Wales) Penmorfa, Criccieth, &c.		
Tr.	leptænoides, Emmons.	(N. York, northern) Jefferson County.		
W.	Lewisii, Davidson.	.....	.....	Dudley, Wenlock Edge, &c., Shropshire, Wales, Pentland Hills (Scotland.).
	Loveni, Lindström.	.....	Wisby (Gothland).	
W., L. & U.L. ...	lunata, Sowerby.	.....	....	(Wales) Dinas Bran, Horeb. Chap., (Engl.) Malvern, Aymestry, Ludlow, &c., (Westmoreland) Benson Knot, (Bohemia) Konieprus, (France) Brest ?.
	Lusitanica, Salter.	(Portugal) Vallongo, Sardinia.		
H. R. G. &c. ...	lynx, Eichw.	Esthonia, S. Scotland, (Can. E.) Lake St. John, (Can. W.) Cape Smyth, L. Huron, Upper Mississippi River, Lake Winnipeg (Rupert's Land), Isle Anticosti.	Anticosti, Junction Cliff (Div. 1).	
Fauna D	macrostoma, Barr.	(Bohem.) Beraun, Praskoles.		
Div. 1, A. Gr., H. R. G., Middle Llandov.	Maria, Billings.	Anticosti, McCasty Bay. ...	Anticosti Isle, Gamache Bay.	
Divs. 3, 4, A. Gr.	media, var. elegantula ? Shaler.	(Anticosti) South Point &c.		
Tremad., &c. ...	Menapia, Hicks.	Ramsay Isle &c. (S. Wales).		
Tr.	Merope, Billings.	(Can. W.) Ottawa City.		
Niag. ?	Michelini, Koninck.	.....	.....	Tennessee (U.S.A.)
	Miniensis, Sharpe.	(Portugal) Vallongo, Sardinia.		
P.	minima ?, Hall.	Canada.		
Queb. G.	Minna, Billings.	Stanbridge (Can. E.).		

Subdivision.	Genus, Species, and Author.	Lower Stage.	Middle Stage.	Upper Stage.
W.	minuta? Haswell.			Pentland Hills (Scotland).
	Missouriensis, Shumard.			Cape Girardeau (Missouri).
Fauna D. d. 1, 4	mœsta, Barr.	(Bohemia) Rokitsan.		
Oslo Gp., Pleta	moneta, Eichw.	Norway, Poulkova &c., St. Petersburg (Russia), Dalecarlia, Isle Soller.		
Carad.	monilifera, (Mus.Pr.Geol.).	Chair of Kildare (Ireland).		
	Monnieri, Rouault.	Normandy, May, Rennes, Gahard?		
	monticula, Salter.	NitiPass(Himal.), Damchen.		
U.Pentam.Lst.	multistriata, Hall.			(New York, eastern) Helderberg Mountains.
Fauna E. e. 1	mulus, Barr.		(Bohemia) Beraun.	
	Mundæ, Sharpe.	(Portugal) Bussaco.		
Lst. 2, Queb. G.	Mycale, Billings.	(Can. E.) Point Lévis.		
Fauna F	neglecta, Barr.			(Bohemia) Konieprus.
Oneida Conglom.	nitens, Vanuxem.		(N. York) Wayne County.	
	noctilio, Sharpe.	(Portugal) Bussaco, Vallongo, Sardinia.		
	novem-radiata, Hall.			New York.
Delth. Sh. Lst.	oblata, „			(N. New Brunswick) Restigouche, (Can. E.) St. Helen's Isl., (N.York,eastern) Hudson &c., (Tennessee W.) Wayne County.
„ „	var. emarginata, „			(Maryland, U.S.A.) Cumberland County.
Orthoc. L., with green grains.	obtusa, Pander.	R. Volkoff, St. Petersburg (Russia), Esthonia.		
„ „	var. eminens, „	(Esthon.) Réval &c., (Russ.) Grafskaya-Slavjauka.		
„ „	„ expansa, „	Russia, Esthonia, *passim*.		
„ „	„ quinque-radiata „	„ „		
H. R. G.	occidentalis, Hall.	Cape Smyth, West Bay, Manitouline Island,L.Huron, New York.		
Fauna F	occlusa, Barr.			(Bohemia) Konieprus.
Delth. Sh. Lst., H. R. G., W., U.L.	orbicularis, Sowerby.	France, N.W. Michigan (L. Superior), Cornwall, Geran's Bay.		(N.York) Schoharie County, Bohemia, Esthonia, Sweden, Russia, (Engl.) Hagley Park,Shobden Hill, &c.
Lst. 2, Queb. G.	Orthambonites, Bill.,Pand. *calligramma* (var.).	(Can. E.) Point Lévis, Russia, Réval, &c.		
Corall. Lst.	Osiliensis, Schrenck. *umbraculum*?			Russia, (Esthonia) I. Oesel, Moustel Pank.
	Oswaldi, Römer.	Lower Silesia (drift).		
Fauna F	palliata, Barr.			(Boh.)Konieprus, Mnienian.
	Panderi, Billings.		Anticosti Island (G. St. Lawr.), Junction Cliff.	
	„ Verneuil.			Russia.
Tr., Carad.	parva, Pander.	(Engl.) Ribblesdale, Cornwall, Ireland, (Scotl.) Girvan, (Wales) Llansaintffraid &c., (Russia) Gatchina &c., (Esthon.) Réval &c., Sweden, Spain, (Portugal) Bussaco, N. York, Ohio.	Canada	Canada ?.
Carad.	patera, Salter.	Sardinia, (N. Wales) Bala, (Shropshire) Hopesay.		
	patula, M'Coy.	Wales ?, Sardinia.		
Tr.	pectinella, Conrad.	Caughnawaga, L. St. John, Murray Bay (Can. E.), Canada W., Pennsylvania.		
	var. semiovalis, Hall.	(N.Y.) Watertown &c., Tennessee, Missouri, N.W. Michigan.		
Delth. Sh. Lst.	peduncularis, „			(New York, eastern) Helderberg Mountains.
	pentamera, Meneghini.	Sardinia.		
P., Potsdam	pepina, Hall.	Lake Pepin (Mississippi R.), Osceola Mills, R. St.Croix.		
Fauna F	peregrina, Barr.			(Bohemia) Konieprus.
Delth. Sh. Lst.	perelegans, Hall.			(New York, eastern) Hudson and Catskill Counties.
CH., Tr.	perveta, Conrad.	(New York) Chazy Village, (Canada) Montreal, Tennessee,(Wisconsin)Mineral Point.		
CH.	piger, Billings.	Mingan Isles (G. St. Lawr.).		

Subdivision.	Genus, Species, and Author.	Lower Stage.	Middle Stage.	Upper Stage.
Fauna F	pinguissima, Barr.	.....	.....	(Bohemia) Konieprus.
L. H. G., Niag....	pisum, Hall.	.....	.....	(New York) Wolcott, N.W. Michigan (L. Superior).
	plana, Pander.	Poulkova, St. Petersburg (Russia).		
	planissima, Eichw. ?	(Esthonia) Réval, D'Erras.		
L. H. G.	plano-convexa, Hall.	.....	.....	(New York, eastern) Helderberg Mountains.
CH.	platys, Billings.	(Can.W.) Kingston, (Can.E.) Montreal &c., Highgate Springs (N. Vermont).		
L. H. G., U.Bala, W.	plicata, Sowerby.	(Wales) Galli Grin, Alt-y-Anker, &c., Howgill Scar, Westmoreland, Ribblesdale, Yorkshire.	.....	Cornwall?, Cherry Valley (N. York).
Corall.Lst., Tr...	plicatella, Hall.	Ohio, Kentucky, Indiana, Canada, N. York, Norway, Scania, Gothland, &c.	.....	(Isle Oesel) Ficht.
Carad.	polygramma, Murch. *Atrypa.*	Powis Castle (Wales).		
Tr., H. R. G., M. Sa., Carad., U. Llandov., W.	porcata, M'Coy. *anticostiensis*, Shaler.	Ottawa City (Can.W.), Ohio, Indiana, Ellis Bay (Anticosti), Westmoreland, Lowick (Lancash.), Norway, (Irel.) Desertcreate &c., (Wales) Wrexham &c.	(Wales) Blain-y-Cwm Ridge, (Anticosti) Gamache Bay.	Dudley, Tirnaskea (Tyrone).
	var. occidentalis, Hall.	(Can.W.) L. Huron, Western New York, (N. Illinois) Waddam's Grove, Iowa, Missouri, New Mexico, N.W. Michigan.	Wales, Ireland, S.W. Scotland, Norway, Russia, Thuringia, Livonia, Canada, New York, Tennessee, Wisconsin.	New York, (Can. W.) Galt, Lake Huron, S. Wisconsin.
	,, retrorsa, Salter.	Ottawa City (Can.W.), Lake Ontario (N. side), (Ohio) Cincinnati, Wales, *passim.*		
CL. &c.	,, sinuata, Hall.	Canada, Wiscons., Tennessee.	New York.	
H. R. G. &c. ...	,, subjugata. ,,	New York, N.W. Michigan (Lake Superior).		
	,, terebratulaformis, M'Coy.	Portugal, Sweden?.		
CH.	Porcia, Billings.	(Canada E.) Montreal.		
P.	primordialis, C. de Prado.	(Spain, Prov. *Leon*) Sabero.		
Carad.	protensa, Sowerby.	(Irel.) Wexford and Wicklow Counties.	Llandovery, Mathyrafal, Golengoed, &c. (Wales), Ashgill (Westmoreland).	
Llandov.	var. lata, ,,	,, ,,	Llandovery (Wales).	
Carad.	pseudopecten, M'Coy.	(Irel.) Meath, Knockmahon, and Waterford.		
	psittacensis, Durocher.	Norway.		
Davidson, Devonian.	pulvinata, Salter.	(France) Caen, Budleigh Salterton, Devonsh. (pebbles).		
	punctata, Verneuil.	....	.....	(Gothl.) Hoburg, Wisby, &c.
Niag.	puncto-striata, Hall.	.....	.....	(New York) Lockport (limestone).
	pusilla, Hising.	.....	.....	Temple Näs (Gothland).
Niag.	pyramidalis, Hall.	.....	.....	(New York) Lockport.
P., Queb. G. ...	Quebecensis, Billings.	(Canada E.) Point Lévis.		
Pleta	quinque-radiata, Eichw.	(Russ.) Popova, Pontilova, (Esthon.) Baltischport &c.		
Carad.	radians, Sowerby.	Tramore (Waterford), Golengoed (Wales).		
Fauna D	redux, Davidson, Barr.	(France) Normandy, May, La Manche, Beraun (Boh.).		
	regularis, ?	Isle Soller, Dalecarlia.		
P., Arenig rocks.	remota, Salter.	N. Wales, Whitesand Bay, Ramsay Isl., S. Wales.		
Carad.	retroflexa, Portlock.	Chair of Kildare (Ireland).		
,, ...	retrosistria, M'Coy. *alternata.*			
U.Llandov.	reversa, Salter.	.....	.....	Mandinam, Llandovery, Malvern, Chirbury (England), Galway (Irel.), (S. Scot.) Mullock.
	rhynchonella-formis, Shal.	(Anticosti, east end) Gull Cove.		
	Ribeiro, Sharpe.	Coimbra (Portugal).		
Carad., W.	rigida, Davidson.	(Wales) Gaer Fawr, Bryn Melyn.	North and South Wales...	England, Wales.
P., fauna C	Romingeri, Barr.	(Bohem.) Ginetz, Skrey, &c.		

Subdivision.	Genus, Species, and Author.	Lower Stage.	Middle Stage.	Upper Stage.
Tr.	rugosa, Goldfuss.	N.York, Esthonia, Sweden ?.		
Div. 1, A. Gr., Llandov.	ruida, Billings.	.....	Gamache Bay (Anticosti).	
Carad., W.	rustica, Sowerby.	(Wales) Meifod, (Esthonia) D'Erras, Bull's Head (Kerry).	Wales.	Ferriter's Cove &c., Kerry, Wenlock, Walsall, &c. (Engl.), Mid Gothland.
	var. *a*, Lindström.	.....	.....	(S. Gothl.) Hoburg, Œstergarn.
	Sadewitziana, Römer.	Silesia (drift).		
L.Llandov.?, Car.	sagittifera, M'Coy.	(Wales) Bala, Aber Hirnant, &c.	Wales.	
	Salteri, Billings.	.....	(Isle Anticosti) Junction Cliff.	
?	Sardoa, Meneghini.	Sardinia.		
Carad.	sarmentosa, M'Coy.	(Wales) Llyn Ogwen, Bala, Rathdrum, Wicklow (Ireland).		
,, ...	semicircularis, Eichw.	Popova, Poulkova (Russia), (Esthonia) Lyckholm &c.		
,, ...	,, Sowerby.	(Irel.) Wexford &c., Corndon or Shelve (Shropsh.).		
Carad.	simplex, M'Coy.	(Ireland) Chair of Kildare, Wexford, (Wales) Bala Lake.		
H. R. G., CL....	sinuata, Hall.	(Ohio) Oxford &c., (Indiana) Madison, (Kentuck.) Maysville, Wisconsin, Canada.	Tennessee, New York.	
	sinuosa, Durocher.	.....	.....	Norway.
Fauna D. d. 1 ...	socialis, Barr.	(Bohem.) Rokitzan, Wosek.		
Faunæ E, F ...	sol, ,,	.....	Bohemia	Bohem., Dudley (*Barrande*).
H. R. G.	sola, Billings.	(Anticosti Isle) Salmon Riv.		
Llan., Carad. ...	spiriferoides, M'Coy.	(N. Wales) Arenig Mountains, Welchpool, &c.		
?	striatella, Dalm.	.....	.....	(Gothland) Hoburg.
	striatocostata, Salter.	Niti Pass, Himalaya Mountains (E. I.).		
L.&U.Llan., Tr., L.Llandov.	striatula, Conrad.	(Can. E.) Montreal, (N.Scotland) Durness, Shelve?, Shropshire, (Wales) Caermarthen.	Cefn Rhyddan, Llandovery (Wales).	
Delth. Sh. Lst...	strophomenoides, Hall.	.....	.....	(N. York) Helderberg Mountains.
Tr.	subæquata, Conrad.	(Can. W.) La Cloche, Lake Huron, Tennessee, Missouri, (Wisconsin) Mineral Point.		
Delth. Sh. Lst...	subcarinata, Hall.	.....	.....	(Tennessee W.) Wayne Co., (New York) Helderberg Mountains.
	subdivisa, Salter.	Mamrang and Niti Passes, Himalaya, Kalajowar.		
Tr., H. R. G. ...	subquadrata, ,,	Indiana, Missouri, Wisconsin, Ohio, Kentucky (Can. E.), (Anticosti) Charlton Point, Lake St. John.		
Pentam. Lst. ...	subtilis, Eichw.	.....	(Esthonia) Kirna, (Livonia) Laisholm.	
?	Sulivani, Morris & Sharpe.	Falkland Islands (S. Amer.).		
CL.	tenuidens, Hall.	....	N. York, Oneida County.	
?	tenuis, Morris & Sharpe.	Falkland Islands (S. Amer.).		
Carad.	tenuissime-striata, M'Coy.	Rathdrum (Irel.), Coniston (Lancash.), Llansaintffraid &c. (Wales).		
	terebratulina, Durocher.	Sweden.		
Tr., Utica Slate, H.R.G., Carad., Llandov.	testudinaria, Dalm.	Lake St. John (Can. E.), Hot Creek, Nevada (California), Anticosti, N. York, Pennsylvania, Missouri, Iowa, N.W. Michigan, Tennessee, (Spain) Almaden, Fontanosas (Normandy), May, Sardinia, Bohemia, Thuringia, (Ireland) Kildare, (England) Hollies Farm &c., Shropshire, Scotland, (Wales) Llan Mill, Norway, (Russ.) S. Ural &c., Saalfeldt, Dagden (Baltic).	Canada, Wales, Norway, Nova Scotia.	
	Tibetica, Salter.	Niti, Kumaon, Himalaya (E.I.), Bompras, Rimkin, &c.		

Subdivision.	Genus, Species, and Author.	Lower Stage.	Middle Stage.	Upper Stage.
	thakil, Salter.	Niti & Mamrang Passes, Himalaya (E. I.).		
	var. convexa, ,,	,, ,,		
	,, striato-costata, ,,	,, ,,		
	,, subdivisa, ,,	,, ,,		
	,, trifida, ,,	,, ,,		
	transversalis, Von Buch.	Sweden.		
Llan., U.Llandov.?	triangularis, Sowerby.	(Irel.) Wexford Co., (Wales) Marrington Dingle.	Llandovery, Castell-Craig, Gwyddon.	
Carad., Tr.	tricenaria, Conrad.	Murray Bay, Lake St. John (Can. E.), Mid Ottawa R., La Cloche, Lake Huron (Can. W.), Middleville (N.York), Tennessee, Missouri, (Wisconsin) Mineral Point, (S.W. Scotl.) Piedmont Glen.	La Cloche, Lake Huron.	
Pleta	trigonula, Eichw.	Poulkova &c. (Russ.), (Esth.) Lakesberg Mountain.		
CL.	trinucleus, Hall.	.....	(N. York) Wayne County.	
P., Queb. G. ...	tritonia, Billings.	(Can. E.) Point Lévis.		
	truncata, Dalm.	Norway.		
	tubulata, Lindström.	.....	.....	South Gothland.
Delth. Sh. Lst...	tubulo-striata, Hall.	.....	.....	(N. York) Albany County, (North New Brunswick) Restigouche.
	tumida, Kutorga.	Poulkova (Russia), Wesenberg &c. (Esthonia).		
Llan., Carad. ...	turgida, M'Coy.	(N. Wales) Craig-y-beri &c., Mayhill, Gloucestershire.		
?	uberis, Billings. *æquivalva*, Shaler.	.....	Anticosti Isle.	
Fauna F	umbella, Barr.	.....	.....	Bohemia.
	uncata, Salter.	Niti Pass, Himalaya (E. I.).		
Carad.	unguis, Sowerby.	Gretton &c., Shropshire.		
?	Uralensis, Verneuil.	Ural Mountains.		
Delth. Shale ...	varica, Hall.	.....	.....	(N. York, eastern) Helderberg Mountains, Tennessee, Wayne County.
L.Ling. Flags ...	vaticina, Salter.	Penmorpha, Criccieth (N.W.)		
Fauna E	venustula, Barr.	.....	.....	Bohemia.
Pleta &c.	Verneuillii, Eichw.	Réval (Baltic), Isle Dago ...	.....	Tennessee.
Car., Llandov.?	vespertilio, Sowerby.	Ireland, (Wales) Blain-y-cwm, Gelli Grin, (Engl.) Shropshire, Hope, Dowgill Scar, Horderley, Malvern, Yorkshire, Dent, France, (Spain) Ballesteros.	Wales.	
Carad.	virgata, ,, *calligramma*.	Salahir Mountains, Lossicha (Russia), Chair of Kildare (Irel.) and Co. Waterford.		
	Wisbyensis, Lindström.	.....	.....	Wisby, Gothland.
	zonata, Dalm.	Ostrogothia, Skarpasen, Norway.	Norway.	
?	sp. ind. Giebel.	Lower Harz (Thuringia).		
P.	,, Barr.	Hof (Bavaria).		
,, ...	,, B. F. Shumard.	(Texas) Burnet County.		
Potsd.	,, Billings.	Forteau Bay (Labrador).		
	,, Abich.	.....	.....	Ararat (Armenia).
	,, Salter.	.....	.....	Millapaya Valley, Illampu (South America).
	,, Hector.	.....	.....	New Zealand (*Salter*).
P., Queb. G.	,, Logan.	Point Lévis (Canada E.).		
	,, Stuchbury.	Berrigal (New South Wales).		
	,, Coquand.	Ceuta (Morocco).		
Delth. Sh. Lst....	,, (2), Swallow.	.....	.....	Missouri.
	,, Selwyn.	.....	Victoria (Australia).	
	Orthisina, *D'Orbigny*, 1849.			
	æquirostris, Verneuil.	(Russia) Tosna?		
Pleta.....	anomala,	(Norway) Christiania, (Esthonia) Réval, Lyckholm, Russia, North Holland (drift).		
Carad., Pleta. ...	ascendens, Pander. *pronites*, Von Buch.	(Wales) Corwen, Wrexham, &c., (Esthonia) D'Erras &c., (Russia) Gatchina &c.		

Subdivision.	Genus, Species, and Author.	Lower Stage.	Middle Stage.	Upper Stage.
Pleta.....	Asmussii, Verneuil.	Réval, Wesenberg, Lyckholm, &c., (Russia) Tosna.		
,, ...	var. æqualis, ,,	Russia.		
,, ...	,, deformata, ,,	,,		
,, ...	distincta, Eichw.	Réval &c. (Baltic), (Russia) Tosna.		
P., Potsd. &c. ...	festinata, Billings.	Canada, Straits of Belleisle (N. America), N. Vermont (U.S.A.).		
CS.	grandæva, ,,	Mingan Isles (G. St. Lawr.).		
Niag.	hemiaster, Winch.& Marcy.	.....	.....	Chicago (Illinois, U.S.A.).
Pleta.....	inflexa, Davidson.	Sardinia, (Russia) Poulkova &c., (Esthonia) Réval &c.		
	intermedia, Meneghini.	Sardinia.		
P.	pellico, Verneuil.	(Spain, *Leon*) Sabero.		
Pleta.....	plana, Pander.	Poulkova &c., Wassilkowa (Russia), (Esthonia) Wesenberg, Réval, &c.		
,, ...	radians, Eichw.	Poulkova &c. (Russia).		
Carad.	Scotica, M'Coy. var. *calligramma*.	(S.W. Scotl.) Ayrshire, Girvan, Colmonel.		
	Tcheffkini, Verneuil.	Wales (*Salter*), St. Petersburg (Russia).		
?	terebratuliformis, Menegh.	Sardinia.		
Dolom. Cor. Lst.	umbraculum, Von Buch.	.....	.....	Moustel Pank (Isle Oesel).
H. R. G. &c. ...	,, ? Eichw.	Anticosti Isle.		
P.	vaticina, Salter.	(Spain, *Leon*) Sabero.		
Pleta, B., BL., H. R. G., M.Sa.	Verneuillii, ,, *deversa*, Shaler.	Canada W., (Esthonia) Hohenholm &c.	(Anticosti) Gamache Bay &c.	
	sp. ind. Meneghini.	Sardinia.		
Potsd.	,, Billings.	Forteau Bay (Labrador).		
	Pentamerus, *Sowerby*, 1813.			
Fauna F	acuto-lobatus, Barr.	.....	.....	(Bohemia) Konieprus.
Niag.	arcuosus, M'Chesney.	.....	.....	Milwaukee (Wisconsin).
Mayhill Sa.	Australis, M'Coy.	.....	(Australia) Victoria.	
Div. 2, A. Gr., Llandov., CL.	Barrandei, Billings.	.....	(Can. E.) Becscie Bay, Anticosti Isle.	
	Baschkiricus, Verneuil.	.....	.....	(Ural) Satkinsk-pristan &c., (Altai) Salahir.
Niag.	bisinuatus, M'Chesney.	.....	.....	Baley's Harbour, Door Co. (Wisconsin).
	borealis, Eichw.	.....	(Esthonia) Raicks, Jorden, &c., (Livonia) Fennern.	Esthonia, Livonia, North Russia.
Niag.	brevirostris, Hall. *Atrypa*.	.....	.....	(New York) Lockport shale.
Faunæ F, G, H	bubo, Barr.	.....	.....	(Bohemia) Prague, Konieprus, Sweden.
,, E, F ...	caducus, ,,	.....	.....	(Bohemia) Prague, Beraun.
Niag.	Chicagoensis, Winch.&Mar.	.....	.....	Chicago (Illinois).
	conchidium, Dalm.	.....	.....	(Gothland) Klinte, Norway, Russia, Cornwallis Island (Arctic America).
Niag.	crassoradius, M'Chesney.	.....	.....	Milwaukee (Wisconsin).
?	Esthonus, Eichw.	.....	Mid. Gothland, (Esthonia) Kattentack.	
CL.	fornicatus, Hall.	.....	(New York) Lockport.	
Fauna F, W., L., Delth. Sh. Lst.	galeatus, Dalm.	.....	Norway.	Maryland, New York, Pennsylvania, Tennessee, Up. Mississippi, N.W. Michigan, (Can. E.) CapeGaspé, France, Thuringia, Bohemia, Russia, Podolia, N. and Mid. Gothland, Ural, Norway, (Engl.) Dudley, Malvern, Ludlow, &c., (Wales) Usk, (Irel.) Ferriter's Cove &c.
L. & U.Llandov.	globosus, Sowerby.	....	(Engl.) Malvern, Ireland, (Wales) Llandeilo, Carmarthen, &c., Bohemia, France, (Thuring.) Saalfeld.	
Fauna G. g. 1 ...	innocens, Barr.	.....	? Brest Roads (France), *Ebray*.	(Bohemia) Tetin.
,, F	integer, ,,	.....	.....	(Bohemia) Konieprus &c.
CL.	interplicatus, Hall.	.....	New York.	

Subdivision.	Genus, Species, and Author.	Lower Stage.	Middle Stage.	Upper Stage.
	juglans, Römer.	Lower Silesia (drift).		
Faunæ E,F; W., L.	Knightii, Sowerby.	.....	.....	(Can.E.) Port Daniel ?, Tennessee, (Rupert's Land) L. of Woods, (England) Mocktree, Aymestry, Ledbury, &c., Wales, Harz, Bohemia, (Irel.) Creaghmartin, Sweden, Thuringia, Ural.
H. R. G., Llandov., &c.	lævis, ,,	Ohio (U.S.A.), (Wales) Pwllheli, Penlan, Shropshire, Soudley.	Upper Mississippi River, (Norway) Franconia, (Wales) Cefn, Cyrn-y-brain, Norway.	Thuringia.
,, Llandov., W. ...	*lens*, *liratus*, } see STRICKLANDIA.			
Llandov., W., Faunæ E, F, G. g. 1, 2.	linguiferus, Sowerby.	.....	England, Wales, Franconia, Esthonia, (Norw.) Christiania.	(Engl.) Malvern &c., Wales, Thuringia, Russia, Mid. Gothland, (Bohem.) Hlubocep, Chotecz, Hostin, Mnienian, &c.
	Littoni, Hall.	.....	.....	(Tennessee) Hardin County, New York.
U.Llandov.	microcamerus, M'Coy.	.....	Mandinam, Carmarthenshire, Mayhill, Gloucestershire.	
	multicostatus, D. D. Owen ?	Wisconsin (U.S.A.).		
Car., U.Llandov., CL., Niag., Div. 3, 4, A. Gr.	oblongus, Sowerby.	Mingan Isles (G. St. Lawr.).	(Engl.) Malvern, Norbury, &c., (Wales) Pen-y-lan &c., Galway (Ireland), S.Scotland, Russia, Norway, Thuringia, Livonia, Canada, Anticosti, S. Point, &c., New York, Iowa, N.W. Michigan, L. Huron, Tennessee, Wisconsin.	High Hill, Manitouline Isle, Lake Huron, Thorold, Hamilton (Can. W.).
Llandov.	var. (Pent. lævis, Sow.)			
Onond. Salt Gp.	*occidentalis*, Hall. (See *Orthis occidentalis*.) var. porcata.	.....	.....	Guelph Township (Can.W.).
Faunæ F, G. g. 1	optatus, Barr.	.....	.....	(Bohem.) Konieprus, Tetin.
	Ostiacus, Keyserling.	.....	.....	(Russ.) Rivers Yega-Lagra and Jezem.
CL.	ovalis, Hall.	.....	(N. York) N. Hartford, Oneida County.	
Faunæ F, G. g. 1	pelagicus, Barr.	.....	.....	(Bohemia) Tetin, Luzetz, Karlstein, Dworetz.
Fauna F	problematicus, ,,	.....	.....	(Bohemia) Konieprus.
U.Pentam. Lst...	pseudogaleatus, Hall.	.....	.....	(N. York) Helderberg Mountains, Canada.
Llandov.	pumilus, Eichw.	.....	(Livonia) Talkhof.	
,,	reversus, Billings. *camerella*. *Brachymerus*, Shaler.	.....	Anticosti, Junction Cliff.	
Llandov., W. ...	rotundus, Sowerby.	.....	Galway (Ireland).	Ferriter's Cove (Irel.), Wenlock Edge, Malvern (Engl.), (Gothland) Wisby.
?	St. Hilairii, Rouault.	(France) Gahard.		
?	Samojedicus, Keyserling.	.....	.....	R. Vaschina (Arctic Russia).
	sculptus, Walmstedt.	.....	.....	Mid. Gothland.
Fauna F	Sieberi, Barr.	.....	.....	(Bohem.) Konieprus, Mnienian, &c., Lower Loire (France).
	var. ,,	.....	.....	(Bohemia) *ut supra*.
?	striatus, Eichw.	.....	North Ural	(North Ural) Bogoslovsk.
Faunæ F, G. g. 1	Stryx, Barr.	.....	.....	(Boh.) Konieprus, Dvoretz.
	tenuistriatus, Walmstedt.	.....	.....	Mid. Gothland.
Niag.	trisinuatus, M'Chesney.	.....	.....	Milwaukee (Wisconsin).
Car., L.&U.Llandov.	undatus, Sowerby.	Guilsfield (Welchpool)	(Wales) Mathyrafal, Penlan, &c., (Shropshire) Builth.	
Delth. Sh. Lst....	Verneuilli, Hall.	.....	.....	(Tennessee W.) Wayne Co., (New York) Helderberg Mountains.
?	Vogulicus, Verneuil.	.....	.....	Thuringia, (N. & E. Ural) Petropaulofsk &c.
	var. minor, ,,	.....	.....	(Ural) Krasnoglasova &c.

Subdivision.	Genus, Species, and Author.	Lower Stage.	Middle Stage.	Upper Stage.
	sp. ind. Giebel.		Harz.	
	„ D. D. Owen.		Upper Mississippi River.	
?	„ Selwyn.		Victoria (Australia).	
U.Llandov.	„ ?		Nash Scar, Presteign.	
	Pholidops, *Hall*, 1859.			
Delth. Sh. Lst.	ovatus, Hall.			(N. York) Albany County.
Niag.	squamiformis, „			„ Lockport &c.
	Platystrophia, *King*, 1849. (ORTHIS.)			
Pleta	chama, Eichw.	Spitham (Esthonia).		(Isle Oesel) Kiddemetz.
„	costata, Pander.	Popova, Poulkova, &c. (Russia), (Isle Oesel) Hohenholm.		
„	recta, „	(Russia) Popova, &c.		
?	regularis, Shaler. *Orthis lynx.*		(Anticosti) Junction Cliff.	
Pleta & Lst. with pyroxene.	striata, Pander. *Spirif. Panderi*, Verneuil.	Poulkova (Russia).		
Pleta	Tcheffkinii, Verneuil. *Orthisina.*	St. Petersburg (Russia).		
„	tenuicosta, Eichw.	(Esthonia) Spitham, Odinsholm Isle.		
	Porambonites, *Pander*, 1830.			
Pleta.	æquirostris, Schloth.	Réval (Baltic), Poulkova (Russia).		
W.	Capewelli, Davidson. *Retzia?*			(Engl.)Malvern,Walsall,&c., Wales,(N.York)Lockport, (Gothl.) Wisby, Mid. and South Gothland, Hoburg, &c.
	crassa, Sowerby. *Atrypa?*	Westmoreland, Wales.		
Pleta.	deformatus, Eichw.	Baltischport, Réval, &c. (Esthonia).		
Fauna D	hamifera, Barr.	(Bohemia) Beraun.		
Llandov.	intercedens, Pander.		(S. Scotl.) Wrae, Wales, Sweden, Russia.	
	linea, Sharpe.	(Portugal) Bussaco.		
BL.	Ottawaensis, Billings.	(Can. W.) Middle Ottawa River.		
Pleta with pyroxene.	reticulatus, Pander.	Poulkova (Russia).		
	Ribeiro, Sharpe.	(Portugal)Bussaco,Brittany.		
Corall. Lst.	Salteri, Davidson.			Isle Oesel (Baltic).
Pleta.	teretior, Eichw.	Gatchina, Poulkova(Russia), Wichterpahl &c. (Estho.).		
Carad.	sp. ind. Salter.	(Normandy) May, Budleigh Salterton (Devonshire).		
	Pseudocrania, *M'Coy*, 1851. (See CRANIA.)			
	Rennselæria, *Hall*, 1858.			
U.Pentam. Lst.	æquiradiata, Hall.			(N. York, east and central) Cherry Valley &c.
Delth. Sh. Lst.	elliptica, „			(Y.Nork, east) Schoharie Co.
„ „	lævis, „			(N. York) Albany County.
L. H. G.	mutabilis, „			(N. York, east) Albany &c. Counties.
„	? ovoides, „			(Can. E.) Cape Gaspé.
	Retzia, *King*, 1849.			
Fauna F, W.	Barrandii, Davidson.			Benthal Edge (Shropshire), Bohemia, S. Gothland.
W.	Baylei, „			(S. Gothl.) Hoburg, Ostergarn, Benthal Edge, Oesel Isle (Baltic).
„	var. Bouchardi, „			(Gothl.) Wisby &c., Malvern, Dudley, &c.
	cuneata, Dalm. *Rhynchonella.*		South Scotland	(Wales) Plas Madoc.
	deflexa, Hall?			New York.
Fauna F	Haidingeri, Barr.			(Boh.)Konieprus, Mnienian.
	Lewisii. Davidson.			Wales.
Faunæ E, F	membranifera, Barr.			(Bohemia) Mnienian.
Tr.	mima, Salter.	Tasmania West (*Milligan*).		
L. H. G.	multistriata, Hall.			Canada.
Corall. Lst., W.	Salteri, Davidson.			(England) Sedgley, Dudley, Lincoln Hill, &c., (Isle Oesel) Ficht &c., (Wales) Llandeilo, Gothland.
	toreno, Verneuil.	Spain (upper stage?)		(France) Lower Loire, Debray.

Subdivision.	Genus, Species, and Author.		Lower Stage.	Middle Stage.	Upper Stage.
	Rhynchonella, *Fischer,*		1809. HEMITHYRIS, *D'Orbigny.*		
Delth. Sh. Lst....	abrupta,	Hall.			(N. York, east) Albany Co. &c.
Corall. Lst.	acumen,	Eichw.			(Isle Oesel) Ficht.
Delth. Sh. Lst....	acuminata?,	Hall.			(New York, east) Schoharie County &c.
Corall. Lst.	acutidens,	Eichw.			Kamenetz (Podolia).
Delth. Sh. Lst....	acutiplicata,	Hall.			(New York, east) Schoharie County, Gaspé (Can. E.).
	acutirostra,	,,	New York.		
Carad.	æmula,		Chair of Kildare, Desertcreate (Irel.), Craighead (S.W. Scotland), Cerrig-y-Druidion (Wales).		
L. H. G., CL. ...	æquiradiata,	,,		Arisaig (Nova Scotia). ...	(New York) Oneida County.
	Atrypa.				
L. Pentam Lst....	æquivalvis.	,,			(New York) Helderberg Mountains.
Fauna F	Alecto,	Barr.			Bohemia.
CH.	altilis,	Hall.	New York.		
Delth. Sh. Lst....	altiplicata,	,,			(New York, east) Albany Co. &c.
Fauna F	Amalthæa,	Barr.			(Bohemia) Konieprus, Mnienian.
,, D	ambigena,	,,	(Bohemia) Beraun.		
L. Llandov.	angustiformis,	M'Coy.		Mulock, Girwan (S.W. Scotland).	
H. R. G.	Anticostiensis,	Billings.	Anticosti, Gulf St. Lawrence (English Head &c.).		
Carad.	apiculata,	?	Chair of Kildare (Ireland).		
Niag.	aprinis,	Verneuil.		Russia	(N. York) Lockport, (Russ.) River Vindau, Esthonia.
	Terebratula.				
Div. 4, A. Gr., Mayhill?	argentea,	Billings.		(Anticosti) Challoupe River.	
Fauna F	Baucis,	Barr.			(Bohemia) Mnienian.
	beliula,	Giebel.			Lower Harz (Thuringia).
Faunæ E, F.....	Berenice,	Barr.			(Bohemia) Beraun.
Delth. Sh. Lst....	? bialveata,	Hall.			(N. York, east) Albany Co.
	? bicarinata,	Lindström.			Middle Gothland.
CL.	bidens,	Hall.		(New York) Lockport.	
Tr., Ut. Slate, H. R. G., W.	bidentata,	Hising.	N. York, (Ohio) Cincinnati &c., Indiana.		(Podolia) Jarouga, Lower Harz, (Gothl.) Djupviken, North Holland (drift).
	Terebratula.				
?	Bischofi,	Römer.			Lower Harz (Germany).
	bisulcata,	Emmons.	New York, Canada.		
U. Llandov., W., U.L.	borealis,	Schloth.		(England) Chirbury, Malvern, &c.	(Wales) Presteign, Mercklin, (Engl.) Malverns, Dudley, (Irel.) Derrymore Glen, Ferriter's Cove, Kerry.
Delth. Sh. Lst....	,,	Sharpe.			(N. York) Schoharie, (Pennsylvania) Tioga.
M. Sa., W.	brevisrostrum,	Hall.		(Can. W.) Nelson, Collingwood, Lake Huron.	(Engl.) Woolhope &c.
Carad.	calyptycha,	?	Llan Mill, Narbeth (S. Wales).		
Delth. Sh. Lst., Scutella Lst.	Campbellana,	Hall.			(New York, east) Helderberg Mountains.
Niag.	camura,	,,			(Canada W.) Dundas.
H. R. G.	capax,	Conrad.	Anticosti, English Head, &c. (*Richardson*), (Can. E.) St. Grégoire, Ohio, (Indiana) Madison, (Can. W.) West Bay, Manitouline Island (L. Huron), Savannah &c. (Illinois).		
Fauna F	Ceres,	Barr.			(France) Lower Loire, Debray, (Bohemia) Mnienian.
,, ...	comata,	,,			(Bohem.) Konieprus, Mnienian.
L.L.	compressa,	,,			Pentlands, Hare Hill (Scot.).
Fauna F	Corinna,	Barr.			(Bohem.) Mnienian, Konieprus.
Div. N, P, Queb. Gp.	Corinthia,	Billings.	Newfoundland West.		
W.	crebricosta,	Sowerby.		(Wales) Tynewidd, Llandovery.	
	Wilsoni?				

Subdivision.	Genus, Species, and Author.	Lower Stage.	Middle Stage.	Upper Stage.
W.	crispata, Sowerby.			Woolhope, Radnorshire.
Llandov., W.	cuneata, Hising., Dalm. *Atrypa.*		(S.W. Scotland) Ayrshire.	(Wales) Radnorshire, Plas Madoc, &c., (Engl.) Dudley &c., (Scotl.) Pentland Hills, Ireland, (Bohemia) Mnienian, (Gothl.) Wisby &c., (Podolia) Laskofski, (N. York) Lockport, (Can. W.) Thorold. (Norway) Christiania, Wisconsin.
Faunæ E, F	Cybele, Barr.		Bohemia	(Bohemia) Beraun.
Fauna E. e. 1	Daphne, ,,		(Bohemia) Beraun.	
U.L.	Davidsoni, M'Coy. *hemisphærica.*			Wales, (Shropsh.) Wenlock.
U.Llandov., W.	decemplicata, ,,		(Wales) Presteign, (Engl.) Malvern, Chirbury, &c., Réval (Baltic).	Wales.
Fauna E, Delth. Sh. Lst., W., L.	deflexa, Sowerby.			Wales, (Engl.) Walsall, Dudley, &c., Middle & South Gothland, Bohemia.
Pleta, Mid. Sil.	dentata, Hall.	New York, Tennessee, Réval (Baltic, *Eichwald*).	North Oural.	
Carad., W.	depressa, Sowerby.	(Wales) Merioneth, Brunbedwog.		Wales, (Malvern) Crewe's Hill.
Fauna F. f. 2.	Diana, Barr. (MS.)			(Bohemia) St. Ivan.
Pleta	digitata, D. de Leuchtenb.	Poulkova (Russia).		
Carad., Corall. Lst.	diodonta, Dalm.	(N. Wales) Yspatty, Evan, &c., Kirkcudbright, S.W. Scotland ?	(Norw.) Christiania, Mayhill sand of Victoria, S. Australia.	(I. Oesel) Hohenheim, Lodé, (Gothland) Klinteberg, Slitchamn, Faroe, Lansa.
	dubia ?, Hall.	New York (U.S.A.).		
CL.	emacerata, ,,		(New York) Sodus, Rochester, &c.	
	emaciata, Barr.			(France) Lower Loire, Bohemia.
Delth. Sh. Lst.	eminens, Hall.			(New York, east) Helderberg Mountains.
Fauna F	Eucharis, Barr.			(Boh.) Mnienian, Konieprus.
,, ,,	Eurydice, ,,			,, Konieprus, Mnienian.
Div. 3, A. Gr., Mayhill.	Eva, Billings.		(Anticosti) East Point.	
	? exigua, Lindström.			(Gothland) Wisby.
Faunæ E, F.	famula, Barr.			(Bohem.) Prague, Konieprus.
Delth. Sh. Lst.	formosa, Hall.			(N. York, east) Helderberg Mountains.
Div. 2, A. Gr., M.Sa.	fringilla, Billings.		Anticosti Isle, Gull Cape (Gulf St. Lawrence).	
Carad.	furcata, Sowerby.		England, (Wales) Buildwas &c.	(Irel.) Creaghmartin, Derrymore Glen.
Div. 2, A. Gr., Llandov., M.Sa.	glacialis, Billings.		(Anticosti Isle) Ellis Bay, Gull Cape.	
Green-grained L.	globosa, Eichw.	Kipenet, Poulkova, &c. (Russia), Isles Oesel and Dago, Réval, &c.		
Fauna E. e. 1	Harpyi, Barr.		(Bohemia) Beraun.	
Faunæ E, F.	Hebe, ,,			(Bohem.) Prague, Carlstein.
Tr.	hemiplicata, Salter.	(Can. E.) Lorette, Beauport.		
Fauna F	Henrici, Barr.			(Boh.) Konieprus, L. Harz.
Tr., H. R. G.	increbrescens, Hall.	(Can. E.) L. St. John, Montreal, (Can. W.) L. Huron West, Moira River, Humber River, (N.W. Vermt.) Highgate Spring, New York, Ohio, Indiana, Tennessee, Wisconsin, Michigan, Fort Garry (Rupert's Land).		
Llandov.	interplicata, Sowerby.		Delves Green, Woolhope.	
Corall. Lst.	interstitialis, Eichw.			Isle Oesel (Baltic), Ficht.
Delth. Sh. Lst.	inutilis, Hall.			(New York) Albany County.
Div. 1, A. Gr., Llandov.	Janea, Billings.		(Anticosti) Gamache Bay.	
	lacunosa, Vanuxem.			New York.
W.	,, Linné.			Malvern, Wenlock (Shropshire).
Cor. Lst., Schoh.	lamellata, Hall.			(N. York) Schoharie County.
Fauna E. e. 1	latesinuata, Barr.		(Bohem.) Prague, Beraun.	

Subdivision.	Genus, Species, and Author.	Lower Stage.	Middle Stage.	Upper Stage.
Faunæ F, G. g. 1	Latona, Barr.	.....	.....	(Bohemia) Tetin, Branik, Konieprus.
Carad., L.Llandov., W.	Lewisii, Davidson.	.....	Mathyrafal, Meifod (W.).	Middle and South Gothland, (Engl.) Dudley, Walsall, &c.
Fauna F	linguata, Von Buch.	.....	.....	Bohemia.
,, E	Livonica, Von Buch, Barr.	.....	.....	Norway, Bohemia.
Carad., Llandov.	Llandoveriana, Davidson.	South Wales	Galway, *passim*.	
	Mansoni, Salter.	.....	.....	(Arctic Seas, America) Wellington Channel.
Fauna F	matercula, Barr.	.....	.....	(Bohemia) Konieprus.
,, E. e. 1 ...	Megæra, ,,	.....	Bohemia.	
Div. 4, A. Gr., Mayhill.	mica, Billings.	.....	(Anticosti) The Jumpers.	
Fauna E	Minerva, Barr.	.....	(Bohemia) Beraun.	
H. R. G.	modesta, Billings.	(Lake Huron) Cape Smyth, West Bay, Manitouline Island, Tennessee, Ohio.		
Fauna E	modica, Barr.	.....	(Bohemia) Beraun.	
,, F	monaca, Barr.	.....	.....	(Bohemia) Prague.
,, ,,	monas, ,,	.....	.....	,, Konieprus.
L.Pentam. Lst...	mutabilis, n. s. Hall.	.....	.....	(N. York) Helderberg Mts., (Tennessee, W.) Wayne County, Gaspé (Can. E.)
Carad., W., U.L.	nasuta, M'Coy.	(S.W.Scotl.)Girvan, (Wales) Llanfyllin.		
FaunaE, U.Llandov., W., L.	navicula, Sowerby.	.....	(Bohem.) Beraun, (Engl.) Mayhill.	Middle and South Gothland, Norway, (Wales) Cefn, Barog, Dinas, Bran, &c., Kendal.
Llandov., Niag., L. H. G.	neglecta, ,, *Atrypa.*	.....	England, New York, Nova Scotia, Mandinam (Wales).	(Can. E.) Port Daniel, (Can. W.)Dundas,Arisaig (Nova Scotia), New York, Wisconsin, Indiana.
	Niobe ?, Barr.	?		
Niag., W.	nitida, Hall. *Atrypa.*	.....	.....	(New York) Lockport, Wolcott, Wales, Gothland.
U.Pentam. Lst...	nobilis, ,,	.....	.....	(New York) Albany County &c., Pennsylvania.
L. H. G.	nodostriata, ?	.....	.....	(Can. E.) Port Daniel.
Pleta	nomada, Eichw.	Poulkova (St. Petersburg).		
	nucella, Dalman.	Russia.		
Delth. Sh. Lst....	nucleolata, Hall.	.....	.....	(New York) Schoharie and Albany Counties.
U.Llandov., W., U.L.	nucula, Sowerby. *semisulcata.*	.....	England, (Wales) Marloes Bay,(Norw.) Christiania.	(England) Kington, Hagley Park, &c., (Scotl.) Pentlands, (Irel.) Derrimore Glen, Kerry, (Wales)Llanrwst,Horeb Chapel, Russ., &c., Esthonia, Sweden, N. York ?.
Div. 1, A. Gr.. Llandov.	nutrix, Billings.	.....	(Anticosti) Gamache Bay.	
Fauna F	nympha, Barr.	.....	.....	(Bohem.) Mnienian, Konieprus, (France) Low. Loire, Debray, Norway, Lower Harz.
,, ,,	var. emaciata, ,,	.....	.....	(France) Lower Loire, Debray, Bohemia.
Faunæ E, G. g. 1, 2, Llandov.,W., L.	obovata, Sowerby.	.....	.....	(Bohemia) Kozorz, Borek, Lodenitz, &c., (England) ? Ledbury, Dudley, &c.
Llandov.	obtusiplicata, Hall.	.....	(N.York)Lockport,(Engl.) Malvern, Mayhill, &c., (Wales) Presteign &c.	
CH.	orientalis, Billings.	(G. St. Lawr.) Mingan Isles.		
Faunæ F, G. g. 1, 2.	passer, Barr.	.....	.....	(Bohem.) Hlubocep, Dwovetz, Lochkov, Konieprus.
L.	pentagona, Sowerby.	.....	.....	Wales, Sweden, (Shropshire) Church Stretton.
,, ...	Pentlandica, Haswell.	.....	.....	Deer Hope, Pentland Hills (Scotland).
	phoca, Salter.	.....	.....	Arctic Seas (America), Cape King &c.
Delth. Sh. Lst....	plano-convexa, Hall.	.....	.....	(New York, east) Albany County.

Subdivision.	Genus, Species, and Author.		Lower Stage.	Middle Stage.	Upper Stage.
CH.	plena,	Hall.	(Can. E. & W.) Ottawa River, Montreal, Cornwall, &c., New York, Lake Winnipeg (Rupert's Land).		
M.Sa.	plicata, *Atrypa.*	,,		New York.	
Corall. Lst.	plicatella,	Dalm.			(I. Oesel) Hohenheim, Ficht.
CL.	plicatula, *Atrypa.*	Hall.		(N.York) Reynale's Basin.	
B., BL.	plicifera,	Hall.	(Can. W.) Camp d'Ours, L. Huron, New York, Pennsylvania.		
L.	Pomelii,	Davidson.			Sweden, Lower Harz (Thuringia), Dudley, Sedgeley (England).
Fauna G. g. 3	postrema,	Barr.			(Bohemia) Trzebotov.
,, E. e. 1	prægnans,	,,			,, Konieprus.
Faunæ E, F, G. g. 1.	princeps,	,,			(Bohem.) Tetin, Mnienian, Konieprus, Karlstein, &c., (France) Lower Loire, Thuringia.
?	species allied,	Billings.			(N. New Brunswick) Restigouche.
Fauna F	problematica,	Barr.			(Bohemia) Konieprus.
,, ,,	Proserpina,	,,			,, ,,
,, ,,	Psyche,	,,			,, ,,
U.Llandov.	pusilla,	Sowerby.		(Engl.) Malvern, (Wales) Llandovery.	
A. Gr., Delth. Sh. Lst.	pyramidata,	Hall.			(New York, east) Albany Co.
Div. 2, Llandov.	Pyrrha,	Billings.		(Anticosti) Otter River.	
L. H. G. &c.	quadricostata,	Hall.	N. Wisconsin (U.S.A.)?		(Nova Scotia) Arisaig.
B., BL., Tr., H. R. G.	recurvirostra,	,,	(Can. W.) Cape Smyth, (Lake Huron) Moira River, (Can. E.) Montreal, Lake St. John, New York, Tennessee, N.W. Michigan, Wisconsin, Anticosti.		
CL.	robusta, *Atrypa.*	,,			(N. York) Lockport, (Can. W.) Flambro' W.
Delth. Sh. Lst.	rudis, n. s.	,,			(N. York, east) Hudson City.
M.Sa.	rugosa,	,,		(Can. W.) Nelson Townsp.	
L. H. G.	Saffordi,	,,			Tennessee, (Nova Scotia) Arisaig.
Fauna E	Sappho,	Barr.		(Bohemia) Beraun	(Bohemia) Prague?
	Scotica,	M'Coy.	S.W. Scotland.		
Fauna D	scrobiculosa,	Barr.	(Bohemia) Beraun?		
	secale,	Eichw.			(Isle Oesel, Baltic) Lodé.
L. Pentam. Lst., L. H. G.	semiplicata,	Hall.			(N. York) Helderberg Mts., Gaspé (Canada E.).
U.Llandov., L.	semisulcata, *Nucula.*	Dalm.		Marloes Bay	Hagley Park &c. (England), Lammermuir (S. Scotl.).
W.	serrata,	Sowerby.		(Irel.) Cong &c., Galway, (S.W. Scotl.) Saughhill.	
,,	sexcostata,	M'Coy.		(Engl.) Walsall, N. Wales, Galway (Ireland).	
L. H. G.	sinuata,	Hall.			Arisaig (Nova Scotia).
Fauna E	solitaria,	Barr.		(Bohemia) St. Ivan.	(Bohem.) Konieprus, Mnienian.
Tr.	sordida,	Hall.	N. York (locality unknown).		
W.	sphærica,	Sowerby.		(Norway) Christiania?	(Middle Gothland) Wisby, England?.
,,	sphæroidalis,	M'Coy.			New York, (Engl.) Ireleth, Lancashire, Church Stretton, Dudley, Ledbury.
Delth. Sh. Lst.	Stricklandii,	Sowerby.			(N.York) Schoharie County. (Engl.) Dudley, Malvern, (Wales) Presteign, Usk, &c., (Can. E.) Port Daniel.
	sublepida,	Verneuil.			(Arctic Seas) Wellington Channel.
L.Llandov., W.	subundata,	M'Coy.		(Wales) Mathyrafal &c.	(Wales) Llanfyllen, Llangynyw (Montgomerysh.).
Tr.	subtrigonalis,	Hall.	(N. York) Lewis County.		
Delth. Sh. Lst.	sulcoplicata,	,,			(N. York) Albany County.
Fauna F	sylphidea,	Barr.			(Bohemia) Konieprus.

Subdivision.	Genus, Species, and Author.		Lower Stage.	Middle Stage.	Upper Stage.
Fauna F	tarda,	Barr.	.....	.....	(Bohemia) Prague, Beraun.
Niag.	Tennessee-ensis,	Römer.	.....	.....	(Tennessee W.) Decatur Co.
Faunæ F, G. g. 1	Thetis,	Barr.	.....	.....	(Bohem.) Chotecz, Konieprus.
Fauna E	Thisbe,	,,	.....	(Bohemia) St. Ivan.	
Delth. Sh. Lst....	transversa,	Hall.	.....	.....	(New York, east) Helderberg Mountains.
Llandov.	tripartita,	Sowerby.	.....	England, (Wales) Golen-goed.	
Niag.	tumida,	Hall?	.....	.....	New York.
Fauna E. e. 1 ...	umbra,	Barr.	.....	(Bohemia) Beraun.	
,, E. e. 1 ?, Carad.	upsilon,	,,	Wales (*M'Coy*), Pwllheli ...	,, ,,	
Delth. Sh. Lst....	vellicata,	Hall.	.....	.....	(N. York) Albany and Schoharie Counties, (North New Brunswick) Restigouche.
Fauna F	velox,	Barr.	.....	.....	(Bohemia) Mnienian.
U. Pentam. Lst...	ventricosa,	Hall.	.....	.....	(New York, east and central) Cherry Valley.
Div. 4, A. Gr., Mayhill.	vicina,	Billings.	.....	(Anticosti) S.W. Point.	
Fauna F	volitans,	Barr.	.....	.....	Bohemia.
Llandov., W., L., L. H. G., Niag.	Wilsoni,	Sowerby.	.....	(Engl.) Mayhill, Wales, (Irel.) Cong, Galway.	(Nova Scotia) Arisaig, (Can. E.) St. Helen's Isle, Tennessee, New York, (Engl.) Dudley, Aymestry, (Scotl.) Pentland Hills, Ireland, Wales, Middle and South Gothland, Norway, Esthonia, Bohemia, Silesia, Russia.
	sp. ind.,	Salter.	.....	.....	Arctic Seas (America).
	,,	,,	Great Barr, Staffordshire.		
Carad.	,,	,,	(Caernarvon) Carnadd Dafydd.		
	,,	,,	Tasmania West.		
	,,	Meek.	.....	.....	Kennedy's Channel (Arctic America).
?	,,	Selwyn.	.....	Victoria (Australia).	
	Rhynchospira (subgenus of TREMATOSPIRA), *Hall*, 1859. (TEREBRATULA &				RHYNCHONELLA of authors, *Hall*.)
	æquiradiata,	Hall.	New York (U. S. America).		
Delth. Sh. Lst....	Deweyi, *Waldheimia*.	,,	.....	.....	(New York) Albany County.
L. H. G.	formosa, *Waldheimia*.	,,	.....	.....	(Tennessee) Wayne County.
,, ...	globosa,	,,	.....	.....	(Tennessee W.) ,, ,,
	sinuata,	,,	.....	.....	Nova Scotia.
	Siphonotreta, *Verneuil*, 1845.				
Carad., W.	Anglica,	Morris.	Sunny Banks, Coniston (Lancashire).	.....	Dudley (England).
Llan.	micula,	M'Coy.	(Ireland) Meath, England, (S.W. Scotland) Glenkiln, Dumfriesshire, (Wales) Conway, Builth, &c., Melbourne, Deep Creek (Australia).		
Pleta	unguiculata,	Eichw.	(Russ.) Lake Ladoga, Poulkova, (Esthonia) Réval, Odinsholm, &c.		
,, ...	verrucosa,	,,	Poulkova &c. (Russia), Esthonia.		
?	sp. ind.,	Selwyn.	.....	Victoria (Australia).	
	Skenidium, *Hall*, 1860.				
L. H. G.	insignis,	Hall.	.....	.....	Tennessee (U. S. America).
Niag.	pyramidalis,	,,	.....	.....	,, ,,
	sp. ind.,	,,	Tennessee (U. S. America).		
	Spirifera, *Sowerby*, 1820.		(DELTHYRIS, *Dalman*; BRACHYTHYRIS &c., *M'Coy*).		
	æquirostris,	Verneuil.	(Russia) St. Petersburg, (Esthonia) Paggart.		
	var. æqualis,	,,	(Russia) D'Erras &c.		
	var. deformata,	,,	Russia.		
L. H. G.	arenosa,	Hall.	.....	.....	(Can. E.) Cape Gaspé, Devonian in New York.
	Baltica,	Dalm.	.....	.....	South Gothland.
	Barrandei,	Verneuil.	.....	.....	Bohemia, Gothland.
Niag.	bicostata,	Hall.	.....	.....	(New York) Oneida County, (Can. W.) Flambro'.

Subdivision.	Genus, Species, and Author.	Lower Stage.	Middle Stage.	Upper Stage.
Carad.,Tr., = Ut. Slate, H. R. G., CL., Niag.	biforata, Schloth. *Orthis.*	New York, Tennessee, Up. Mississippi River, Russia, (Wales) Llandeilo, Bala, &c., (Westmoreland) Ravenstone Dale.	(New York) Rochester &c.	New York.
W., L.	var. bijugosa, M'Coy.	.....	.....	Creaghmartin, Doonquin, Ferriter's Cove (Ireland).
Pleta	„ chama, Eichw.	(Russ.) St. Petersburg, Réval (Baltic).		
Carad., Pleta ...	., dentata, Pander.	(Russia) St. Petersburg, (Lancashire) Coniston, Llanwddn (Wales).		
Tr.	„ lynx, Eichw.	(N. York) Middleville &c., Tennessee, Ohio, Canada, Indiana, Iowa, (Wisconsin) Mineral Point, Norway.		
Niag.	biloba, Conrad.	.....	.....	(New York) Wolcott, Lockport, &c.
?	Bischofi, Römer.	.....	.....	Lower Harz (Germany).
	cardiospermiformis, Hising.	.....	.....	(Gothland) Wisby, Djupviken.
	caudata, Sowerby.	.....	.....	(Sweden) Gothland.
Fauna E. e. 1 ...	colubri, Barr.	.....	Bohemia.	
L. H. G.	concinna, Hall.	.....	.....	(New York, east) Helderberg Mountains.
Car., Llandov., W., L.	crispa, Hising.	.....	Wales, Ankerdine Hills (Shropshire).	(N. York) Schoharie County, Lockport, Lewiston, (Can. E.) Port Daniel, Cape Gaspé, (Can. W.)Thorold, Arctic Seas (Amer.), Isle Oesel (Baltic), Norway, (Sweden) Djupviken, Low. Harz, (Wales) Llangollen, (Engl.) Malvern, Clungunford, (Irel.) Doonquin &c., (Scotl.) Pentlands.
L. H. G.	cycloptera, Hall.	.....	.....	(New York, east) Helderberg Mountains.
W., L., Niag. ...	cyrtæna, Dalm. *plicatella.*	.....	.....	NewYork, Gothland, (Engl.) Dudley, Benthal Edge, Ledbury.
Niag.	decemplicata, Hall.	.....	.....	(New York) Lockport.
Fauna G. g. 1 ...	deperdita, Barr.	.....	.....	(Bohemia) Karlstein.
Carad., Corall. Lst.	dimidiata, Eichw.	(Esthonia) D'Erras	.....	Kaminetz (Podolia).
	elegantula, Hall.	Upper Mississippi River, Tennessee, L. Winnipeg, Fort Garry(Rupert's Ld.).		
U. & L.Llandov., W., L., Downton Sandastone.	elevata, Dalm. =*ptychodes.*	.....	(Engl.) Tortworth, Mayhill, Huntley Hill, &c.	(Wales) Plas Madoc, Llanrwst, &c., (Engl.) Dudley, Walsall, Benthall Edge, Kendal, &c., (Gothland) Djupviken, Hoburg, &c., (Norway) Christiania, I. Oesel (Baltic), Dingle &c. (Ireland).
?	eudora, Hall.	.....	.....	Wisconsin (U. S. America).
Tr.	expansa, „	Wisconsin (U. S. America).		
U.Llandov., W., L.	exporrecta, Wahlenb. *trapezoidalis.*	.....	Coosathorrig, Bull's Head (Kerry).	Gothland.
Fauna E. e. 1 ...	exsul, Barr.	.....	Bohemia.	
Faunæ F, G. g. 1	falco, „	.....	.....	(Bohemia) Mnienian, Konieprus, Tetin.
	fallax, Giebel.	.....	.....	Lower Harz (Devonian ?).
Fauna F	faustula, Barr.	.....	.....	(Bohemia) Konieprus.
Niag.	gibbosa, Hall.	.....	.....	New York, Wisconsin.
Fauna F. f. 2 ...	„ Barr (MS.).	.....	.....	(Bohemia) St. Ivan.
Delth. Sh. Lst....	granulosa, Conrad.	.....	.....	(New York) Cherry Valley.
Niag.	inconstans, Hall.	.....	.....	Wisconsin.
Fauna F	indifferens. Barr.	.....	.....	(Bohemia) Mnienian.
Faunæ F, G. g. 1, H. h, i.	infirma, „	.....	.....	(Bohem.)Chotecz,Konieprus, Franta, Pekarkovitz.
Fauna E. e. 2 ...	inflectens, Barr. (MS.).	.....	.....	(Bohemia) St. Ivan.
W.	*interlineata*, Sowerby. plicatella.	.....	.....	Sweden, (Engl.) Westmoreland, Aymestry, Woolhope, Wales,(Irel.)Doonquin&c.

Subdivision.	Genus, Species, and Author.	Lower Stage.	Middle Stage.	Upper Stage.
	intermedia, Barr.			Bohemia, Sardinia.
	lineata, Hall.			Upper Mississippi River, S. Wisconsin (L. Michigan).
Delth. Sh. Lst., L. H. G.	macropleura, Conrad.			(New York) Helderberg Mts., (Tennessee) Wayne Co., Pennsylvania, Maryland.
	Niagarensis, var. *oligoptycha*.			
	Marklini, Verneuil.			(Gothland) Wisby.
?	microptera, D'Archiac.		Sardinia.	
L. H. G.	modesta, Hall.			Cumberland Co. (Maryland).
	multisulcata, Hising. *Cyrtæna*.			Wisby (Gothland).
Faunæ E. e. 1, F	musca, Barr.		Bohemia	(Bohemia) Mnienian.
„ „	Naiadum, „			(Boh.) Konieprus, (France) Nantes.
„ „	Nerei, „			(Bohem.) Prague, Konieprus.
CL., Niag.	Niagarensis, Conrad.		Canada.	(Can. W.) Thorold, Rockwood, (N. York) Wolcott &c., Tennessee, S. Wisconsin, N.W. Michigan.
Fauna E. e. 1	nobilis, Barr.		(Bohemia) Beraun &c.	
„ E. e. 2	nucula, Barr. (MS.)			Kozel (Bohemia).
L. H. G.	octocostata, Hall.			(Maryland) Cumberland Co.
L. & U. Llandov., W.	octoplicata, Sowerby.		South Wales.	(Irel.) Ferriter's Cove &c., (Engl.) Abberley, Dudley, North Gothland.
Carad., Llandov., W.	ovata, M'Coy.		(Irel.) Cong, Galway, &c.	
L. H. G.	pachyoptera, Conrad.			(New York) Cherry Valley, Canada.
	pachyrhyncha, Verneuil.			Ural, R. Serebrianka (passes into Devonian).
Pleta with green grains.	Panderi, „	St. Petersburg (Russia).		
L. H. G.	perlamellosa, Hall.			(New York, east) Helderberg Mountains, (Tennessee) Wayne County.
Fauna E. e. 1	perversa, Barr.		Bohemia.	
„ „	petasa, „		(Bohemia) Beraun.	
?	piper, Eichw.			(Ural, N.) Bogoslovsk, Isle Dago (Baltic).
W.	pisum, Sowerby. (see *Nucleospira*).			Walsall (England).
L. H. G.	plicata. Hall.			(New York) Schoharie Co.
L. & U. Llandov., W., L.	plicatella, Linn. *tenuistriata*, Shaler.		New York, (Anticosti) S.W. Point &c., (Wales) Llangadock, Welchpool, (Ireland) Bull's Head, Kerry, (England) Mayhill.	(Engl.) Malvern, Dudley, Ludlow, &c., (Wales) Marloes Bay &c., (Sweden) Klinteberg &c., Norway, Russia, Esthonia, I. Anticosti, Canada W., (N. York) Genessee Falls, Wisconsin.
W., L.	var. interlineata, Salter.			(England) Dudley, Ludlow, Creaghmartin (Ireland).
L. Llandov., W.	„ radiata, Sowerby.	Quakers' Burial-ground, Welchpool.	(Galway) Cong &c.	(Engl.) Malvern, Ledbury, Abberley, &c.
W.	„ globosa, Salter.			Dudley (Engl.), Mid. Gothland.
Faunæ E, F	pollens, Barr.		Bohemia	Bohemia.
	„ Römer.			Lower Harz (Giebel).
Pleta	porambonites, Von Buch.	N. Russia, Norway, Sweden.		
	var. rotunda, „	St. Petersburg (Russ.), Norway.		
	„ subrecta, Verneuil.	Russia.		
Fauna E (base).	Proteus, Barr.		Bohemia.	
	ptychodes, Dalm.			(Gothland) Vamblingo.
L. H. G.	puncto-striata, Hall.			New York.
„ „	punctulifera, Conrad.			(Tennessee W.) Wayne Co., (Can. E.) St. Helen's Isl.
	pusio, Hising.			(Gothland) Klinteberg.
Niag.	pyramidalis, Hall.			(New York) Lewiston, (Can. W.) Thorold.
Racine = Niag.	Racinensis, M'Chesney.			Racine (Wisconsin).
CL., Niag., W., L.	radiata, Sowerby.		(Anticosti) Jupiter River.	Keeper's lodge, Golden Gr. (Wales), Dudley (Engl.), N. Gothland, Chicago (Illinois), (N. York) Lewiston &c., (Can. W.) Thorold.

Subdivision.	Genus, Species, and Author.	Lower Stage.	Middle Stage.	Upper Stage.
	recta, Pander.	St. Petersburg (Russia).		
L. H. G.	rugæcosta, Hall.			Arisaig (Nova Scotia).
	rugosa, ,,			Tennessee (U. S. America).
Delth. Sh. Lst...	Saffordi, ,,			(Tennessee) Decatur County, (N. York) Becraft's Mtn.
	Schmidti, Lindström.			(Middle & South Gothland) Hoburg, Ostergarn.
Fauna F	secans, Barr.			(Bohemia) Konieprus &c.
?	Selcana, Giebel.			Lower Harz (Germany).
	sericea, Römer.			,, ,,
Niag.	similior, Winchell & Marcy.			Chicago (Illinois).
	speciosa, Schloth.			(Irel.) Ferriter's Cove, Kerry.
Fauna E, W.	spuria, Barr. =*subspuria*, M'Coy.		(Bohemia) Beraun &c.	Bohemia ?, Gothland, Lower Harz, West of Ireland.
	striatissima, Barr.			Bohemia.
	striolata, Lindström.			(Middle & South Gothland) Hoburg &c., Farö Isles Lansa (in Sweden).
Fauna F	stryx, Barr.			(Bohemia) Mnienian.
	subsinuata, Römer.			Lower Harz (Germany).
L. H. G.	subsulcata, Hall.			Arisaig (NovaScotia), (Gothland) Bödahamn.
Niag., L. H. G. &c., Fauna E, W.	sulcata, Hising.			Britain, Ireland, Bohemia, (N.Gothland) Temple Näs &c., Norway, Isle Oesel, Lodé, &c. (Baltic), Pennsylvania, New York, N.W. Michigan.
Faunæ F, G. g. 1	superstes, Barr.			(Bohemia) Dvoretz, Konieprus, Lochkov.
Fauna F	tenella, ,,			Bohemia.
	tenuicosta, Eichw.	Réval (Baltic).		
Delth. Sh. Lst., Up. Div. F, Anticosti.	tenuistriata, Hall.			(Tennessee) Decatur Co., (Anticosti) S.W. Point (*Shaler*).
Carad.	terebratuliformis, M'Coy.	Cumberland, (Irel.) Chair of Kildare, Portrane, Dublin, Sardinia.		
Fauna F	Thetidis, Barr.			(Bohemia) Konieprus.
FaunæD,E(base), F	togata, ,,	Bohemia (colony, Zippé)	(Bohemia) Beraun &c.	,, Beraun, Konieprus.
?	toreno, Verneuil.	France, Spain.		
U.Llandov., W., L.	*trapezoidalis*, Dalm. =exporrecta, Wahlenb.	(Merionethsh.) Bala Lake?	(Wales) Builth &c., Shropshire, Malverns, &c.	(Engl.) Dudley, Woolhope, &c., (Wales) Golden Gro., Usk, &c., Upper Mississippi, Ireland, Norway, (Swed.) Wisby &c., (Boh.) Litten.
Faunæ F, G, g. 1	Triton, Barr.			(Boh.) Konieprus, Chotecz.
Carad., W.	tridens, M'Coy.	Tramore (Waterford).	Cong (Galway).	
Fauna F	tyro, Barr.			(Bohemia) Konieprus.
Tenta.L., L.H.G.	Vanuxemi, Hall.			(N.York, east) AlbanyCo.&c.
L. H. G.	varica, ,,			New York, N.W. Michigan (Lake Superior).
	ventricosa, ,,			(New York) Cherry Valley, Schoharie & Carlisle Cos.
Faunæ E, F?	viator, Barr.		Bohemia	(Bohem.) Prague, Konieprus.
Corall. Lst.	undifera, Römer.			(Isle Oesel, Baltic) Hoheneichen.
Delth. Sh. Lst.	undulata, Conrad.			(N.York) Schoharie County.
	Uralo-altaica, Grunewaldt.		(Silic. Lst.) Bogoslowsk.	
?	sp. ind., Selwyn.		Victoria (Australia).	
	,, (many), Stuchbury.	?		Berrigal (New S. Wales).
CL.	,, Hall.		(N. York) Wayne County.	
Niag.	,, D. D. Owen.			Davenport (Illinois).
	Spirigerina, *D'Orbigny.*			
	imbricata, Sowerby.		Russia.	
	nitida, ,,		,,	
	subwilsoni, Cailliaud.			(France) Lower Loire.
Highest part	undifera, Schmidt.	Borkholm (Esthonia).		
	Stricklandinia, *Billings*	=STRICKLANDIA, 1859. (A	form of PENTAMERUS, *J. W.S.*)	
P., Queb. G.	arachne, Billings.	Point Lévis (Canada East).		
,, ,,	Arethusa, ,,	,, ,,		
	Canadensis, ,,			(Canada West) Thorold.
Div. 3,4, Anticosti Gr.	var. brevis, ,,		(Anticosti) S.W. Point, Sweden.	

Subdivision.	Genus, Species, and Author.		Lower Stage.	Middle Stage.	Upper Stage.
	Gaspé-ensis,	Billings.	.....	.....	L'Anse à la Vielle (Gaspé).
L. & U. Llandov., Div. 3, Anticosti Gr.	lens,	Sowerby.	Coniston (Lancash.), (Wales) Mandinam.	(Anticosti) Jupiter River &c., Sweden, (England) Shropshire &c., (Wales) Meiford &c., Russia.	
Llandov., W., Divs. 3, 4, Anticosti Gr.	lirata,	,,	.....	(Anticosti) Heath Point &c., Norway, Malverns, Mayhill, Shropshire, N. & W. Ireland, Wales, S.W. Scotland, Westmoreland.	(Gothland) Wisby, (Wales) Marloes Bay, (England) Woolhope.
	Strophodonta, *Hall*, 1852.				
Delth. Sh. Lst....	Beckii,	Hall, Meek.	.....	.....	(New York, east) Helderberg Mountains.
,, ,,	Cavumbona,	Hall.	.....	.....	,, ,,
,, ,,	Headleyana,	,,	.....	.....	,, ,,
,, ,,	Leavensworthiana,	,,	.....	.....	,, ,,
L. H. G.	planulata,	,,	.....	.....	,, ,,
CL.	prisca,	,,	.....	(N. York) Oneida County.	
L. H. G.	punctulifera,	,,	.....	.....	(New York, east) Helderberg Mountains.
Corall. L., Schoh.	textilis,	,,	.....	.....	(New York) Schoharie Co.
Tentac. Lst., L. H. G., Pent. Lst.	varistriata,	,,	.....	.....	(New York, east) Schoharie County &c.
Delth. Sh. Lst. (in a crystalline band).	var. arata,	,,	.....	.....	(New York, east) Becraft's Mountain &c.
Delth. Sh. Lst....	Woolworthiana,	,,	.....	.....	(N. York, east) Helderberg Mountains.
Carad., Llandov., CH., H. R. G., Divs. 1, 2, 3, 4, A. group.	**Strophomena,** *Rafinesque*, 1820?. (LEPTAGONIA, *M'Coy*; ORTHIS, *auctorum*.) alternata, *Anticostiensis*,	Conrad. Shaler.	(Anticosti Isl.) Heath Point, (Can. E.) Lake St. John, Mingan I., Montmorenci, Montreal, Murray Bay, Cape Smyth (L. Huron), N. York, Tennessee, Wisconsin (Illinois), Dunleith (Scotland), (Engl.) Acton Scott &c., (Irel.) Portraine, Dublin, (Wales) Madryn Park, Llanfyllin.	Canada, New York, England, Anticosti, *passim*.	
?	alterni-radiata,	Shaler.	.....	(Anticosti Isle) S.W. Point.	
H. R. G.	alterni-striata,	Hall.	(Ohio) Cincinnati, (Kentucky) Maysville &c.		
Carad., Llandov., W., Divs. 2, 3, A. G., Llandov., Mayhill.	antiquata, *scabrosa*.	Sowerby.	Coniston (Lancashire), Waterhead, (Ireland) Chair of Kildare, (Wales) Blaen-y-Cwm, Rhaider, &c., River Chatte (Gaspé).	Llandovery, Bogmine, Mathyrafal, Haverfordwest, &c. (Wales), (Anticosti) Prinsta Bay &c., Scotland.	Pentland Hills (Scotland), (England) Wenlock Edge, Walsall, Ledbury, &c., (Wales) Pen-y-lan.
U. Llandov., W., L.	applanata,	Salter.	.....	(Engl.) Malvern, (Wales) Usk, Builth, &c.	(England) Longmynd, Deer Hope, Pentland Hills (Scotland).
	aranea,	,,	Niti Pass (Himalaya), Damchen &c.		
?	arcuata,	Shaler.	.....	Anticosti Isle.	
U. Llandov.	arenacea,	,,	.....	(England) Mayhill &c., (Wales) Presteign.	
H. R. G.	Arethusa,	Billings.	(Anticosti Isle) Cape Observation.	(Wales) Presteign.	
Pleta &c.	Asmussi,	Schmidt.	Esthonia, *passim*.		
Divs. K, L, M, N, P, Queb. G.	Aurora,	Billings.	(Newfoundl. N. & W.) Point Rich &c.		
L. H. G.	Beckii,	Hall.	.....	.....	(Can. E.) Cape Gaspé.
Fauna G. g. 1 ...	bellula,	Barr.	.....	.....	(Bohemia) Dvoretz.
U. Llandov.	bipartita, *alternata*.	Salter.	(England) Horderley	Wooltack, Pembrokeshire.	
Corall. Lst., Scho.	bipartita,	Hall.	.....	.....	(N. York) Schoharie County.
	bisecta,	Salter.	Niti Pass (Himalaya), Bompras, &c.		
Tr.	camerata,	Conrad.	(New York) Trenton Falls, Canada.		
Carad.	cancellata, *Orthis*.	Portlock.	(Ireland) Tyrone.		
Delth. Sh. Lst....	cavumbona,	Hall.	.....	.....	(New York) Albany and Columbia Counties.
H. R. G., Llandov.	Ceres,	Billings.	(Anticosti Isle) Charlton Pt.	(Anticosti) East Point.	
	chamærops,	Salter.	Niti Pass (Himal.), Damchen.		

Subdivision.	Genus, Species, and Author.	Lower Stage.	Middle Stage.	Upper Stage.
CL.	Clintonensis, Hall.	.....	Engl., (N.York) Genessee.	
Carad.	complanata, Sowerby.	(Shropshire) Acton Bushnell, (Wexford Co.) Tramore.		
Pleta, Car., U. Llandov., W.	compressa, ,,	(Shropshire) Horderley, Gt. Barr (Staffordshire), Tyrone (Irel.), Llangollen (Wales), Esthonia, Isle Dago, Tortworth (Gloucestershire).	(Wales) Presteign, (Shropshire) Norbury &c.	(Engl.) Slate Mill, Hasguard, (Wales) Wooltack Bay, Moel Scisiog, (Irel.) Ferriter's Cove.
Carad.	concentrica, Portlock.	(Irel.) Tyrone, (England) Shrewsbury.		
Pent. L., L.H.G.	Conradi, Hall.	.....	.....	(N. York, east) Schoharie Co.
Carad., Llandov., W.	corrugata, Portlock.	(Tyrone) Desertcreate, Waterford, (Westmoreland) Leisley, (Wales) Golden Grove and Merigomish.	(Nova Scotia) Arisaig. ...	(Wales) Craig-y-garcyd.
	crispa, Lindström.	.....	.....	Middle and South Gothland.
Tr.	deflecta, Conrad.	(Wisconsin) Mineral Point.		
Carad., Tr.	deltoidea, Conrad.	(Portugal) Bussaco, Coniston (Lancashire), Horderley (Engl.), (Wales) Meifod, Esthonia, (Can.) Malbay, Montreal, New York, Missouri, N.W. Michigan, Falls of St. Anthony (Minn.).		
	var. β undata, ,,	(N. & S. Wales) Llandeilo, Bala, Wrexham, &c.	Canada, England, Norway.	
Carad., U. Llandov., W., L., CL., Niag., Del. Sh. Lst.	depressa, Sowerby. *rhomboidalis.*	Chair of Kildare (Ireland), (Engl.) Sedberg, (Wales) Carned Defydd, Snowdon, &c., Ohio.	(Irel.) Bull's Head, Kerry, New York, Upper Mississippi River, (Wales) Cefn &c., Norway, Arisaig (Nova Scotia), Galway (Ireland), (Engl.) Tortworth.	Gaspé (Can. E.), Anticosti Isle, Canada, New York, Tennessee, Missouri, South Wisconsin, (Engl.) Malverns, Walsall, Ludlow, Westmoreland, (Wales) Lansannan, (Ireland) Ferriter's Cove &c., Bohemia, Gothland, Gembloux (Belgium) (*Barrande*).
?	var. Buchiana, Barr.	.....	(Bohem.) Prague, Beraun.	
?	,, Goldfussiana, ,,	.....	.....	(Boh.) Konieprus, Mnienian.
?	,, vulgaris, ,,	.....	(Bohem.) Prague, Beraun.	
	Donetti, Salter.	.....	.....	(Arctic Amer.) Griffith's Isl.
L. H. G.	elongata, Conrad.	.....	.....	(N.Y., central) Herkimer Co.
	emarginata, Barr.	.....	.....	(Bohem.) Mnienian, Dlauha Hora, Hlubocep, Kozorz, Lochkov, Dvoretz, Hostin, Tetin, St. Ivan.
L. & U. Llandov., W., L. & U.L., Fauna E. e. l.	euglypha, Dalm.	N. Gothland, Bohemia, Norway, Esthonia, St. Petersburg (Russia).	England, Norway, Bohemia, (Wales) Pen-y-lan &c.	(Irel.) Ferriter's Cove, (Engl.) Dudley, Leintwardine, &c., Bohemia, (W.) Lansannan, Mid., S. & W. Gothland.
Carad.	expansa, Sowerby.	(Wales) Pentref, Penmachno, (Shropsh.) Horderley &c., Church Stretton &c., Westmorel., Coniston (Lancash.)	(Wales) Mathyrafal, England.	Thuringia (*Iasche*) ? &c.
CH.	fasciata, Hall.	(N.York, N.E.) Chazy Village.		
H. R. G.	filitexta, ,,	(Can. W.) Cape Smyth &c., Lake Huron, Mid. Ottawa River, New York, N.W. Michigan, England.		
Pleta, W., L.L....	filosa, Sowerby. *Orthis.*	(Russ.) St. Petersburg, Tosna, Dunabrattin, Waterford.	.....	(Wales) Usk, Park Lane, Golden Grove, Llandovery, &c., (Engl.) Shropshire, White Cliff, Ludlow, Kendal, Wenlock, Dudley, (Irel.) Derrymore Glen &c., Mid. & South Gothland.
	Fischeri, Murch. *pseudo-Fischeri*, Schmidt.	.....	.....	South Gothland.
Tr., H. R. G. ...	fluctuosa, Billings.	(Can. W.) Ottawa City, (Anticosti) Charlton Point.		
Fauna E, Llandov., W., L.L.	funiculata. M'Coy.	.....	Sardinia, Wales, Ireland.	(Canada E.) Point Daniel, Dudley (Engl.), (Wales) Denbighshire, Lansannan, &c., Bohemia, Mid. Gothland, Norway, (Ireland) Ferriter's Cove &c.

Subdivision.	Genus, Species, and Author.	Lower Stage.	Middle Stage.	Upper Stage.
Tr., H. R. G., Carad.	grandis, Sowerby.	NewYork, (Ohio)Cincinnati, (Engl.) Ravenstone Dale, (Westmorel.) Shropshire, Acton Scott, &c., Gloucestershire, Mayhill, Ireland, Tirnaskea, (Russia) Gatschina, (Esthon.)Lyckholm &c., (Wales) Llanfyllin &c.	(Wales) Mathyrafal	(New York) Genessee Falls.
	cancellata, Portlock.			
	halo, Salter.	Niti Pass(Himalaya),Milam, &c.		
L. H. G.	Headleyana, Hall.	.....	.....	(New York, east) Helderberg Mountains.
H. R. G.	Hecuba, Billings.	Isl. Anticosti (G. St. Lawr.).		
Div. P, Queb. G.	imbecillis, Billings.	(Newfoundland W.) Portland Creek.		
Pleta,H.R.G.,W.	imbrex, Pander.	(Isl. Anticosti) Cape Robert, Norway, Russia.	.....	(Gothl.) Wisby, (England) Dudley, Malvern, (Wales) Craig-y-garcyd, (Ireland) Ferriter's Cove.
	,, Davidson.	.....	.....	England, Gothland.
	impressa, Conrad.	.....	.....	(New York) Springfield.
CH., B., BL., Tr., H. R. G.	incrassata, Hall.	Mingan Isles (G. St. Lawr.) Pennsylvania, Wisconsin, Canada, New York, Tennessee.		
Delth. Sh. Lst....	indentata, Conrad.	.....	.....	(*N.* York, central) Herkimer County.
	intercostata, Portlock.	Bardahessiagh (Tyrone).		
Carad.	interplicata, M'Coy.	Chair of Kildare (Ireland).		
Div.4,A.G.,Mayhill.	Julia, Billings.	.....	(Anticosti) The Jumpers.	
	Leptæna, Shaler.			
Delth. Sh. Lst....	Leavensworthiana, Conrad.	.....	.....	(New York, east) Helderberg Mountains.
Divs. 2, 3, Anticosti Gr.	Leda, Billings.	.....	(Anticosti) East Point.	
	lineatissima, Salter.	Niti Pass (Himalaya), Kalajowar.		
	Lovéni, Verneuil.	.....	.....	Wisby (Gothland).
	lunata, Sowerby.	.....	.....	Ferriter's Cove &c. (County Kerry).
Niag.	macra, Winch. & Mar.	.....	.....	Chicago (Illinois).
Pleta, with pyroxene.	nasuta, Lindström.	.....	.....	(West and Middle Gothland) Wisby.
Niag.....	Niagarensis, Winch.& Mar.	.....	.....	Chicago (Illinois).
H. R. G.	nitens, Billings.	(Anticosti) Charlton Point.		
	nubigena, Salter.	Niti Pass(Himalaya), Upper Rimkin.		
Onond. S. Gr. ...	obscura, Hall.	.....	.....	New York.
	orbicularis, Sowerby.	New York, N. Wisconsin, (England) Cornwall.	.....	Mid. Gothland, Bohemia.
W.	Orbignyi, Davidson.	.....	.....	Dudley (England).
U.L.	ornatella,	.....	.....	Whitecliff, Ludlow.
CH.	orthididæa, Hall.	New York (U. S. America).		
W.	Ouralensis, Verneuil.	.....	.....	Presteign (Radnor).
CL.	patenta, Hall.	.....	New York (U.S.America).	
H. R. G., M.Sa., L. H. G., Car., Llandov., W., L.L., Fauna E. e. 1.	pecten, Sharpe, Linn., Hising.	S.W. Scotland, Coniston (Lancash.), Yorkshire &c., (Wales) Capel Cerrig &c., Norway, South Bay, Manitouline Isl. (Lake Huron).	Bohemia,(Shropshire) Ch. Stretton &c., Cong, Galway (Ireland), (Wales) Llandovery, Builth, Anticosti *passim*. Upper Mississippi River.	(Irel.) Ferriter's Cove, Pentland Hills(Scotl.), (Engl.) Dudley &c., (Wales) Presteign, Ural, (Norw.) Grotlingbo, Isle Oesel, Pichtendahl,&c. (Balt.), (Gothland) Klinteberg &c., Norway, (Can. W.) Thorold, Tennessee, New York.
Carad., Llandov., W.	,, Dalm.	Westrogothia, Norw., Wales, (Russia) Lapoukhinka.	Wales	New York, Tennessee, Upper Mississippi River.
L. H. G.	perplana, Billings ?	.....	.....	(Canada E.) Cape Gaspé.
Fauna G. g. 1, W.	Phillipsii, Barr.	.....	.....	(Bohemia) Konieprus, Hostin, Gothland.
Divs. 2, 3, 4	Philomela, Billings.	.....	(Anticosti) East Point &c.	
Tr.	plano-convexa, Hall.	Wisconsin, Ohio, Indiana, Kentucky, New York, Fort Garry, Lake Winnipeg (Rupert's Land).		
	planulata, Billings.	(Canada E.) Gaspé.		

Subdivision.	Genus, Species, and Author.	Lower Stage.	Middle Stage.	Upper Stage.
Tr., H. R. G. ...	planumbona, Hall.	Canada, New York, Ohio, Kentucky, Indiana, Savanna (Illinois), St. Anthony (Minnesota), (Anticosti) Charleton Point, W. Bay, Manitoul. I., L. Huron.		
CH.	plicifera, ,,	(New York, N.E.) Clinton Co.		
CL.	profunda, ,,	.....	(N. York) Reynale's Basin, Arisaig (Nova Scotia).	Wisconsin.
Delth. Sh. Lst....	punctulifera, Conrad.	.....	.....	(North New Brunswick) Restigouche, (N. York) Herkimer &c. Counties, (Can. E.) Cape Gaspé.
Delth. Sh. Lst. &c.	radiata, Hall.	.....	.....	(New York, central) Herkimer County &c.
Faunæ F, G. g. l	rariuscula, Barr.	.....	.....	(Bohemia) Dvoretz, Lochkov, Slichow.
B., BL., Tr.....	recta, Conrad.	Mineral Point (Wisconsin), New York, (Canada W.) Ottawa City.		
L. H. G.	recti-lateris, ,,	.....	.....	(N. York, central) Herkimer County.
Div. D	reticulata, Shaler.	.....	(Anticosti Isle) Ellis Bay.	
Mid. Sil., Niag...	rhomboidalis, Wahlenb.	.....	(Anticosti) Junction Cliff.	New York, Wisconsin, Indiana, (N. New Brunswick) Restigouche, Pentl. Hills (Scotl.), Gothland, *passim*, Norway, Bohemia, (Can. W.) Manitouline Island, L. Huron, Thorold, (Can. E.) Cape Gaspé.
	rugata, Lindström.	.....	.....	(Gothland) Wisby.
Carad.	rugifera, Portlock.	(Ireland) Tirnaskea.		
L. H. G.	rugosa, Hall.	.....	(Nova Scotia) Arisaig ...	(N. York, east) Helderberg Mountains.
	depressa.			
	rugosa, Dalm.	.....	....	Bohemia, Gothland, England.
	scabrosa, Davidson.	....	.....	Middle Gothland, (England) Dudley.
Div. D	semiovalis, Shaler.	.....	(Anticosti Isle) Ellis Bay.	
	semipartita, Römer.	Lower Silesia (drift).		
	serrulata, Lindström.	.....	.....	South Gothland.
Carad.	simulans, M'Coy.	(Wales) Golden Grove, Cefn, Coch, Blain-y-Cwm, &c.		
,, ...	spiriferoides, ,,	Hoar Edge (Engl.), Welchpool, Bala, &c. (Wales).		
L. H. G., Niag..	striata, Hall.	.....	.....	(New York) Schoharie Co.
Onond. S. Gr., Niag.	subplana, Verneuil.	.....	.....	,, Lockport, Rochester, Wolcott.
H. R. G.	subtenta, Hall.	(Anticosti I.) English Head, (Ohio) Oxford, (N. York) Trenton Falls.		
Tr.	tenuilineata, Conrad.	New York (U. S. America).		
Llandov., Carad., Tr.	tenuistriata, Sowerby.	(North Wales) Fron Olen, Bettws-y-coed, &c., (Irel.) Desertcreate, (Westmoreland) Pull Scar, Leisley, Canada, (N. York) Jefferson County &c., (Ohio) Oxford &c., (Indiana) Madison, (Kentucky) Maysville.		
Tr.	Thalia, Billings.	(Canada W.) Ottawa City.		
	trachealis, Salter.	Niti Pass (Himalaya), Chorhoti Pass.		
	undata, M'Coy.	Egool, Mayo Co. (Ireland).		
Carad.	undulata, ,,	Chair of Kildare, Mayo Co. (Ireland).		
	umbrella, Salter.	Niti Pass (Himalaya) Damchen &c.		
L. H. G.	variestriata, Vanuxem.	.....	.....	(New Brunswick, north) Restigouche, (Can. E.) Gaspé, (New York) Springfield.
	Wahlmstedti, Lindström.	.....	.....	Wisby (Gothland), Pentland Hills (Scotland).
Delth. Sh. Lst....	Woolworthiana, Hall.	.....	.....	(Can. E.) Gaspé, (N. York) Helderberg Mountains.

Subdivision.	Genus, Species, and Author.	Lower Stage.	Middle Stage.	Upper Stage.
	Zinkeni, Giebel.	.....	.....	Lower Harz (Germany).
?	sp. ind. Selwyn.	.....	Victoria (Australia).	
?	,, Salter.	Bolivia (South America).		
	,, Honeyman.	.....	.....	Nova Scotia.
	,, Salter.	.....	.....	(Arctic Seas, America), Griffith's Island.
	Trematis, *Sharpe,* 1848.	(Subgenus of DISCINA, *J. W.S.*)		
H. R. G.	cælata, Hall. *orbicula.*	New York (U. S. America).		
Tr.	cancellata, Sowerby.	(Canada E.) Montreal.		
Carad., Tr.	*crassa,* Hall. Discina.	(New York) Troy, (Wales) Penwhapple &c.		
Tr.	filosa, ,,	Canada East, (N.York) Middleville, South Scotland, (Spain) Puerto de las Ovegas, Sierra Morena.		
,, ...	Huronensis, Billings.	(Can. W.) Pelletau Island (Lake Huron).		
,, ...	Montrealensis, ,,	(Canada East) Montreal.		
Tr., H. R. G. ...	Ottawaensis, ,,	(Can. W.) Ottawa City, (Isle Anticosti) Macasty Bay.		
Carad.	*punctata,* Sowerby. Discina.	Wales, (Shropshire) Chatwell &c.		
,, ...	Siluriana, Davidson.	(Shropsh.) Horderley, Hoare Edge.		
W., U.L.	*striata,* Sowerby. Discina.	.....	.....	Hagley Park, Delbury, &c. (England).
Tr.	terminalis, Emmons.	New York, Canada, Ohio.		
	sp. ind., Sharpe.	.....	.....	Dudley (England). (Sharpe's Collection, Geol. Society, London.)
	Trematospira, *Hall,* 1857.			
L. H. G.	Acadiæ, Hall.	.....	.....	(Nova Scotia) Arisaig.
Niag.	camura, ,,	.....	.....	(New York) Lockport, (Missouri) Cape Girardeau.
Delth. Sh. Lst....	costata, ,,	.....	.....	(New York, east) Helderberg Mountains.
Niag.	Mathewsoni, M'Chesney.	.....	.....	Chicago, Illinois, Bridgeport.
Delth. Sh. Lst....	multistriata, Hall.	.....	.....	(New York, east) Helderberg Mountains.
,, ,,	perforata, ,,	.....	.....	(New York, east) Becraft's Mountain.
,, ,,	simplex, ,,	.....	.....	(New York, east) Helderberg Mountains, (Tennessee) Decatur County.
,, ,,	var., ,,	.....	.....	(New York, east) Helderberg Mountains, Tennessee.
	Trigonotreta, *König,* 1825. (See SPIRIFERA, *Sowerby.*)			
	Trimerella, *Billings,* 1865.			
	acuminata, Billings.	.....	.....	Galt &c. (Canada West).
	grandis, ,,	.....	.....	,, ,,
	Triplesia, *Hall,* 1858.			
Tr.	? ambigua, Hall.	New York.		
CL.	congesta, ,,	.....	(N.York) Medina Village, Pennsylvania, (Can.W.) Flambro'.	
Tr.	cuspidata, ,, *Atrypa.*	(New York) Middleville.		
,, ...	extans, Conrad. *Atrypa.*	(N. York) Jefferson County.		
	moniliformis, Salter.	Ireland, Leisley (Westmoreland).		
,, ...	nucleata, Hall. *Atrypa.*	(N. York) Jefferson County.		
Carad.	productoides, M'Coy.	Chair of Kildare (Ireland).		
Tr.	quadricostata, Hall.	New York (U. S. America).		
	Tropidoleptus, *Hall,* 1857–59.			
	carinatus, Conrad.	New York (U. S. America).		
	Zygospira, *Hall.*			
	modesta, ?	?		
Div. 3, A. Gr., Mayhill.	paupera, Billings.	.....	(Anticosti) Jupiter River.	

Summary (Geographical).

Genera.	Species. America.	Europe.	India.	Australia.	Common.	Genera.	Species. America.	Europe.	India.	Australia.	Common.
Acrotreta	2	1	...	...	...	*Brought forward*	429	420	18	10	34
Athyris	15	21	...	...	...	Orthisina	5	22	...	...	1
Atrypa	67	21	...	3	5*	Pentamerus	18	36	...	1	6*
Aulonotreta	...	2	...	...	...	Pholidops	2	...	...	...	...
Camarium	2	...	...	...	...	Platystrophia	...	6	...	...	...
Camerella	15	1	...	...	...	Porambonites	1	12	...	...	...
Chonetes	6	15	...	...	...	Rennselæria	5	...	...	...	...
Crania	1	10	...	...	...	Retzia	2	9	...	1	1*
Cyrtia	2	2	...	...	...	Rhynchonella	69	103	...	2	8†
Discina	20	33	...	2	1*	Rhynchospira	5	...	...	...	...
Eatonia	4	...	...	...	...	Siphonotreta	...	4	...	2	1‡
Eichwaldia	2	...	...	...	...	Skenidium	3	...	...	...	...
Leptæna	39	72	6	2	3*	Spirifera	39	66	...	2	5*
Leptocelia	7	3	...	...	...	Spirigerina	...	4	...	...	...
Lingula	57	42	4	1	3*	Stricklandinia	6	3	...	...	3*
Lingulella	...	9	...	...	...	Strophodonta	12	...	...	...	...*
Lingulepis	2	...	...	...	...	Strophomena	61	39	7	1	10*
Lingulocaris	...	1	...	...	...	Trematis	8	5	...	...	2*
Meganteris	4	...	...	...	...	Trematospira	11	...	...	...	...
Merista	19	6	...	...	2	Tremato-rhynchospira	?	...	...	...	...
Meristella	9	8	...	...	1	Trigonotreta	...	1	...	...	...
Nucleospira	5	...	...	...	...	Trimerella	2	...	...	...	...
Obolella	10	8	...	...	1	Triplesia	6?	2	...	...	...
Obolus	9	10	...	...	2	Tropidoleptus	1	...	...	...	...
Orthis	132	155	8	2	16*	Zygospira	2	...	...	...	...
	429	420	18	10	34		687	732	25	19	71

* To America and Europe. † To Europe and America, and 1 Tasmania. ‡ To Europe and Australia.

SUBKINGDOM MOLLUSCA. PROVINCE LAMELLIBRANCHIATA. CLASS CONCHIFERA. GROUP MONOMYARIA. (PLEUROCONQUES, *D'Orbigny*.)

Subdivision.	Genus, Species, and Author.	Lower Stage.	Middle Stage.	Upper Stage.
	Ambonychia, *Hall*, 1847.			
W.	acuticostata, M'Coy.			(North Wales) Dinas Bran.
Niag.	acutirostris, Hall ?			Chicago (Illinois).
B., BL., Tr.	amygdalina, Hall.	New York, L. Huron, N.W. Tennessee, Wisconsin.		
Niag.	aphæa, „			Chicago (Illinois, U. S. A.).
BL., Tr.	attenuata, „	Wisconsin.		
Tr., H. R. G.	bellistriata, „	(Can.E.) Montreal, (N. York) Trenton Falls, Pennsylv.		
Carad., Shales above Tr.	carinata, Conrad.	(Wales) Penblech, Yspatty, Evan, New York, (Wisconsin) Noquet's Bay.		
H. R. G.	Casei, Meek & Worth.	Richmond (Indiana).		
	Megaptera.			
Carad.	contorta, Portlock.	(Irel.) Tyrone, Desertcreate.		
Carad.	costata, Conrad.	New York, Britain.		
BL., Tr.	erecta, Hall & Whitney.	Wisconsin (U. S. America).		
Carad.	gryphus, Portlock.	Tyrone (Ireland).		
Tr.	lamellosa, Hall & Whitney.	Wisconsin.		
Niag.	mytiloidea „			Wisconsin (U. S. America).
CH.	? mytiloides, „	(New York) Chazy Village.		
Niag.	neglecta, M'Chesney.			Chicago (Illinois), Milwaukee (Wisconsin).
	Amphicælia Leidyi, Hall.			
Div. 3, A. G., Mayhill.	nitida, Billings.		(Anticosti) Jupiter River.	
Utica Slate	obtusa, D. D. Owen.	Elkader (Iowa).		
Tr.	orbicularis, „	Canada, Madison (Indiana), (New York) Jefferson Co., FortSnelling&c.(Minnes.).		

Summary (Geographical).

Genera.	Bolivia.	Arctic America.	Rupert's Land.	N.W. Michigan.	Minnesota.	Wisconsin.	Iowa.	Missouri.	Illinois.	Indiana.	Ohio.	Tennessee.	Texas.	Maryland.	Pennsylvania.	New York.	Canada West.	Canada East.	Vermont.	New Brunswick.	Nova Scotia.	Anticosti Island.	Mingan Isles.	Labrador.	Newfoundland.	Total Appearances (America).
Acrotreta																		1							1	2
Athyris																1	3	5				11				20
Atrypa		2		3		3	1	2	1	2	1	6			3	62	4	2		1	3	6				102
Aulonotreta																										...
Camarium														2												2
Camerella																3	1	9	1		2	3	2		4	25
Chonetes										1	1		1				1				2		2			8
Crania																					1					1
Cyrtia																1				1		1				3
Discina					1	2					1	2	2	1		14	1	6		1	3					34
Eatonia												2		1		3		1								7
Eichwaldia																		1				1				2
Leptæna			3	4		3	1	8	1	1	3	4			4	27	3	6				6	1		1	76
Leptocelia																3		2		1	2					8
Lingula	2		1	4	1	6	2	7					1		4	21	6	17	1		1	4			5	83
Lingulella																										...
Lingulepis					1																					3
Meganteris																4										4
Merista								1		1		2			1	14	1									20
Meristella										1						9	1	1								12
Mimulus																										...
Nucleospira								1				2		2		4										9
Obolella					1	1		1	1								2	3	1					1		11
Obolus						2									1	9	1							3	2	18
Orthis	1	1	1	7	2	15	5	11	2		15	15			3	54	22	34		2	2	17	2		3	214
Orthisina									1								1	1				2	1			6
Pentamerus		1	1	2	2	7	1		1		1	5		1		9	3	3				3	1			41
Pholidops																2										2
Platystrophia																						1				1
Porambonites																1	1									2
Rensselæria																4		1								5
Retzia																1	1									2
Rhynchonella		5	2	2		2			1		4	7			3	50	12	13		2	6	12	1		1	123
Rhynchospira												2				2					1					5
Siphonotreta																										...
Skenidium												3														3
Spirifera		1	2	3	4	9	1		3		1	10			2	29	8	3			2	4				82
Spirigerina																										...
Stricklandinia																	1	3				3				7
Strophodonta																11										11
Strophomena		2	1	2	3	9		3	4		7	5			1	38	15	11		3	5	19	1		2	131
Trematis											1					4	3	3				1				12
Trematospira									1		1	2				6					1					11
Trimerella																	2									2
Triplesia															1	6	1									8
Tropidoleptus																1										1
Zygospira																						?2				2
Total	3	12	11	27	15	59	11	34	16	6	36	67	4	7	23	393	94	126	3	11	31	96	11	4	19	1121

Genera.	Ireland.	Scotland.	England.	Wales.	France.	Spain.	Portugal.	Sardinia.	Bohemia.	Thuringia (Harz).	Franconia.	Silesia.	Baltic (Russia).	Podolia.	Russia.	Sweden.	Norway.	India (North).	Australia.	Tasmania.	Total Appearances (Europe &c.).	Great Total of Appearances.	Number of Species.	Number of Countries Inhabited.
Acrotreta															1						1	3	3	3
Athyris	4	1	5	2	2				13	4			5			2					38	58	42	13
Atrypa	12	6	15	8					19	4		1	5		4	16	5		3		98	200	113	28
Aulonotreta													1		2						3	3	2	2
Camarium																					...	2	2	1
Camerella	1																				1	26	18	9
Chonetes	1		4	3	1	1			13	3			2	1	2	3	2		1		37	45	31	19
Crania	2	1	4	3									3		2	1					16	17	12	8
Cyrtia			2	1												2	1				6	9	4	7
Discina	8	3	10	9		1			12	4			4		4	2	2		2		61	95	63	23
Eatonia																					...	7	4	4
Eichwaldia																					...	2	2	2
Leptæna	9	5	13	20	7	1	2	4	30	10		1	10		13	9	3	5	2		144	220	127	33
Leptocelia													1		1						2	10	19	6
Lingula	5	4	14	15	4			1	14	1			7		5	1		4	1		76	159	115	29
Lingulella				8													1				9	9	9	2
Lingulepis																					...	3	2	2
Meganteris																					...	4	4	1
Merista			2		1				6							2	3				14	34	24	11
Meristella	2	4	6	3					2				1			4	2				24	36	15	12
Mimulus									2												2	2	2	1
Nucleospira		1	1		1											1					4	13	5	8
Obolella			3	5												1	1				10	21	17	12
Obolus	1	2	5	1		1			3				3		4	1	1				22	40	24	16
Orthis	41	18	40	63	10	7		10	55	6		3	31		33	35	21	11	3	2	389	603	331	37
Orthisina		1		2		2		4					8		10		1				28	34	23	12
Pentamerus	5	1	10	10	5				22	10	2	1	5	1	11	8	5		2		98	139	63	30
Pholidops																					...	2	2	1
Platystrophia													4		4						8	9	7	3
Porambonites		1	2	3	2				2				4		3	2					19	21	14	10
Rensselæria																					...	5	5	2
Retzia		1	5	3	1				4				2			4			1	1	22	24	14	11
Rhynchonella	10	12	27	28	5				51	2		1	12	2	8	13	7		2	1	181	304	175	31
Rhynchospira																					...	5	5	3
Siphonotreta	1	1	2	1									1		1				2		9	9	5	7
Skenidium																					...	3	3	1
Spirifera	17	2	15	12	2	1		2	44			2	12	1	15	22	9		2		158	240	139	30
Spirigerina											1		1		2	1					5	5	5	4
Stricklandinia	1	1	2	2	2	1						2			1	3	1				16	23	7	13
Strophodonta																					7	11	11	1
Strophomena	23	7	28	23			1		29	2			5		6	18	9	8	1		160	291	133	31
Trematis			3	2		1			1												7	19	13	9
Trematospira																					...	11	8	5
Trimerella																					...	2	2	1
Triplesia	2	1	1																		4	12	8	6
Tropidoleptus																					...	1	1	1
Zygospira																					...	2	2	1
Total	145	73	219	227	43	16	3	21	322	46	3	11	127	5	132	151	74	28	22	4	1672	2793	1635	* 44

N.B.—*Leptæna tenuistriata*, *Atrypa modesta*, Kentucky, U. S. A.; *Lingula antiqua*, Nebraska, U. S. A.; *Lingulepis*, 2 species, Dacota Territory, U. S. A.

* Countries examined.

Subdivision.	Genus, Species, and Author.	Lower Stage.	Middle Stage.	Upper Stage.
Tr.	planistriata, Hall.	Wisconsin.		
	prisca, Portlock.	Desertcreate, Tyrone (Irel.).	Canada?	
Carad., Tr., H. R. G., M.Sa.	radiata, Hall.	Desertcreate (Irel.), Malbay, Lake St. John, Yamuska (Can. E.), Canada West, (L. Huron) Manitouline Island, West Bay, Tennessee, South Wisconsin.	(Anticosti) Gamache Bay.	
Niag.	striæ-costa, M'Chesney.	.....	.....	Bridgeport, Chicago (Illin.).
Carad., L.	striata, Sowerby.	Bala, Wrexham (Wales). ...	.....	Leintwardine, Shropshire, Aymestry.
Div. 1, Anticosti Gr., Llandov.	superba, Billings.	.....	(Anticosti) Junction Cliff.	
Carad.	transversa, Portlock.	Tyrone, Lisbellaw &c., Fermanagh &c. (Ireland).		
,, ...	trigona, (Münster) ,,	Desertcreate, Tyrone (Irel.).		
,, ...	triton, Salter.	Bird's Hill (Shropshire).		
B., BL., Tr., Car.	undata, Hall.	Wales, (Irel.) Tyrone, Desertcreate, Canada, New York, Upper Mississippi River.		
	ungulata, Billings?	Anticosti, West end.		
Carad.	vetusta, Portlock.	(Ireland) Tyrone.		
,, ...	sp. ind., ?	Chair of Kildare (Ireland).		
Tr.	,, D. D. Owen.	Fort Snelling (Minnesota), Pr. du Chien (Wisconsin).		
	Avicula, *Klein*, 1753.			
Delth. Sh. Lst., L. H. G.	æquiradiata, Hall.	.....	.....	(New York) Schoharie Co.
M. Sa., CL.	alata, Billings.	.....	Flamboro Co., Dundas (Canada West).	
W., U.L.	ampliata, Phill.	.....	.....	Llandeilo, Llangadoc (W.), Ludlow, Hagley Park, Dudley, Westmoreland.
L.	antiqua, Verneuil.	.....	.....	Westmoreland, Russia.
	aptera, Helmersen?	.....	.....	(Gothland) Grotlingbo.
Delth. Sh. Lst....	bellula, Hall.	.....	.....	(New York, east) Schoharie County.
,, ,,	Bronni, Billings.	.....	.....	(Canada E.) Cape Gaspé.
Fauna G. g. 1....	cardialopis, Barr.	.....	.....	(Bohemia) Chotecz.
Delth. Sh. Lst....	communis, Hall.	.....	.....	(New York, east) Becraft's Mountain &c., Gaspé (Canada East).
Fauna H. h. 1....	consanguis, Barr.	.....	.....	(Bohemia) Hostin.
L.L.	Danbyi, M'Coy, Salter.	.....	.....	Ledbury, Ludlow, (Westmoreland) Benson Knot, (Wales) Builth, Usk.
Faunæ G. g. 2, H. h. 1.	decipiens, Barr.	.....	.....	(Bohem.) Varvrovitz, Hostin.
Shales above Tr.	demissa, Conrad.	(Can. E.) St. Grégoire, Yamaska, Cape Smyth, Lake Huron, N.W. Michigan, (L. Superior) Wisconsin.		
	desquamata, ,,	(New York) Troy.		
Tr.	elliptica, ,,	(Can.W.) Plantagenet, Point Rich, Lake Huron, (New York) Middleville.		
H. R. G., CL., Niag.	emacerata, ,,	Central Canada	Arisaig (Nova Scotia), ...	Chicago (Illinois), (N. York) Lockport &c., Canada W., Grimsby, Niagara.
H. R. G. &c. ...	erecta, ,,	(New York) Wayne County.		
Fauna G. g. 1, 3	fortissima, Barr.	.....	.....	(Bohemia) Dvoretz, Hlubocep.
,, ,,	grandis, Barr.	.....	.....	(Boh.) Lochkov, Hlubocep.
Tr.	Hermione, Billings.	(Canada East) Montreal.		
L. H. G.	Honeymani, Hall.	.....	.....	Arisaig (Nova Scotia).
Utica Slate	insueta, Conrad.	(New York) Canajoharie, Pennsylvania.		
M. Sa.	leptonata, Hall?	.....	Woolcot ore bed, N. York.	
Corall. Lst., Schoharie.	limæformis, Hall.	.....	.....	(New York, eastern) Schoharie County.
W.	lineata, Sowerby, Salter.	.....	Boocaun (Galway).....	Ferriter's Cove, Kerry Co., (S. Scotl.) Lammermuir, Ludlow (England).
L.	lineatula, D'Orbigny.	....	.....	Ludlow (England).

Subdivision.	Genus, Species, and Author.	Lower Stage.	Middle Stage.	Upper Stage.
Pentam. Lst., L. H. G.	manticula, Conrad.	.....	.....	(New York, eastern) Schoharie County.
	matutina, Bonissent.	La Manche (France).		
Corall. Lst.	microceros, Eichw.	.....	.....	(Isle Oesel, Baltic) Ilpel.
Fauna E., W., L.	mira, Barr. *Pterinæa.*	.....	.....	Bohemia, (Wales) Mocktree, Llansannan, &c., Dudley (England).
L. Pentam. Lst....	multilineata, Hall?	.....	.....	New York.
L. H. G.	naviformis, Conrad.	.....	.....	(New York, eastern) Helderberg Mountains, (Can. E.) Cape Gaspé.
„ „	obliquata, Hall.	.....	.....	(New York, eastern) Schoharie County.
Tentac. Lst.	obscura, „	.....	.....	„ „
Pleta, Carad. ...	? orbicularis, Sowerby.	Desertcreate (Irel.), Acton Scott, Church Stretton (Shropshire), (Esthonia) Hapsal.		
Niag.	orbiculata, Hall.	.....	.....	(New York) Rochester shale.
Delth. Sh. Lst ...	pauciradiata, „	.....	.....	(New York, eastern) Schoharie County.
Pleta	plana, Eichw.	Isle Odinsholm, Wesenberg (Esthonia).		
Faunæ F,G.g.1,3	pollens, Barr.	.....	.....	(Bohemia) Tetin, Dvoretz, Lochkov, Mnienian.
Fauna G. g. 1 ...	pusilla, Barr.	.....	.....	(Bohemia) Chotecz.
„ H. h. 1...	rarissima, „	.....	.....	„ Hostin.
W., U.L.	retroflexa, Hising. *Pterinæa.*	.....	.....	Gothland, Dudley, Leintwardine, Kendal (Engl.), Horeb Church (Wales).
CL., Onon. S. Gr.	rhomboidea, Hall.	.....	(Canada) Lake Ontario, Dundas, (New York) Wayne County &c.	New York, central.
	rudis (?) var., Phill.	.....	Boocaun (Galway).	
L. H. G.	rugosa, Hall.	.....	.....	(New York) Cherry Valley.
Delth. Sh. Lst....	Schohariæ, „	.....	.....	(New York, eastern) Schoharie County.
Corall. Lst., Schoharie, Delth. Sh. Lst.	securiformis, „	.....	.....	„ „
Carad.	semigranulata, „	Desertcreate (Ireland).		
Delth. Sh. Lst....	spinulifera, „	.....	.....	(New York, eastern) Albany County.
Pentam. Lst., L. H. G.	subæquilatera, „	.....	.....	(New York, eastern) Schoharie County.
Niag.	subplana, „	.....	.....	(Can. W.) Thorold, (New York, west) Lockport.
Corall. Lst., Schoharie.	subrecta, „	.....	.....	(New York, eastern) Schoharie County.
Delth. Sh. Lst....	tenuilamellata, „	.....	.....	(New York, eastern) Albany &c. Counties.
„ „	textilis, „	.....	.....	(New York, eastern and central) Herkimer Co. &c.
Utica Sl., Tr. ...	Trentonensis, „	(Can. E.) Bay St. Paul, (N. York) Montgomery Co., Middleville.		
Onon. S. Gr. ...	triquetra, „	.....	.....	(Central New York) Wayne County.
Carad.	venusta, „	Desertcreate (Irel.), Acton Scott (Shropshire).		
Faunæ F, G. g. 1	verna, Barr.	.....	.....	(Bohemia) Konieprus, Chotecz.
Pentam. Lst., L. H. G.	umbonata, Hall.	.....	.....	(New York) Schoharie Co.
Niag.	undata, „	.....	.....	(New York) Rochester, Chicago (Illinois).
	? sp. ind., Selwyn.	.....	Victoria (Australia).	
?	„ Rouault.	.....	.....	Rennes (France).
	„ Stuchbury.	Berrigal, New South Wales.		
Carad.	„ ?	Dynevor Park (Wales).		
	Megambonia, *Hall*, 1859.			
L. H. G.	aviculoidea, Hall.	.....	.....	(New York, eastern) Herkimer County &c.
„ „	cancellata, „	.....	.....	(Nova Scotia) Arisaig.
„ „	cordiformis, „	.....	.....	(New York, eastern) Schoharie County.
„ „	lata, „	.....	.....	„ „

Subdivision.	Genus, Species, and Author.	Lower Stage.	Middle Stage.	Upper Stage.
Delth. Sh. Lst....	mytiloidea, Hall.	.....	.....	(New York, eastern) Helderberg Mountains.
,, ,,	oblonga, ,,	.....	.....	(New York, eastern) Helderberg Mountains.
,, ,,	obscura, ,,	.....	.....	(New York, eastern) Schoharie County.
,, ,,	ovata, ,,	.....	.....	(New York, eastern) Helderberg Mountains.
L. H. G.	ovoidea, ,,	.....	.....	(New York, eastern) Schoharie County.
	,, ?, Billings.	.....	.....	(North New Brunswick) Restigouche.
L. H. G.	rhomboidea, Hall.	.....	.....	(New York, eastern) Carlisle.
,,	Spinneri, ,,	.....	.....	(New York, middle) Herkimer County.
,,	striata, ,,	.....	.....	(Nova Scotia) Arisaig.
Delth. Sh. Lst....	suborbicularis, ,,	.....	.....	(New York, eastern) Schoharie County.
	Posidonomya, *Brongniart*, 1837.			
	alata, Murchison.	.....	.....	Gothland.
Pleta.....	excellens, Eichw.	Lyckholm (Esthonia).		
Niag.	? rhomboidea, Hall.	.....	.....	(New York) Lockport.
	venusta, Münster.	Pomeroy, County Tyrone (Ireland).		
	Pterinæa, *Goldfuss*, 1840.			
W.	asperula, M'Coy.	.....	.....	(Wales) Builth, (Irel.) Co. Clare, Gorlagarry.
H. R. G.	bellilineata, Billings.	(Anticosti) White Cliff.		
U.L.	Boydii, Conrad.	.....	.....	(Westmoreland) Brigsteer, Wales.
Niag.	Brisa, Hall.	.....	.....	Bridgeport (Illinois).
Llandov.	bullata, M'Coy.	.....	Galway (Ireland).	
Tr., H. R. G. ...	carinata, Emmons.	(Can. W.) Toronto, (New York) Turin, (Ohio) Cincinnati.		
Div. 3, Anticosti Gr., Mayhill.	curiosa, Billings.	.....	(Anticosti) Jupiter River.	
Niag.	cyrtodontoides, Winchell & Marcy.	.....	.....	Chicago (Illinois).
?	Danbyi, M'Coy.	.....	.....	Gothland (*Lindström*).
H.R.G., U.Llandov., W.	demissa, Conrad.	(Can. W.) Humber River, Tennessee, N. Wisconsin.	Malverns (England).....	New York, (Wales) Pont-ar-y-Llechan, Llangadoc, Benson Knot, Westmoreland, Malvern.
L. & U.L.....	elongata, Goldfuss.	.....	.....	Ferriter's Cove, Kerry (Irel.).
W., L.L.	fimbriata, M'Coy.	.....	.....	Ferriter's Cove, Doonquin, Derrymore Glen (Irel.).
L.	hians, ,,	.....	.....	Aymestry (England).
W.	lamellosa, Goldfuss.	.....	.....	Ferriter's Cove (Kerry).
L.	lineata, ,,	.....	.....	Moel Ulches (Montgomeryshire), Benson Knot &c. (Westmoreland), Linsway Bay (Pembrokeshire).
W., L. & U.L....	lineatula, D'Orbigny.	.....	Wales?	Wales, (S.W. Scotl.) Balmæ, (England) Dudley, Coalbrook Dale, Malvern, &c.
U.L.	megaloba, M'Coy.	.....	.....	Stormhill (Wales).
L.	mira, Barr. (MS.).	.....	.....	England?
W.	naviformis, Hall.	.....	.....	Westmorel., Dudley, (Can. E.) Gaspé.
U.L.	orbicularis, M'Coy.	.....	.....	Doonquin, Derrymore Glen, Kerry (Ireland).
W.	panopææformis, ,, *posidoniæformis.*	.....	.....	Doonquin (Ireland).
U.Llandov., W., L.	planulata, Conrad.	.....	Malvern, (Irel.) Glasnevin, Llandovery (Wales).	New York?, (Wales) *passim.* Dudley, Walsall, &c.
Carad., W., L....	pleuroptera, M'Coy.	New York, (Wales) Cyrn-y-Brain.	.....	(Wales) Swansea Road, (Irel.) Derrymore Glen, (Westmoreland) Benson Knot.
W.	posidoniæformis, ,,	.....	.....	(Irel.) Tirnaskea, Ferriter's Cove, Kerry Co., Woodburn Hill (England).
H. R. G.	prolifica, Billings.	(Anticosti) Charlton Point and Macasty Bay.		
Llandov., U.L...	rectangularis, Sowerby.	.....	Malvern (England).	(Wales) Horeb Chapel, (England) Westmoreland.

Subdivision.	Genus, Species, and Author.	Lower Stage.	Middle Stage.	Upper Stage.
Corall. Lst., W.	reticulata, Hising.	.....	.....	(Engl.) Dudley, Aymestry, Gothland, Russia, Esthonia, Isle Oesel, Ilpel, Lodé.
U.Llandov., W., L. & U.L.	retroflexa,	.....	Malvern, Worcester, Norbury, &c., Marloes Bay (Wales).	(England) Aymestry, Leintwardine, Ireland, Wales, Gothland, New York, Arisaig (Nova Scotia).
Niag.	revoluta, Winch. & Mar.	.....	.....	Chicago (Illinois).
Pleta	Silurica, Eichw.	Esthonia, Réval, Odinsholm Isle, &c.		
L.	Sowerbyi, M'Coy.	.....	.....	(Wales) Usk, Aymestry, Ludlow, (Ireland) Derrymore Glen.
Llandov., W., L.	squamosa ,,	.....	Boocaun (Galway)	Ferriter's Cove, Kerry Co.
?	striato-costata, Giebel.	.....	.....	Lower Harz (Thuringia).
W., L.	subfalcata, M'Coy.	.....	.....	(S. Wales) Llandeilo &c., (Westmoreland) Benson Knot.
Llandov.	sublævis, ,,	.....	Boocaun, Galway (Irel.).	
Carad., W., L. & U.L.	tenuistriata, ,,	..... ?	.....	Malvern, Ludlow, Cwm Craig Ddu &c. (S. Wales). Benson Knot, Howgill Fells (Westmoreland), Dent (Yorkshire), Derrymore Glen (Ireland).
Tr.	undata, Emmons.	New York.		
Div. 1, A. Gr., Llandov.	varistriata, Billings.	.....	Gamache Bay (Anticosti).	
	ventricosa? Sharpe.	.....	.....	Westmoreland (England).
Niag.	volans, Winch. & Mar.	.....	.....	Chicago (Illinois).
	sp. ind., Giebel.	.....	.....	Lower Harz (Thuringia).
U.L.	,, Slimon.	.....	.....	(S.W. Scotl.) Lesmahago.

Summary (Geographical).

Genera.	Species.																								
	Minnesota.	Wisconsin.	Iowa.	Illinois.	Indiana.	Ohio.	Tennessee.	Pennsylvania.	New York.	Canada West.	Canada East.	New Brunswick.	Nova Scotia.	Anticosti.	Ireland.	Scotland.	England.	Wales.	France.	Bohemia.	Thuringia.	Baltic, Russia.	Russia.	Sweden.	Australia.	Total appearances.	Total species.
Ambonychia	2	10	1	4	2	...	2	1	7	2	4	...	...	3	9	...	3	5	...	...	...	...	...	...	...	55	33
Avicula	...	1	...	2	...	...	...	1	29	6	7	...	2	...	4	1	9	4	2	10	...	3	1	2	1	85	64
Megambonia	...	...	...	...	...	...	...	...	11	...	...	1	2	...	...	...	...	...	...	...	...	...	...	...	...	14	14
Posidonomya.....	...	...	...	...	...	...	...	...	1	...	...	...	...	...	1	...	...	...	...	...	...	1	...	1	...	4	4
Pterinæa	...	1	...	3	...	2	1	...	3	2	1	...	2	4	15	2	15	12	...	...	2	2	1	2	...	70	40
	2	12	1	9	2	2	3	2	51	10	12	1	6	7	29	3	27	21	2	10	2	6	2	5	1	228	155

SUBKINGDOM MOLLUSCA. PROVINCE LAMELLIBRANCHIATA. CLASS CONCHIFERA.
GROUP DIMYARIA. (ORTHOCONQUES, *D'Orbigny.*)

Subdivision.	Genus, Species, and Author.	Lower Stage.	Middle Stage.	Upper Stage.
	Actinodonta, *Phill.*, 1848.			
U. Llandov., U.L.	cuneata, Phill.	.....	Marloes Bay (Wales).....	Marloes Bay (Pembrokesh.), Llandeilo.
	Anatina?, *Lamarck*, 1809.			
L. H. G.	? sinuata, Hall.	.....	.....	(New York) Herkimer Co., Gaspé (Canada East).
	Anodontopsis, *M'Coy*, 1852.			
L.	angustifrons, M'Coy.	.....	.....	Benson Knot, Kirkby Moor (Westmoreland), Horeb Chapel (Wales).
Llandov., L. & U.L.	bulla, ,,	.....	Tonlegee? (Ireland). ...	Llandeilo, Stormhill (Wales), Tonlegee (Irel.), Kirkby Moor (Westmoreland).
U.L.	lævis, Sowerby.	.....	.....	Stormhill, Lechclawdd, Horeb Chapel (S. Wales).
L.	Lucina, Salter.			
	perovalis, ,, *Modiolopsis.*	.....	.....	(Wales) Craig-y-garcyd, Usk, Buildwas, (Engl.) Ledbury, Malvern, (Scotland) Deer Hope, Pentlands.
U.L.	quadratus, M'Coy.	.....	.....	Stormhill &c. (S. Wales), Malvern.
	,, Salter.	.....	.....	Llangadoc (Wales).
,,	securiformis, M'Coy. *Pseudaxinus.*	.....	.....	Benson Knot, Westmoreland, Ledbury (England).
	Arca, *Linnæus*, 1758.			
	Brownii, Salter.	.....	.....	Illampu Mountain, Bolivia (South America).
Pleta	decipiens, Eichw.	Réval (Baltic).		
Carad., L.	Edmondiæformis, M'Coy.	Coed-y-Bedw, Bala, Llanrwst, &c. (N. Wales).	.....	(Wales) Llangynyn, Welchpool, Benson Knot (Westmoreland).
	Naranjoana, De Vern.	(France) La Manche?, Devonshire (conglomerate), (Spain) Romeral, West Asturia, Sierra Morena.		
U.L.	primitiva?, Phill.	.....	.....	South Wales, (Westmorel.) Benson Knot &c., Freshwater East.
	Rouaultiana, Nysten.	Vitré, Poligné (France).		
	Astarte?, *Sowerby*, 1817.			
Fauna G. g. 2 ...	subrotunda, Barr.	.....	.....	(Bohemia) Vavrovitz.
	Axinus, *Sowerby*, 1821.	(SCHIZODUS, *King.*)		
U.L.	securiformis, M'Coy.	.....	.....	Kendal (Westmoreland).
	Cardiola, *Broderip*, 1834.			
Fauna E?	articulata, Barr.	.....	.....	Bohemia.
,, G. g. 1 ...	embryo, ,,	.....	.....	(Bohemia) Hostin.
,, E, W., L...	fibrosa, Sowerby.	.....	.....	Bohemia, (France) La Manche, (Wales) Welchpool &c., (Engl.) Ludlow, Park Lane, &c., (Irel.) Bolinbrook, County Clare.
Fauna D, Col....	gibbosa, Sowerby.	(Bohemia, Colony) Krejci.		
Llandov., W., L.	interrupta, Brodr., Sow. =*cornucopia*, Barr.	Coniston Flags (Lancashire).	Brittany, Luchen, Pyrenees, (Sardinia) Flumini Maggiore, (France) Baubigny, Cherbourg.	Franconia, Bohemia, Fichtelberg, Tyrol, Salzburg, Alps, (France) Pyrenees, Feuguerolles, Normandy, Brittany, Chambéry, &c., (Catalonia) Camprodon, (Irel.) Counties Tipperary, Clare, Kerry, (Engl.) Ulverston, Leintwardine, &c., (Wales) Builth, Welchpool, &c., (Portu.) Bussaco.
Faunæ D, E ...	migrans, Barr.	Bohemia	Bohemia.	
,, E, H. h. 1	retrostriata, ,,	.....	.....	(Bohemia) Holin, Lochkov. Hostin.
	Salteri, Haughton.	.....	.....	(Arctic America) Cornwallis Island.
Carad.	semirugata, Portlock.	Ireland.		
	spuria, Münster.	Franconia.		
W., L.	? striata, Sowerby.	.....	.....	(Wales) Llansannan, Mynydd, Tryfan, Usk, Shropshire, Dudley, &c. (Engl.).

Subdivision.	Genus, Species, and Author.	Lower Stage.	Middle Stage.	Upper Stage.
Pleta.....	verrucosa, Eichw.	Réval (Baltic), (Esthonia) D'Erras.		
W.	sp. ind., Salter.	.....	.....	(Wales) Maes Tyddyn.
	Cardiomorpha, *Koninck*, 1847.			
Fauna G. g. 2 ..	altera, Barr.	.....	.....	(Bohemia) Vavrovitz.
,, ,,	cognata, ,,	.....	.....	,, ,,
,, G. g. 1, 3	fortis, ,,	.....	.....	(Bohem.)Hlubocep, Chotecz.
	ingrata, Giebel.	.....	.....	Lower Harz (Germany).
Fauna G. g. 1....	latens, Barr.	.....	.....	(Bohemia) Kuchars.
	Cardita, *Bruguière*, 1789.			
Fauna G. g. 2 ...	? rudis, Barr.	.....	.....	(Boh.) Hlubocep, Vavrovitz.
	Cardium, *Linnæus*, 1758.			
Fauna G. g. 1 ...	capitatum, Barr.	.....	.....	(Bohemia) Chotecz.
?	carpomorphum, Dalm.	(Ostrogothia) Borenshult.		
	cornucopia, Barr. *Cardiola interrupta*, Goldfuss.	.....	.....	Bohemia ?
Fauna E. e. 2 ...	costulatum, Barr.	.....	.....	Bohemia.
Fauna G. g. 2 ...	cunctatum, ,,	.....	.....	(Bohemia) Vavrovitz.
	pectunculoides, Verneuil.	.....	.....	Westmoreland.
	subarcuatum, Meneghini.	.....	(Sardinia) Flumini Maggiore.	
Fauna E	tenuistriatum, Barr.	.....	.....	Bohemia.
	Cleidophorus, *Hall*, 1847 (= CUCULLELLA).			
Carad.	amygdalus, Salter.	(Normandy) May, Budleigh Salterton, Devon (pebbles).		
	Caraventesi, Verneuil.	(Spain) De las Heras, Puebla de Don Rodrigo.		
L. H. G.	concentricus, Hall.	.....	.....	Arisaig (Nova Scotia).
,,	cuneatus, ,,	.....	.....	,, ,,
,,	elongatus, ,,	.....	.....	,, ,,
,,	erectus, ,,	.....	.....	,, ,,
Niag.	M'Chesneyanus, Winchell & Marcy.	.....	.....	Chicago (Illinois).
Shales above Tr.	neglectus, Hall.	S.W. Wisconsin, Iowa.		
L. H. G.	nuculiformis, ,,	.....	.....	Arisaig (Nova Scotia).
Carad., W.	ovalis, M'Coy.	Shropsh., (Wales) Llanrwst.	.....	(Wales) Plas Madoc, Llanrwst, Berwyn Mountains.
H. R. G., W. ...	planulatus, Conrad.	Wales, N.W. Michigan, (Central Canada) Humber R.	.....	(Britain) Keeper's lodge, Golden Grove.
L. H. G.	semiradiatus, Hall.	.....	.....	Arisaig (Nova Scotia).
Pleta	Siluricus, Eichw.	Wesenberg (Esthonia).		
L. H. G.	subovatus, Hall.	.....	.....	,, ,,
,, ,,	sp. ind., Honeyman.	.....	.....	,, ,,
?	,, Selwyn.	.....	Victoria (Australia).	
	,, Bonissent.	(France) La Manche.		
	,, Hall.	.....	.....	Arisaig (Nova Scotia).
	Conocardium, *Bronn.*, 1835 = (PLEURORHYNCHUS, *Phillips*).			
W.	æquicostatum, Phill.	.....	.....	Dudley, Wenlock Edge, Woolhope (England).
CS.	Blumenbachii, Billings. *Euchasma.*	(Can. E.) Low. Ottawa River, Mingan Isles, G. St. Lawr.		
Llan.	calcis, Baily.	Ireland.		
Div. 4, A. Gr., Mayhill, U.L.	elegantulum, Billings.	.....	(Anticosti) S.W. Point ...	Peebles, Carlops (Scotland).
Carad.	dipterum, Salter.	(S.W. Scotl.) Craighead, Kildare (Ireland), Borkholm (Esthonia).		
	var. rhomboideum, ,,	(S.W. Scotland) Craighead.		
BL.	immaturum. Billings.	Mid. Ottawa River (Can. W.).		
Delth. Sh. Lst....	inceptum, Hall.	.....	.....	(New York, eastern) Albany County.
Faunæ F, G. g. 1	longulum, Barr.	.....	.....	(Boh.) Konieprus, Dvoretz.
Fauna G. g. 1 ...	miniusculum, ,,	.....	.....	(Bohemia) Chotecz.
Niag.	Niagarense, Winch. & Mar.	.....	.....	Chicago (Illinois).
Fauna G. g. 1 ...	ornatissimum, Barr.	.....	.....	(Bohemia) Dvoretz.
Niag.	ornatum, Winch. & Mar.	.....	.....	Chicago (Illinois).
Carad.?, Llandov.	priste, Salter.	Tipperary (Ireland) ?	Galway (Ireland).	
Fauna F	sp. ind., Bronn.	.....	.....	Bohemia, France.
	,, D. D. Owen.	Red River, Lake Winnipeg (Rupert's Land).		
U.L.	,, Billings.	.....	.....	(North New Brunswick) Restigouche.
	,, M'Coy.	.....	Cong, Galway.	
	Ctenodonta, *Salter*, 1851	(= NUCULA, ARCA, &c. See	ORTHONOTA).	
BL., Tr.	abrupta, Billings.	(Can. W.) Mid. Ottawa River		

Subdivision.	Genus, Species, and Author.	Lower Stage.	Middle Stage.	Upper Stage.
Pleta	ædilis, Eichw.	Réval (Baltic).		
Carad., Tr.	ambigua, Portlock.	(Ireland) Desertcreate.		
	Arca Apjohni.			
	amy dalus, Salter.	Tasmania West.		
Div. M, Queb. Gp.	angela, Billings.	(Newfoundland West) Table Head.		
Llandov., W. ...	Anglica, D'Orbigny.	.....	..... ?	(Wales) Llansannon, Fronfawr, Cardiff, (Westmoreland) Underbarrow &c.
Tr.	antipoda, Salter.	Tasmania West.		
,, ...	astartiformis, ,,	(Can. W.) Middle Ottawa River.		
	Bertrandi, ,,	Poligné, May(France), Budleigh Salterton (England).		
	Bierensis, Sharpe.	(Portugal) Bussaco.		
Fauna D. d. 1, 3. 4.	Bohemica, Barr.	(Bohemia) Rokitzan.		
	Bussacensis, ,,	(Portugal) Bussaco.		
	Chauveli, Rouault.	Rennes, La Couyère(France).		
	Cia, Sharpe.	(Portugal) Bussaco, France, Mt. Roule, Cherbourg.		
	cingulata, Hisinger.	.....	.....	Norway, Kendal, Dudley, South Wales.
	contracta, Salter.	(Can.E.)Montreal, (Can.W.) Middle Ottawa River.		
	Costæ, Sharpe.	(Portugal) Bussaco, (Spain) Mudela.		
	costata, Helmersen?	.....	.....	Gothland.
	costulata, Salter.	Niti Pass, Himalaya (E. I.).		
U.Llandov.	deltoidea, Phill.	.....	Eastnor Park (Malvern).	
	Des Glandii, Rouault.	Poligné, Rennes (France).		
Carad.	dissimilis, Portlock.	(Irel.) Tyrone, Desertcreate.		
B., BL., H. R. G.	dubia, Billings.	(Canada West) Pakenham.		
	Duvaliana, Rouault.	Rennes, Poligné (France).		
Llandov.	Eastnori, Sowerby.	.....	Eastnor Park (Malvern).	(South Wales) Llangadoc.
Carad., W., U. Llandov.	Edmondiæformis, M'Coy. *Arca?*	(Wales) Llanfyllin, Coed-y-Bedw, Llanrwst, &c.	..... ?	Kendal, Benson Knot, (Wales) Llangynyw &c.
Tremad.	elongata, Salter.	Ramsay Isle &c. (S. Wales).		
	Eschwegii, Helmersen.	.....	.....	Gothland.
	,, Sharpe.	(Spain) Almaden &c., (Portugal) Bussaco.		
	Escosura, ,,	(Portugal) Bussaco.		
	Ezquerræ, ,,	,, ,, (Spain) Almaden.		
BL., Tr.	gibberula, Salter.	(Can. W.) Allumette Island, Ottawa River.		
,, ,, ...	gibbosa, Hall.	New York, (Canada West) Pakenham.		
	Hopensacki, Verneuil.	(Spain) Almaden.		
	imbricatula, Salter.	Niti Pass, Himalaya (E. I.).		
U.L.	inæqualis, ,,	.....	.....	Horeb Chapel (Wales).
H. R. G.	Iphigenia, Billings.	(Can. W.) Point Rich, Cape Smith, Lake Huron.		
Llandov., Carad.	lævis, Sowerby.	Bettws-y-Coed, Caernarvonshire (Wales).		
Carad.	Laignelli, Rouault.	Vitré (France).		
Carad., Tr., H. R. G., L.	levata, Hall.	(Can. W.) Pakenham, Mineral Point (Wisconsin), (New York) Trenton &c., Illinois, Iowa, N.W. Michigan.		
W.	,, M'Coy.	.....	.....	(North Wales) Plas Madoc, Dinas Bran, Saxony?
U.Llandov.	lingualis, Phill.	.....	Eastnor Park, Malvern, Marloes Bay (Wales).	
Tr.	Logani, Salter.	Allumette Island, Middle Ottawa (Can. W.).		
	Maestri, Sharpe.	(Portugal) Bussaco.		
FaunaD.d.1,3,4,5	major, Barr.	(Bohemia) Rokitzan.		
Carad.	Morreni, Rouault.	(France) Poligné, La Manche.		
CH., B., Tr. ...	nasuta, Hall.	(Can. E.) Montreal, Malbay, Lower Ottawa River, Mingan Isles, (Can. W.) La Cloche, Lake Huron, New York, Wales.		

Subdivision.	Genus, Species, and Author.	Lower Stage.	Middle Stage.	Upper Stage.
U.L.	obesa, Salter.			Deer Hope, Pentlands (Scotland).
Carad.	obliqua, Portlock.	(Irel.) Desertcreate, (Wales) Bala Lake.		
,,	Orbignana, Rouault.	(France) Rennes, Vitré.		
W., L.L.	ovalis, Sowerby. *anglica?*			Marloes Bay (Wales), (England) Ludlow, Malvern, Wales.
Tr.	paradoxica, Salter.	West Tasmania.		
H. R. G., W.	poststriata, Emmons.	(Wales) Derwen, (Can. W.) Humber River, (N. York) Pulaski.		
Carad.	Protei, Münster.	(Ireland) Desertcreate.		
,,	quadrata, M'Coy.	,, ,,		
,,	radiata, Portlock.	,, ,,		
,,	regularis, ,,	,, ,, Bardd-hessiagh.		
Llandov.	rhomboidea, Phill.		Eastnor Park, Malvern.	
Carad.	Ribeiro, Sharpe.	(Portugal) Bussaco, (Spain) Mudela &c., (Normandy) May.		
,,	scitula, M'Coy.	(Irel.) Lisbelaw, Fermanagh.		
,,	semitruncata, Portlock.	(Irel). Desertcreate, (Wales) Plas-hen, Llanfyllin, &c.		
	silens, Giebel.			Lower Harz (Germany).
	sinuosa, Salter.	Himalaya, Niti Pass.		
,,	subacuta, M'Coy.	(Irel.) Desertcreate, (Wales) Plas-hen, Llanfyllin, &c.		
U.Llandov., L., U.L.	subæqualis, Sowerby. *Arca Eastnori.*		Eastnor Park, Malvern	Llandeilo, Lechlawdd, Llangadoc, &c. (Wales).
Llandov.	subcylindrica, M'Coy.		Tonlegee (Galway).	
U.Llandov., W., L.L.	sulcata, Hising.			Ludlow, Wooltack Bay, Hasguard, Gothland.
U.L.	thracioides,			Carlops, Peebles (Scotland).
Carad.	transversa, Portlock. *Arca subtruncata.*	(Ireland) Desertcreate.		
,,	varicosa, Salter.	(N. & S. Wales) Llandeilo, Bettws-y-Coed, Bala Lake, &c.		
?	sp. ind., ,,			(South America) Bolivia, Illampu, Millepaya Valley.
L.Llan.	,, ,,	(Wales) Ty-obrey.		
,,	,, ,,	(Shropshire) West of Stiper Stones.		
U.L.	,, ,,	Garn (North Wales).		
W.	,, ,,			(Wales) Gwyddelwern, Plas Madoc.
?	,, Stuchbury.	Berrigal (New South Wales).		
?	,, Selwyn.		Victoria (Australia).	
	Cucullella, *M'Coy,* 1855. (REDONIA, *Rouault*; CUCULLÆA, *Lamarck,* 1817; CLEIDOPHORUS, *Hall,* 1847.)			
L.Llandov.	Anglica, Salter.	Lord's Hill, Shelve, Shropshire, Budleigh Salterton, Devonshire.		
Carad.	angulata, Baily.	Cloncannon, Tipperary (Ireland).		
Llandov., U.L.	antiqua, Sowerby.		Maam (Ireland).	Westmoreland, (Wales) Horeb Chapel, Felindre.
L.	Cawdori, ,,			Linsway Bay, Pembrokeshire, Llansannan (Wales).
W., L.U.L.	coarctata, Phill.			(Wales) Dinas Bran, Freshwater East (Pembrokesh.), (Westmoreland) Benson Knot, (Ireland) Derrymore Glen.
U.L.	ovata, Sowerby.			Kendal (Westmoreland), (Wales) Horeb Chapel, Stormhill, Golden Grove, Kington.
	sp. ind., Salter.			Illampu Mountain, West Slope, Bolivia.
Carad.	,, ,,	(Caernarvonshire) Bettws-y-Coed, Berwyn Mountains.		
W.	,, ,,			(Wales) Llansannan, Fron Fawr.
	Cypricardia?, *Lamarck,* 1817. (A genus not likely to be found in Palæozoic rocks, yet acknowledged by Barrande, De Verneuil, Hall, &c., *J.W.S.*)			
	alata, Hall.		New York.	

Subdivision.	Genus, Species, and Author.	Lower Stage.	Middle Stage.	Upper Stage.
H. R. G.	angustata, Hall?	New York.		
,,	angustifrons, ,,	,, Cincinnati, Ohio.		
	Beirensis, De Verneuil.	(Spain) Almadenejos, (Portugal) Bussaco.		
Fauna G. g. 1 ...	connexa, Barr.	.....	.....	(Bohemia) Chotecz.
H. R. G.	curta, Hall.	New York.		
	cymbæformis, Bonissent.	(France) La Manche.		
?	Davidsoni, Rouault.	,, Rennes, Gahard.		
Pleta	Deshayes-ensis, Verneuil.	Wesenberg (Esthonia).		
Red Pentam. Lst.	dorsata, Eichw.	.....	(Ural) Bogoslowsk.	
Pleta	Esthona, ,,	Wesenberg (Esthonia).		
	inflata, ,,	Réval (Esthonia).		
Fauna D	migrans, Barr.	(Bohemia) Colonice, Krejci.		
H. R. G.	modiolaris, Hall.	New York.		
Dolom. Lst.....	pumila, Eichw.	Kirna (Esthonia).		
H. R. G.	ovata, Hall.	New York, Ohio (Cincinnati).		
Pleta, Corall. Lst.	silurica, Eichw.	(Esthonia) Wesenberg, Isle Dago, Pyhalep, &c., Odinsholm (Baltic).	.....	Kamenetz (Podolia).
	simplex, Portlock.	Tyrone (Ireland).		
Utica Slate	sinuata, Emmons.	New York.		
Fauna G. g. 1 ...	solenopsis, Barr.	.....	.....	(Bohemia) Tetin.
Niag.	sp. ind., Hall.	.....	.....	North Wisconsin.
	Cypricardinia, *Hall,* 1859.			
Niag.	arata, Hall.	.....	.....	Chicago (Illinois).
L. H. G.	concentrica, ,,	.....	.....	(New York, eastern) Schoharie County.
Delth. Sh. Lst....	crassa, ,,	.....	.....	,, ,,
L. H. G.	dorsata, ,,	.....	.....	(E. New York) Columbia County.
Delth. Sh. Lst....	lamellosa, ,,	.....	.....	,, AlbanyCo.
L. H. G.	sublamellosa, ,,	.....	.....	,, ,,
	Disteira, *Eichwald,* 1859.			
Pleta.....	triangularis, Eichw.	Réval, Odinsholm (Baltic).		
	Dolabra, *M'Coy,* 1844.			
Tilestone	elliptica, M'Coy.	.....	.....	Stormhill, Llandeilo (Wales).
	Lusitanica ?, Sharpe.	(Portugal) Bussaco.		
Tilestone	obtusa, M'Coy.	.....	.....	Stormhill, Llandeilo (Wales).
H. R. G.	Stirlingensis, Meek & Worth.	Stirling (Illinois).		
	Edmondia, *Koninck,* 1844.			
Niag.	Nilesii ?, Winch. & Marcy.	.....	.....	Chicago (Illinois).
	Eopteria ?, *Billings,* 1865.			
Queb. G.	ornata, Billings.	Point Lévis (Canada East).		
,, ...	Richardsoni, ,,	(Can. E.) Quebec (drift).		
Div. G., Queb. G.	typica, ,,	(Newfoundland W.) Port au Choix.		
	Euchasma, *Billings,* 1865.			
P., Divs. G, H, Queb. G., CS.	Blumenbachia, Billings.	Newfoundland North &c., Tablehead &c.		
	Goniophora, *Sowerby,* 1839.			
	carpomorphum, Dalm.	.....	.....	Gothland, Russia, England.
Llandov., L.U.L.	cymbæformis, Sowerby.	.....	Cong (County Galway), (Shropshire) Minton &c.	Gothland, (Wales) Usk, Llansannan, Frid-y-Fedwen, Herefordshire, Ludlow, Malvern.
Llandov.	sp. ind., Salter.	.....	Mayhill (England).	
L.	,, ,,	.....	.....	?
	Grammysia, *De Verneuil,* 1837.			
Orthoc. L., *Pleta*	avus, Eichw.	Wesenberg (Esthonia).		
W., L.U.L.	cingulata, Hising.	.....	.....	Dudley, Esthonia, Gothland, Westmoreland, Russia, Malvern, (Ireland) Ferriter's Cove.
Llandov., L.....	var. *a*, ,,	.....	Mayhill (England).....	Arisaig (NovaScotia), (Wales) Usk, Ludlow.
U.L.	,, β triangulata, Salter.	.....	.....	(South Wales) Usk, Dudley, Westmorel., Benson Knot.
L.U.L.	,, γ obliqua, M'Coy.	High Thorns, Underbarrow (Westmoreland).		
U.L.	extrasulcata, Salter.	.....	.....	Benson Knot, Kendal, Horeb Chapel, Norway, Gothland.
Corall. Lst.	Goldfussi, Eichw.	.....	.....	Isle Oesel, Piddul (Baltic).
Compact Lst. (uncertain).	macroderma, ,,	(Isle Dago) Pyhalep.		
U.L.	rotundata, M'Coy.	.....	.....	(Westmorel.) Benson Knot, Kirkby Moor.

Subdivision.	Genus, Species, and Author.	Lower Stage.	Middle Stage.	Upper Stage.
Corall. Lst.	scapha, Eichw.	.....	.....	Isle Oesel (Baltic).
U.L.	triangulata, Salter.	.....	.....	Arisaig (Nova Scotia), (England) Ludlow, Kendal, (Wales) Llandeilo..
	Hippomya, *Salter*, 1865.			
Carad.	ringens, Salter.	(Normandy) May, Budleigh Salterton (Devonshire).		
	Ischarinia, *Billings*, 1866.			
Div. 1, A. Gr., Llandov.	plicata, Billings.	.....	(Anticosti) Junction Cliff.	
Div. 1, A. Gr., Llandov., H. R. G.	Winchelli, . „	.....	„ Macasty Bay.	
	Isocardia?, *Lamarck*, 1818.			
Dolom. Lst. with Orthoc.	caprina, Eichw.	Lake Ladoga (Russia), Pirna (Esthonia).		
Pleta.....	obtusa, „	Hohenholm, I. Dago (Balt.).		
Fauna G. g. 1....	potens, Barr.	.....	.....	(Bohemia) Chotecz.
„ „	sola, „	.....	.....	„ Hlubocep.
	Lucina, *Bruguière*, 1792.			
	Hisingeri, Murchison.	.....	.....	(S. Gothland) Bursvick.
Pentam. Lst. ?...	neura, Eichw.	.....	(Podolia) Orynine.	
W.	prisca, Hising. *tellina.*	.....	.....	(Esthonia) Isle Oesel, (Gothland) Osergarn.
	sinuata, Sowerby.	.....	.....	North and South Gothland.
L. H. G.	sp. ind., Logan.	.....	.....	Cape Gaspé (Canada East).
	Lunulacardium, *Münster*, 1840.			
W., L.	aliforme, Salter.	.....	.....	Bishop's Castle, Ludlow (Shropshire).
U.L.	elegans, „	.....	.....	Pentland Hills (Scotland), Ludlow (England).
Fauna G. g. 1, 2	tardum, Barr.	.....	.....	(Bohem.) Vavrovitz, Chotecz.
W., L.	sp. ind. (several), Salter.	.....	.....	Ludlow (Shropshire), North Wales.
	Lyrodesma, *Conrad*, 1837.			
	cælata, Salter.	(Normandy) May, Caen, Budleigh Salterton, Devonshire.		
Carad.	cuneata, Phill.	(Wales) Marloes Bay.		
H. R. G., Carad.	plana, Hall, M'Coy.	(New York) Oneida County, (Can. W.) North-west end Lake Ontario, (Wales) Yspatty Evan.		
BL., Tr., Ut. Sl., H. R. G.	poststriata, Emmons.	(Can. W.) Middle Ottawa River, River Don, Lake Ontario, New York.		
H. R. G.	pulchella, Hall.	(New York) Waterford.		
	Matheria, *Billings*, 1858.			
Tr.	brevis, Billings.	(Can. E.) Lower Ottawa River.		
„	obtusa, „	„ „		
„	tenera, „	Lake St. John (Canada E.).		
	Megalodon, *Sowerby*, 1827 = MEGALODUS (Russia).			
Pentam. Lst. ...	crassus, Eichw.	.....	North Ural (Russia).	
Orthoc. Lst.....	unguis, „	Réval (Esthonia).		
	Megalomus, *Hall*, 1852.			
Onond. S. Gp., Carad., Guelph.	Canadensis, Hall.	Horderly (Engl.). (*Murch.*).	.....	Galt Township (Canada W.).
Carad.	sp. ind. Salter.	(England) Church Stretton.		
	Modiolopsis, *Hall*, 1847.	(MODIOLA, *Lamarck*, 1801.)		
B., BL., Tr.....	adrastia, Billings.	(Canada W.) Lake Huron, North-west end.		
	affinis, Helmersen ?	.....	.....	South Gothland.
Tr., H. R. G. ...	anadontoides, Hall.	(Canada W.) Lake Ontario, Humber River, Tennessee, Wisconsin.		
Carad., U. Llandov., Tr., L.	anatiformis ?, „	(Canada East) Montreal.		
Pleta	anomala, Eichw.	Réval, Kirna, &c. (Esthon.), Isle Dago.		
	antiqua, Sowerby.	(Wales) Gelli Grin	Mayhill (Gloucestershire), Wales.	Ludlow, Wenlock Edge (England).
Tr.	arcuata, Hall.	(N. York) Herkimer County.		
Carad.	Armorica, Salter.	(Normandy) May, Budleigh Salterton (Devonshire), pebbles.		
Pleta.....	attenuata, Eichw.	(Esthon.) Wesenberg, Lyckholm.		

Subdivision.	Genus, Species, and Author.		Lower Stage.	Middle Stage.	Upper Stage.
Tr.	aviculoides,	Hall.	(New York) Middleville.		
Carad.	Brycei,	Portlock.	(Ireland) Tirnaskea, (Wales) Cader Dinmael.		
Tr.	carinata,	Hall.	(N.York) Middleville, (Can. W.) Winchester.		
Corall. Lst., L.	complanata,	Sowerby.			(Westmorel.) Kendal, Bridgenorth, Malvern (England), Stormhill (Wales), (Isle Oesel) Ficht, (Ireland) Ferriter's Cove &c.
H. R. G.	„	Billings?	(Canada East) Yamaska.		
L. H. G.	cultrata,	„			(Canada E.) Cape Gaspé.
H. R. G.	curta,	Conrad.	(N. York) Loraine, (Wisconsin) Mineral Point &c., (Can. W.) Lake Ontario, Humber River.		
Corall. Lst.	decussata,	Eichw.			(Isle Oesel, Baltic) Lodé.
Pleta	Deshayesiana,	Verneuil.	Réval, Baltischport (Baltic).		
„	devexa,	Eichw.	Gostilitzy (St. Petersburg). Réval &c. (Baltic), Isles Dago and Odinsholm.		
Niag.	Dictæus,	Hall.			Chicago (Illinois).
L. H. G., Tentac. Lst.	? dubia,	„			(New York, central) Herkimer County.
Carad.	Dunoyeri,	Salter.	Desertcreate (Ireland).		
	elegantula,	Sharpe.	(Portugal) Bussaco.		
Carad.	expansa,	Portlock.	(Ireland) Desertcreate, Tirnaskea, Wales?		
B., BL., Tr., H. R. G.	faba,	Conrad.	(New York) Lewis County, (Can. W.) Humber River.		
„ „	Gesneri,	Billings.	(Can. W.) Ottawa City &c.		
Pleta	globosa,	Eichw.	Réval &c. (Esthonia).		
W., L.U.L.	gradata, *Nilssoni.*	Salter.			(Wales) Llandeilo, Usk, Llangadoc, (England) Abberley, Walsall.
Pleta	incrassata,	Eichw.	Réval &c. (Esthonia).		
Carad.	inflata,	M'Coy.	(Wales) Pen-Cerrig and Cymmerig.		
Pleta	Ingrica,	Eichw.	Poulkova (Russia).		
U.L.	lævis,	Sowerby.			(Wales) Llandeilo, Horeb Chapel, (Engl.) Kendal, Downton.
Carad.	lata,	Hall.	(N. York) Jefferson County.		
Tr.	lingualis,	Salter.	(Normandy) May, Budleigh Salterton (Devonshire), pebbles.		
„	lirata,	„	„ „		
B., BL., Tr.	Maia,	Billings.	Lake St. John (Canada E.).		
„ „	Meyeri,	„	(Can. E.) Lower Ottawa River.		
Tr., H. R. G., Carad.	modiolaris,	Conrad.	(Normandy) May, (England) Horderley, (Wales) Aberhirnant, Cader Dinmael, (Can. W.) Toronto, Cape Smyth, Lake Huron, (Can. E.) Yamaska, Pennsylvania, New York, South Wisconsin.		
B., BL., Tr.	mytiloides,	Hall.	(N. York) Middleville, Lake Huron, North-west, Camp d'Ours.		
B., BL.	nais,	Billings.	(Can. W.) Mid. Ottawa River.		Park Lane and Middleton Park, Carmarthen?
Tr.	nasutus,	Hall.	Carlisle (Pennsylv.), (Can. E.) Murray Bay.		
Carad.	Nerei,	Portlock.	Bardahessiagh (Irel.), Leisley (Westmoreland).		
L.	Nilssoni,	Hising.			Sweden, (Wales) Llangadoc, Usk.
H. R. G.	? nuculiformis,	Hall.	New York.		
Pleta, Carad.	obliqua,	Sowerby.	(Normandy) Caen, (Caernarv.) Bettws-y-Coed &c., Shropshire, (Russia) Réval, Baltic.		
BL., B., Tr.	obtusa, Swallow,	Billings.	(Can. E.) Montreal, Point St. Clair, Missouri, (New York) Jefferson County.		
Carad., Llandov., W.	orbicularis,	Sowerby.	(Engl.) Horderley, Gretton, Hapsal (Esthonia).	Wales	South Gothland, *Helmersen.*

Subdivision.	Genus, Species, and Author.		Lower Stage.	Middle Stage.	Upper Stage.
M. Sa.	orthonota,	Hall.		(N. York) Medina Village, (Can. W.) Lake Ontario, West end.	
CL.	ovata,	,,		(New York) Herkimer Co.	
Tr.	parallela,	,,	New York (place not known).		
CH., Tr.	parviuscula,	Billings.	(Can. E.) Montreal, (Can. W.) Cornwall, L. Huron, Lake Winnipeg, Rupert's Land.		
L.	perovalis,	Salter.			England, (Wales) Usk, Llangadoc.
H. R. G.	pholadiformis,	Hall.	S. Wisconsin, N.W. Michigan.		
BL.	plana, Hall &	Whitney.	Wisconsin.		
U.L.	platyphylla,	Salter.			(Wales) Llangadoc, Stormhill (Caermarthen).
Carad.	postlineata,	M'Coy.	Meifod (Montgomeryshire).		
M. Sa.	primigenia,	Hall.		(New York) Medina Village &c.	
Carad.	pyrus,	Salter.	(Wales) Llangollen, Nant Joworth.		
L.	quadrata,	Salter.			(England) Malvern &c.
	Anodontopsis.				
Niag.	recta,	Hall.			Chicago (Illinois).
L. H. G.	rhomboidea,	,,			Arisaig (Nova Scotia).
Carad.	securiformis,	Portlock.	(Irel.) Tyrone, Desertcreate, (S. Wales) Haverfordwest &c., (Can E.) Yamaska.		
Div. 1, 2, A. Gr., Llandov.	striata,	Billings.		(Anticosti) Jupiter River &c.	
CL., Niag.	subalata,	Hall.		(N. York) Rochester &c.	(New York, central) Wolcott, (Illinois) Chicago.
CL.	subcarinata,	,,		(New York) Herkimer Co.	
L. H. G.	subnasuta,	,,			(Nova Scotia) Arisaig.
BL.	superba ?,	,,	Wisconsin.		
H. R. G.	terminalis,	,,	New York.		
Tr.	Trentonensis ?,	,,	,,		
H. R. G.	truncatus,	,,	(New York) Oneida County, (Ohio) Cincinnati.		
Niag.	undulostriatus,	,,			(New York) Lockport.
H. R. G.	sp. ind.,	,,	(Ohio) Cincinnati.		
	,, (2),	Slimon.			(S.W. Scot.) Lesmahago.
	,,	Salter.	(Normandy) May, Budleigh Salterton (pebbles).		
	,,	Honeyman.			Arisaig (Nova Scotia).
Carad.	,,	Hisinger.	(Wales) Caernarvon, Bettwys-y-Coed.		
,,	,,	Salter.	(Wales) Plas Madoc.		
,,	,,		,, Pont Rhievedog, Llynfyllin.		
Tr.	,,	D. D. Owen.	Prairie du Chien (Wiscons.).		
	Myalina, *Koninck*, 1844.				
Niag., Onon.S.G.	mytiliformis,	Worthen.			(Illinois) Chicago.
CL.	,,	Hall.		(N. York) Herkimer Co.	
	Mytilus, *Linnæus*, 1758.				
W.	Chemungensis,	Conrad.			New York, Usk, Plas Madoc (Wales).
Carad.	cinctus,	Portlock.	(Irel.) Tirnaskea, Lisbelaw, Fermanagh.		
W.	exasperatus,	Phill.			(Wales) Llandeilo, Swansea Road.
Carad., W., L.	gradatus,	Salter.	Gelli Grin, Bala (Wales).		(S. Wales) Park Lane &c., Caernarvonshire, Shropshire.
Fauna G. g. 2	insons,	Barr.			(Bohemia) Vavrovitz.
Carad. ?, Llandov., W., L.	mytilimeris,	Conrad.	Tyrone, Desertcreate, Chair of Kildare.	(Wales) Carreg Llwyd, Malvern, Mayhill, &c.	(N. & S. Wales) Golden Grove, (Engl.) Dudley, Shelve, Worcestershire, Derrymore Glen (Ireland).
Carad.	Nerei,	Portlock.	,, ,,		
	Modiolopsis.				
,,	simillimus,	M'Coy.	Chair of Kildare (Ireland).		
Carad., W.	unguiculatus,	Salter.	(Wales) Plas Madoc, Bryn Craig, Usk.		Plas Madoc, Linsway Bay Pembrokeshire.
W.	sp. ind.,	,,			(Wales) Maes Tyddyn.
	Orthonota, *Conrad*, 1838		= NUCULITES, LEPTODOMUS,	SANGUINOLITES, SANGUINOLARIA, TELLINITES.	
Pleta	ædilis,	Eichw.	(Esthonia) D'Erras.		

Subdivision.	Genus, Species, and Author.	Lower Stage.	Middle Stage.	Upper Stage.
U.L.	affinis, M'Coy.			(Westmorel.) Benson Knot.
U.Llandov., U.L.	amygdalina, Sowerby.		Tortworth (Gloucestershire).	(Engl.)Kendal, Hagley Park, Malvern, &c., (Wales) *passim*, (Scotland) Peebles.
Tilestone, U.L.	angulifera, M'Coy.			(Westmorel.)Benson Knot&c.
	angustata, Hall.			Nova Scotia.
L. H. G.	arata, ,,			Arisaig (Nova Scotia).
,,	carinata, Sowerby.			,, ,,
Tilestone	cingulata, Salter.			Dudley, Llangadoc (Wales).
W.	complanata, Sowerby.			Linley, Bridgenorth (Engl.).
	compressa, Goldfuss.			Westmoreland.
H. R. G.	contracta, Hall.	Canada, Cincinnati (Ohio).		(Gothland) Grotlingbo.
CL., Niag.	curta, Sowerby.		(New York) Wolcott Co. (ore-bed).	Ludlow, Wenlock, Westmoreland, (New York) Wolcott.
Tilestone	cymbæformis, ,,			Horeb Chapel (S. Wales).
U.L.	decipiens, M'Coy.			(Westmorel.) Benson Knot, (Wales) Lechclawdd, (S. W. Scotl.) Kirkcudbright.
,,	extrasulcata, Salter.			Trichrug,Llangadoc(Wales).
?	faba, Emmons.	New York.		
L.	globulosa, M'Coy. *Leptodomus.*			Kirkby Moor, Benson Knot (Westmoreland).
Carad.	grammysioides, Salter.	(Normandy) May, Caen, (Engl.)BudleighSalterton.		
Llandov., L.L.	impressa, Sowerby.			(Engl.) Ludlow, Delbury, Ledbury.
Tr.	inflata, Hall ?	New York.		
U.Llandov.,W.	inornata, Phill.		Marloes Bay	Marloes Bay, Usk Tunnel (Wales), Kirkcudbright (Scotland).
Pleta.	macromya, Eichw.	D'Erras (Esthonia).		
	Moreni,Bonissent,Rouault.	(France) La Manche.		
Bala, H. R. G.	nasuta, Conrad.	NewYork,(Wales) Allt-y-gader,Shropshire,Horderley.	Kamenetz (Podolia).	
	obovata, Münster.	Egool, County Mayo.		
H. R. G.	parallela, Hall.	Canada,(N.York)Loraine &c.		
	Pellicoi, Verneuil.	(France)La Manche. (Spain) Almaden, Romeral, &c.		
H. R. G.	pholidis, Conrad.	(N. York) Oswego County.		
Carad.	postlineata, M'Coy.	(Merioneth) Bala Lake.		
U.L.	primitiva, Phillips. *Arca.*			Freshwater East (Pembrokeshire).
L.	prora, Salter. *semisulcata.*			Westmoreland.
W., L.	retusa, Sowerby.			(Gothl.) Grotlingbo, (Engl.) Dudley, Ludlow, &c., Usk (Wales).
L.L.	rigida, ,,			(England) Malvern, (Wales) Llandeilo, Gothland.
U.L.	rotundata, ,,			(Engl.) Ludlow &c., Wales.
Carad., U.L.	semisulcata, ,, *Modiola.*	(S.W. Scotland) Ayrshire, Muloch.		Builth,Llandeilo,&c.(Wales), Kirkby Moor, Westmoreland.
Carad.	simplex, Portlock.	(Ireland) Desertcreate.		
L.U.L.	solenoides, Sowerby. *Cypricardium.*			(Engl.) Downton, Abberley, Westmoreland, Wales.
Carad.	sulcata, Hisinger.	?		
Corall. Lst.	triangularis, Eichw.			Kamenetz (Podolia).
U.L.	triangulata, Salter. *Grammysia.*			Westmoreland, Llangadoc (Wales).
,,	truncata, M'Coy.			Benson Knot, Brigsteer (Westmorel.), Deer Hope, Pentlands (Scotland).
U.L.	undata, Sowerby.			Dudley, Delbury, Presteign, &c.
Carad.	verisimilis, Salter.	(Montgomeryshire) Allt-y-gader.		
Carad.	sp. ind. Salter.	Caernarvonsh. &c. (Wales).		
?	,, Honeyman.			Arisaig (Nova Scotia).
	,, Selwyn.		Victoria (SouthAustralia).	
	,, Bonissent.	(France) La Manche.		
	Palæarca, *Hall,* 1847–57.	(CYRTODONTA, *Billings,* 1858; CYPRICARDITES, *Conrad,* 1847. An illegitimate name, *J.W.S.*)		
Llandov., Div. 1, A. Gr.	acutumbona, Billings.		(Anticosti) Junction Cliff.	

Subdivision.	Genus, Species, and Author.	Lower Stage.	Middle Stage.	Upper Stage.
Stiper Stones, L.	amygdalus, Salter.	Shropshire, Cefn Gwynlle Mine, Norbury.		
Carad.	anglica, D'Orbigny.	(Wales) Allt-y-gader.		
H. R. G.	? Anticostiensis, Billings.	(Anticosti) English Head.		
Tr.	auriculata, Salter.	West Tasmania.		
,,	aviculoides, ,,	,, ,,		
Llandov.	Billingsiana, ,,	(Wales) Montgomeryshire, Nant Torweth, Llangollen.		
CH.	breviuscula, Billings.	(Canada W.) Ottawa City.		
Carad.	bulla, Salter.	(Wales) Meifod, Nant Torweth, (Shropshire) Horderley.		
BL., Tr.	Canadensis, Billings.	(Can.E.)Montreal, (Can.W.) Ottawa City, N.W. end of Lake Huron.		
Tr.	compressa, Salter.	West Tasmania.		
,,	cordiformis, Billings.	North-west end Lake Huron.		
,,	distorta, Salter.	West Tasmania.		
H. R. G.	Emma, Billings.	(Anticosti) English Head.		
CH.	faba, ,,	(Can. E.) Grenville, Lower Ottawa River.		
L. H. G.	flexuosa, ,,	(Canada E.) Cape Gaspé.		
Tr.	gibbosula, Salter.	West Tasmania.		
,,	Gunnii, ,,	,, ,,		
H. R. G.	Harrietta, Billings.	(Anticosti) English Head.		
,,	Hindii, ,,	(Canada W.) Toronto.		
	Headi.			
CH., BL., Tr.	Huronensis, ,,	(Can. E.) Montreal, Lake St. Louis, (Can. W.) Loughborough, North-west Lake Huron.		
Tr.	inflata, Salter.	West Tasmania.		
H. R. G.	? insularis, Billings.	Anticosti, West end.		
L. H. G.	lata, ,,	(Canada E.) Cape Gaspé.		
	Modiolopsis.			
BL., Tr.	Leucothea, ,,	(Can.W.) Mid.Ottawa River.		
Carad.	modiolaris, Salter.	(N. Wales) Bala, Moel-y-Garnedd.		
BL.	Niota, Hall.	Wisconsin.		
Tr.	obliquata, Salter.	West Tasmania.		
Carad.	obscura, ,,	(Wales) Meifod, Bala, Yspatty Evan.		
BL., Tr.	obtusa, Hall.	Wisconsin, N.W. Tennessee, N.W. Michigan, (N.York) Watertown, Anticosti, W. end.		
	Ambonychia.			
L. H. G.	orbicularis, Billings.	(Can. E.) Gaspé Bay, Anticosti.		
Tr.	pinguis, Salter.	West Tasmania.		
H. R. G.	plebeia, Billings.	(Anticosti) Charlton Point.		
,,	ponderosa, ,,	Cape Smyth, Lake Huron, North-east end.		
Carad.	quadrata, Salter.	(Wales) Bettws-y-Coed.		
	Matheria?			
BL.	rectirostris, Hall&Whitney.	Wisconsin.		
Tr.	reversa, Salter.	Wast Tasmania.		
BL.	rotundata, Hall &Whitney.	Wisconsin.		
,,	rugosa, Billings.	(Can.E.)Montreal, (Can.W.) Middle Ottawa River.		
,,	Saffordi, ,,	Tennessee (U. S. America).		
	Edmondia.			
Carad.	secunda, Salter.	May (Normandy), Budleigh Salterton, Devonshire.		
CH., H. R. G.	sigmoidea, Billings.	Canada East, (Anticosti) Macasty Bay &c.		
Lowest Llan.	socialis, Salter.	(Wales) Ty-obry, Penrhyn, Tremadoc.		
BL., Tr.	spinifera, Billings.	(Can.W.) Mid.OttawaRiver.		
,,	subangulata, Hall.	(N. York) Jefferson County, (Can.W.) La Cloche, Lake Huron, Mid.OttawaRiver.		
	Edmondia.			
CH., Tr.	subcarinata, Billings.	(Can. E.) Montreal, (Can. W.) Mid. Ottawa River, Camp d'Ours, Lake Huron.		
B., Tr.	subspatulata, Hall.	(N. York) Jefferson County.		
	Modiolopsis.			

Subdivision.	Genus, Species, and Author.	Lower Stage.	Middle Stage.	Upper Stage.
B., Tr.	subtruncata, Hall. *Edmondia.*	New York, Missouri, (Can. W.) Middle Ottawa.		
Tr.	ventricosa, Hall & Whitney. *Edmondia.*	Wisconsin, N.W. Michigan, (Tennessee) Stone's River, (New York) Lowville.		
	vetusta, Whitney. *Cardiomorpha.*	Missouri, (New York) Herkimer County.		
Llan., H. R. G.	ungulata, Billings.	Macasty Bay (Anticosti), Wales.		
Tr.	sp. ind., Salter.	West Tasmania.		
	Psammobia, *Lamarck*, 1818.			
	prisca, Hising.	.....	.....	Gothland, Russia.
	rigida, Sowerby.	.....	Leenane (Galway)	Aymestry (England).
?	sp. ind. Selwyn.	.....	Victoria (Australia).	
	Pseudaxinus, *Salter*, 1864.			
Carad.?	trigonus, Salter.	Budleigh Salterton (Devon).		
	Pyronomæus, *Hall*, 1852.			
CL., Niag.?	cuneatus, Hall.	.....	(N.York) Oneida County.	(Canada West) Dundas.
	Redonia, *Rouault*, 1851	= CUCULLELLA.		
L.Llan.	Anglica, Salter.	Shropshire, west of Stiper Stones, Lord's Hill, Shelve.		
Fauna D. d. 1	Bohemica, Barr.	(Bohemia) Rokitzan.		
	Deshayesiana, Verneuil.	(France) Angers, Vitré, Cherbourg, (Portugal) Bussaco, (Spain) Fontanosus, Alcaraz &c. (W. Asturia).		
	Duvaliana, Rouault.	(Brittany) Vitré, (Spain) W. Asturia, (Portugal) Bussaco, (France) La Manche		
Carad.?	Lindfordii?, Salter.	Budleigh Salterton, pebbles?		
,,	transversa?, ,,	,, ,,		
	sp. ind., Bonissent.	(France) La Manche.		
	Ribeiria, *Sharpe*, 1853.			
CS.	calcifera, Billings.	Grenville, Ottawa River.		
L.Llan.	complanata, Salter.	Lord's Hill, Shelve (Salop).		
Carad.	conformis, ,,	Budleigh Salterton. (Devonsh.).		
CS.	longiuscula, Billings.	Grenville (Canada East).		
Carad.	magnifica, Salter.	Budleigh Salterton (boulders)		
Fauna D. d. 1, 4, 5, Carad.	pholadiformis, Sharpe.	Portugal, (Spain) Almaden, Bohemia.		
	Tellinites, *M'Coy*, 1855	= ORTHONOTA, *Conrad.*		
U.L.	affinis, M'Coy.	.....	.....	Benson Knot (Westmorel.).
	Tellinomya, *Hall*, 1847	= MYTILOIDES. (An inadmissible genus = *Ctenodonta* chiefly, *J.W.S.*)		
Onon. S. G.	æquilateralis, Hall.	.....	.....	New York.
Tr.	alta, ,,	Wisconsin (U. S. America).		
Tr.	anatiformis, ,,	(N.York, N.W.) Jefferson Co.		
	angustata, ,,	.....	.....	(Nova Scotia) Arisaig.
L. H. G.	attenuata, ,,	.....	.....	,, ,,
CL.	curta, ,,	.....	(N.Y.) Wolcott, Wayne Co.	
Tr.	donaciformis, ,,	New York.		
,,	dubia, ,,	N.W. Michigan, (New York) Herkimer County &c.		
CL.	elliptica, ,,	.....	(N. York) Herkimer Co.	
Grey Sa. Shales above Tr.	fecunda, ,,	S.W. Wisconsin, Iowa.		
Tr.	gibbosa, ,,	(New York) Middleville.		
,,	inflata, ,,	Wisconsin.		
CL.	lata, ,,	(N. York) Wayne County.		
Lingula Slate	lingulicomes, M'Coy.	Penmorpha, Tremadoc (N. Wales).		
Tr.	machæriformis, Hall.	(N. York) Wayne County.		
Tr., BL.	nasuta, ,,	Wisconsin, (N. York) Trenton Falls &c.		
Tent. L., L.H.G.	nucleiformis, ,,	.....	.....	(N.York) Herkimer County.
BL.	ovata, ,,	Wisconsin (U. S. America).		
Tr., L. H. G.	sanguinolaroidea, ,,	(New York) Middleville ...	.....	New York.
BL.	ventricosa.	Wisconsin.		
	Vanuxemia, *Billings*, 1858.			
H. R. G.	Bayfieldi, Billings.	(Can. W.) Bayfield Sound, Lake Huron.		
Tr.	Dixoniensis, Meek & Worth.	(Illinois) Dixon.		
BL., Tr.	inconstans, Billings. *Palæarca.*	(Can. E.) Montreal, (Can. W.) Middle Ottawa River, La Cloche (Lake Huron).		
	Montrealensis, ,,	(Can. E.) Farnham, Montreal, Murray Bay.		

Summary (Geographical).

Genera.	AMERICA.																		EUROPE &c.																			Grand Total of Appearances.	Number of Species.	Countries inhabited.
	Bolivia (S. Amer.).	Rupert's Land.	N.W. Michigan.	Wisconsin.	Missouri.	Iowa.	Illinois.	Ohio.	Tennessee.	Pennsylvania.	New York.	Canada West.	Canada East.	Anticosti Island.	Nova Scotia.	Mingan Islands.	Newfoundland.	Total (America).	Ireland.	Scotland.	England.	Wales.	France.	Spain.	Portugal.	Sardinia.	Franconia.	Bohemia.	(Germany) Harz.	Norway.	Sweden.	Russia.	Baltic Russia.	India, North.	South Australia.	Tasmania.	Total (Europe).			
Actinodonta																						1															1	1	1	1
Anatina?											1		1					2																				2	1	2
Anodontopsis																			1	1	5	6															13	13	7	4
Arca	1																	1			2	3	2	1									2				10	11	6	6
Astarte?																												1									1	1	1	1
Axinus																					1																1	1	1	1
Cardiola																			2		4	4	3	1	1	1	1	7									24	24	13	9
Cardiomorpha																												4	1								5	5	5	2
Cardita																												1									1	1	1	1
Cardium																					1					1		5			1						8	8	8	4
Cleidophorus		1	1			1	1					1			9			14			1	2	2	1	1		1						1		1		10	24	18	14
Conocardium		1					2				1	1	1	1		1		8	4	3	1		1					4					1				14	22	18	13
Ctenodonta	1		1	1			1				4	10	2				1	21	12	2	10	19	9	5	8			2	1	1	3		1	3	2	3	81	102	77	24
Cucullella	1																	1	3		4	6															13	14	9	3
Cypricardia				1				2			6							9	1				2	1	1			3				1	5				14	23	21	11
Cypricardinia							1				5							6																				6	6	2
Disteira																																	1				1	1	1	1
Dolabra							1											1				2						1									3	4	4	3
Edmondia							1											1																				1	1	1
Eopteria?													2				1	3																				3	3	2
Euchasma																	1	1																				1	1	1
Goniophora																			1		3	1									1	1					7	7	3	5
Grammysia															2			2			5	3								1	1	1	5				16	18	11	7
Hippomya																							1														1	1	1	1
Ischarinia													2					2																				2	2	1
Isocardia?																												2				1	2				5	5	4	3
Lucina													1					1													2		2				4	5	5	3
Lunulacardium																				1	3	1						1									6	6	4	4
Lyrodesma											3	2						5			1	2	1														4	9	5	7
Matheria													3					3																				3	3	1
Megalodon																																1	1				2	2	2	2
Modiolopsis			1	7	1		3	2	1	2	21	13	10		3			64	5	1	10	18	6		1						3	3	10				57	121	80	20
Myalina							1				1							2																				2	2	2
Mytilus											1							1	4		1	6						1									12	13	10	5
Orthonota								1			6		2		4			13	2	4	20	17	4	1							3		4		1		56	69	47	13
Palæarca			2	5	2				3		6	11	9	8				46			2	8	1													14	25	71	56	12
Psammobia																			1		1										1	1			1		5	5	3	5
Pseudaxinus																					1																1	1	1	1
Pyronomæus											1	1						2																				2	1	2
Redonia																					3		3	2	2			1									11	11	7?	5
Ribeiria													2					2			3			1	1			1									6	8	6	5
Tellinites																					1																1	1	1	1
Tellinomya			1	6		1					11				2			21																				21	20	5
Vanuxemia												1	2					3			1																1	4	4	2
	3	2	6	20	3	2	11	5	4	2	67	40	37	9	20	1	3	235	36	12	84	99	35	13	15	2	2	34	2	2	15	9	35	3	5	17	420	655	481	35 countries.

SUBKINDGOM MOLLUSCA. PROVINCE ODONTOPHORA. CLASS PTEROPODA, HETEROPODA (NUCLEOBRANCHIATA).

Subdivision.	Genus, Species, and Author.	Lower Stage.	Middle Stage.	Upper Stage.
	Bellerophon, *Montfort,*	1808.		
Carad., Llandov., Div. 1, Anticosti Gr., Tilestone.	acutus, Sowerby.	(Anticosti Isl.) English Head, Portugal, (Spain) Almaden &c., Bohemia, (Engl.) Horderley, River Onny, Norway.	(S.W. Scotand) Ayrshire, (Wales) Haverfordwest, (Anticosti) Gamache Bay.	Storm Hill (Wales).
Carad.	alatus, Portlock.	Tyrone (Ireland).		
Ardoissière Sch.	Alixi, Rouault.	Vitré (France).		
Orthoc. Lst.....	angulatus, Eichw.	(Esthonia) Wesenberg, Isle Odinsholm (Baltic), Ropscha (St. Petersburg).		
Guelph.....	angustatus, Billings.	.....	.....	Cape Hurd, Guelph (Canada West).
P. Passage beds, U. Tremad.	Arfonensis, Salter.	Tremadoc, Llanerch, Garth, &c. (Wales).		
B., BL., Tr.....	Argo, Billings.	(Can. E. & W.) Lake St. John, Middle Ottawa River.		
Orthoc. Lst.....	arquatus, Eichw.	Poulkova (Russ.), Isle Odinsholm) Esthonia.		
Corall. Lst. Sch.	auriculatus, Hall.	.....	.....	(N. York) Schoharie County.
Pentam. Lst., Corall. Lst.	Aymestriensis, Sowerby.	.....	.....	Isle Oesel, (Podolia) Kamenetz, (Engl.) Aymestry, Ludlow.
B., BL., Tr.....	bidorsatus, Hall.	New York, Middle Ottawa River (Canada West).		
Tr., Utica Slate, H. R. G., M. Sa., Fauna D. d. 1, 2, &c., Llan., Car., W., Pleta, Div. 1, Anticos. G. = Llandov.	bilobatus, Sowerby.	(Spain) Sierra Morena &c., Portugal, Brittany, La Manche (France), (Boh.) Rokitzan, (England) Malverns, Westmorel., (S.W. Scotl.) Saugh Hill, (Wales) Garn, Meifod, &c., (Irel.) Tirnaskea, Isle Dago (Baltic), Christiania (Norway), Isle Anticosti, Lake St. John, Murray Bay, Lorette, Montreal (Can. E.), Ottawa River (Can. W.), Dubuque &c. (Iowa), Mineral Point (Wisconsin). Herkimer Co. &c. (New York), Ohio, N.W. Michigan (Lake Superior).	(S.W. Scotland) Middle Drummuck, S. Wales, Malvern, (Anticosti) Gamache Bay, Canada.	Cheney, Longueville (Shropshire).
Tr.	var. acutus, Sharpe.	(N. York) with *B. bilobatus,* Norway.		
Carad.	,, angustatus, Portlock.	Ireland.		
Llan., Car., Llandov.	,, β, compressus, ,,	,, ...	Ireland.	
Tr.	,, corrugatus, Hall.	(N. York) Trenton Falls &c.		
Faunæ F, G. g. 1	Bohemicus, Barr.	.....	.....	Bohemia, Tetin, Lochkov, Konieprus.
Granul. Dolom...	Boreas?, Eichw.	.....	.....	(Oural) Bogoslowsk.
Div. 1, Antic. Gr., Llandov., H. R. G.	Canadensis, Billings.	(Isle Anticosti) Macasty Bay.	(Anticosti) Gamache Bay.	
H. R. G.	cancellatus, Hall.	(New York) Loraine &c.		
Carad., Llandov., W., U.L.	carinatus, Sowerby.	(N. Wales) Cerrig-y-druidion, Twll-ddu, Portugal?	North Wales	(Wales) Horeb Chapel, Plas Madoc, &c., (Irel.) Tonlegee, (Nova Scotia) Arisaig.
B., BL., Tr.....	Charon, Billings.	(Can. W.) Mid. Ottawa River.		
Orthoc. L., Pleta	compressus, Eichw.	D'Erras, Lyckholm (Estho.).		
,, ,,	conspicuus, ,,	Poulkova (Russia).		
,, ,,	contortus, ,,	Isle Dago, Pyhalep (Baltic).		
Carad.	Corndensis, Sowerby.	Corndon Hills (Wales), Thuringia.		
Brandschiefer ...	Czekanowski, Schmidt.	Esthonia.		
Pleta, Carad., U. Llandov., W., L.	dilatatus, Sowerby.	(S.W. Scot.) Mullock &c., Tyrone, (N. Wales) Cerrig-y-druidion, presqu'ile de Nouk (Esthonia).	(Anticosti) The Jumpers, (Livon.) Fennern, (England) Mayhill, (Wales) Mandinam.	Gothland, Dudley, Ledbury, New York, Ludlow, Aymestry, Tirnaskea (Irel.).
B., BL., Tr.....	disculus, Billings.	(Can. W.) Ottawa City, (Can. E.) L. St. John, Blue Point.		

Subdivision.	Genus, Species, and Author.	Lower Stage.	Middle Stage.	Upper Stage.
Compact Pleta...	distortus, Eichw.	Gatchina (Russia).		
	Duriensis, Sharpe.	(Portugal) Vallongo.		
Carad., U.L. ...	expansus, Sowerby.	Dolydd, Ceiriog (Berwyn Mountains).	Norbury, Shelve.....	Arisaig (Nov. Sco.), (Wales) HorebChapel, Plas Madoc, (England) Underbarrow, Ludlow, Felindre, Malvern.
Carad., Llandov.	falcatus, Salter.	.....	(S.W. Scotl.) Drummoch, Ayrshire.	
H. R. G.	fraternus, Billings.	(Anticosti Isl.) EnglishHead.		
	Ganesa, Salter.	Niti (Himalaya), Chorhoti Pass.		
	gibbus, Portlock.	.....	.....	Tirnaskea, Tyrone (Ireland).
?	granosus, Eichw.	.....	.....	Bogoslowsk (Ural).
Pleta.....	helix, Eichw	Poulkova (Russia).		
L.Llan.....	hippopus, Salter.	Shropshire, Kitton Castle, Shelve.		
L.L.	infundibulum, ,,	.....	.....	(Engl.) Vinnal Hill, Ludlow, Ledbury.
Orthoc. L., Pleta	Ingricus, Verneuil.	Poulkova (Russia).		
,, ,,	lateralis, Eichw.	(Isle Dago, Baltic) Hohenholm.		
L. H. G.	Laurenticus, Billings?	.....	.....	(Canada E.) Cape Gaspé.
ArdoissiéreSchist	l'Huissierei, Rouault.	Bain, Vitré (France).		
Pleta.....	locator, Eichw.	Isle Odinsholm, Wesenberg (Esthonia).		
CS.	macer, Billings.	(Can. W.) Leeds County &c.		
Pleta.....	megalostoma, ,,	Isle Odinsholm (Baltic).		
H. R. G.	miser, ,,	Macasty Bay (Anticosti).		
P., Low.Tremad. Llan.	multistriatus, Salter.	Tremadoc, Llanerch (Wales).		
Llan.	Murchisoni, *striatus*, D'Orbigny.	.....	.....	(S. Wales) Horeb Chapel, Felindre, Malvern.
Orthoc. Lst.....	nanus, Eichw.	Poulkova (Russia).		
	nautarum, Salter.	.....	.....	Arctic Seas (America), Dundas Isle &c.
Pleta	navicula, Eichw.	(Esthonia) Réval, Isle Dago, Hohenholm (Baltic).		
,,	nitens, ,,	Presqu'ile de Nouk (Estho.).		
Fauna D. d. 1 ...	nitidus, Barr.	(Bohemia) Rokitzan.		
H. R. G., Carad.	nodosus, Salter.	(N. & S. Wales) Llanwddyn, Bala, &c., (England) Horderley.		
Llandov., U.L....	obtectus, Phill.	.....	(Wales) Marloes Bay.....	(Wales) Marloes Bay.
Llan., Carad. ...	ornatus, Conrad.	(Can. W.) Point Rich, Lake Huron, (N. Wales) Llangollen, Nant Francon.		
Queb. Gr.	Palinurus, Billings.	Stanbridge, (Can. E.) Lake Champlain.		
Sh. above Trenton Lst.	Patersoni, Hall.	Wisconsin.		
Niag.	perforatus, Winch. & Mar.	.....	.....	Chicago (Illinois).
Arenig, Llan., Carad.	perturbatus, *Euomphalus*, Sowerby.	Shelve, Shropshire, Scotland, (N. & S. Wales) Bangor, AbereiddyBay, St. David's, Whitesand Bay, Pensarn Green (Ireland).		
Tr.	profundus, Emmons.	New York (U. S. America).		
U.Pentam. Lst...	,, Hall.	.....	.....	(New York) Schoharie.
Tr.	pugnus, Salter.	Tasmania West.		
	punctifrons, Emmons.	New York, (Canada West) Middle Ottawa River.		
Orthoc. Lst. ...	pygmæus, Eichw.	Poulkova (Russia).		
,,	radiatus, ,,	(Isle Dago) Hohenholm.		
CH.	rotundatus, Hall.	New York, (Canada West) Middle Ottawa.		
Carad.	semirugosus,	(Wales) Gwreiddian, Llanwddyn.		
Orthoc. Lst.....	Siluricus, Eichw.	Poulkova (Russ.), IsleOdinsholm (Esthonia).		
L. H. G.	striatus, D'Orb.	.....	.....	Arisaig (Nova Scotia).
U.Llandov., W.	subdecussatus, M'Coy.	(S.W. Scotl.) Mulock, Llanrwst, Meifod, Montgomeryshire.	S.W. Scotland	S.W. Scotland, (Wales) Llanrwst.
CH., Tr., Carad.	sulcatinus, Emmons.	New York, (Can. W.) Mid. Ottawa, Horderley, Onny River, Shropshire, Tyrone.		

Subdivision.	Genus, Species, and Author.		Lower Stage.	Middle Stage.	Upper Stage.
CH.	sulcatus,	Hall ?	New York (U.S. America).		
Tr.	Trentonensis,	Dawson ?	(Canada E.) Murray Bay.		
U.Llandov., W., L.U.L.	trilobatus,	Sowerby.	Portugal (*Bronn*)	S.W. Scotland, Malvern, Shropshire, (Wales) Marloes Bay, Llanrwst, (Ireland) Galway, Tonlegee.	(S.W. Scotl.) Lammermuir, (Wales) Storm Hill, Plas Madoc, Llangadock, Felindre, &c., (Shropshire) Shelve.
	undatus,	Billings.	Lake St. John (Canada E.).		
	Uralicus,	Verneuil.			Nijni-Tourinsk, River Is, and Vuia (Ural).
Llandov., W.	Wenlockensis,	Sowerby.			DerrymoreGlen(Irel.),Wenlock,Malvern,Ledbury,&c. (England).
	sp. ind.,	Salter.			Bolivia (South America).
	,,	Römer.			Texas (North America).
?	,,	Meneghini.	Sardinia.		
Llandov.	,,	Salter.		North Wales.	
	,,	,,		(S.W. Scot.) Saugh Hill.	
Carad.	,,	,,	Normandy, Budleigh Salterton, Devonsh.(pebbles).		
P., Tremad.	,,	,,	Ramsey Isle &c. (S. Wales).		
?	,,	Selwyn.		Victoria (Australia).	
	,,	Salter.	(Himala.)Niti,ChorhotiPass.		
	Bucania, *Hall,* 1846.				
Onond. S. G.	angustata,	Hall.			(Canada West) Galt.
CL.?	bellapuncta,	,,		(New York) Iron-ore bed, Wayne County.	
Tr.	bidorsata,	M'Chesney.	(N. York) Jefferson County, Tennessee,N.W.Michigan, Wisconsin.		
Niag.	Chicago-ensis,	,,			Thornton, Cook County (Illinois).
,,	crassolaris,	,,			Bridgenorth, Chicago (Illinois).
Tr., BL.	expansa,	,,	(N. York) Watertown, Tennessee, N.&W.Wisconsin.		
CH. or Tr.	intertexta,	,,	(New York) Watertown.		
Shale above Tr.	lirata,	D. D. Owen.	S.W. Wisconsin, Iowa.		
Niag.	pervoluta,	M'Chesney.			Bridgenorth, Chicago (Illinois).
U.Pentam. Lst.	profunda,	Hall.			(New York, eastern) Scoharie County &c.
Tr.	punctifrons,	Conrad.	(N. York) Middleville, Watertown.		
CH., B.	rotundata,	Hall.	(N. York) Clinton County.		
CL.	stigmosa,	Hall.		(N.York) Medina Village.	
CH.	sulcatina,	,,	(N. York, north-east) Chazy Village.		
M. Sa., CL.	trilobata,	Sowerby.		Pennsylvania, (New York) Medina Village, New Hartford.	(Nova Scotia) Arisaig &c.
Tr.	sp. ind.,	D. D. Owen.	Fort Snelling (Wisconsin).		
Cor. Lst. Schoh.	,,	Hall.			(N.York, east) Scoharie Co.
	Subgenus CENTROTHECA, *Salter,* 1866.				
Llan.	cuspidata,	Salter.	Garth Quarries (N. Wales).		
	Coleoprion, *Sandberger,* 1847.				
BL.	attenuatum,	D. D. Owen.	Wisconsin.		
Fauna G. g. 1	Bohemicum,	Barr.			(Bohemia) Chotecz.
	Conularia, *Miller,* 1818.		(Thin, ornate, conical shells allied to *Cleodora,* J.W.S.)		
Fauna G. g. 1	aliena,	Barr.			(Bohemia) Chotecz.
,, ,, 2	anomala,	,,			Bohemia.
H. R. G.	asperata,	Billings.	(Anticosti) Macasty Bay.		
L.L.	bifasciata,	Salter.			Church Hill, Leintwardine (England).
Fauna 2	Bohemica,	Barr.			Bohemia.
Orthoc. Lst.	Buchii,	Eichw.	Poulkova, Ropscha (Russia), Odinsholm.		
Carad., U.L.	cancellata,	Sandberger.	(North Wales) Bala		Benson Knot (Westmorel.).
Fauna 2	consobrina,	Barr.			Bohemia.
Orthoc.Lst.,*Pleta*	constricta,	Eichw.	Wesenberg, Isle Dago (Esthonia).		
Arenig or L.Llandov.	corium,	Salter.	(North Wales)Ty-obry, Port Madoc.		
Carad.	elongata,	Portlock.	(Tyrone) Desertcreate, Leisley (Westmoreland).		
Fauna 2	fecunda,	Barr.			Bohemia.

Subdivision.	Genus, Species, and Author.	Lower Stage.	Middle Stage.	Upper Stage.
Fauna G. g. 1 ...	fragilis, Barr.	.....	.....	(Bohemia) Chotecz, Hostin, Konieprus.
Tr.	gracilis, Hall.	(New York) Middleville.		
Faunæ D.d.4,5 ?, E.	grandis, Barr.	Bohemia	Bohemia ?	
,, ,,	granulata, ,,	New York.		
P., U.Tremad. ...	Homfrayi, Salter.	(N. Wales) Garth, Tuhwnt-yr-bwlch, Portmadoc.		
Delth. Shaly Lst.	Huntiana, Hall.	.....	.....	(N. York, eastern) Schoharie County.
Carad.	lævigata, Salter.	(N. Wales) Beddgelert.		
Dolomite ?	latisulcata, Eichw.	Gatchina, St. Petersburg (Russia).		
Orthoc. Lst.....	lineata, ,,	Wesenberg (Esthonia).		
Niag.	longa, Hall.	.....	.....	(N. York) Lockport Shale.
L.Llandov.	margaritifera, Salter.	(North Wales) Tyobry.		
Orthoc. L., Pleta	marginata, Eichw.	Presqu'ile de Nouk (Estho.).		
	Mayeri, Rouault.	Poligné (France).		
Niag.	Niagarensis, Hall.	.....	.....	(New York) Rochester &c., (Canada W.) Flamboro' Township.
Tr.	papillata, ,,	(New York) Middleville.		
Faunæ F, G. 1.	proteica, Barr.	.....	.....	(Bohemia) St. Iwan.
Tentaculite Lst.	pyramidalis, Hall.	.....	.....	(New York, eastern) Albany County &c.
Carad.	pyramidata, Deslongch.	May &c. (Normandy), Budleigh Salterton(Devonsh.).		
,,	rectistriata, M'Coy.	Chair of Kildare (Ireland).		
Car., Pleta, Llandov., W.	Sowerbyii, Defrance. *quadrisulcata.*	(Ostrogothia) Borenshult, (Estho.) Wesenberg, Isle Dago, (Norw.)Christiania, (N.Wales)Bala &c., (Irel.) Desertcreate, (Canada E.) Indiana, Lorette, &c.	(S.Wales) Haverfordwest, Shropshire.	Chotinec, River Dniester (Bessarab.), Norway, S.W. Scotland, Westmoreland, Dudley, Kington, Shropshire, North and South Wales, West Ireland.
U.L.	var. Gerolsteinensis, De Verneuil.	.....	.....	Kendal (Westmoreland).
H. R. G.	splendida, Billings.	(Anticosti) Charlton Point.		
Pleta.....	striata, Eichw.	Poulkova (Russia).		
,, U.L.....	subtilis, Salter.	Lyckholm (Esthonia).	.....	NewYork, Collinfield, Brigsteer and Benson Knot (Westmoreland), Carlops, Peeblesshire.
Tr., H. R. G. ...	Trentonensis, Hall.	(Can. E.) Anticosti, Murray Bay, Montreal, (N. York) Middleville &c., Pennsylvania, Russia.		
Tr.	sp. ind., D. D. Owen.	RedRiverNorth, Lower Fort Garry.		
	Cyrtolites, *Conrad*, 1838.	(Slightly curved and finely	striated, *J.W.S.*)	
Fauna G. g. 1 ...	advena, Barr.	.....	.....	(Bohemia) Lochkov.
L.L.	carinatus, Sowerby. *Ecculiomphalus.*	....	.....	(Pembrokesh.) Marloes Bay.
Tr.	compressus, Hall.	(N.York) Middleville, (Wisconsin) Fort Snelling.		
Shale above Tr...	Conradi, ,,	S.W. Wisconsin, Iowa.		
H. R. G.	desideratus, Billings.	(Anticosti) Macasty Bay.		
Tr.	filosum, Hall.	(N.York, North) Watertown.		
?	minor, Portlock.	.....	.....	(Tyrone) Tirnaskea.
Shale above Tr...	ornatus, Hall. *Bellerophon.*	Loraine &c. (New York), Canada, (Wisconsin) Fort Snelling.		
H. R. G.	pannosus, Billings.	(Anticosti) English Head, Charlton Point.		
Tr.	Trentonensis, Hall.	(N. York) Middleville, Mohawk River, (Pennsylvania) Carlisle.		
	Cyrtotheca, *Salter*, MS.,	1867.		
Tr.	compressa, Conrad.	New York, Canada, Tennessee, N.W. Michigan.		
H. R. G.	Conradi, Hall.	Wisconsin (U. S. America).		
Pleta	corniculum, Eichw.	(Russia) St. Petersburg.		
P., L.Ling. Flags	cornucopia, Salter.	St. David's (S. Wales).		
Tr.	filosa, Conrad.	New York (U. S. America).		
Menevian beds...	Griffithii, Hicks.	St. David's (Wales).		
U.Llandov., L....	*lævis*, Sowerby. Ecculiomphalus.	.....	Abberley Hills	Ludlow (Shropshire).

Subdivision.	Genus, Species, and Author.	Lower Stage.	Middle Stage.	Upper Stage.
Tr., Carad., H. R. G.	ornata, Conrad.	(Wales) Capel Curig, Llangollen, (Can. W.) Toronto, (Can. E.) Lake St. Louis, New York, Pennsylvania, Tennessee, Ohio, N.W. Michigan.		
Pleta.....	scindens, Eichw.	(Russia) St. Petersburg, Poulkova.		
Carad., Llandov.	*Scotica*, M'Coy. Ecculiomphalus.	(S.W. Scotland) Knockdollian Quarry.		
Fauna G. g. 1 ...	solitaria, Barr.	.....	.....	(Bohemia) Tetin.
Tr.	Trentonensis, Conrad.	(N.York) Middleville, (Can. W. & E.) Lake St. Louis.		
,,	undata, Hall ?	New York.		
W.	sp. ind., Salter.	.....	.....	Dudley, Walsall.
?	,, Selwyn.	.....	Victoria (Australia).	
	Ecculiomphalus, *Portlock*, 1843; CYRTOLITES, pars.		(A curved *Pteropod*, or	possibly allied to *Atalanta*, J.W.S.)
Divs. F, G, CH., C.S., Queb. G.	Atlanticus, Billings.	(Newfoundland, N.W.) Keppel Island.		
Carad.	Bucklandi, *minor*. Portlock.	S.W. Scotland, Desertcreate (Ireland).		
Queb. G.	Canadensis, Billings.	Phillipsburg, Isle of Orleans, Beauharnois, Point Lévis (Canada East).		
Div. P, Queb. G.	distans, ,,	(Newfoundl. W.) Cowhead.		
,, ,,	intortus, ,,	(Canada E.) Isle of Orleans, Point Lévis, Phillipsburg, Edward's Town.		
W., U Llandov., U.L.	lævis, Sowerby.	.....	(Shropsh.) Church Stretton.	Ledbury, Eastnor Castle (Engl.), Builth, Presteign.
Carad., U.Llandov.	Scoticus, M'Coy.	(S.W. Scotl.) Girvan. (Pro	bably a S.W. Scotland *Ga*	*steropod*, J.W.S.)
Queb. G.	spiralis, Billings.	Phillipsburg, St. Armand (Canada East).		
Div. P, Queb. G.	superbus, ,,	(Newfoundland W.) Portland Creek.		
Tr.	Trentonensis, ,,	(Canada East) Montreal.		
BL.	undulatus, D. D. Owen.	Wisconsin.		
	Lonchidium, *Eichwald*, 1860.			
Corall. Lst.	æquale, Eichw.	.....	.....	Ararat Mountain, S.E. of Armenia (*Abich*).
,,	approximatum, ,,	.....	.....	Upper Armenia, N.W. of Ararat.
,,	inæquale, ,,	.....	.....	Kamenetz (Podolia), (Isle Oesel) Ilpel.
	Maclurea, *Emmons*, 1843 (*Morris*).			
Divs. K, L, M, N, Queb. G.	acuminata, Billings.	(Newfoundland, N.W.) Point Rich &c.		
Div. F, CS., Queb. G.	affinis, ,,	(Newfoundland, W.) Keppel Island.		
CH., Queb. G....	Atlantica, ,,	Point Lévis (Can. E.), Mingan Isles (Can. W.).		
	Bigsbyi, Hall.	Wisconsin (U. S. America).		
Orthoc. Lst.....	corniculum, Eichw.	Popscha (Russia).		
Divs. I, K, L, M, N, Queb. G.	crenulata, Billings.	(Newfoundland W. & N.W.) Point Rich.		
Divs. I, K, L, M, Queb. G.	Emmonsi, ,,	(Newfoundland N.W.) Point Rich &c.		
Orthoc. L., *Pleta*	excedens, Eichw.	Réval (Baltic).		
,, ,,	helix, ,,	Poulkova, Lake Ladoga, &c. (Russia), Wesenberg (Esthonia).		
CS.	labiata, Hall.	New York.		
Llan., B., BL. ...	Logani, Salter.	(S.W. Scotl.) Ayrshire, (Can. E.) Grenville, Montreal, Mingan Isles.		
Carad.	Maccoyi, ,,	(S.W. Scotland) Aldeans.		
	macromphala, M'Coy.	(S.W. Scotl.) Aldeans, Girvan.		
Llan., CH.	magna, Lesueur.	(S.W. Scotl.) Knockdollian, River Stinchar, Ayrshire, (N.W. Lake Huron) St. Joseph Island, Virginia, (N. York) Watertown &c., Tennessee, Turkey River (Iowa), Hot Creek, Austin, (California).		

Subdivision.	Genus, Species, and Author.	Lower Stage.	Middle Stage.	Upper Stage.
Llan., CS., Queb. G.	matutina, Hall.	(N. Scotland) Durness, Mingan Isles, Lake St. Louis, Phillipsburg, St. Armand (Can. E.), (N. York) Mohawk Valley, Pennsylvania.		
Pleta	neritoides, Eichw.	(Esthonia) Lyckholm, Lower Silesia (drift).		
Divs. F, G, H, Queb. G., CS.	oceani, Billings.	(Newfoundl. N. & W.) Tablehead &c.		
Llan.	Peachii, Salter.	(N.W. Scotland) Durness.		
Div. P, Queb. G.	ponderosa, Billings.	Newfoundland West, Point Rich, Phillipsburg, St. Armand (Canada East).		
Div. G, CS., Queb. G.	Psyche, ,,	(Newfoundland N.) Cape Norman.		
Div. G, CS., Queb. G.	rotundata, ,,	(Newfoundl. W.) Bonne Bay.		
P., Calc. S.	? sordida, Hall.	Point Lévis (Can. E.) New York.		
Divs. G, H, I, K, L, M, Queb. G., CS.	speciosa, Billings.	(Newfoundland N. & N.W.) Point Rich &c.		
CS.	striata, Hall.	New York (U. S. America).		
Div. G, CS., Queb. G.	sylpha, Billings.	(Newfoundland N.) Cape Norman.		
Div. K, L, Queb. G.	transitionis, ,,	(Newfoundland N.W.) Point Rich &c.		
	sp. ind.,	Knockdollian (S.W. Scotl.).		
CS.	,, Logan.	Chateau Gay (Canada East).		
	,, Salter.	.....	....	(Arctic Seas, America) Lancaster Sound.
	,, ,,	(S.W. Scotland) Aldeans.		
	Pterotheca, *Salter*, 1852.			
BL.	attenuata, D. D. Owen.	Wisconsin.		
Woolhope	avirostris, Salter.	.....	.....	Bogmine, Shelve (Shropsh.).
Carad.	corrugata, ,,	(N. Wales) Dolbenmaen.		
B., BL., Tr.	expansa, Billings.	Canada.		
H. R. G., Div. 1, A. G., Carad.	transversa, Salter.	Anticosti Isle	(Anticosti) Gamache Bay.	
Carad., U. Llandov.	,, Portlock.	(Ireland) Desertcreate	(Engl.) Damory Bridge, Shropshire.	
Carad.	undulata, Salter.	Shropshire (Cheney Longueville).		
Fauna E	sp. ind. Barr.	.....	Bohemia.	
Llandov.	,, Salter.	.....	Tortworth (Gloucestershire).	
	Salterella, *Billings*, 1865.	(Minute conical tubes,	thick and invaginated, probably formed by worms, *J.W.S.*).	
	M'Cullochii, Salter.	Durness (North Scotland).		
P., Potsd. Lst....	obtusa, Billings.	(Labrador) Forteau Bay, Strait of Belleisle (Can.).		
,, ,,	pulchella, ,,	(Labrador) Forteau Bay, Canada.		
,, ,,	rugosa, ,,	,, ,,		
	Stenotheca, *Salter*, 1866; CYRTOTHECA, *Salter*.			
P., L. Ling. Flags	cornucopia, Salter.	St. David's (South Wales).		
	Theca, *Sowerby* (Morris), 1844; HYOLITES, *Eichwald*, 1840; PUGIUNCULUS, *Barrande*, 1847.			
Pleta.....	acuta, Eichw.	Isle Odinsholm, Réval (Esthonia).		
P., U. Tremad....	alata, Salter.	(North Wales) Port Madoc, Garth, &c.		
Fauna G. g. 1 ...	alter, Barr.	.....	.....	(Bohemia) Chotecz.
W.	anceps, Salter.	.....	.....	Malverns, (Engl.) Eastnor Castle &c.
L. & U. Tremad.	arata, ,,	(N. Wales) Penmorfa, Borthwood, Tyn-y-lan.		
	Beirensis, Sharpe.	(Portugal) Bussaco.		
P., L. & U. Tremad.	bijugosa, Salter.	(North Wales) Tyn-y-lan, Garth, &c.		
?	Bohemica, Barr.	Bohemia?		
Llan.	cometoides, Baily.	(Ireland) Belvoir Castle, Clare County.		
Lingula Flags ...	corrugata, Salter.	(South Wales) St. David's.		
U. Tremad. Flags	cuspidata *Centrotheca.* ,,	(North Wales) Portmadoc.		

Subdivision.	Genus, Species, and Author.	Lower Stage.	Middle Stage.	Upper Stage.
Fauna D. d. 1, 4 L. H. G., W., U.L.	elegans, Barr.	Bohemia.		
	Forbesii, Sharpe.			(Ireland) Derrymore Glen, Shropshire, Ludlow, Dudley, Lambrigg Fell (Westmoreland), (N. & S.Wales) Dinas Bran, (Nova Scotia) Arisaig, New York.
P., Potsdam	gregaria, Meek & Hayden.	Bighorn, Rocky Mountains, N.W. America.		
Orthoc. Lst.	insularis, Eichw.	Isle Odinsholm (Baltic).		
Orthoc. L., *Pleta*	lata, „	Réval, (Baltic) Isle Odinsholm.		
	lineolata, Salter.	Himalaya, Chorhoti Pass.		
P.	Menevensis, „	St. David's (S. Wales).		
Fauna G. g. 1	nobilis, Barr.			(Bohemia) Hostin.
„ G. g. 2	novella, „			„ Vavrovitz.
P., Lingula Fl.	obtusa, Salter.	Maentwrog, St. David's Head, Tafarn Helig (Wales).		
P., L.Tremad.	operculata, „ *Cleidotheca.*	(N.Wales) Borthwood, Portmadoc, &c.		
Pleta, Brandsch.	paradoxa, Eichw.	D'Erras (Esthonia).		
Shale above Tr.	parviuscula, Hall & Whitney.	S.W. Wisconsin, Iowa.		
P., Lingula Fl.	penultima, Salter.	St. David's (S. Wales).		
Potsdam Sa.	primordialis, Hall.	Iowa, (Wisconsin) Black and Chippewa Rivers, Trempaleau.		
Llan., Carad.	reversa, Salter.	(N.Wales) Bala Lake, (S.W. Scotl.) Girvan, (England) Horderley, New York.		
	secans, Barr.			(Bohem.) Hostin, Chotecz.
L.Llan., Arenig Rocks, U.Tremadoc.	simplex, „	Shropshire, White-grit Mine, Shelve, (Bohemia) Col. Krejci.		
P.	stileto, Salter.	(South Wales) St. David's.		
Fauna D. d. 1, 4	striatulus, Barr.	Bohemia.		
Pleta &c.	striatus, Eichw.	(Esthonia) D'Erras.		
Carad., H. R. G.	triangularis, Portlock.	Trough (Co. Clare), Desertcreate (Tyrone), (Spain) Ciudad Reale, (Denbighshire) Cerrig-y-Druidion, Leisley (Westmoreland).		
L.Llan.	vaginula, Salter.	Arenig Mountains (North Wales), Kitton Castle (Shropshire).		
	vitrea, Rouault.	Vitré &c. (France).		
Tr.	sp. ind., Salter.	Canada.		
	„ (many), „	England, Wales, Ireland, &c.	England	England, Wales, Scotland.
P.	„ Barr.	Hof (Bavaria).		
?	„ Selwyn.		Victoria (Australia).	
Arenig rocks	„ Salter.	(S. Wales) Whitesand Bay and Ramsey Isle.		

Summary (Geographical).

Genera.	Species. America.	Europe.	Victoria, S. Australia.	Tasmania.	India.	Common.
Bellerophon	29	50	1	1	...	7
Bucania	16	...	...	...	...	...
Coleoprion	...	2	...	...	...	...
Conularia	10	24	...	...	...	2
Cyrtolites	6	4	...	...	...	1
Cyrtotheca	6	8	1	...	...	...
Ecculiomphalus	8	3	...	...	...	...
	75	91	2	1	...	10

Genera.	Species. America.	Europe.	Victoria, S. Australia.	Tasmania.	India.	Common.
Brought forward	75	91	2	1	...	10
Lonchidium	...	3	...	...	...	...
Maclurea	21	12	...	...	...	3
Pterotheca	2	5	...	...	...	...
Salterella	3	1	...	...	...	...
Stenotheca	...	1	...	...	...	...
Theca	5	34	1	...	1	2
	106	147	3	1	1	15

SUBKINGDOM MOLLUSCA. PROVINCE ODONTOPHORA. CLASS GASTEROPODA (DIŒCIA).

Subdivision.	Genus, Species, and Author.	Lower Stage.	Middle Stage.	Upper Stage.
	Acroculia, *Phillips*, 1841; CAPULUS, *Montfort*; PLATYCERAS, *Conrad*; PILEOPSIS, &c.			
	acuta, Römer.	.....	.....	Low. Harz (Germany), *Giebel.*
	acutissima, ,,	.....	.....	,, ,, ,,
U. Pentam. Lst...	agrestis, Hall.	.....	.....	(N. York) Schoharie County.
L. H. G.	alveata, ,,	.....	.....	,, Albany County.
CL., Niag.	angulata, ,,	.....	(New York) Lockport ...	,, Lockport.
U. L.	antiquata, Salter.	.....	.....	(Scotland) Pentlands, Lesmahago.
Delth. Sh. Lst....	arcuata, Hall.	.....	.....	(N. York) Schoharie County.
CH.	auriformis, ?	New York State (U.S.A.).		
Fauna G. g. 1 ...	bellula, Barr.	.....	.....	(Bohemia) Chotecz.
Delth. Sh. Lst....	Billingsii, Hall.	.....	.....	(N. York, east) Becraft's Mn.
?	Bischoffi, Giebel.	.....	.....	Lower Harz (Germany).
L. H. G.	bisinuata, Hall.	.....	.....	(N. York, east) Albany Co.
Delth. Sh. Lst....	bisulcata, ,,	.....	.....	,, Schoharie Co.
Pleta	borealis, D. de Leuchtenb.	Poulkova (Russia).		
Delth. Sh. Lst....	calantica, Hall.	.....	.....	(N. York, east) Albany Co.
	calyptrata, Schrenk.	.....	.....	Gothland.
Niag.	campanulatum, Winchell & Marcy.	.....	.....	Chicago (Illinois).
P.	Cantabrica, Verneuil.	(Spain, *Leon*) Sabero.		
U. Pentam. Lst...	clavata, Hall.	.....	.....	(N. York, east) Schoharie Co.
	conoideus, Barr.	.....	.....	Littem (Bohemia).
?	conspicua, Eichw.	.....	.....	Altai Mountains (N. Russia).
?	contorta, Römer.	.....	.....	Lower Harz (Germany).
	cornuta, Hising.	.....	.....	Gothland.
U. Pentam. Lst...	curvirostra, Hall.	.....	.....	(N. York, east) Schoharie Co.
	depressa, Schloth.	.....	.....	Thuringia.
Delth. Sh. Lst....	dilatata, Hall.	.....	.....	(N. York, east) Albany Co.
	disjuncta, Giebel.	.....	.....	Lower Harz (Germany).
Delth. Sh. Lst....	elongata, Hall.	.....	.....	(N. York, east) Schoharie Co.
,, ,,	var. ?, ,,	.....	.....	,, ,,
L.	euomphaloides, M'Coy.	.....	.....	Leintwardine (Shropshire).
Delth. Sh. Lst....	Gebhardi, Hall.	.....	.....	(N. York) Schoharie Co. &c.
L. H. G.	gibbosa, ,,	.....	.....	(N. York, east) Albany Co.
U. Llandov., W.	haliotis, Sowerby. *Nerita.*	(S.W. Scotl.) Saugh Hill ...	S.W. Scotland, Wales, Chirbury, Norbury, Church Stretton, Norway.	Bohemia, Dudley, Ledbury, Malvern, Ludlow (Engl.), (N. & S. Wales) Plas Madoc, Moel Seisiog, Doonquin, Creagh Martin, &c. (Ireland).
Delth. Sh. Lst....	incilis, Hall.	.....	.....	Virginia, (New York) Schoharie County.
,, ,,	intermedia, ,,	.....	.....	(N. York, east) Schoharie Co.
? Pentam. Lst....	irregularis, Eichw.	.....	Ural (Russia).	
Delth. Sh. Lst....	lamellosa, Hall.	.....	.....	(N. York, east) Albany Co.
?	multiplicata, Giebel.	.....	.....	Lower Harz (Germany).
Delth. Sh. Lst....	multisinuata, Hall.	.....	.....	(N. York, east) Albany Co. &c.
	naticoides, Römer.	.....	.....	Lower Harz (Germany).
Delth. Sh. Lst....	Newberryi, Hall.	.....	.....	(New York, east) Becraft's Mountain, Columbia Co.
Niag.	Niagarensis, ,,	.....	.....	(New York) Lockport shale, (Can. W.) Thorold, Tenness.
U. Pentam. Lst., Delth. Sh. Lst.	obesa, ,,	.....	.....	(N. York, east) Becraft's Mn. and Scholarie County.
	ornata, Römer.	.....	.....	North-west Harz (Germany).
L. H. G.	pentaloba, Hall.	.....	.....	(New York, east) Albany Co.
,,	perlata, ,,	.....	.....	(N. York, east) Schoharie Co.
,,	perplicata, ,,	.....	.....	,, ,,
,,	pileiformis, ,,	.....	.....	,, ,,
,,	platystoma, ,,	.....	.....	(New York, east) Albany and Schoharie Counties.
,,	var. alveatum, ,,	.....	.....	(N. York, east) Schoharie Co.
Delth. Sh. Lst....	plicata, ,,	.....	.....	(New York, east) Albany and Schoharie Counties.
L. H. G.	plicatilis, ,,	.....	.....	(New York, east) Albany Co.
P., Potsd. Sa. ...	primordialis, ,,	Kickapoo River and Trempaleau (Wisconsin).		
Lower Silurian, Fauna E. W.	prisca, Barr.	.....	Bohemia	England.
? Pentam. Lst....	proæva, Eichw.	.....	Ural (Russia).	
W.	prototypa, Phillips.	.....	.....	(Engl.) Ledbury, Burrington, Wenlock Edge, Bohemia, Thuringia.

Subdivision.	Genus, Species, and Author.	Lower Stage.	Middle Stage.	Upper Stage.
Delth. Sh. Lst....	pyramidata, Hall.	.....	.....	(N. York, east) Schoharie Co.
„ „	retrorsa, „	.....	.....	(NewYork, east) Albany and Schoharie Counties.
L. H. G.	var. abnormis, „	.....	.....	(N.York, east) Schoharie Co.
Delth. Sh. Lst....	robusta, „	.....	.....	(N.York,east)Albany&c.Cos.
Pleta, Faunæ E, F, G. g. 1.	rostrata, Eichw.	Isles Dago and Odinsholm (Baltic).	.....	(Bohem.)Konieprus, Hostin, St. Iwan.
	selcana, Giebel.	.....	.....	Lower Harz (Thuringia).
Delth. Sh. Lst....	sinuata, Hall.	.....	.....	(New York, east) Becraft's Mountain &c.
„ „	spiralis, „	.....	.....	(NewYork, east) Albany and Schoharie Counties.
	subrecta, „	.....	.....	New York.
	sulcata, Hising.	.....	.....	Gothland.
L. H. G.	sulcoplicata, Hall.	.....	.....	(N.York, east) Schoharie Co.
„	tenuilirata, „	.....	.....	„ Albany and Schoharie Counties.
Tr.	Trentonensis, Billings.	(Canada E.) River Chevrotière, Deschambault.		
Delth. Sh. Lst....	trilobata, Hall.	.....	.....	(N.York, east) Schoharie and Becraft's Mountain.
„ „	tubæformis, „	.....	.....	„ „
	uncinata, Giebel.	.....	.....	North-west Harz(Germany).
U.Pentam. Lst...	undulostriata, Hall.	.....	.....	(N.York,east) Becraft's Mn., Columbia County.
Delth. Sh. Lst....	unguiformis, „	.....	.....	(NewYork, east) Albany and Schoharie Counties.
„ „	unisulcata, „	.....	.....	NewYork,east)Becraft's Mn.
„ „	ventricosa, „	.....	.....	(New York, east) Becraft's Mountain, Schoharie, &c.
L.	vetusta, Sowerby.	.....	.....	North-west Harz(Germany), Aymestry? (England).
	virginis, Giebel.	.....	.....	North-west Harz(Germany).
	Zenkeri,	.....	.....	„ „
Primordial	sp. ind., Verneuil.	Castile (Spain).		
	„ „	(Spain) Leon, province of.		
L. H. G.	„ Hall.	.....	.....	New York (U. S. America).
	„ Rouault.	Rennes (France).		
	Calyptræa, *Lamarck,* 1801.			
Corall. Lst.	calyptrata, Schrenk.	.....	.....	Isle Oesel (Baltic), Hohen-eichen, Lode, Ficht.
	Carinaropsis, *Hall,* 1846.			
Tr.	carinata, Hall.	(New York) Trenton Falls and Middleville.		
H. R. G.	cunulæ, „	Nashville (Tennessee).		
„	cymbula, „	Louisville (Ohio).		
„	orbiculata, „	(New York) Waterford.		
„	patelliformis, „	„ Middleville.		
	sp. ind., „	North Wisconsin.		
	Cerithium, *Adanson,* 1757.			
Corall. Lst.	avicula, Eichw.	.....	.....	Isle Oesel, Lodé (Baltic).
? Pentam. Lst....	Helmerseni, De Verneuil.	.....	.....	Bogoslofsk (Oural).
	Chemnitzia, *D'Orbigny,* 1839.			
?	sp. ind., Selwyn.	.....	Victoria (Australia).	
	Chiton, *Linnæus,* 1758.			
BL.	Canadensis, Billings.	(Can. W.) Mid.OttawaRiver.		
W., L.L.	Grayanus, Koninck.	.....	.....	Dudley, Ludlow (England).
Llandov.	Griffithii, Salter. *Helminthochiton.*	.....	Ireland.	
	Cirrus, *Sowerby,* 1818 = EUOMPHALUS, *Sowerby,* 1814.			
Faunæ F, G. g. 1.	concoy, Barr.	.....	.....	Bohemia.
	Cleodora, *Persoon & Lesueur,* 1810.			
	sp. ind., Salter.	(Can.W.)Mid. Ottawa River.		
	„ Portlock?	Ireland, North Wales.		
	Clioderma, *Hall,* 1859. (CENTROTHECA.)			
Tr.	anatiformis, Hall.	(New York) Watertown.		
BL.	attenuata, D. D. Owen.	Wisconsin.		
	caniculata, Hall.	(Tennessee) Lebanon.		
Tr.	expansa, „	(New York) Watertown.		
	Saffordi, „	(Tennessee) Lebanon.		
Tr.	undulata, „	(New York) Watertown.		
	Clisiospira, *Billings,* 1865.			
P., Queb. G.....	curiosa, Billings.	(Canada E.) Quebec (drift).		
	macrophthalma, „	?		
	Cyclonema, *Hall,* 1852.			
Div.4,A.G., Mayh.	bellula, Billings.	.....	(Anticosti) The Jumpers.	

Subdivision.	Genus, Species, and Author.	Lower Stage.	Middle Stage.	Upper Stage.
Tr., H. R. G. ...	bilix, Conrad.	(Lake Huron) Cape Smyth, Tennessee, N.York, (Ohio) Cincinnati.		
CL.	cancellata, Hall.	.....	(N. Y.) Wayne County &c.	
Div. 4, Anticosti Gr., Mayhill.	communis, Billings.	.....	Anticosti.	
Carad.	concinna, M'Coy. *Turbo.*	(Ireland) New Ross, Wexford.		
L., U.L.	corallii, Sowerby. *Murchisonia.*	.....	.....	Derrymore Glen (Ireland), Ludlow, (Salop) Botville, Caradoc, &c., Gothland (Middle and North).
Carad.	crebristria, M'Coy.	(N. & S. Wales) Caernarvon, Bala, CorndonGrits, Westmoreland.		
U.Llandov.	Davisii, Salter.	.....	Nash Scar, Presteign.	
Div. 4, A. Gr., Mayhill.	decora, Billings.	.....	(Anticosti) S.W. Point.	
Guelph.....	depressa, ,,	.....	.....	Guelph (Canada West).
,,	Galtensis, ,,	.....	.....	,, ,,
	granulata, ?	(Ireland) Desertcreate.		
Tr.	Hageri, ,,	Canada (east and west).		
B., BL.	Halliana, Salter.	(Canada W.) Middle Ottawa.		
Div. D, A. Gr....	humilis, Billings.	.....	(Anticosti) The Jumpers.	
Carad.	lineata, ?	(Irel.) Tyrone, Desertcreate.		
	mediocris, Billings.	.....	(Anticosti) near S.W. Point.	
Tr.	Montrealensis, ,,	(Canada E.) Montreal.		
CL., Niag.	obsoleta, Hall.	.....	(New York) Medina &c., Canada West.	(Canada W.) Flamboro' W.
L.	Octavia, D'Orbigny.	.....	.....	Ludlow. Chance's Nitch, Malvern, Westmoreland.
Div. 4, A. Gr., Niag. ?	percingulata, Billings.	.....	Anticosti Isle, S.W. Point (Gulf St. Lawrence).	
Queb. G.	Phædra, ,,	Quebec (drift).		
Guelph.....	Psyche, ,,	.....	.....	Guelph (Canada West).
L.Llandov.	quadristriata, Phillips.	.....	Malvern (England).	
	Rama, Salter.	Niti Pass, Himalaya (E. I.).		
Pleta, Carad. ...	rupestris, Eichw.	Wales, (Irel.) Chair of Kildare, (Esthonia) Nyby, Isle Dago, Hohenholm.		
Tr.	semicarinata? Salter.	(Can.W.) Mid. Ottawa River.		
Carad.	sigaretiformis, Portlock.	(Ireland) Chair of Kildare.		
,, ...	subsulcata, ,,	(Ireland) Desertcreate.		
	subtersulcata, Salter.	(Himalaya) Niti Kalajowar.		
Onond. S. Gr., Guelph.	sulcata, Hall.	.....	.....	(New York) Wayne County, (Canada West) Guelph.
Pleta, Carad. ...	sulcifera, Eichw., Murch.	Tyrone, (Esthonia) Kirna, Odinsholm.		
Div. 1, Anticosti Gr., H. R. G.	Thalia, Billings.	(Anticosti) Charlton Point, Junction Cliff.		
Guelph.....	Thisbe, ,,	.....	.....	(Can.W.) Guelph Township.
Pleta	trimarginata, Eichw.	Poulkova, Ropscha, &c. (Russia), Wesenberg &c. (Esthonia), Chair of Kildare (Ireland), (Wales) Allt-y-gader.		
L.	undifera, M'Coy.	.....	.....	Aymestry (England).
Div. 4, Anticosti Gr., Mayhill.	varians, Billings.	.....	(Anticosti Isle) S.W. Point.	
H. R. G.	varicosa, Hall.	Tennessee (U. S. America).		
,, CL., Llandov.	ventricosa, ,,	Ohio, Tennessee.....	Wales, (N. York) Wayne County, Sodus.	
Carad.	sp. ind., Salter.	Montgomerysh., Llanfyllin.		
W.	,, (three keels), ,,	.....	.....	(Wales) Llansannan, Bryn-Mawr.
,,	,, ,,	.....	.....	(Wales) Llansannan, Fryd-y-Fedwen.
	Dentalium, *Linnæus*, 1740.			
Inflamm. Schist.	acus, Eichw.	D'Erras (Esthonia), Pontilovo (St. Petersb., Russia).		
Pleta	granosum, ,,	Poulkova, Popova (Russia).		
,,	notabile, ,,	,, ,,		
	Eunema, *Salter*, 1859.			
Tr.	æmula, Salter.	Tasmania West.		
B., BL.....	cerithioides, ,,	(Canada West) Middle Ottawa River.		

Subdivision.	Genus, Species, and Author.	Lower Stage.	Middle Stage.	Upper Stage.
W.	cirrhosus, Sowerby.			Wenlock, Dudley (England).
B., BL.	Erigone, Billings.	(Canada W.) River Ottawa, Point l'Orignal.		
B., BL.	pagoda, „	Canada West, Mingan Isles, Wisconsin.		
P., CS.	prisca, Billings.	Hunter's Isl. (Mingan Isles).		
B., BL.	strigillata, Salter.	Mingan Isles, (Can. W.) Middle Ottawa River, Camp d'Ours, Lake Huron.		
	Eucomphalus, *Sowerby,* 1814.			
Pleta	acies, Eichw.	Isles Odinsholm and Dago (Baltic).		
	æquilaterus, Wahlenb			Gothland.
Oslo G., Llan...	æquilateralis, Hising	Norway.		
Llandov., W., L.	alatus, Hising.		Bull's Head (Kerry)	Norway, North Gothland, Abberley Hill, Tame Bridge (Engl.), (Irel.) Ferriter's Cove, Doonquin, (Wales) Llandeilo.
	var. subundatus, Salter.			Golden Grove, Llandeilo, &c. (Wales).
	„ Brauni, major, Barr.	Bohemia.		
Fauna E	canaliferus, „			Bohemia.
W., L.	carinatus, Sowerby.			(N. Gothland) Wisby, (Norway) Katthammer, (Engl.) Tortworth, Ludlow, Walsall, Aymestry, &c., (Wales) Mocktree.
	catenulatus, Hising.			Gothland, Katthammer (Norway).
Corall. Lst., W., L.	centrifugus, Wahlenb.			Dudley, Leintwardine, Woolhope, &c., (Podolia) Kamenetz.
Llan.	Corndensis, Sowerby.	Corndon Hills (S. Wales), South Thuringia.		
Corall. Lst.	cornu-arietis, Hising.			Podolia, Isle Oesel (Baltic), (Gothland) Katthammer, Klinteberg.
W.	costatus, „			(Gothl.) Katthammer, Näs.
Pleta	devexus, Eichw.	(Esthonia) Wesenberg.		
W.	discors, Sowerby.			North Gothland, Woolhope, Wenlock, Dudley, &c. (England), Wales.
U. Pentam. Lst.	disjunctus, Hall.			(New York, east) Carlisle &c. Counties.
	elegans, Eichw. *gyroceras.*	Réval, Lyckholm (Esthonia).		
U. Llandov., W., L., Pleta, Fauna E.	funatus, Sowerby.	(Isle Dago) Hohenholm.	Norway, (Engl.) Mayhill, (Ireland) Bull's Head, Kerry County, (Wales) Marloes Bay.	(N. Gothland) Wisby &c., (Wales) Lansannan, Usk, &c., (England) Walsall, Wenlock Edge, Dudley, Aymestry, &c., (Irel.) Ferriter's Cove &c., Bohemia.
Fauna E	granulatus, Barr.			Bohemia.
W.	hemisphæricus,			Lndles, Woolhope, Dudley.
Pleta	increscens, Eichw.	Isle Odinsholm (Baltic).		
U. Llandov., W.	lautus, M'Coy.		(Ireland) Galway	Doonquin, Ferriter's Cove (Ireland).
?	Luzieri, Bonissent.	(France) La Manche.		
	marginalis, Eichw.	Isle Odinsholm &c. (Baltic), Lapoukhineka (St. Petersb.).		
Llan.	matutinus, Salter.	(S. & N. Scotland) Durness, Sutherland.		
CS.	Minnesotensis, D. D. Owen.	Traverse des Sioux (Minnesota).		
	monoplectus, Barr.			Bohemia, Franconia.
Pleta	planissimus Eichw.	Odinsholm Isle (Baltic)	Odinsholm?	
„	posthumus, „	(Russia, St. Petersburg) Poulkova.		
U. Llandov.	prænuntius, Phill.		Gunwick Mill, Malvern, Mayhill.	
Fauna D	? primus, Barr.	Bohemia.		
L. H. G.	profundus, Conrad. *Bucania.*			(N. York) Herkimer County.
	pseudo-gualteriatus, Von Buch.			Gothland, (Dalecarlia) Sjurberg, (Aland) Sandby.

Subdivision.	Genus, Species, and Author.	Lower Stage.	Middle Stage.	Upper Stage.
Corall. Lst., U. Llandov., W.	rugosus, Sowerby.	.....	Mayhill (England)	(Engl.) Wenlock, Dudley, Ledbury, &c., North Gothland, (Podolia) Kamenetz, (Can. E.) Port Daniel.
U.Llandov., W...	sculptus, ,,	.....	Norway, (Engl.) Mayhill, Malvern, Tortworth, (Ireland) Galway.	Norway, North Gothland, Shropshire, Dudley, Malvern, Westmoreland, &c., (Irel.) Derrymore Glen.
?	serpuloides, Richter.	.....	.....	Thuringia.
Tentac. Lst., L. H. G.	sinuatus, Hall.	.....	.....	(Central N. York) Herkimer County, (N. New Brunswick) Restigouche ?.
	Stinkerni, Helmersen.	.....	.....	Gothland.
Llandov.	subcarinatus, Münster.	.....	Boocaun, Cong (Galway).	
	substriatus, Barr.	.....	.....	Franconia.
Carad., W.	subsulcatus, Hising.	Chair of Kildare, Pomeroy (Ireland).	.....	Gothland, Norway, (Ireland) Tirnaskea.
L. H. G.	sulcatus, Hall.	.....	.....	New York, Gothland, (Dalecarlia) Vicarby.
	supra-angulatus, Hising.	.....	.....	Gothland.
Carad.	tenuistriatus, Sowerby.	Middleton, Corndon Hills, Doonquin (Ireland).		
Llandov., W. ...	*tricinctus*, M'Coy. Trochonema.	(Wales) Cyrn-y-brain	Lettershanbally (Galway).	(Wales) Golden Grove, South Scotland.
Oslo Gp.	trigonalis, ?	Norway.		
Tr.	triliratus, Conrad.	Mineral Point (Wisconsin).		
Carad., W.	*triporcatus*, M'Coy. Trochonema.	(Wales) Wrexham	.....	(Wales) Golden Grove, Caermarthen.
Fauna E	trochleatus, Barr.	.....	.....	Bohemia, Franconia.
Carad.	tubæformis, Baily.	Ireland.		
Fauna F.	tubiger, Barr.	.....	.....	Bohemia.
CS., CH.	ungulatus, H. D. Rogers.	Pennsylvania, Norway?		
CS.	uniangulatus, Hall.	Canada West, (New York) Saratoga County.		
P.	? vaticinus, Owen.	(Minnesota) La Grange Mn.		
	vortex, Eichw.	(Russ.) Tzarskaya-Slawänka, St. Petersburg, Isle Dago &c. (Baltic), (Esthonia) Lyckholm.		
	sp. ind., Salter.	.....	.....	Arctic Seas (America).
Carad.	,, ,,	Merioneth, Bala Lake.		
?	,, Stuchbury.	Berrigal (New South Wales).		
	,, Salter.	Wales.		
	,, ,,	North-west Scotland.		
	Helicotoma, *Salter*, 1856 = OPHILETA.			
Llan.	Anglica, Wyatt-Edgel.	South Wales.		
Divs. L, M, Queb. G.	eucharis, Billings.	(Newfoundl. W.) Tablehead.		
Div. H., CS., Queb. G.	Gorgonia, ,,	,, ,,		
B., BL., Tr. ...	larvata, Salter.	(Can. W.) Mid. Ottawa River.		
Tr.	Milligani, ,,	Tasmania West.		
Queb. G.	misera, Billings.	Point Lévis (Canada East).		
CS.	perstriata, ,,	(Can. E.) Point Lévis, Mingan Isles.		
B., BL., Tr. ...	planulata, Salter. *Euomph. triliratus.*	(Can. W.) Loughborough, (Can. E.) Montreal, Lower Ottawa, Highgate Springs, North-west Vermont.		
,, ,,	var. muricata, ,,	(Canada E.) Lower Ottawa, Grenville.		
Div. G, Queb. G.	Proserpina, Billings.	Cape Norman (Newfoundland North).		
Tr.	pusilla, Salter.	Tasmania West.		
B., BL., Tr. ...	spinosa, ,,	(Canada E.) Lower Ottawa River.		
Div. G., CS., Queb. G.	Tritonia, Billings.	(Newfoundland North) Cape Norman.		
CH.	umbilicata, ,,	(Canada E.) Lower Ottawa River.		
CS.	uniangulata, Hall.	New York, Mingan Isles (G. St. Lawrence), Point Lévis (Canada East).		
	Helminthochiton, *Salter*.			
U.Llandov.	Griffithii, Salter. *Chiton.*	.....	Ireland.	

Subdivision.	Genus, Species, and Author.	Lower Stage.	Middle Stage.	Upper Stage.
	Holopæa, *Hall*, 1842.			
L. H. G.	antiqua, Vanuxem.			(Cent. N. York) Herkimer Co.
,,	var. pervetusta, Hall.			,, ,,
H. R. G.	bilix, Conrad.	New York, Canada West, Pennsylvania, (Iowa) Turkey River.		
Carad.	carinata, Forbes.	(N. Wales) Bala, Rhiwlas.		
Niag.	Chicagoensis, Winch. & Mar.			Chicago (Illinois).
Carad.	concinna, M'Coy.	Chair of Kildare, Wexford (Ireland), Denbighshire, Cerrig-y-Druidion, Leisley (Westmoreland).		
,,	conica, Forbes.	(Wales) Bala Lake, Rhiwlas.		
,,	constricta, M'Coy.	,, Bala, Cymmerig, Merioneth.		
Pentam. Lst., L. H. G.	Danaë, Hall.			(N. York) Chittenango Falls, Nova Scotia.
Queb. G., CS.	dilucula, ,,	(Canada East) Point Lévis, Phillipsburg.		
L. H. G.	elegans, ,,			Canada.
L. H. G.?	elongata, ,,			(N. York, central) Manlius &c.
Carad.	exserta, Forbes.	(Wales) Bala Lake, Rhiwlas.		
Guelph	Gracia, Billings.			Galt Township (Canada W.).
,,	Guelphensis, ,,			,, ,,
,,	Harmonia, ,,			,, ,,
Tr.	Lavinia, ,,	(Canada) Admaston Township.		
Queb. G.	leiosoma, ,,	(Canada East) Point Lévis.		
Carad.	lymnæoides, Forbes.	Rhiwlas (North Wales).		
Tr.	Mumia, Salter.	Tasmania West.		
	nereis, Billings.	(Canada E.) Montreal &c.		
Niag.	Niagarensis, Winch. & Mar.			Chicago (Illinois).
Tr.	obliqua, Salter.	(N. York) Middleville, Mid. Ottawa (Canada West).		
Div. L., Queb. G CS.	Ophelia, Billings.	(Newfoundland) Point Rich.		
	ovalis, ,,	(Canada E.) Beauharnois, Godmanchester.		
Tr.	paludiniformis, Hall.	(New York State) Jefferson County.		
U.CS.	Proserpina, Billings.	(Canada East) Mississquoi.		
	pumila, Salter.	(Himalaya) Niti, Damchen.		
B., BL.	Pyrene, Billings.	(Canada W.) Middle Ottawa River.		
L. H. G.	reversa, Hall.			New York, (Nova Scotia) Arisaig.
	rupestris, Eichw.	Ireland, Russia, Lower Silesia (rolled).		
Carad.	striatella, Sowerby.	(Ireland) Chair of Kildare, (Wales) Moel Hebog, Bala Lake, (Engl.) Horderley &c.		
Tentac. Lst., L. H. G.	subconica, Hall.			(N. York, central) Auburn.
B., BL.	symmetrica, ,,	Canada, (New York) Middleville.		
CS.	turgida, Billings.	Hunter's Island, Mingan Isles (Gulf St. Lawrence).		
	varicosa, Salter.	(Himalaya) Niti, Chorhoti Pass.		
Tr.	ventricosa, Hall.	(N. York) Herkimer County.		
Carad.	sp. ind., D. D. Owen.	Elkader (Iowa).		
Ut. Slate	,, Salter.	Caernarvon, Bettws-y-Coed (Wales).		
	Holopella, *M'Coy*, 1852.			
	ampullacea, Schmidt?	Esthonia, Low. Silesia (drift).		
Carad., Llandov., L. & U.L.	cancellata, Sowerby.		(Wales) Presteign, (Engl.) Norbury &c., Malvern, Gunwick Mill.	Lambrig Fell, Kendal (Westmoreland).
Carad., Llandov., Tilestone.	conica, ,,	Merioneth, Bala Lake	(Wales) Llandovery, (England) Norbury.	(Wales) Horeb Chapel, Storm Hill, Kendal (Westmoreland).
?	elongata, Eichw.		(N. Ural) Bogoslovsk.	
Pleta	eximia, ,,	Wakhterpag, Isle Dago (Baltic), Lyckholm (Esthonia).		
W.	gracilior, M'Coy.			(North Wales) Dinas Bran, Llangollen.

Subdivision.	Genus, Species, and Author.	Lower Stage.	Middle Stage.	Upper Stage.
Llandov., W., U. L.	gregaria, M'Coy.	.....	Galway (Ireland)	(N.& S.Wales)Llanrwst, Horeb Chapel, Radnorshire, &c., (Westmorel.) Kirkby Lonsdale &c.
U.L.	intermedia, ,,	.....	.....	Underbarrow (Westmorel.).
Carad.	monilis, ,,	Sclattyn Road (N. Wales).		
Llandov., U.L...	obsoleta, Sowerby.	(S.W. Scotland) Girwan ...	Tortworth, Malvern, Bogmine, Norbury.	(S.Wales)Usk,Horeb Chapel, Benson Knot (Westmoreland), Esthonia,Gothland.
Llandov.	plana, M'Coy.	.....	Tonlegee, Galway (Irel.).	
,,	tenuicincta, ,,	.....	Mullock Quarry (Southwest Scotland).	
W.	sp. ind., Salter.	.....	.....	(Wales) Mynydd Tryfan.
?	,, Selwyn.	.....	Victoria (Australia).	
	Hormotoma, *Salter*, 1866.			
Tr.	nerinæa, Salter.	Tasmania West.		
	usitata, ,,	,, ,,		
	Litorina, *Férussac*, 1821.			
W.	Octavia, M'Coy.	.....	.....	(England) Ludlow,Norbury, Linley, Malverns, &c.
Carad.	striatella, Sowerby. *Holopæa.*	Bishop's Castle &c. (Shropshire).		
	Loxonema, *Phillips*, 1841.			
Div. 3, A. G., Mayhill.	aculeata,	.....	Anticosti Isle.	
Delth. Sh. Lst...	attenuata, Hall.	.....	.....	(N. York, east) Carlisle Co.
Onon. S. G. ...	Boydii, ,,	.....	.....	Guelph (Canada West).
L. H. G.?	compacta, ,,	.....	.....	(N. York) Schoharie County, Gaspé (Canada East).
Faunæ F, G. g. 1.	Devonicans, Barr.	.....	.....	(Boh.) Chotecz, Konieprus.
L.L.	elegans, M'Coy.	.....	.....	Derrymore Glen (Ireland), Leintwardine, River Onny (Shropsh.), (Wales)Craighir.
Delth. Sh. Lst...	Fitchi, Hall.	.....	.....	(N. York) Helderberg Mns.
L. H. G.	Gaspensis, Billings.	.....	.....	(Canada East) Cape Gaspé.
	Kanei, Meek.	.....	.....	Kennedy's Channel (Arctic America).
	longispira, Hall.	.....	.....	Illinois, Iowa, Galt(Canada).
	M'Clintocki, Salter.	.....	.....	Arctic Seas (America), Port Leopold.
B., BL.....	Murrayana, ,,	Mingan Isles (G. St. Lawr.).		
Pentam. Lst., L. H. G.	? obtusa, Hall.	.....	.....	(N. York) Schoharie County.
L. H. G.	planogyrata, ,,	.....	.....	,, ,,
	Rossi, Haughton.	.....	.....	Arctic Seas (America), Griffith's Island.
	Salteri, ,,	.....	.....	Arctic Seas (America), Beechey Isles.
Llandov., W., L.	sinuosa, Sowerby.	.....	Wales	Abberley, Vinnal Hill, Ludlow, Ledbury, Derrymore Glen (Ireland), Aymestry (Hereford), (Wales) Llansannan &c.
Niag.	subulata, Conrad.	.....	.....	Chicago (Illinois), Canada.
CS.	sp. ind., Swallow.	Missouri (U. S. America).		
?	,, Selwyn.	.....	Victoria (Australia).	
	Macrocheilus, *Phillips*, 1841.			
Carad., L.	elongatus, Portlock. *Polyphemopsis.*	(Ireland) Desertcreate	.....	Wales (Devonian, *Newton*).
U.Llandov.	fusiformis, Sowerby.	.....	(Wales) Presteign.	
	sp. ind., Lindström.	.....	.....	Gothland.
	,, Haughton.	.....	.....	Arctic Seas (America), Griffith's Island.
Utica Slate	,, D. D. Owen.	Turkey River (Iowa).		
	Metoptoma, *Phillips*, 1836.			
H. R. G.	Alceste, Billings.	(IsleAnticosti)EnglishHead.		
P., Queb. G. ...	angusta, ,,	(Canada East) Point Lévis.		
,, ,,	anomala, ,,	,, ,,		
BL.	Canadensis, ,, *Chiton.*	Mid. Ottawa River(Can.W.).		
CH.	deformis, Hall.	New York (U. S. A),Canada.		
,,	dubia, ,,	New York.		
BL.	Erato, Billings.	(CanadaW.) Middle Ottawa River.		
H. R. G.	Estella, ,,	(IsleAnticosti)English Head.		
CH.	Eubule, ,,	(Canada East) Phillipsburg.		

Subdivision.	Genus, Species, and Author.		Lower Stage.	Middle Stage.	Upper Stage.
P., Queb. G. ...	Hyrie,	Billings.	Point Lévis (Canada East).		
,, Div. L, Queb. G.	instabilis,	,,	(Newfoundland W.) Table-head.		
P., Queb. G. ...	melissa,	,,	Newfoundland West, Point Lévis.		
CH.	Montrealensis,	,,	(Canada East) Montreal.		
CS.	Nicteis,	,,	Mingan Isles (G. St. Lawr.).		
P., CS.	Niobe,	,,	(Canada E.) Phillipsburg.		
P., Queb. G. ...	Orphyne,	,,	,, Point Lévis.		
P., CS.	Orythyia,	,,	,, Phillipsburg.		
Tr.	patelliformis,	Hall.	Canada, New York.		
Pleta	pustulosa,	Eichw.	Poulkova (Russia).		
P., Queb. G. ...	Quebecensis,	Billings.	(Canada East) Point Lévis.		
H. R. G.	? rugosa,	Hall.	(New York) Troy.		
Pleta	silurica,	Eichw.	Réval (Baltic).		
CS.	simplex,	Billings.	(Canada W.) Merrickville.		
Pleta	solaris,	Eichw.	Poulkova (Russia).		
BL.	superba,	Billings.	(Canada W.) Middle Ottawa River.		
Tr.	Trentonensis,	,,	Montreal (Canada East).		
P., Queb. G. ...	Venillia,	,,	(Canada East) Point Lévis.		
	Murchisonia, *D'Arch. & Verneuil*, 1841.				
CH., Ut. Sl. ...	abbreviata,	Hall.	(New York) Clinton County, (Iowa) Elkader.		
L. H. G.	aciculata,	,,	.....	.....	(Nova Scotia) Arisaig.
Div.G.,CS.,Queb. G.	acrea,	Billings.	(Newfoundland West) Port au Choix.		
CS.	Ada,	,,	Lower Ottawa River (Can. E.).		
Div.G=CS.,Queb. G.	Adelina,	,,	(Newfoundland North) Cape Norman.		
Divs.G, H=CS., Queb. G.	agilis,	,,	(Newfoundl. N. & W.) Cape Norman &c.		
BL.	Alexandra,		(Can, W.) Mid. Ottawa River.		
Carad., Llandov., Tr.	angulata,	Sowerby.	Caernarvonshire, Carnedd Dafydd (Wales), (Wisconsin) Mineral Point.		
B., Tr.	,,	Hall.	New York, N.W. Michigan (Lake Superior).		
Llan.	angulocincta,	Salter.	(N.W. Scotland) Durness.		
,, Reg. B...	angustata,	Hall.	(N. & S. Scotland) Durness, Knockdollian, Ayrshire, New York, Sweden?		
Div. G=CS. ...	Anna,	Billings.	(Newfoundland W.) Hawkes Bay, (Can. E.) St. Anne and Beauharnois.		
Tr.	Arachne,	Billings.	Montreal (Canada East).		
CS.	arenaria,	,,	Godmanchester, Beauharnois (Canada East).		
L. H. G.	Arisaigensis,	Hall.	....	.....	Arisaig (Nova Scotia).
CS.	Artemisia,	Billings.	Lower Ottawa River (Can. E.).		
Llandov., U.L....	articulata,	Sowerby.	.....	Tonlegee (Galway)	Ludlow, Ledbury, &c., Wales, Kendal (Westmoreland), Norway, Gothland.
CH.	aspera,	Billings.	Mingan Isles (G. St. Lawr.).		
	attenuata,	Hising.	.....	.....	Gothland.
Divs. H, I, K, L, M, N, Queb. G.	Augustina,	,,	(Newfoundl. W. & N.) Point Rich, Burnt Cape, &c.		
Llandov., W. ...	balteata,	Phill.	.....	Galway (Ireland), Llandovery (Wales).	Dudley, Mayhill, Wales.
H. R. G.	Beatrice,		(Canada East) Yamaska.		
B., BL., Tr.	bellicincta,	Hall.	(Canada E.) Lake St. John, (N. York) Trenton, Turin, &c., Tennessee, Kentucky, Missouri. (Iowa) Elkader &c., (Illinois) Scale's Mound, N.W. Michigan, (N.W. Scotland) Durness, Silesia.		
Llan., Carad. ...	bicincta,	M'Coy.	(Ireland) Kildare, (Can. E.) Montreal, Middle Ottawa River, Lorette, &c., New York, Tennessee, Missouri, Wisconsin.		
BL., Delth.Sh. L.	bilirata,	Hall.	.....	.....	(New York) Albany County.
Guelph, Onon. S. G.	bivittata,	,,	.....	.....	(Canada W.) Dumfries and Galt Townships.

Subdivision.	Genus, Species, and Author.	Lower Stage.	Middle Stage.	Upper Stage.
Guelph, Onon. S. G.	Boydii, Hall.	.....	.....	(New York) Wayne County, (Can. W.) Guelph Township.
Carad., Llandov.	cancellatula, M'Coy.	(S.W. Scotl.) Mulock, Meifod, Alt-y-Anker (Wales).	South-west Scotland.	
Div. K, Queb. G.	Cassandra, Billings.	Point Lévis (Canada East).		
Queb. G.	Catherina, ,,	(Newfoundl. W.) Tablehead.		
Div. L, Queb. G.	Cicelia, ,,	(Newfoundland W.) Point Rich &c.		
W., L.	cingulata, Hising.	.....	Cong (Galway)	Leintwardine, Herefordsh., Aymestry Scotland, Norway, Gothland, Esthonia, Nijni-Tagilsk(Ural),(Russia) Petropaulofsk.
M. Sa.	conoidea, Hall.	.....	(New York) Lockport.	
Carad., U.L. ...	corallii, Sowerby.	Tramore (Ireland).....	.....	Ludlow, Malvern, (Wales) Llandeilo, Radnorshire, (Gothland) Grotlingbo.
Guelph.....	Estella, Billings.	.....	.....	Galt (Canada West).
Tentac. Lst., L. H. G.	extenuata, Hall.	.....	.....	(New York, east) Schoharie and Onondago Counties.
Div. 1, A. G., Tr.	Franklini, Salter.	Tasmania West.		
,, 4,A.G.,Mayhill.	funata, Billings.	.....	(Anticosti) The Jumpers.	
Div. 1, A. G., Llandov.	gigantea, ,,	.....	(Isle Anticosti) Prinsta Bay &c.	
Tr.,H.R.G.,Llandov.	gracilis, Hall. *Hormotoma.*	Pennsylvania, Carlisle (New York), Watertown, Wisconsin, (Canada E.) Lake St. John, Montreal, (Can. W.) Middle Ottawa River, Camp d'Ours, Lake Huron.	(Anticosti) Cape Sand-top &c.	
Carad.	gyrogonia, M'Coy.	(N. & S. Wales) Yspatty, Evan, Llanfechan, &c.		
Guelph.....	Harmonia, Billings.	.....	.....	(Can. W.) Galt Township.
B., BL., Tr.....	helicteres, Salter.	Middle Ottawa River, Wisconsin.		
Guelph.....	Hercynia, Billings.	.....	.....	,, ,,
CH. or BL.	Hermione, ,,	Mingan Isles (G. St. Lawr.).		
	Himalensis, Salter.	(Himalaya) Niti, Chorhoti Pass.		
Queb. G.	Hyale, Billings.	(Canada E.) Phillipsburg.		
Llandov.	inflata, M'Coy.	.....	Tonlegee, Galway (Ireland).	
CH.	infrequens, Billings.	(Canada W.) Grand Isle, near Cornwall.		
Queb. G.	Jessica, ,,	Point Lévis (Canada East).		
Racine, Niag. ...	Laphami, Hall.	.....	.....	Wisconsin (U. S. America).
Carad.	latifasciata, Portlock.	Desertcreate (Ireland).		
CS.	linearis, Billings.	Mingan Isles (G. St. Lawr.)		
W., L.	Lloydii, Sowerby.	.....	.....	(Shropshire) Wenlock Edge, Dudley, Aymestry, Malvern, Herefordsh., (Wales) Mynydd Tryfan, Craig-hir.
Onond. S. G., Niag.	Logani, Hall.	.....	.....	Illinois, Iowa, (Canada W.) Guelph.
Guelph.....	longispira, Billings.	.....	.....	(Can. W.) Galt Township.
Onond. S. G., Guelph.	macrospira. Hall.	.....	.....	,, Dumfries Townsh.
Tr.	major, ,,	Green Bay, Lake Michigan, Wisconsin (U.S.America), Dubuque (Iowa).		
CS.	melaniaformis, Shumard?	Missouri (U. S. America).		
Tr.	mimetica, Salter.	Tasmania West.		
Tentac. Lst., L. H. G.	minuta, Hall.	.....	.....	(Central NewYork) Fayetteville.
Queb. G.	Missisquoiensis, Billings.	(Canada East) Phillipsburg.		
H. R. G.	modesta, ,,	Isle Anticosti, English Head (Gulf St. Lawrence).		
,,	multivolvis, ,,	Isle Anticosti (west end), Macasty Bay.		
Niag.	mylitta, ,,	.....	.....	Illinois, Iowa (U. S. Amer.), Galt (Canada West).
Carad.	obscura, Portlock. *Loxonema.*	(Ireland) Desertcreate.		
Corall.L., Schoh.	? obtusa, Hall.	.....	.....	(N. York) Schoharie County.

Subdivision.	Genus, Species, and Author.		Lower Stage.	Middle Stage.	Upper Stage.
CH.	orbiculata,	Hall.	New York.		
	pagoda,	Salter.	Niti (Himalaya), Kalajowar.		
Div. 1, A. G., Llandov.	papillosa,	Billings.	.....	(Anticosti Isle) Junction Cliff.	
B., BL., CH., Tr.	perangulata,	Hall.	(Canada W.) Middle Ottawa, Camp d'Ours, L. Huron, Highgate Springs (N.W. Vermont), Montreal (Can. E.), Mingan Isles, (New York) Jefferson County.		
Div. G, CS., Queb. G.	placida,	Billings.	(Newfoundland North) Cape Norman.		
BL.	Procris,	,,	(Canada W.) Middle Ottawa River.		
L. Llandov.	Pryceæ,	Sowerby.	.....	Mandinam (Wales).	
Carad., Llandov.	pulchra,	M'Coy.	(Wales) Meifod, Tremadoc, Ireland, (S.W. Scotland) Mulock.	Wales?, Leenane (Galway).	
H. R. G.	ramosa,	Billings?.	(Anticosti Isle) English Head.		
Div. 1, A. G., Llandov., H. R. G.	rugosa,	,,	(Anticosti I.) English Head &c.	(Anticosti) Gamache Bay.	
Llan., Carad. ...	scalaris,	Salter.	(Wales) Llyn Idwal, Nant Francon, &c., (S.W. Scotland) Stincher River.		
	serrata,	,,	(Can. W.) Mid. Ottawa River.		
B., BL., Tr.	serrulata,	,,	New York, Wisconsin, Montreal (Canada East).		
Queb. G.	Silvia,	Billings.	Point Lévis (Canada East).		
U. Llandov., Car.	simplex,	M'Coy.	(S.W. Scotland) Girwan &c., Meifod &c. (Wales).	S.W. Scotland, (Wales) Bogmine, (Engl.) Norbury.	
Divs. H, I, K, L, M, N, CS. &c., Queb. G.	simulatrix, var. *simplex*.	Billings.	(Newfoundland W.) Point Rich &c.		
Divs. H, I, K, L, M, N, CS., Queb. G.	sororcula, var. perangulata,	,,	(Newfoundland W.) Point Rich &c. Newfoundland.		
Tr.	subfusiformis,	Hall.	Canada, (N. York) Lewis Co. &c., Tennessee, Big Spring River (Iowa).		
Carad.	subrotundata,	Portlock.	Tyrone (Ireland).		
M. Sa., CL., Niag.	subulata,	Hall.	.....	(New York) Orleans Co., Isle Anticosti, Flamborough (Canada West).	New York, (Canada West) Flamborough W.
Llandov.	sulcata,	M'Coy.	.....	(Ireland) Egool, Mayo Co.	
Corall. Lst. of Schoharie.	terebralis?,	Hall.	.....	.....	(N. York) Schoharie County.
Div. 1, A. G., H. R. G.	teretiformis,	Billings.	Isle Anticosti, Charlton Point.	(Anticosti) Gamache Bay.	
L., Tilestone ...	torquata,	M'Coy.	.....	.....	Spital and Benson Knot, Westmoreland (England), Stormhill, Golden Grove.
Tr., Ut. Slate ...	tricarinata,	Hall.	Falls of St. Anthony (Minnesota), New York, Canada, (Wiscons.) Mineral Point, Sardinia.		
Guelph.....	Tullia,	Billings.	.....	.....	(Can. W.) Guelph Township.
Corall. Lst., Schoharie.	turritiformis,	Hall.	.....	.....	New York?, (Canada West) Galt Township.
Onond. S. G., H. R. G.	,,	Billings?.	Anticosti Isle, west end.		
Divs. 1, 4, A. G., Llandov.	turricula,	,,	.....	New York, (Anticosti Isle) The Jumpers &c.	
Carad.	turrita,	Portlock?	Ireland, Merioneth, Bala (Wales).		
H. R. G.	varians,	Billings.	Isle Anticosti, English Head.		
B.	varicosa?,	Hall.	(N. York) Jefferson County.		
B., Tr., H. R. G., Div. 1, A. G., Llandov.	ventricosa,	,,	(Canada W.) Ottawa River, Montreal, Lake St. John (Canada E.), (Anticosti) Gamache Bay &c.		
Faunæ F, G. g. 1.	Verneuilli,	Barr.	.....	.....	(Bohem.) Konieprus, Tetin.
P., CS.	Vesta,	Billings.	(Canada East) Phillipsburg.		
Guelph.....	Vitellia,	,,	.....	.....	(Canada W.) Galt Township.
Tr.	vittata,	Hall.	(New York) Jefferson County.		

Subdivision.	Genus, Species, and Author.	Lower Stage.	Middle Stage.	Upper Stage.
H. R. G., Tr. ...	uniangulata, Hall.	(New York) Middleville.		
Tr.	var. *a*, „	New York.		
H. R. G.	„ abbreviata, „	(New York) Lewis County, Turin, &c.		
Guelph.....	Xanthippe, Billings.	.....	.....	(Can. W.) Galt Township.
	sp. ind., Meneghini.	Sardinia.		
Carad.	„ Salter.	Caernarvon, Betts-y-Coed.		
	„ D. D. Owen.	Upper Mississippi River.		
	„ Salter.	.....	.....	Arctic Seas (America).
W.	„ „	.....	.....	(Wales) Plas Madoc.
	„ „	.....	.....	„ „
W.	„ Selwyn.	.....	Victoria (Australia).	
	„ Dawson.	.....	.....	(Nova Scotia) Arisaig.
	Natica, *Adanson*, 1757 ; AMPULLARIA, *Sowerby* ; NATICOPSIS, *M'Coy*, 1855.			
Pleta	ampullacea, Eichw.	Isle of Odinsholm, Baltischport, Peninsula of Nouk (Esthonia).		
	borealis, „	.....	Altai	Altai.
Carad.	concinna, „	Chair of Kildare (Ireland).		
U.L.	glaucinoides, Sowerby.	.....	.....	Benson Knot and Kirkby Lonsdale (Westmorel.).
	gregaria, Barr.	.....	.....	(N.E. Bohemia) Littem.
	inflata, Römer.	.....	.....	Gothland, Harz?
Pleta	irregularis, Eichw.	Poulkova (Russia).		
Fauna G. g. 1 ...	minuta, Barr.	.....	.....	(Bohemia) Sub-Chotecz.
Pleta	nodosa, Eichw.	(Esthon.) Baltischport, Lyckholm, Poulkova (Russia).		
U.L.	parva, Sowerby.	.....	.....	(Wales) Presteign, Woolhope &c., Shropshire, Westmoreland.
	primigenia, Eichw.	.....	.....	Altai Mountains (Russia).
Fauna G. g. 1 ...	subvelata, Barr.	.....	.....	(Bohemia) Chotecz.
B.	sp. ind., Hall.	(New York) Jefferson County.		
U. Llandov.	„ Salter.	.....	Norbury, Bogmine.	
	Ophileta, *Vanuxem*, 1842. (STRAPAROLLUS.)			
Queb. G.	abdita, Billings.	Point Lévis (Canada East).		
Llan.	anglica, Wyatt-Edgell.	(South Wales) Abereidy Bay.		
B., BL.	asperostriata, Billings.	(Can. W.) Mid. Ottawa River.		
Div. P, Queb. G.	bella, „	Point Lévis, Newfoundland, Stanbridge (Canada East).		
B., BL.	Circe, „	(Can W.) Mid. Ottawa River.		
Potsdam S., CS., Llan.	compacta, Salter. *Maclurea.*	New York, (Can. E.) Grenville, (N.W. Scotl.) Durness.		
CS.	complanata, Hall.	(Canada East) Phillipsburg, (New York) Mohawk Valley &c.		
B., BL.	Eurydice, Billings.	(Canada W.) Middle Ottawa River.		
CS.	levata, Hall.	(New York) Mohawk Valley, Phillipsburg (Canada E.).		
Carad.	macromphala, M'Coy.	(S.W. Scotland) Ayrshire.		
Div. F, CS., Queb. G.	Nerina, Billings.	(Newfoundland) Bay of St. John.		
Tr.	Ottawa-ensis, „	Middle Ottawa (Canada W.).		
P., Potsdam ...	primordialis, Winchell.	Wisconsin.		
Lst. 2, Queb. G.	profunda, Billings.	Point Lévis (Canada East).		
CS.	sordida, Hall.	Phillipsburg (Canada East).		
„	uniangulata, Billings.	Point Lévis (Canada East), (Newfoundl.) Cowhead &c.		
L. Llan.	sp. ind., Salter.	Shropshire, west of Stiper Stones.		
?	**Patella**, *Linnæus*, 1758.			
	antiquissima, Hising.	(Ostrogotha) Borenshult ...	Norway.	
Pleta	constricta, Eichw.	Réval (Baltic).		
Corall. Lst.	elliptica, Münster.	.....	.....	Isle Oesel, Ficht (Baltic).
„	mitreola, Eichw.	.....	.....	„ „ „
Carad.	? Saturni, Portlock.	Tirnaskea, Desertcreate (Tyrone).		
Pleta	scutellum, Eichw.	Poulkova (Russia).		
„	umbonata, „	„ „		
	sp. ind., Salter.	.....	.....	Bolivia, Millepaya Valley (S. America).
	Phasianella, *Lamarck*, 1812.			
Pleta, Carad. ...	gigas, „ Eichw.	Kildare (Ireland) ?, (Esthonia) Sutlep, Kirna, &c.		

Subdivision.	Genus, Species, and Author.	Lower Stage.	Middle Stage.	Upper Stage.
	Pilidion, *Barrande*, 1865?			
Fauna G. g. 1 ...	Bohemicum, Barr.	.....	.....	(Bohem.) Lochkov &c., Tetin.
Fauna G. g. 3 ...	fastigiatum. ,,	.....	.....	,, Hlubocep.
	Platychisma, *M'Coy*, 1844 = TROCHUS.			
Llan., Llandov., L., Passage beds	*helicites*, Sowerby. Trochus.	.....	.....	Westmorel., Horeb Chapel, Kington, Herefordshire, Llandeilo, Park Lane, &c., Ludlow, Arisaig (Nova Scotia), S.W. Scotland, Isle Oesel, &c.
? Red Pentam. L.	scutiger, Eichw.	.....	North Ural (Russia).	
L.	simulans, Salter.	.....	.....	Lesmahago, Pentland Hills (Scotland).
Llandov. ?, L. ...	Williamsi, Sowerby.	.....	.....	Llangadoc, Llandovery, Horeb Chapel (Wales), Westmoreland.
W.	sp. ind., Salter.	.....	.....	(Wales) Craig-hir.
	Platyostoma, *Conrad*, 1843 = NATICOPSIS, *M'Coy*.			
Delth. Sh. Lst....	arenosa, Conrad.	.....	.....	(New York State, east) Catskill.
,, ,,	depressa, Hall.	.....	.....	(New York, east) Catskill, Becraft's Mountain.
CL., Niag.	hemisphærica, ,,	.....	.....	Isle Anticosti (G. St. Lawr.), (New York) Rochester, Grimsby (Canada West).
Niag.	Niagarensis, ,,	.....	.....	(New York) Wolcott &c., Grimsby (Canada West), Tennessee.
Delth. Sh. Lst....	? subangulata, ,,	.....	.....	(New York, east) Albany Co.
,, ,,	ventricosa, Conrad.	.....	.....	(New York, east) Catskill &c., Gaspé (Canada East).
L. H. G.	sp. ind., Rogers.	.....	.....	Pennsylvania.
CL.	,, Hall.	.....	(N. York) Oneida County.	
	,, Dawson.	.....	.....	Arisaig (Nova Scotia).
	,, (4), Swallow.	.....	.....	Cape Girardeau (Missouri).
Corall. L., Schoh.	,, Hall.	.....	.....	(New York) Schoharie Co.
	Pleurotomaria, *Defrance*, 1825.			
CS.	abrupta. Billings.	Mingan Isles (G. St. Lawr.).		
P., Potsdam S...	advena ?, Winchell.	Wisconsin (U. S. America).		
Pleta, Corall. Lst.	æquilatera, Eichw.	Isle Dago, Hohenholm (Baltic).	.....	Isle Oesel (Baltic).
Div. H, CS., Queb. G.	Agarista, Billings.	(Newfoundland W.) Table-head.		
Tr.	Agave, ,,	(Minnesota) Naquerau River.		
,,	ambigua, Hall.	(New York) Jefferson County, (Minnesota) Naquerau River.		
B., BL., Tr., H. R. G.	Americana, Billings.	(Anticosti) Charlton Point &c., (Can. W.) Lake Huron, Cape Smyth and St. Joseph Island, Ottawa City, Mingan Isles (G. St. Lawr.).		
CH.	Amphitrite, ,,	Mingan Isles.		
Carad.	angulata, Sowerby. *Murchisonia.*	New Ross (Ireland), Charfield Green, Gloucestershire.		
CH.	antiquata, Hall.	New York.		
Pleta	antiquissima, Eichw.	Réval, Wesenberg, &c. (Esthonia), Isles Dago &c., Poulkova &c. (Russia).		
B., Tr.	aperta, Salter.	(Canada W.) Middle Ottawa River ?.		
CS.	Arabella, Billings.	(Canada E.) Lower Ottawa River.		
BL., Tr.	Arachne, ,,	Middle Ottawa River, Murray Bay, Montreal (Can. E.).		
H. R. G.	Artemis, ,,	Cape Smyth, Lake Huron (Canada West).		
U.L.	articulata, Sowerby.	.....	.....	(Gothl.) Grotlingbo, (Engl.) Ludlow, Ledbury.
Niag.	Axion, Winchell & Marcy ?	.....	.....	Chicago (Illinois).
	balteata, Phillips.	.....	.....	Gothland.
Pleta	Baltica, De Verneuil.	Réval (Baltic, Russia).		
Pleta, Tr. ?	bellicincta, Hall.	Lake St. John (Canada E.), Wesenberg (Esthon.), Isle Dago, Hohenholm.		

Subdivision.	Genus, Species, and Author.	Lower Stage.	Middle Stage.	Upper Stage.
CH.	biangulata, Hall.	New York (U. S. America).		
Pentam. Lst.	bijugata, Eichw.		Bogoslowski (Ural)?	
H. R. G.	bilex, D. D. Owen.	(Iowa) Turkey River.		
Corall.L.,Guelph	bispiralis, Hall.			New York, (Can. W.) Galt.
Fauna G. g. 1	Bohemica, Barr.			(Bohemia) Tetin.
	Bussacensis, Sharpe.	(Portugal) Bussaco, (Spain) Pueblo de Don Rodrigo.		
Div.C, CS.,Queb. G.	calcifera, Billings.	Newfoundland West, (Can. E.) Point Lévis, Beauharnois.		
„ „	Calphurnia ?, „	(Newfoundland North) Cape Norman.		
CH.	calyx, „	Montreal (Canada East).		
CS.	Canadensis, „	(Canada E.) Lower Ottawa, Mingan Isles.		
Pleta	cingulata, Eichw.	Isle Dago (Baltic), (Esthonia) Borkholm.		Bogoslowsk (North Ural)?
H. R. G.	Circe, Billings.	(Isle Anticosti) English Head.		
U.L.	crenulata, M'Coy.			(Westmoreland) Brigsteer, Kington, Ludlow, &c.
CH.	Crevieri, Billings.	(Canada E.) St. Dominique.		
Div.3, A.G. Mayhill.	cryptata, „		(Anticos.) Chaloupe River.	
Guelph	Deiopeia, „			Elora (Canada West).
Pleta, Mid. Sil.	delphinuliformis, Sandb.	Odinsholm Isle, Sutlep, &c. (Baltic).	Ural (Pentam. Limestone).	
Shales above Tr.	depauperata, Hall.	S.W. Wisconsin, Iowa.		
CH.	docens, Billings.	Montreal, l'Orignal (Can.E.).		
BL.	Dryope, „	(Can.W.) Mid. Ottawa River.		
Guelph	Elora, „			Elora (Canada West).
Div. G, H, Queb. G., CS.	Etna, „	(Newfoundl. W. & N.) Cape Norman, Tablehead.		
BL.	Eugenia, „	N.W. of Lake Huron (Can. W.), Montreal (Can. E.).		
Pleta	exilis, Eichwald	Isle Dago, Pyhalep, (Esthonia) Laisholm.		
U.Llandov.	fissicarina, Phillips.		Malvern, Norbury (Engl.).	
Guelph	Galtensis, Billings.			Galt Township (Canada W.).
Carad.	gentilis, Salter.	Chair of Kildare (Ireland).		
Pleta, Mid. Sil.	globosa, Eichwald.	Isle Dago, Hohenholm, Kirna (Esthonia).	Talkhof (Livonia).	
Niag.	gonopleura, Winch. & Mar.			Chicago (Illinois, U. States America).
CS.	gregaria, Billings.	Mingan Isles (G. St. Lawr.), Lower Ottawa River.		
Niag.	Halei, Hall.			(Wisconsin) Racine.
Div. G, CS., Queb. G.	Harpya, Billings.	(Newfoundland North) Cape Norman.		
H. R. G.	Hebe, „	Cape Smyth, Lake Huron.		
„	Helena, „	(Canada) Cape Smyth, Lake Huron, (Anticosti) Charlton Point, Tablehead (Newfoundland ?).		
Div. H, Queb.G., CS.	Hortensia, „	(Newfoundl. W.) Tablehead		
Niag.	Hoyi, Hall.			(Wisconsin) Racine.
Niag., Guelph	Huronensis, Billings.			(Canada West) Cape Hard.
Div. F, CS., Queb. G.	Hyale, „	(Newfoundland West) Keppel Isle &c.		
Niag.	Ida, Hall.			(Wisconsin) Racine.
CH.	immatura, Billings.	(Canada East) Montreal.		
Tr.	indenta, Hall.	(New York) Watertown.		
Llandov.	*inflata*, M'Coy. Murchisonia.		Cong, Galway (Ireland).	
Pleta	insignis, Eichw.	Isle Dago, Pyhalep, Hohenholm (Baltic).		
	insueta, Salter.	West Tasmania,		
U.Llandov.	jugosa, Salter (MS.).		Norbury, Shropshire, Presteign, &c.	
Delth.Sh. Lst., U. Pentam. Lst.	labrosa, Hall.			(New York) Albany County.
Carad.	*latifasciata*, Portlock. Trochonema.	Tirnaskea (Ireland), (S.W. Scotland) Stinchar River.		
Div.G, CS., Queb. G.	Laurentina, Billings.	Newfoundland, Mingan Isles, (G. St. Lawrence), North Wisconsin.		

Subdivision.	Genus, Species, and Author.		Lower Stage.	Middle Stage.	Upper Stage.
Tr.	lenticularis,	Hall.	(N. York) Watertown, (Can. W.) Belleville, Missouri, (California) Hot Creek, Nevada, (Iowa) Dubuque &c., (Illin.) Scale's Mound, N.W. Michigan, Red River of the North (Rupert's Land), Minnesota State, Lake St. John (Canada E.), Anticosti.		
Carad., U.L.....	,,	Sowerby.	(Montgomeryshire) Meifod.	.....	Leintwardine (Shropshire).
M.Sa.	litorea,	Hall.	.....	(New York) Lockport.	
Shales above Tr.	micula, *Raphistoma.*	,,	S.W. Wisconsin, Iowa.		
	mimetica,	Salter.	West Tasmania.		
CS.....	miser,	Billings.	Mingan Isles (G. St. Lawr.).		
Queb. G.	Missiquoiensis,	,,	Phillipsburg (Canada East).		
L.Llandov.	Moorei,	Salter.	(S.W. Scotl.) Stinchar River.		
CS.....	muralis,	D. D. Owen.	Cincinnati (Ohio), Red River of the North (Minnesota), L.Winnipeg (Rupert's L.).		
BL., Tr.	Nasoni,	Hall.	Wisconsin (U. S. America).		
BL.	Niota,	,,	,, ,,		
B., BL., Tr.....	nodulosa,	,,	(N. York) Jefferson County.		
Div. G, Queb. G., CS.	Normani,	Billings.	Newfoundland North (Cape Norman).		
Pleta.....	notabilis,	Eichw.	(Esthonia) Sutlep, Poulkova, Ropscha, &c. (Russia).		
B.	? nucleolata,	Hall.	(New York) Jefferson County, Pennsylvania.		
Div.G, CS., Queb. G.	Numeria,	Billings.	Newfoundland North (Cape Norman).		
Fauna G. g. 2 ...	obscura,	Barr.	.....	.....	(Bohemia) Vavrovitz.
B.	? obsoleta,	Hall.	(N. York) Jefferson County.		
CH.	pauper,	Billings.	(Can. E.) Grenville, Lower Ottawa River, Kingston (Can. W.).		
Tr.	percarinata,	Hall.	(New York) Middleville.		
Onon. S. G., L. H. G.	perlata,	,,	.....	.....	New York, (Canada West) Galt.
M. Sa.	? pervetusta,	,,	.....	(N. York) Medina Village.	
Fauna G. g. 2 ...	pigra,	Barr.	.....	.....	(Bohemia) Chotecz.
Pleta	plicifera,	Eichw.	I. Dago, Hohenholm (Baltic).		
Lst. 2, Queb. G.	Postumia,	Billings.	(Can.) Pt. Lévis, Philipsburg.		
Queb.G., BL., Tr.	Progne,	,,	(Anticosti) English Head, (Canada E. & W.) Montreal, Ottawa City, Belleville, Trenton (N. York).		
Llandov.	*Prycea*, Murchisoni.	Sowerby.	Wales.		
B.	quadricarinata,	Hall.	(New York) Watertown.		
L.	quadristriata,	Phillips.	.....	.....	Malvern (England).
Lst. 2, Queb.G...	Quebecensis,	Billings.	Point Lévis (Canada East).		
CS.	Ramsayi,	,,	(Canada E.) Lower Ottawa River, Mingan Isles (G. St. Lawrence).		
BL., Tr.	rotuloides,	Hall.	Montreal, Chateau Gaye, (N. York) Middleville, Tennessee, N.W. Michigan.		
Tr.	var.,	Billings.	Lake Winnipeg &c., Rupert's Land (North America).		
Queb. G.	rotundispira,	,,	Point Lévis (Canada East).		
Divs. H, I, K, L, CS., Queb. G.	selecta,	,,	(Newfoundland) Tablehead.		
Shales above Tr.	Semele,	Hall.	Wisconsin.		
Div. 1, Antic. G.	sibyllina,	Billings.	.....	Anticosti, Junction Cliff.	
Niag.	sigaretoides,	Winch. & Mar.	.....	.....	Chicago (Illinois).
Pleta, Pentam. Lst.	Silurica,	Eichw.	Réval, Isles Dago and Odinsholm, Wesenberg (Estho.).	Talkhof (Livonia).	
Niag., Onond. S. G., Guelph.	solaroides,	Hall.	.....	.....	(Can. W.) Galt Township, New York, Illinois, Iowa.
Div. N, Queb. G.	sponsa,	Billings.	(Newfoundl. W.) Tablehead.		
Tr.	staminea,	Dawson.	(Can. W.) Palladeau Island, Lake Huron, (Can. E.) Montreal, Bays St. Paul and Murray.		

Subdivision.	Genus, Species, and Author.	Lower Stage.	Middle Stage.	Upper Stage.
L.L.	striatissima, Salter.			Ledbury (England), (Wales) Usk.
BL., Tr.	subconica, Hall.	(Can. W.) Middle Ottawa River, (New York) Turin, Camp d'Ours, Lake Huron, (Minnesota) Fort Snelling, Watertown, Tennessee, N.W. Michigan, Anticosti (English Head &c.).		
Corall. Lst., Schoharie.	subdepressa, ,,			(N. York) Schoharie County.
Carad.	*subrotunda*, Murchisonia. Portlock.	Tyrone (Ireland).		
Tr.	subtilistriatus, Hall.	(New York) Watertown, Missouri.		
,,	supracingulata, Billings.	Lake Huron, N.W. Marmora (Can. W.), Lake St. John, (Canada East).		
	tenuis, ,,	Cape Smyth, Lake Huron.		
Div. 1	Thalia, ,,		Anticosti I., Junction Cliff.	
Llan.	Thule, Salter.	(N. Scotl.) Durness, Sutherlandshire.		
Carad.	trochiformis, Portlock.	(Ireland) Tyrone, Desertcreate, &c.		
W.	,, M'Coy.			Ferriter's Cove, Kerry Co., Pomeroy, Tyrone.
	turbinata, Salter.	Niti, Himalaya (Chorhoti Pass).		
CS.	turgida, Hall.	(New York) Saratoga County, Pennsylvania.		
Corall. Lst.	turricula, Eichw.			Isle Oesel (Baltic), Lohdé, Randifer.
B., Carad.	*turrita*, Murchisonia. Portlock.	Tyrone County, Llyn, Ogwen, Cyrn-y-Brain (N. Wales), &c.		
B., Tr.	umbilicata, Hall.	Anticosti, Lake St. John (Can. E.), (Can. W.) Mid. Ottawa, New York, Pennsylvania, Tennessee, Missouri, Falls of St. Anthony (Minnesota) N.W. Michigan.		
Pleta, L.L.	undata, Sowerby.	Réval (Esthonia)		Dudley, Leintward., Shropshire, Presteign (Wales).
Queb. G.	vagrans, Billings.	Point Lévis (Canada East).		
Guelph	Valeria, ,,			Galt (Canada West).
Pentam. Lst. ?	ventricosa, Eichw.		(Ural) Nijeny-Taghilsk.	
Guelph	Viola, Billings.			Galt (Canada West).
Divs. H, I, K, L, Queb. G., CS.	virgo, ,,	(Newfoundl. W.) Tablehead.		
,, ,,	virguncula, ,,	,, ,,		
BL.	Vitruvia, ,,	(Can. W.) Mid. Ottawa River.		
Tr.	sp. ind. (3), D. D. Owen.	Upper Mississippi River.		
	,, Dawson.			Nictaux (Nova Scotia), *U. Arisaig G.*
Onon. S. G.	,, Hall.			New York, Galt (Canada W.).
P.	,, Billings.	Point Lévis (Canada East).		
B.	,, ,,	New York.		
Ut. Sl., H. R. G.	,, ,,	(New York) Pulaski.		
	,, Salter.	South-west Scotland.		
	,, ,,	Lancashire, Coniston.		
Tr.	,, Swallow.	Missouri (U. S. America).		
	,, Billings.			(N. New Brunswick) Restigouche.
CS.	,, (2), ,,	Missouri.		
	,, Bonissent.	La Manche (France).		
?	,, Selwyn.		Victoria (Australia).	
	Porcellia, *Leveillé*, 1835.			
Red Pentam. Lst.	Alpheus, Hall.			Chicago (Illinois).
	ornata, D. D. Owen.	Upper Mississippi River.		
?	scutiger, Eichw.		North Ural (Russia).	
Niag.	senex, Winchell & Marcy.			Chicago (Illinois).
TREMANOTUS.	**Raphistoma,** *Hall*, 1847; SCALITES, pars, *Conrad, Etheridge.*			
Carad.	æqualis, Salter.	(S.W. Scotl.) Girvan, (Wales) Llanfyllin &c., (England) Shropshire.		

Subdivision.	Genus, Species, and Author.	Lower Stage.	Middle Stage.	Upper Stage.
	æquilateralis, Durocher.	Norway, Sweden.		
	Euomphalus?			
	æterna, Salter.	West Tasmania.		
BL.	aperta, Billings.	(Can.W.)Mid. Ottawa River.		
Carad., Llandov.	elliptica, Portlock.	(Irel.) Desertcreate, (Wales) Yr. Arddu.		
	Emodi, Salter.	Niti,Himalaya(Chorh.Pass).		
L.Llan.	labiata?, Emmons.	New York, North Scotland.		
BL.	lapicida, Salter.	(Can.W.)Mid. Ottawa River.		
L.& U.Llandov., Carad.	lenticularis, Sowerby.	Caernarvon,Lynn Idwal,&c., N. York, Wisconsin.	(Gloucestersh.)Tortworth, Radnorshire, Norbury, Marloes Bay, &c.	
CH.	planistria, Hall.	New York.		
Carad.	var. parva, ,,	,, (Irel.) Tirnaskea.		
Pleta	qualteriata, Schloth.	Sweden, Norway, (Russia) Poulkova &c., Silesia, (Esthonia) Baltischport &c., Belleisle Straits, Labrador.		
CH., Tr.	staminea, Hall.	(N. York, north-east) Clinton County, Pennsylvania, (Wiscons.)EscanabaRiver, N.W. Michigan, (Canada W.) Middle Ottawa River.		
	æqualis?			
CH., Tr.	striata, ,,	(New York) Clinton County, Pennsylvania,		
Carad.	striatula,	Penwhapple Burn, Girvan (S.W. Scotland).		
	sp. ind. (2), Logan.	(Canada W.) Middle Ottawa River, (Can.E.) Montreal.		
L.Llan.	,, Salter.	(N.W. Scotland) Durness.		
	,, ,,	Caernarvonshire, Bettws-y-Coed, Shelve.		
	,, Römer.	Texas (U. States America).		
	Rotella, *Lamarck*, 1822.			
Fauna G. g. 2, 3	tarda, Barr.	.....	.....	(Boh.) Trzebotov, Vavrovitz.
	Scalites, *Conrad*, 1843.			
CS., CH.	angulatus, Hall.	(New York) Clinton County.		
Tr.	Australis, Salter.	Tasmania West.		
Carad.	lenticularis, ,,	Shropshire,ChurchPreen &c.		
	Pleurotomaria.			
	minor, Billings.	Lake St. John (Canada E.).		
	Straparollina, *Billings*, 1865.			
Divs. G, H, CS., Queb. G.	pelagica, Billings.	(Newfoundland N.) Pistolet Bay and its Cape, *Norman.* (See OPHILETA.)		
	Straparolus, *Montfort.*			
B., BL.	asperostriatus, Billings.	(Canada East) Montreal.		
Tr.	Circe, ,,	,, ,,		
Guelph	Daphne, ,,	.....	.....	Galt (Canada West).
Tr.	Eurydice, ,,	(Canada East) Montreal.		
Guelph	Hippolyta, ,,	.....	.....	Galt (Canada West).
	levata, D. D. Owen.	Missouri.		
CS.	Minnesotensis, ,,	(Minnesota) Sioux Crossing.		
Ut. Slate	sp. ind., ,,	Elkader,Turkey River,Iowa.		
	Strophostylus, *Hall*, 1859.			
Delth. Sh. Lst.	depressus, Hall.	.....	.....	(N. York, east) Becraft's Mn.
,, ,,	elegans, ,,	.....	.....	,, ,,
U.Pentam. Lst.	Fitchii, ,,	.....	.....	(N. York) Schoharie County.
Delth. Sh. Lst.	globosus, ,,	.....	.....	(New York, east) Catskill &c.
U.Pentam. Lst.	obtusus, ,,	.....	.....	,, Becraft's Mountain.
,, ,,	? rotundatus, ,,	.....	.....	(N.York, east) Schoharie Co.
	Subulites, *Conrad*, 1844.	(POLYPHEMOPSIS, *Portlock.*)		
Pleta	amphora, Eichw.	Wesenberg (Esthonia).		
Niag.	brevis, Winchell & Marcy.	.....	.....	Chicago (Illinois).
CS.	calciferus, Billings.	Mingan Isles (G. St. Lawr.).		
Tr., H. R. G., Pleta,Llandov., Div. 1, A. G.	elongatus, Conrad.	(Esthonia) Kirna, (Can. E.) Lake St. John, (Can. W.) Mid. Ottawa River, Snake Island, Lake Huron, New York,Tennessee, Missouri, (Iowa)Dubuque &c., N.W. Michigan, (Wisconsin) Mineral Point.		
Pleta	gigas, Eichw.	(Esthonia) Sutlep, I. Dago, Hohenholm, Lower Silesia (drift).		

Subdivision.	Genus, Species, and Author.		Lower Stage.	Middle Stage.	Upper Stage.
Pleta	inflatus,	Eichw.	Wesenberg (Esthonia).		
Div.1,A.G.,Llandov.	notatus,	Billings.	.....	(Anticosti) Junction Cliff.	
BL.	parvulus,	,,	(Can.W.)Mid. Ottawa River.		
Pleta	priscus,	Eichw.	Poulkova(Russia), (Esthon.) Réval, Odinsholm Isle.		
Queb. G.	Psyche,	Billings.	Quebec (Canada E.) (drift).		
H. R. G.	Richardsoni,	,,	Isle Anticosti, Charlton Point (G. St. Lawrence).		
Tr.	subfusiformis,	Hall.	Montreal (Canada East).		
Guelph,Niag.,&c.	ventricosus,	,,	.....	.....	N.York, Chicago(Illin.),Galt Township,Iowa (Can.W.).
	sp. ind.,	Portlock.	Tyrone.		
	,, (2),	Salter.	.....	.....	Dudley (England).
	Trochonema, *Salter*, 1859,=EUOMPHALUS (partim) *Auctorum*, J.W.S.				
Tr.	Bigsbyana,	Salter.	Tasmania West.		
Carad.	cincta,	Portlock ?	(Ireland) Chair of Kildare.		
	humifusa,	Salter.	Niti Pass, Himalaya (E. I.).		
Carad.	latifasciata,	M'Coy.	(Irel.) Tyrone, Desertcreate.		
,,	lyrata,	,,	(Wales) Llansantfraid &c., Denbighshire.		
	Euomphalus.				
CS.	tricarinata,	Billings.	Isle St. Geneviève, Mingan Isles.		
Llandov.	tricincta,	M'Coy.	.....	Lettershanbally,Galw. Co.	
Carad., W.	triporcata,	,,	Wrexham (Denbighshire)...	.....	Golden Grove, Llandeilo (Wales).
L. & U.Llandov.	trochleata,	,,	Mid.Ottawa R. (CanadaW.).	Boocaun, Tonlegee (Irel.), (Wales) Penlan.	
BL.	umbilicata,	Hall.	(Anticosti) English Head, (Can. E.) Montreal, L. St. John, (Can. W.) Camp d'Ours, L. Huron, Wisconsin, Lake Winnipeg, &c., Rupert's Land.		
Carad.	sp. ind. (large),	Salter.	Llangollen (Denbighshire).		
	Trochus, *Linnæus*, 1758.				
Llandov.	? cælatulus,	M'Coy.	.....	Radnorshire (Wales).	
	ellipticus,	Hising.	(Dalecarlia) Furundal.		
Carad.	? fucatus,	Baily.	Ireland.		
U.L.	helicites,	Sowerby.	.....	.....	Golden Grove, Westmoreland, Ludlow.
	Platychisma.				
Llandov.	? Moorei,	M'Coy.	.....	(S.W. Scotland) Girvan.	
	multitorquatus,	,,	.....	Ardaun &c., Galway, Marloes Bay (Wales).	
Faunæ E, G. g. 1	patulus,	Barr.	.....	.....	(Bohemia) Listice, Tetin.
	sp. ind.,	Lindström.	.....	.....	Gothland.
	Turbo, *Linnæus*, 1758=CYCLONEMA, *Hall*, 1852.				
	bicarinatus,	Hising.	Norway, (Ostrogotha) Borenshult, (Dalecarlia) Vikarby.		
Pleta	biceps,	Eichw.	I.Dago, Hohenholm(Baltic).		
Corall. Lst.	borealis,	,,	.....	.....	Bogoslowsk (North Ural).
W.	? cirrhosus,	Sowerby.	.....	.....	(England) Wenlock.
	corallii,	,,	.....	.....	(S. Gothl.)Grotlingbo, (England) Ludlow &c., (Wales) Radnorsh.,(Norw.)Malmo.
	Murchisonia.				
Carad.	crebristria,	M'Coy.	(Wales) Gelli Grin, Bala, Mandinam,&c.,(England) Horderley.		
CS.	diluculus,	Hall.	(N. York) Herkimer Co. &c.		
Carad.	euomphaloides,	Portlock.	Chair of Kildare (Ireland).		
Pleta	lineola,	Eichw.	Réval (Esthonia), Poulkova (Russia), Dago Isle.		
CS.	? obscurus,	Hall.	(New York) Fort Plain.		
?	primigenius,	Eichw.	.....	.....	Bogoslowsk (Ural).
Fauna G. g. 1 ...	spoliatus,	Barr.	.....	.....	(Bohemia) Tetin.
	Steinkerni,	Helmers.	.....	.....	Gothland.
Pleta	striatus,	Hising.	Poulkova (Russia).	.....	Norway, (Gothland) Mount Klinteberg.
Niag.	Tennessee-ensis,	Römer.	.....	.....	Tennessee (U. S. America).
Llandov.	*tricinctus*,	M'Coy.	.....	Galway (Ireland).	
	Trochonema.				
U.Llandov.,W...	? tritorquatus,	,,	.....	Cong, Galway, Pen-y-lan, Llandovery.	Bogmine, Shelve (Shropsh.).
	sp. ind.,	Rouault.	Vitré, Rennes (France).		
?	,,	Stutchbury.	Berrigal (New South Wales).		

Subdivision.	Genus, Species, and Author.		Lower Stage.	Middle Stage.	Upper Stage.
	sp. ind.,	Harkness.	(S.W. Scotland) Mulock.		
Delth. Sh. Lst....	„	Swallow.	.....	.....	Missouri(U. States America).
CS.	„	„	Missouri.		
	Turritella, *Lamarck*, 1801.				
Fauna G. g. 1 ...	? benevola,	Barr.	.....	.....	(Bohemia) Tetin.
Carad.	cancellata,	Salter ?.	Bogmines, Mandinam, &c., Pyrton Passage.		
U.L.	obsoleta,	Sowerby.	.....	.....	(N. Gothland) Grotlingbo, Westmoreland.

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Stage.	Genus, Species, and Author.		Locality.
	Bellerophon ?, *Montfort.*		
	Calyptræa, *Barr.*		
E. e. 2	Lyelli,	Barr.	St. Ivan, Dlauha Hora.
	Capulus, *Montfort,* ACROCULIA &c.		
E. e. 2	ampliatus,	Barr.	Dvoretz.
„	anguis,	„	Lockhov, Viscocilka.
F. f. 2.....	apridens,	„	Konieprus, Mnienian.
G. g. 1	bellulus,	„	Chotecz.
E. e. 2	bipartitus,	„	Bubovitz, Lodenitz.
D. d. 2	catilloides,	„	Mount Drabow.
E. e. 2	comes,	„	Lockhov, Karlstein.
„	compressus,	„	Dlauha Hora.
F. f. 2	conoides,	„	Konieprus, Mnienian.
E. e. 1	corticosus,	„	Butovitz.
E. e. 2	directus,	„	Hinter-Kopanina.
„	dorsatus,	„	Dvoretz.
„	elegans,	„	„ Karlstein.
F. f. 2	emarginatus,	„	Konieprus.
D. d. 2	extenuatus,	„	Mount Drabow.
E. e. 2	fecundus,	„	Bubovitz, Sedletz.
E. e. 2, F. f. 2...	gibbosus,	„	Dvoretz, Konieprus.
D. d. 2	incola,	„	Mt. Drabow, Trubsko.
E. e. 2	interruptus,	„	Tachlovitz.
E. e. 1	libens,	„	Butovitz.
„	minimus,	„	Borek.
F. f. 2	mons,	„	Konieprus, Mnienian.
E. e. 2	multicinctus,	„	Listice.
„	nobilis,	„	Dvoretz.
„	œdematosus,	„	„ Karlstein.
D. d. 1	ovatus,	„	Vosek.
E. e. 2	palliatus,	„	St. Ivan.
„	præposterus,	„	Slivenitz, Zmrzlik.
„	primordialis,	„	Dvoretz.
D. d. 5	proximus,	„	Leiskov.
D. d. 2	pustulatus,	„	Mount Drabow.
E. e. 2	pyramidalis,	„	Dvoretz.
„	regens,	„	„
„	rigidus,	„	Karlstein.
„	robustus,	„	Lockhov, Viscocilka.
E. e. 2, F. f. 2...	rostratus,	„	St. Ivan, Konieprus, Mnienian.
E. e. 2	subcarinatus,	„	Dvoretz.
„	surgens,	„	Karlstein.
E. e. 2	tænia,	„	Koledník, Lockhov.
„	togatus,	„	Dvoretz.
„	transiens,	„	„
„	trochoides,	„	„ Lockhov.
„	umbraculum,	„	„
	Cirrus ?, *Sowerby.*		
E. e. 2	Bohemicus,		Dvoretz.
G. g. 1, 2	concors,		Chotecz, Vavrovitz.
E. e. 2	contextus,		Novy Mlyn.
„	disjunctus,		Lockhov.
„	expandens,		Dlauha Hora.
„	Karlsteinensis,		Karlstein.
„	servus,		Dvoretz.
	Cyrtolites ?, *Vanuxem.*		
D. d. 1	acutus,	Barr.	Mount Drabow.
G. g. 1	advena,	„	Lockhov.
D. d. 1, 4	bilobatus,	„	Vosek, Zahorzan.
F. f. 2	Bohemicus,	„	Konieprus.
E. e. 2	caudatus,	„	Tobolka.
E. e. 2	constrictus,	Barr.	Dvoretz.
„	cristatus,	„	Lodenitz, Luzetz.
„	decorus,	„	Kozorz.
D. d. 5	evolvens,	„	Mount Kosov.
E. e. 2	eximius,	„	St. Ivan, Listice.
D. d. 5	grandis,	„	Königshof, Leiskov.
„	incola,	„	Leiskov.
D. d. 1	nitidus,	„	Vosek.
E. e. 1, 2	plebeius,	„	Dlauha Hora.
D. d. 1	pusillus,	„	Vosek.
D. d. 4	Roemeri,	„	Trubsko.
E. e. 2	rugosus,	„	Butovitz, Dlauha Hora.
G. g. 1	solitarius,	„	Tetin.
D. d. 5	suspectus,	„	Mount Kosov.
E. e. 2	tardus,	„	Bubovitz, Lodenitz.
D. d. 2	trilobatus,	Sowerby.	Mount Drabow.
	Delphinula ?, *Lamarck.*		
E. e. 2	aster,	Barr.	Dlauha Hora.
F. f. 2	biplex,	„	Konieprus.
E. e. 2	contexta,	„	Dlauha Hora.
E. e. 1	expandens,	„	Butovitz.
E. e. 2	percincta,	„	Dlauha Hora.
F. f. 2	protendens,	„	Konieprus.
„	simplex,	„	„
	Ecculiomphalus, *Portlock.*		
E. e. 2	Bohemicus,	Barr.	Gros-Kuchel.
„	subuloides,	„	Dlauha Hora.
	Euomphalus, *Sowerby.*		
E e. 2	aliger,	Barr.	Dlauha Hora.
„	apponens,	„	„ „ Lockhov.
„	bifrons,	„	„ „
„	Bohemicus,	„	„ „ Lockhov.
F. f. 2	coluber,	„	Konieprus.
D. d. 1	comes,	„	Vosek.
E. e. 2	confertus,	„	Dvoretz.
„	debilis,	„	Dlauha Hora.
„	docens,	„	„ „
„	dulcis,	„	Bubovitz, Lodenitz.
F. f. 2	eximius,	„	Konieprus.
E. e. 2	filiformis,	„	Kozel &c.
D. d. 5	inchoans,	„	Königshof.
E. e. 2	ornatulus,	„	Bubovitz, Lodenitz.
„	placidus,	„	Dlauha Hora.
„	plicatulus,	„	Bubovitz, Lodenitz.
D. d. 1	primus,	„	Vosek.
E. e. 2	pulcher,	„	Dvoretz.
„	robustus,	„	„ Kozorz.
F. f. 2	selectus,	„	Konieprus.
E. e. 2	similans,	„	Lodenitz, Luzetz.
„	tegulatus	„	Dlauha Hora.
D. d. 5	tiro,	„	Leiskov.
E. e. 2	tremulans,	„	Kozorz.
F. f. 2	tubiger,	„	Konieprus.
E. e. 2	verna,	„	Kozorz.
	Gyrotrema, *Barrande*, 1868.		
E. e. 2	Beraunensis,	Barr.	Dlauha Hora.
	fortis,	„	Konieprus.
	nobilis,	„	Dlauha Hora.
	polygona,	„	Konieprus.
	tuboides,	„	Butovitz, Lodenitz.
	Loxonema, *Phillips.*		
F. f. 2	alba,	Barr.	Konieprus.

Stage.	Genus, Species, and Author.	Locality.
E. e. 2	Beraunensis, „	Dlauha Hora.
F. f. 2, G. g. 1...	Devonicans, „	Konieprus.
E. e. 2	libens, „	Listice, Bubovitz.
D. d. 5	parvula, „	Leiskov.
E. e. 2	rudis, „	Luzetz, Lodenitz.
„	ungulata, „	Viskocilka.
	Murchisonia, *Verneuil.*	
E. e. 2	allevata, Barr.	Dlauha Hora.
F. f. 2	arata, „	Konieprus.
E. e. 2	cuneus, „	Karlstein.
„	Cybele, „	Lockhov.
„	filosa, „	Listice.
„	fugitiva, „	Karlstein.
„	gracillima, „	Viscocilka.
F. f. 2	invertens, „	Mnienian.
E. e. 2, F. f. 2...	Latona, „	DlauhaHora, Konieprus
F. f. 2	Minerva, „	Mnienian.
G. g. 2	obscura, „	Vavrovitz.
G. g. 1	pigra, „	Chotecz.
E. e. 1	tenera, „	Butovitz.
E. e. 2	terebrans, „	Lockhov.
D. d. 5	timida, „	Leiskov.
F. f. 2	Verneuili, „	Konieprus.
	Natica, *Lamarck.*	
F. f. 2	evoluta, Barr.	Konieprus.
F. f. 1, 2	gregaria, „	Lockhov, Konieprus.
G. g. 1	minuta, „	Chotecz.
F. f. 2	modesta, „	Konieprus.
„	ovoides, „	„
E. e. 2	plebeia, „	Bubovitz.
„	plicatula, „	Hinter-Kopanina.
„	rustica, „	„ „ Dvoretz.
D. d. 5	scrobiculosa, „	Königshof.
G. g. 1	subvelata, „	Chotecz.
E. e. 1	tumescens, „	Kozorz.
	Naticella, *Münster.*	
E. e. 2	matercula, Barr.	Bubovitz, Lodenitz.
„	naticoides, „	Dvoretz, Hinter-Kopanina.
D. d. 5	primula, „	Leiskov.
E. e. 1, 2	tubicina, „	Bubovitz, Tachlovitz.
E. e. 2	ventricosa, „	Lodenitz, Sedletz.
	Patella, *Linnæus.*	
F. f. 2	humilis, Barr.	Konieprus.
D. d. 5	modesta, „	Leiskov.
E. e. 2	umbo, „	Kozorz.
	Pilidion, *Barrande.*	
F. f. 1, 2, G. g. 1	Bohemicum, Barr.	Lockhov, Tetin.
G. g. 3	fastigiatum, „	Lhubocep.
F. f. 1	nobile, „	Lockhov.
E. e. 2	radians, „	„
	Porcellia, *Leveillé.*	
F. f. 2	Bohemica, Barr.	Konieprus.
E. e. 2	consobrina, „	Kolednik.
„	filiformis, „	Dlauha Hora.
„	turgescens, „	„ „
	Pleurotomaria, *Defrance.*	
E. e. 2	ambigena, Barr.	Lockhov.
„	amica, „	Kozel.
F. f. 2	aperiens, „	Konieprus.
E. e. 2	Bohemica, „	Bubovitz, Lodenitz.
E. e. 1	carinata, „	Bubowitz.
D. d. 5	concurrens, „	Königshof.
E. e. 2	confusa, „	Kozolup.
F. f. 2	consimilis, „	Konieprus.
E. e. 2	consolans, „	Tachlovitz.
F. f. 2	Daphne, „	Konieprus.
D. d. 1	desiderata, „	Vosek.
F. f. 1	humilis, „	Konieprus.
F. f. 2	illudens, „	„
D. d. 5	infausta, „	Königshof.
„	læta, „	„
„	longior, „	Butowitz.
E. e. 2	migrans, „	Dvoretz, Lockhov.
„	minuscula, „	Bubovitz, Lodenitz.
F. f. 2	occludens, „	Konieprus.
„	pollens, „	„
„	procera, „	„
E. e. 2	rugulosa „	Lockhov.
F. f. 2	senilis, Barr.	Konieprus.
D. d. 4	spoliata, „	Lodenitz.
E. e. 2	texta, „	„ Bubovitz.
D. d. 2	tranquilla, „	Kozel.
	Ribeiria, *Sharpe.*	
D. d. 1, 4	pholadiformis, Sharpe.	Vozek, Zahorzan.
D. d. 3	Sharpei, Barr.	Vinice.
	Rotella, *Lamarck.*	
F. f. 2	albicans, Barr.	Konieprus.
E. e. 2	nigricans, „	Bubovitz, Lodenitz.
F. f. 2	nummularia, „	Konieprus.
G. g. 2, 3	tarda, „	Trzebotov, Varvovitz.
E. e 2, F. f. 1...	vulgaris, „	Lockhov, DlauhaHora.
	Scoliostoma, *Bronn.*	
F. f. 2	primum, Barr.	Konieprus.
	Siphonaria, *Sowerby.*	
F. f. 2	inchoata, Barr.	Konieprus.
	Stomatella, *Lamarck.*	
E. e. 1	Bohemica, Barr.	Bubovitz.
	Subulites, *Conrad.*	
	Bohemicus, Barr.	Bubovitz, Lodenitz.
E. e. 2	inexpectatus, „	„ „
	Trochus?, *Linnæus.*	
E. e. 2	accedens, Barr.	Kozorz.
„	amicus, „	Bubovitz, Lodenitz.
„	aspersus, „	Kozorz.
F. f. 2	comes, „	Konieprus.
E. e. 2	dominus, „	Dlauha Hora.
F. f. 2	excavatus, „	Konieprus.
E. e. 2	frater, „	„
„	mixtus, „	Kozorz, Lochkov.
„	normalis, „	Karlstein.
D. d. 5	nudus, „	Leiskov.
D. d. 4	occultus, „	Zahorzan.
E. e. 2, G. g. 1...	patulus, „	Listice, Tetin.
F. f. 2.	potens, „	Konieprus.
E. e. 1	rugulosus, „	Butovitz.
E. e. 1, 2	viator, „	„
	Tubina, *Barrande*, 1868.	
E. e. 2	aperta, Barr.	Hinter-Kopanina.
F. f. 2	armata, „	Konieprus.
E. e. 2	elongata, „	Dvoretz.
F. f. 2	hystrix, „	Konieprus.
E. e. 1, 2	patula, „	Butovitz, DlauhaHora.
D. d. 5	primula, „	Königshof.
E. e. 2	socialis, „	Dlauha Hora.
F. f. 2	spinosa, „	Konieprus.
	Turbo?, *Linnæus.*	
E. e. 2	ananas, Barr.	Hinter-Kopanina.
„	cognatus, „	Bubovitz, Lodenitz.
F. f. 2	comitans, „	Konieprus.
E. e. 2	complexus, „	Dlauha Hora.
„	dives, „	„ „
F. f. 2	dubius, „	Konieprus.
E. e. 2	fraternus, „	Bubovitz, Lodenitz.
„	hospitalis, „	Lockhov.
„	infidelis, „	Bubovitz, Lodenitz.
F. f. 2	lætus, „	Konieprus.
„	laudabilis, „	Mnienian.
E. e. 2	magister, „	Dlauha Hora.
„	pauper, „	Bubovitz, Lodenitz.
„	peregrinus, „	Dlauha Hora.
G. g. 1	spoliatus, „	Tetin.
D. d. 3	sulphurifer, „	Trubin.
E. e. 2	timidus, „	Bubovitz, Lodenitz.
„	trepidans, „	Karlstein.
D. d. 3	tricinctus, „	Leiskov.
	Turritella, *Lamarck.*	
G. g. 1	benevola, Barr.	Chotecz, Tetin.
F. f. 2	contraria, „	Konieprus.
„	domestica, „	„
E. e. 2	mater, „	Kozorz.
„	perlonga, „	„
„	potens, „	Dlauha Hora, Lockhov.
„	soror, „	Kozorz.
F. f. 2	verticalis, „	Konieprus.
	Vermetus?, *Adanson.*	
F. f. 2	longissimus, Barr.	Mnienian.
„	pulcher. „	„

Summary (Geographical).

Genera.	AMERICA.																									Total Appearances (America).	EUROPE &c.																		Total Appearances (Europe &c.).	Grand Total of Appearances.	Number of Species.	Number of Countries inhabited.
	Bolivia.	Arctic America.	Prince Rupert's Land.	N.W. Michigan.	Minnesota.	Wisconsin.	Iowa.	Missouri.	Illinois.	Ohio.	Tennessee.	Kentucky.	Texas.	Virginia.	Pennsylvania.	New York.	Canada West.	Canada East.	Vermont.	New Brunswick.	Nova Scotia.	Anticosti.	Mingan Isles.	Newfoundland.	California.		Ireland.	Scotland.	England.	Wales.	France.	Spain.	Sardinia.	Bohemia.	Thuringia.	Franconia.	Silesia.	Baltic Russia.	Russia.	Sweden.	Norway.	North India.	South Australia.	Tasmania.				
Acroculia	...	...	...	...	1	...	...	...	1	...	1	...	...	1	...	47	1	1	...	...	...	...	...	...	...	53	1	2	2	1	1	3	...	47	13	...	...	1	4	...	...	...	...	...	75	128	123	17
Calyptræa	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	1	...	...	...	1	...	...	...	...	...	...	2	2	2	2
Carinaropsis	...	...	...	...	...	1	...	...	...	1	1	...	...	...	...	3	...	...	...	...	...	...	...	...	...	6	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	6	6	4
Cerithium	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	1	1	...	...	...	...	...	2	2	2	2
Chemnitzia?	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	1	...	1	1	1	1
Chiton	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	1	...	...	...	...	...	...	...	...	1	1	...	1	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	2	3	3	3
Cirrus	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	7	...	...	...	...	...	...	...	...	...	...	7	7	7	1
Cleodora	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	1	...	...	...	...	...	...	...	...	1	1	...	...	1	...	...	...	...	...	...	...	...	...	...	...	...	...	...	2	3	2	3
Clioderma	...	...	...	...	...	1	...	...	...	...	...	...	...	...	...	5	...	...	...	...	...	...	...	...	...	6	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	6	6	2
Clisiospira	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	?2	...	...	...	...	...	...	...	2	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	2	2	1
Cyclonema	...	...	...	...	...	...	...	...	...	2	3	...	...	...	...	5	10	3	...	...	...	8	...	...	...	31	7	...	5	8	...	...	...	...	...	...	...	3	1	...	...	2	...	...	26	57	43	12
Delphinula?	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	7	...	...	...	...	...	...	...	...	...	...	7	7	7	1
Dentalium	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	1	3	...	...	...	...	...	4	4	3	2
Eunema	...	...	...	...	...	1	...	...	...	...	...	...	...	...	...	...	4	...	...	...	...	...	3	...	...	8	...	...	1	1	...	...	...	...	...	...	...	...	...	...	...	...	...	1	3	11	8	6
Euomphalus	...	1	...	...	2	1	...	...	...	...	...	...	...	...	1	5	1	1	...	1	...	...	...	...	...	13	10	3	9	10	1	...	...	33	1	3	...	11	3	13	6	...	1	...	104	117	86	21
Gyrotrema	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	5	...	...	...	...	...	...	...	...	...	...	5	5	5	1
Helicotoma	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	1	2	7	2	...	...	...	3	4	...	19	...	...	...	1	...	...	...	...	...	...	...	...	...	...	...	...	...	2	3	22	15	8
Holopæa	...	...	...	...	...	...	1	...	1	...	...	...	...	...	1	...	7	7	...	...	2	...	1	1	...	21	3	...	2	8	...	...	...	...	...	...	1	1	...	...	...	2	...	1	18	39	38	15
Holopella	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	2	2	5	7	...	...	...	...	...	...	1	2	1	...	...	...	1	...	21	21	14	8
Hormotoma	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	2	2	2	2	1
Litorina	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	2	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	2	2	2	1
Loxonema	...	4	...	...	...	...	1	1	2	...	...	...	...	...	...	5	3	2	...	...	...	1	1	...	...	20	...	...	2	2	...	...	...	7	...	...	...	...	...	...	...	...	1	...	12	32	32	13
Macrocheilus	...	1	...	...	...	...	1	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	2	1	...	...	1	...	...	...	...	...	...	...	...	...	...	...	...	...	...	2	4	4	4
Metoptoma	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	3	5	13	...	...	...	2	1	2	...	26	...	...	...	...	...	...	...	...	...	...	...	1	2	...	...	...	...	...	3	29	27	8
Murchisonia	...	1	...	3	...	6	6	3	2	...	3	1	...	...	1	25	24	19	...	...	3	15	4	11	...	127	10	8	7	14	...	...	2	17	...	...	1	1	1	3	2	2	1	2	71	198	132	30
Natica	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	1	...	...	...	...	...	...	...	...	...	1	1	...	3	1	...	...	...	12	1	...	...	2	5	1	...	...	...	...	26	27	24	9
Naticella	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	5	...	...	...	...	...	...	...	...	...	...	5	5	5	1
Ophileta	...	...	...	...	...	1	...	...	...	...	...	...	...	...	...	3	4	8	...	...	...	...	...	3	...	19	...	2	1	1	...	...	...	...	...	...	...	...	...	...	...	...	...	...	4	23	17	8
Patella	1	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	1	1	...	...	...	...	...	...	3	...	...	...	3	2	1	...	...	...	...	10	11	11	5
Phasianella	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	?1	...	...	...	...	...	...	...	...	...	...	1	...	...	...	...	...	...	2	2	2?	2
Pilidion	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	6	...	...	...	...	...	...	...	...	...	...	6	6	6	1
Platychisma	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	1	...	1	...	...	2	...	2	2	3	...	...	...	...	...	...	...	...	1	...	...	...	...	...	8	10	5	6
Platyostoma	...	...	...	...	...	...	...	1	...	...	1	...	...	...	1	6	2	1	...	...	1	1	1	...	...	15	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	15	11	9
Pleurotomaria	...	...	3	4	5	10	3	5	5	...	3	...	...	...	3	27	24	24	...	1	1	10	8	15	1	152	8	4	9	6	1	1	...	29	...	...	...	14	7	1	...	1	1	2	84	236	171	32
Porcellia	...	...	...	...	1	...	...	...	1	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	2	...	...	...	...	...	...	...	4	...	...	...	...	1	...	...	...	...	...	5	7	7	4
Subg. Tremanotus	...	...	...	...	...	...	...	...	1	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	1	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	1	1	1
Raphistoma	...	...	...	1	...	2	...	...	...	...	...	...	1	...	2	5	4	1	...	1	...	...	...	1	...	18	2	4	3	5	...	...	...	...	...	...	1	1	1	2	2	1	...	1	23	41	19	20
Rotella	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	6	...	...	...	...	...	...	...	...	...	...	6	6	6	1
Scalites	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	1	...	1	...	...	...	...	...	...	...	2	...	...	1	...	...	...	...	...	...	...	...	...	...	...	...	...	...	1	2	4	4	4
Scoliostoma	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	1	...	...	...	...	...	...	...	...	...	...	1	1	1	1
Siphonaria	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	1	...	...	...	...	...	...	...	...	...	1	1	1	1
Stomatella	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	1	...	...	...	...	...	...	...	...	...	...	1	1	1	1
Straparollina	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	1	...	1	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	1	1	1
Straparollus	...	...	...	...	2	...	...	1	...	...	...	...	...	...	...	...	2	3	...	...	...	...	...	...	...	8	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	8	8	4
Strophostylus	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	6	...	...	...	...	...	...	...	...	...	6	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	6	6	1
Subulites	...	...	...	1	...	1	1	1	2	...	1	...	...	...	...	2	3	3	...	...	...	2	1	1	...	19	1	...	...	...	...	...	...	2	...	...	1	5	1	...	...	...	...	...	10	29	20	17
Trochonema	...	...	1	...	...	1	...	...	...	...	...	...	...	...	...	...	2	1	...	...	...	2	1	...	...	8	4	...	3	...	...	...	...	...	...	...	...	...	...	...	...	1	...	1	9	17	11	10
Trochus	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	2	...	2	3	...	...	...	15	...	...	...	...	...	1	...	...	...	...	23	23	22	5
Tubina	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	7	...	...	...	...	...	...	...	...	...	...	7	7	7	1
Turbo	...	...	...	...	...	...	...	2	...	...	1	...	...	...	...	2	...	...	...	...	...	...	...	...	...	5	3	1	4	3	...	...	...	19	...	...	...	2	4	4	3	...	1	...	44	49	41	13
Turritella	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	1	...	1	1	...	...	...	8	...	...	...	...	...	1	...	...	...	...	12	12	12	5
Vermetus?	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	2	...	...	...	...	...	...	...	...	...	...	2	2	2	1
Total	1	7	4	9	11	25	13	14	15	3	14	1	1	1	9	152	100	97	2	3	8	41	25	39	1	596	60	28	65	77	3	4	2	244	16	3	5	51	38	27	13	9	7	13	665	1261	994	43

SUBKINGDOM MOLLUSCA. PROVINCE ODONTOPHORA. CLASS CEPHALOPODA.
ORDERS:—DIBRANCHIATA, TETRABRANCHIATA.

Subdivision.	Genus, Species, and Author.	Lower Stage.	Middle Stage.	Upper Stage.
	Actinoceras, *Bronn*, 1835; ORMOCERAS, *Hall*; DISCOSURUS.			
Woolh. Lst.....	baccatum, H. Woodward.	Woolhope (Herefordshire).		
?	Backii, Stokes.	.....	.....	Drummond's Isl., L. Huron.
?	Bayfieldii, ,,	.....	.....	,, ,,
BL., Pleta	Bigsbyii, Bronn.	Thessalon Island, L. Huron, Nyby, Wesenby (Esthonia).		
W.	Brightii, Sowerby.	.....	.....	Malverns (England).
Carad.	Brongniarti, Portlock. *Orthoceras.*	Tyrone (Ireland).		
Corall. Lst.	cochleatum, Schloth.	.....	.....	(Baltic) Isle Oesel, Piddul, Randifer.
?	conoideum, Hall. *Discosurus.*	.....	.....	Lake Huron, Drummond's Island, Rupert's Land, N. Wisconsin.
	Corderii, Castelnau.	North America.		
H. R. G.	crebriseptum. Hall.	(N. York) Turin &c., N. Wisconsin, Pennsylvania.		
CH., BL.....	gracile, ,,	(New York) Watertown.		
BL.	Lyonii, Stokes.	N. York, Igloolik and Ooglit, (Arctic Amer.) Fort Garry, Rupert's Land.		
CH.	moniliforme, Hall.	New York.		
Llandov., W. ...	nummularium, Sowerby. *Orthoceras.*	.....	Llandovery (Wales).....	(Gloucestershire) Tortworth, Norway, Arisaig (Nova Scotia).
	Richardsoni, Stokes.	Lake Winnipeg (Rupert's Land).		
BL.	tenuifilum, Hall.	(New York) Watertown &c., Lake St. John (Can. E.), Lake Huron (Canada W.), Pennsylvania, Tennessee, Missouri, N.W. Michigan.		
,,	var. distans, ,,	(New York) Watertown.		
CL.	vertebratum, ,,	.....	(New York) Niagara Co.	
?	Whitei, Stokes.	.....	.....	Drummond's Island (Lake Huron).
Tr.	sp. ind. (2), Salter.	Tasmania West.		
	,, Bronn.	United States of America.		
	,, Meneghini.	Sardinia.		
	Ascoceras, *Barrande*, 1847; CRYPTOCERAS, *Barrande*, 1846.			
Div. 1, Anticosti G., Llandov.	Anticostiensis, Billings.	.....	(Anticosti) Junction Cliff.	
H. R. G., Fauna E, W., U.L.	Barrandei, Salter.	.....	.....	North America, S. Scotland, Ludlow (England).
Fauna E. e. 2....	Bohemicum, Barr.	.....	.....	(Bohemia) Slichov, Kozorz, Kuchelbad.
,, ,,	Bronnii, ,,	.....	.....	(Bohemia) Dlauha Hora.
H. R. G.	Canadense, Billings.	(Anticosti Island) English Head.		
Pleta	deforme, Eichw.	(Baltic) Isle Dago, Hohenholm.		
Fauna E. e. 2....	Deshayesi, Barr.	.....	.....	(Bohemia) Kozorz, Gross-Kuchel, &c.
,, ,,	Goldfussi, ,,	.....	.....	(Bohemia) Dlauha Hora.
,, ,,	invertens, ,,	.....	.....	(Boh.) Dlauha Hora, Slichov.
,, ,,	Keyserlingii, ,,	.....	.....	(Bohemia) Dlauha Hora, Slivenetz, Kozorz, Lockhov.
,, ,,	var. amœna, ,,	.....	.....	,, ,,
,, ,,	Koninckii, ,,	.....	.....	(Bohemia) Butovitz.
,, ,,	Murchisoni, ,,	.....	.....	(Bohem.) Karlstein, Lockhov, Slivenetz ?, &c.
Div. 1, A. Gr., H. R. G.	Newberryi, Billings.	(Canada E.) Three Rivers, (I. Anticosti) English Head.		
?	Norwegicum, Barr.	.....	.....	Brewig (Norway).
Fauna E. e. 2 ...	singulare, ,,	.....	.....	(Bohemia) Dlauha Hora.
,, ,,	Verneuilli, ,,	.....	.....	,, ,,
Subgenus	APHRAGMITES, *Barrande*, 1861.			
Fauna E. e. 2 ...	Buchii, Barr. *Ascoceras.*	.....	.....	(Bohem.) Gross-Kuchal, Kozorz, Lockhov.
?	Salteri, ,, *Ascoceras.*	.....	.....	?
Subgenus	GLOSSOCERAS, *Barrande*, 1865.			
Div. 4, A. Gr. ...	desideratum, Billings.	.....	(Anticosti) S.W. Point.	

Subdivision.	Genus, Species, and Author.	Lower Stage.	Middle Stage.	Upper Stage.
Fauna E. e. 2....	gracile, Barr. *Ascoceras.*	.....	.....	(Bohemia) Kozorz, Dlauha Hora.
,, ,,	var. curta. ,,	.....	.....	(Bohemia) Kozorz, Lockhov.
	Bactrites, *Sandberger*, 1842; STENOCERAS, *D'Orbigny.*			
Argill. Lst.? ...	carinatus, Münster.	.....	.....	(Russ.)Petchora, Oust-Oukh.
Pleta, Fauna D. d. 1, 5.	nanus, Eichw.	(Bohemia)Rokitzan,(Russia) Poulkova.		
Fauna D. d. 1, 5	Sandbergeri, Barr.	(Bohem.)Wosek, Kœnigshof.		
	Bathmoceras, *Barrande*, 1867.			
Fauna D. d. 1...	complexum, Barr.	(Bohemia) Vosek near Rokitzan.		
,, ,,	præposterum, ,,	,, ,,		
	Cameroceras, *Conrad*, 1842. See ENDOCERAS.			
Base of Up.Stage.	fluminense, Meneghini.	.....	.....	Sardinia.
	Trentoneum, Hall.	(New York) Middleville.		
	Clymenia, *Münster*, 1839.			
Pleta	antiquissima, Eichw.	Réval, Kertal (Baltic).		
,,	depressa, ,,	Isle Odinsholm (Baltic).		
,,	flexuosa, Münster.	Isle Dago (Baltic).		
,,	incongrua, Eichw.	Isle Odinsholm (Baltic).		
,,	Odini, ,,	,, ,,		
,,	rarospira, ,,	Réval,Haljal,Isle Odinsholm (Baltic).		
	Cochlioceras, *Eichwald*, 1860.			
Pleta	avus, Eichw.	Ropscha (St. Petersburg) Russia.		
(ORTHOCERAS)	**Cycloceras,** *M'Coy*, 1844.			
Carad., Woolh., W., Pleta.	annulatum, Sowerby. *Orthoceras.*	Shropsh., (Wales) Dermyddfawr, Isle Dago (Baltic), Ropscha (Russia).		
Carad.	arcuoliratum, Hall.	(S.W. Scotl.) Wrae Quarry, (England) Cheney Longville, Coniston (Lancash.).		
Pleta	cancellatum, Eichw.	Réval, Baltischport (Baltic).		
Corall. Lst.	decoratum, ,.	.....	.....	(Podolia) Smotvytsch River.
Pleta	devexum, ,,	Wesenberg(Esthonia),Réval.		
,,	fenestratum, ,,	Wesenberg &c. (Esthonia).		
Carad., Pleta ...	ibex, Sowerby. *Orthoceras.*	Isle Dago(Baltic),Lyckholm, Westmoreland, Scotland.		
Pleta	serpentinum. Eichw.	(Esthonia) Kirna &c.		
L.	tenuiannulatum, M'Coy. *Orthoceras.*	.....	.....	Wales,Leintwardine (Shropshire).
Passage-beds ...	tracheale Sowerby. *Orthoceras.*	.....	.....	Wales.
Pleta	trochleare, Hisinger.	(Esthonia) Réval &c., St. Petersburg (Russia).		
	Cyrtoceras, *Goldfuss*, 1833.			
Onond. S. G. ...	acuticameratum, Hall.	.....	.....	New York.
P., Queb. G.....	alethes, Billings.	Point Lévis (Canada East).		
Pleta, Tr., BL....	annulatum, Hall.	Canada, (New York)Middleville, Wisconsin, (Esthon.) Wesenberg, Pijalep.		
Llandov. &c.....	approximatum, Sowerby.	.....	England, S.W. Ireland....	Eastnor Park(Worcestersh.).
Pleta	Archiaci, De Verneuil.	Réval, Isle Dago, Pijalep.		
Onond. S. G. ...	arcticameratum, Hall.	.....	.....	(Canada W.)Galt Township.
Tr.	arcuatum, ,,	(New York) Middleville.		
B. 2, Queb. G....	Aristides, Billings.	(Canada East) Philipsburg.		
Carad.	atramentarium, Salter.	(Wales) Rhiwlas,Westmoreland.		
,,	Brateri, Portlock.	Tyrone (Ireland).		
	Bruckneri, Boll.	North Germany (drift).		
Tr., BL.	camurum, Hall.	(New York)Middleville,Wisconsin.		
Niag.	? cancellatum, ,,	.....	.....	(New York) Lockport, Niagara Falls.
	centrifugum, Salter.	(Himalaya) Niti, Rimkin.		
Niag.	Clitus, Billings.	.....	.....	(Central Canada) Grimsby.
	conicum, D. D. Owen.	(Wisconsin) Mineral Point.		
Tr.	constricto-striatum, Hall.	(New York) Middleville.		
B., BL., Tr.....	constrictum, Billings.	Canada.		
Fauna E. e. 2,W.	corniculum, Barr.	.....	.....	Isle Odinsholm (Baltic), Bohemia.
Niag.	Corydon, Billings.	.....	.....	(Central Canada) Grimsby.
,,	Dardanus, Hall.	.....	.....	Wisconsin.
Queb. G.	Dictys, Billings.	Point Lévis (Canada East).		
,,	var., ,,	,, ,,		

Subdivision.	Genus, Species, and Author.	Lower Stage.	Middle Stage.	Upper Stage.
Pleta	digitale, Eichw.	(Esthonia) Wesenberg.		
Tr., BL.	Eugium, Hall.	Wisconsin.		
Tr.	exiguum, ,,	(Canada West) L'Orignal, Ottawa River, Upper Mississippi River.		
Pleta	falcatum, Schloth.	Réval (Esthonia).		
Corall. Lst.	falcigerum, Eichw.	.....	.....	Isle Oesel (Baltic).
B., BL., Tr.	falx, Billings.	(Can.W.)Mid.Ottawa River.		
Tr.	filosum, Hall.	New York.		
Fauna E. c. 2, Carad.	Forbesi, Etheridge, Barr.	(Wales) Rhiwlas.	.....	(Bohemia) Dlauha Hora.
Niag.	Fosteri, Hall.	.....	.....	Chicago? (Illinois).
Div. 1, A. G., Llandov.	fragile, Billings.	.....	(Anticosti) Gamache Bay.	
Niag.	giganteum, M'Chesney.	.....	.....	Joliet (Illinois)
Fauna D	hospes, Boll.	North Germany (drift).		
BL. or Tr.	Huronense, Billings.	Lake Huron (N.W. end).		
Compact Pleta...	ibex, Sowerby.	Czarskoye-selo (Russia), Isle Odinsholm (Baltic).		
Carad.	inæquiseptum, Portlock. *Phragm. Brateri.*	(Irel.) Desertcreate, (Wales) Llangollen.		
BL., Tr.	Isodorus, Billings.	Lake Huron (N.W. end).		
Guelph.....	Jonesi, ,, ?	....	.....	(Canada W.)Galt Township.
Tr.	Juvenalis, ,,	(Canada East) Montreal.		
,,	lamellosum, Hall.	(New York) Middleville, Canada.		
H. R. G.	? ligarium, Billings.	Lake Huron (N.W. end).		
Tr.	loculosum, Hall.	Wisconsin.		
Niag.	Lucillus, ,,	.....	.....	Wisconsin.
	Lysander, Billings.	(East L.Huron)Cape Smyth.		
CH.	M'Coyi, ,,	Mingan Isles (Gulf of St. Lawrence).		
Tr.	macrostomum, Hall.	(Norway) Christiania, Canada, (New York) Middleville, Pennsylvania, (Wisconsin) Mineral Point.		
,,	marginalis, Conrad.	(Wisconsin) Mineral Point.		
Queb. G.	Metellus, Billings.	Point Lévis (Canada East).		
B., Tr., Carad...	multicameratum, Hall, M'Coy.	England, (S.W. Scotland) Knockdollian,(New York) Middleville.		
Dolom. Lst.....	multiseptatum,	.....	(Russia) Kolpino?.	
Pleta	nanum, Eichw.	Wesenberg (Esthonia).		
BL.=Tr.....	Nileus, Hall.	Wisconsin.		
Pleta	Odini, Eichw.	Isle Odinsholm (Baltic).		
Niag.	Orcas, Hall.	.....	.....	Wisconsin or Iowa.
,,	Orestes, Billings.	....	.....	Flamboro' Township (Can. W.).
Guelph.....	Orodes, ,,	.....	.....	New Hope (Canada West).
H. R. G.	posthumus, ,,	(East L.Huron)Cape Smyth.		
U.Tremad.	præcox, Salter.	(North Wales) Garth, Tuhwnt-yr-bwlch.		
Pleta	priscum, Eichw.	Isle Dago, Hohenholm.		
B., BL., Tr.	regulare, Billings.	(Can. W.) Mid. Ottawa R.		
Pleta	scindens, Eichw.	(Russia) Poulkova.		
,,	simplex, ,,	Kirna (Esthonia).		
BL.	,, Billings.	(Canada) Nepean Township.		
B., BL.	sinuatum, ,,	(Canada West) Ottawa River, Little Chaudière.		
Carad.	sonax, Salter.	England,(N.Wales) Rhiwlas.		
,,	subarcuatum, Etheridge.	(Scotland) Ayrshire, (Irel.) Desertcreate,(Wales) Twll Dhu, Llyn, Rhiwlas.		
L. H. G.	subrectum, Hall.	.....	.....	(Central N. York) Herkimer.
Pleta	substriatum, Eichw.	(Esthonia)Isle Dago,Hohenholm.		
CH., B., BL. ...	subturbinatum, Billings.	Mingan Isles (G. St. Lawr.).		
P., Queb. G.....	Syphax, ,,	Point Lévis (Canada East).		
Pleta	testaceum, Eichw.	Wisconsin.		
,,	undatum, ,,	(Esthonia) Isle Dago.		
Tr.....	Whitneyi, Hall.	Isle Dago, Pyhalep.		
?	sp. ind., Meneghini.	.....	(Sardinia) Flumini Maggiore.	
	,, Salter.	N.W. Scotland.		
	,, ,,	(Caernarvonshire) Carnedd Dafydd.		

Subdivision.	Genus, Species, and Author.	Lower Stage.	Middle Stage.	Upper Stage.
	sp. ind., Haughton.	.....	.....	Boothia, Arctic Seas.
?	,, Selwyn.	.....	Victoria (S. Australia).	
	Cyrtocerina, *Billings,* 1865.			
Queb. G.	Mercurius, Billings.	Point Lévis (Canada East).		
BL.	typica, ,,	(Canada W.) Middle Ottawa River.		
	Dictyoceras, *Eichwald,* 1860.			
Corall. Lst. ...	porosum, Eichw.	.....	.....	(Baltic) Isle Oesel, Lohde.
	Discosurus, *Hall,* 1852.			
Niag.	conoideus, Hall.	.....	.....	(Can. W.) Lake Tematscaming, (N. York) Lockport, (L. Huron) Drummond's Island.
	Actinoceras.			
	Endoceras, *Hall,* 1847.			
	angusticameratum, Hall.	(New York) Middleville.		
	annulatum. ,,	,, Watertown.		
Tr.	approximatum, ,,	,, Middleville.		
,,	arciventrum, ,,	,, W.Canada Creek.		
	camurum, ,,	New York.		
Niag.	cancellatum, ,,	.....	.....	(New York) Lockport &c.
Pleta	commune, Hising.	(Russ.)Lapukhinka,Ropscha, (Esthonia) Baltischport.		
,,	complanata, Eichw.	(Russia) Lapukhinka, Odinsholm Isle (Baltic).		
H. R. G.	Cuvieri, Hall.	Turkey River (Iowa), Rupert's Land (N. America).		
Tr.	distans, ,,	(New York) Lewis County.		
Pleta	duplex, Eichw.	St.Petersburg,Ropscha(Russia), Baltischport (Baltic).		
Tr.	duplicatum, Hall.	(New York) Middleville.		
Llan.	Eoum, Wyatt-Edgell.	South Wales.		
BL.	gemelliparum, Hall.	(N. York) Jefferson County.		
Pleta	hastatum, Eichw.	Lyckholm (Esthonia).		
BL.	longissimum, Hall	(N. York) Jefferson County.		
Tr.	magniventrum, ,,	,, Middleville.		
,,	var.	,, ,,		
Pleta	megastomum, Eichw.	Lyckholm (Esthonia).		
BL.	multitubulatum, Hall.	(New York) Watertown.		
Tr.	proteiforme, ,,	(N. York) Middleville, Canada, L. Winnipeg, Pennsylvania, Tennessee, N.W. Michigan, (Wiscon.) Falls of St. Anthony, (Iowa) Turkey River.		
,,	var. elongatum, ,,	(New York) Middleville.		
,,	,, lineolatum, Hall.	NewYork(with *proteiforme*).		
,,	,, strangulatum, ,,	,, ,,		
,,	,, subcentrale, ,,	,, ,,		
,,	,, tenuistriatum, ,,	,, ,,		
,,	,, tenuitextum, ,,	,, ,,		
Pleta	regulus, Eichw.	Hohenholm, Dago Isle (Baltic).		
,,	remotum, ,,	Wallkhoff,LakeLadoga(Russia).		
BL., Tr.	subcentrale, Hall.	Turkey River (Iowa) &c., (N. York) Jefferson County.		
Pleta	telum, Eichw.	Wesenberg (Esthonia).		
,,	vaginatum, ,,	Réval (Baltic), Ingria, Pomerania.		
,,	vertebrale, ,,	Réval, Wesenberg, Baltischport (Esthonia).		
	sp. ind., Verneuil.	New York.		
	Gomphoceras, *Sowerby.*	BOLBOCERAS, APIOCERAS,	POTERIOCERAS.	
Carad., U.Llandov.	approximatum, M'Coy.	(Ireland) Pomeroy.....	(Ireland) Pomeroy.	
Pleta, Corall.Lst.	bolbos, Eichw.	Isle Dago, Pyhalep (Baltic).	Isle Dago.	
? Fauna E.e.4...	clava, Barr.	Wesenberg (Esthonia).	.....	Bohemia.
Pleta, Fau. E.e.2	conulus, ,,	,, ,,	.....	,,
Pleta	Eichwaldi, Verneuil.	Réval (Esthonia), Czarskoecelo (Russia).		
Black Corall.Lst.	ellipticum, M'Coy.	....	.....	(Podolia) Orynine.
Pentam. Lst. ...	elongatum, Eichw.	.....	(Esthonia) Kattentack.	
Niag.	Marcyæ, Winch. & Mar.	.....	.....	Chicago (Illinois).
	Naumanni, Geinitz.	Saxony.		
H. R. G.	obesum, Billings.	(Anticosti I.) Charlton Point &c.		

Subdivision.	Genus, Species, and Author.	Lower Stage.	Middle Stage.	Upper Stage.
W., L.	*pyriforme*, Sowerby. Phragmoceras.			(England) Aymestry, Leintwardine, Ledbury.
Niag.	scrinium, Hall. *Marcyæ.*			Chicago (Illinois).
?	septoris, „	?		
	subgracile, Billings.			Gaspé, Port Daniel (Can. E.).
Corall. Lst.	Urceolus, Eichw.			Ural, Russia, River Ylitsch.
	sp. ind., Hall.			South Wisconsin.
	Gonioceras, *Hall*, 1846.			
Tr.	anceps, Hall.	Canada, (New York) Watertown, Tennessee, Missouri, N.W. Michigan, (Wisconsin) Prairie du Chien.		
„	occidentale, „	Wisconsin.		
	Gyroceras, *Koninck*, 1844.			
	Americanum, Billings.			Gaspé (Canada East).
Niag.	Bannisteri, Winch & Mar.			Chicago (Illinois).
	Heloceras, *Eichwald*, 1860.			
Pleta	tuberculatum,	(Esthonia) Lyckholm.		
	Hemiceras, *Eichwald*, 1840. (A doubtful genus.)			
Pleta (pyroxenic)	angulosum, Eichw.	Isle Odinsholm (Baltic).		
„	compressum, „	„ „		
„	cylindricum, „	„ „		
	Lituites, *Breynius*, 1752.	(The Bohemian species are	of the subgenus OPHIOCERAS, *J.W.S.*)	
Carad.	anguiformis, Salter.	Mynydd, Frons, Frys, Llangollen.		
Pleta	antiquissimus, Verneuil.	(Esthonia) Isle Dago, Silesia.		
CS., CH.	Apollo, Billings.	Mingan Isles (G. St. Lawr.).		
L.L.	articulatus, Sowerby.			Ludlow, Aymestry, Shelderton (England).
W.	Biddulphi, „			Nant Glyn, Welchpool (W.), Ledbury (Herefordshire).
Niag.	capax, Hall.			Wisconsin.
BL.	convolvens, „	(N. York) Watertown, River Kinnikinnick (Wisconsin).		
Pleta	„ Schloth.	(Russia) St. Petersburg, (Esthon.) Réval, (Swed.) Uitby.		
Pleta, Carad., U. Llandov., W.	cornu-arietis, Sowerby.	(S.W. Scotland) Peebles &c., (Wales) Bala Lake, Presteign, &c., (Irel.) Desertcreate, Coniston (Lancashire), Isle Dago, Réval, Haljal, D'Erras (Esthonia), Norway.	(Wales) Presteign &c. ...	Bogmine, Shelve (Shropshire).
Carad.	„ Portlock.	(Ireland) Tyrone.		
	var. β, Salter.	(Wales) Denbighshire, Cerrig-y-Druidion.		
Llan.	falcatus, Schloth.	Russia.		
BL., Tr.	Farnsworthii, Billings.	(Canada East) Phillipsburg.		
W., L.	giganteus, Sowerby.			Leintwardine, Malvern, Aston (Ludlow).
Tr.	Gouldii, Salter.	Tasmania West.		
Niag.	Hercules, Winch. & Mar.			Chicago (Illinois).
Carad.	Hibernicus, Salter.	(Ireland) Kildare.		
L.L.	Holtianus, ?			Stokesay, Ludlow (England).
W., U.L.	ibex, Sowerby.			Ledbury (Herefordsh.), Underbarrow, Westmoreland.
BL., Tr.	imperator, Billings.	(Canada East) Phillipsburg.		
	intermedius, Verneuil.	(Spain) Almadenejos.		
	iuliformis, Salter.	Himalaya, Niti, Chorh. Pass.		
H. R. G.	magnificum ?, Billlngs. *Gyroceras.*	Anticosti Island, S.W. end.		
Pleta	Odini, Verneuil.	Russia, Isle Odinsholm (Baltic).		
CS.	Palinurus, Billings.	Mingan Isles (G. St. Lawr.).		
Llan.	perfectus, Wahlenb.	Sweden.		
Carad., Ut. Sl., H. R. G.	planorbiformis, Conrad.	(New York) Lewis County, England, (Wales) Bala, Cymmerig Eithin (Caernarvon).		
Queb. G.	Pluto, Billings.	(Newfoundl. W.N.W.) Point Rich.		
Pleta	rarospira, Eichw.	Réval (Baltic).		
BL.	Robertsoni, Hall.	Wisconsin.		
	Sowerbyensis, D'Orb. *cornu-arietis.*	Llandeilo (Wales).		

Subdivision.	Genus, Species, and Author.	Lower Stage.	Middle Stage.	Upper Stage.
Pleta	teres, Eichw.	(Esthonia) Wesenberg, Isle Odinsholm, Ropscha (St. Petersburg).		
W. ?, L.	tortuosus, Sowerby.	.....	.....	Welchpool (Wales).
BL., Tr.	undatus, Hall.	(N. York) Watertown, Tennessee, (Can. E.) Lorette &c.		
Niag.	var. occidentalis, ,,	.....	.....	Wisconsin.
Llandov.	undosus, Sowerby.	.....	(Wales) Llandovery, Mandinam.	
B., BL.	vagrans, Billings.	Canada.		
Llan.	sp. ind., Salter.	North-west Scotland.		
Carad.	,, ,,	(Merioneth) Bala Lake.		
	,, ,,	.....	.....	(Arctic America) Griffith's Isle &c.
	,, Honeyman.	.....	.....	Arisaig (Nova Scotia).
	Nautilus, *Breynius*, 1732.			
Divs. F, G, Queb. G., CS.	calciferus, Billings.	(Newfoundl. N. & W.) Cape Norman &c.		
	? complanatus, Hising.	.....	.....	(Gothland) Hamra.
Pleta	decurrens, Eichw.	Poulkova (Russia).		
Div. L, Queb. G.	desertus, Billings.	(Newfoundl. W.N.W.) Point Rich.		
CS.	ferox, ,,	Mingan Isles (G. St. Lawr.).		
H. R. G.	Hercules, ,,	Anticosti I., Charlton Point.		
Div. L, Queb. G.	insolens, ,,	(Newfoundl. W.N.W.) Point Rich.		
	involvens, Salter.	(Himala.) Niti, Gunesgunga.		
CH.	Ixion, Billings.	Mingan Isles.		
,,	natator, ,,	,,		
Niag.	occidentalis, Hall.	.....	.....	Wisconsin.
	Lituites, non Swallow.			
CS.	Pomponius, Billings.	(Canada East) Phillipsburg.		
CH.	Tyraus, ,,	Mingan Isles.		
Div. H, Queb. G., CS.	versutus, ,,	(Newfoundland W.) Bonne Bay.		
	Nothoceras, *Barrande*, 1856.			
Pleta	impressum, Eichw.	(Esthonia) Lyckholm, Presqu'ile de Neuk.		
	Oncoceras, *Hall*, 1846 = PHRAGMOCERAS.			
Tr.	abruptum, Hall.	Wisconsin.		
BL., Tr.	Alcum, ,,	,,		
Div. 3, Mayhill, A. G.	amator, Billings.	.....	(Anticosti) Jupiter River.	
Tr., H. R. G. ...	constrictum, Hall.	Anticosti, west end, Lake St. John, Lorette, &c. (Can. E.), Ottawa City and River (Canada W.), Middleville (N. York), Tennessee, Ohio, Indiana.		
Corall. L., Schoharie.	expansum, ,,	.....	.....	(N. York) Schoharie County.
Div. 3, Antic. G.	futile, Billings.	.....	(Anticosti) Jupiter River.	
M. Sa.	gibbosum, Hall.	.....	(New York) Lockport.	
BL., Tr.	Lycus, ,,	Wisconsin.		
L. H. G.	ovoides, ,,	.....	.....	(Central N. York) Herkimer.
	Pandion, ,,	Wisconsin.		
Niag.	Pettiti, Billings.	.....	.....	(Central Canada) Grimsby.
BL., Tr.	plebeium, Hall.	Wisconsin.		
CL.	subrectum, ,,	.....	(New York) Lockport.	
Niag.	Teucer, Billings.	.....	.....	(Central Canada) Grimsby.
,,	Thales, ,,	.....	.....	,, ,,
Llan.	sp. ind., Salter?	Wales.		
	,,	(North Scotland) Durness.		
	Ormoceras. See ACTINOCERAS.			
	Orthoceras, *Breynius*, 1732; LOXOCERAS, *M'Coy.*			
CL.	abruptum, Hall.	.....	(New York) Lockport.	
H. R. G.	æquale, Emmons.	New York.		
?	affine, Meneghini.	.....	(Sardinia) Flumini Maggiore.	
?	ageloideum, ,,	Sardinia.		
CH., BL., Divs. L, M, Queb. G.	Allumettense, Billings.	(Can. E.) Aylmer, Clarence, Middle Ottawa River, &c., Newfoundland, N.W.		
Tr., Corall. Lst., Schoharie.	amplicameratum, Hall.	Canada, (New York) Middleville.	.....	(New York) Schoharie Co.
B., BL., Tr.....	anceps, Billings.	(Can. W.) LaCloche, L. Huron.		

Subdivision.	Genus, Species, and Author.	Lower Stage.	Middle Stage.	Upper Stage.
BL., Tr.	anellum, Conrad.	Lyckholm (Esthonia), (New York) Middleville, (Wisconsin) Mineral Point.		
Carad., Llandov., W., L.L.	angulatum, Wahlenb.	(S.W.Scotland) Ardwell &c., (Wales) Builth, (Ireland) County Clare.	England	Russia, Norway, (Gothland) Katthammar, Westmoreland, Brigsteer (England), Shelve &c., (Wales) Usk, Llangynyw.
Car., CL., Niag., W., L.	annulatum, Sowerby, Hall. *Cyrtoceras.*	Norway, Scotland, Ireland, (S. Wales) Sholes Hook.	(N.York)Wayne's County.	(Wales) Presteign &c., (Ireland) Creaghmartin &c., (England) Malvern, Walsall,&c., Russia, Gothland, Norway, Franconia, Bohemia.
	,, non Sowerby,Boll.	.....	.....	Gothland.
CH.	Antenor, Billings.	Mingan Isles (G. St. Lawr.).		
H. R. G.	Anticostiense, ,,	(Anticosti) Charlton Point, Lake St. John (Can. E.).		
Tr.	antilope, Salter.	Tasmania West.		
Fauna E, W. ...	Apollineum, Barr.	.....	.....	England, Bohemia.
Carad., Tr.	arcuoliratum, *Cycloceras.* Hall.	(Can. W.) Lake Huron, La Cloche, (N. York) Watertown, (S.W. Scotl.) Wrae, (N.W. Scotl.) Durness.		
Tr.	var., Salter.	Tasmania West.		
L.	articulatum, Sowerby.	.....	.....	(Norway) Hedemark, Ludlow &c. (England).
W.	attenuatum, ,,	.....	.....	(Engl.) River Onny, Shropshire.
Queb. G.	Atticus, Billings.	(Canada East) Stanbridge.		
Carad.	audax, Salter.	(Wales)Rhiwlas, Haverfordwest, &c., England, (Ireland) Kildare.		
Lst. 2, Queb. G.	Autolycus, Billings.	(Canada East) Point Lévis.		
L.Llan.	Avelinii, Salter.	(Wales) Cefn Gwynlle,(England) Shropshire, Shelve.		
Tr.	Avellum, Conrad.	New York.		
Pleta	bacillum, Eichw.	(Russia) Lake Ladoga, (Esthonia) Réval, Baltischport, &c.		
U.L.	baculiforme, Salter.	.....	.....	(Westmorel.) Brigsteer &c.
H. R. G.	balteatum, Billings.	(Anticosti) English Head.		
Llandov.	Barrandei, Salter.	.....	(S.W. Scotland) Mullock.	
Niag.	Bayfieldii, Stokes.	.....	.....	High Hill Village, Manitouline Island (Lake Huron).
CS.	Beckii, Hall.	Mingan Isles (G. St. Lawr.).		
Div. 3, Antic. G.	bellatulum, Billings.	.....	(Anticosti) Challoupe Riv.	
Pleta	bicingulatum, Sandberger.	(Esthonia) Lyckholm, Presqu'ile de Neuk.		
BL.	Bigsbyi, Hall.	New York, (Can.W.) Loughborough&c.,(Can.E.)Murray Bay, (Vermont) Highgate Springs.		
CH.,Tr.,H.R.G., Carad.,U.Llandov.	bilineatum, *Cycloceras.* Hall.	(S.W. Scotl.) Girvan, (Ireland) Desertcreate, (New York) Albany, Middleville, (Can. W.) Middle Ottawa River, (L. Huron) Point Rich, Cape Smyth.	Tortworth.	
Tr.	var. *a*, ,,	(New York) Middleville &c.		
Carad.	breviconicum, Portlock.	Tirnaskea, Tyrone (Ireland).		
W.	Brightii, Sowerby.	.....	.....	Ledbury (Herefordsh.),Malvern (England).
Llan., Carad. ...	Brongniarti, Troost.	Desertcreate(Tyrone),(N.W. Scotland) Cribol, Saxony.		
Niag.	Brontes, Billings.	.....	.....	(Central Canada) Grimsby.
Div. 3, Antic. G.	Bucklandi, ,,	.....	(Anticosti) S.W. Point.	
Fauna E, Llandov., L.	bullatum,	.....	Galway (Ireland)	(England) Stanbach, Hagley, Malvern, Lambrigg, Kendal, &c., (Wales) Llyn Alwyn, Storm Hill, &c., (Ireland) Ferriter's Cove, Dingle, Russia, Bohemia, (S. Australia) Melbourne, Esthonia.

Subdivision.	Genus, Species, and Author.	Lower Stage.	Middle Stage.	Upper Stage.
Niag.	Cadmus, Billings.	.....	.....	(Central Canada) Grimsby.
Carad., Fauna E.	calamiteum, Portlock.	(S.W. Scotl.) Ardwell. (Irel.) Tyrone, N. Persia, Russia.	.....	Lockhov (Bohemia) Franconia (Ural), Nijeni Taghilsk.
Niag.	cameolare, M'Chesney.	.....	.....	Milwaukee (Wisconsin), Chicago (Illinois).
Div. 4, A. G. ...	Canadense, Billings.	.....	(Anticosti) S.W. Point, (Can. W.) Lake Huron.	
Niag.	cancellatum, Hall.	.....	.....	(New York) Rochester &c.
	Endoceras.			
W.	caniculatum, Sowerby.	.....	.....	Esthonia, Russia, (England) Ledbury, (Wales) Usk.
?	canonicum, Meneghini.	(Sardinia) Flumini Maggiore.		
Fauna E, Carad.	carinatum, Barr.	Desertcreate (Ireland).	.....	Bohemia, Franconia.
Queb. G.	Catilina, Billings.	Phillipsburg (Vermont).		
,,	Cato, ,,	,, or Canada E.		
,,	Catullus, ,,	,, (Vermont).		
Carad., L.....	centrale, Hisinger ?	(Esthonia) Wesenburg &c., Bohemia, Llandeilo ? (Caermarthenshire).	.....	(England) Kendal, (Sweden) Vikarby, Sollerö.
W.	circulare, Sowerby.	.....	.....	(England) Dudley.
	clathrato-annulatum, Römer.	Lower Silesia (drift).		
Tr.	clathratum, Hall.	(N. New York) Middleville.		
L. H. G.	clavatum, ,,	.....	.....	(New York) Schoharie and Herkimer Counties.
Niag.....	columnare, ,,	.....	.....	Wisconsin.
,,	Marcklin.	.....	.....	Gothland.
Oslo Group.....	commune, Wahlenb.	Norway, Sweden, Russia, Thuringia.		
Carad.	complanato-septum, Portl.	Tyrone (Ireland).		
U.Llandov., W., L.	conicum, Hisinger.	.....	Eastnor Park (Worcestershire), Tortworth (Gloucestershire), Marloes Bay (Wales).	Kendal (Westmoreland), Shelve, Bogmine (Shropshire). Alandia (Dalecarl.), Vikarby &c.
Utica Slate, H. R. G.	coralliferum, Hall.	(N.York), Turin &c., Canada.		
U.Llandov.	coralliforme, M'Coy.	.....	Clifden (Galway), (Wales) Lwyn Meredith.	
CH., Tr.	cornuum, Billings.	Mingan Isles (G. St. Lawr.).		
W.	crassiventer, Wahlenb.	.....	.....	Gothland, Esthonia.
	cochleatum.			
H. R. G.	crebriseptum, Hall.	(Can. E.) St. Grégoire, (L. Huron) Cape Smyth, (Can. W.) River Don, N.W. Michigan.		
Niag.	crebristriatum, Meek & Worthen.	.....	.....	Joliet (Illinois).
Pleta ?	cuneolus, Eichw.	Isle Dago, Pyhalep (Baltic).		
Guelph	Darwinii, Billings.	.....	.....	(Can.W.) New Hope, Guelph Township.
Pleta	declive, Eichw.	(Esthonia) Réval, Lyckholm.		
B., BL., Tr.....	decrescens, Billings.	(Can. E.) Montreal, (Can.W.) Mid. Ottawa River, Lake Huron N.W.		
Niag.	De Franceii, Römer.	.....	.....	West Tennessee.
CH. ?	deparcum, Billings.	Mingan Isles.		
CH.	diffidens, ,,	,, ,,		
Carad., L. & U. Llandov.	dimidiatum, Sowerby.	Norway	.....	(Westmorel.) Brigsteer &c., (Shropsh.) Leintwardine, (Wales) Radnorshire.
Pleta.....	,, Münster.	(Esthon.) Borkholm, I. Dago.		
Pleta, Fauna E, Llandov.	distans, Sowerby.	(Esthonia) Wesenberg, Norway.	.....	Franconia, Bohemia, Aymestry (England), Bar Beacon (Staffordshire).
	Drummondii, Billings.	Kingston (Canada West).		
Pleta, CH., Tr...	duplex, Wahlenb.	(Russia) Waivara, Popowa, Ropscha, &c., Bohemia, (Esthonia) Isle de Roog, Baltischport &c., Norway, New York ?, Silesia, (Sweden) Kinnekulle, (Spain) Toledo Mountains, Huerto del Llanos, (Newfoundl.) Cape Norman, Mingan Isles, (Wales) Gorllwyn-fach, Llandovery.		
	bisiphonatum ?, Sowerby.			
CS.	edax, Billings.	(Canada East) Oxford.		

Subdivision.	Genus, Species, and Author.	Lower Stage.	Middle Stage.	Upper Stage.
L. H. G.	elegantulum, Hall, Dawson.			Nictaux (Nova Scotia).
Pleta	ellipticum, Münster.	(Esthonia) Baltischport, Isle Dago, Pyhalep.		
L.Llandov.	" M'Coy.			Aymestry (Herefordshire).
	Poterioceras.			
? Carad.	elongato-cinctum, Portl.	(Ireland) Chair of Kildare, Desertcreate, Tipperary, Clare.		
L.Llandov., Arenig R.	encrinale, Salter.	(Wales) Cefn Gwn, Shelve (Shropshire).		
Pleta	exaltatum, Eichw.	(Baltic) Isle Dago, Hohenholm.		
Corall. Lst., W.	excentricum, Sowerby.			(Esthonia) Ficht, Leintwardine (England), (Wales) Radnor &c.
	exornatum, Hall.			Arisaig (Nova Scotia).
P., Div. H, CS.	explorator, Billings.	Newfoundland, Schooner Isl.		
?	fascicularis, Römer.	Thuringia.		
Div. 1, H. R. G.	ferum, Billings.	Anticosti Island (West end).	(Anticosti) Junction Cliff.	
Carad., L.Llan., W., L.L.	filosum, Sowerby.	Coldwell, Randypike, Ambleside (Westmoreland), Coniston Waterhead (Lancashire), Church Stretton (Shropshire).	Galway (Ireland).	(England) Ludlow, Leintwardine, Aymestry, (Wales) Builth.
W., L.	fimbriatum, Sowerby.			(England) Mayhill, Malvern, Sweden.
	annulatum.			
Div. 1, Queb. G.	Flavius, Billings.	(Newfoundl. W.N.W.) Point Rich.		
?	Fluminense, Meneghini.		Sardinia.	
Tr., H. R. G.	formosum, Billings.	(Canada E.) Montreal, (Anticosti) English Head and Junction Cliff.		
CS.	furtivum, "	(Can. W.) Kitley Township.		
BL.	fusiforme, "	(New York) Jefferson County &c., (Can. W.) Pakenham, Tennessee, Missouri, N.W. Michigan.		
?	giganteum, Angelin.	Sweden.		
Carad.	gigas, Sowerby ?	Norway.		
CS.	Glaucus, Billings.	(Canada West) Oxford.		
?	gracile, Portlock.	?		
	grande, Meneghini.			
Carad. &c.	gregarioides, D'Orbigny.	(France) St. Sauveur	(France) Baubigny, Cherbourg, Pyrenees.	North Spain.
Carad., Fauna E, Llandov.	gregarium, Sowerby.	(Ireland) Chair of Kildare, (France) Angers, Caen, &c., N. Spain.	Leenane (Galway)	Bohemia, (England) Ludlow.
Shale above Tr.	" Hall.	Wisconsin.		
	Griffithi, Haughton.			Arctic Seas (N. America).
Div. 1. M, Queb. G.	hæsitans,	(Newfoundl. N.N.W.) Point Rich &c.		
	Hagenowi, Boll.			Gothland.
B., BL., Tr.	hastatum, Billings.	(Canada West) Ottawa City, Paquette Rapids.		
Delth. Sh. Lst.	Helderbergii, Hall.			(New York, east) Carlisle County &c.
?	hians, Römer.	Thuringia.		
CH.	Hisingeri, Billings.	(Canada East) Grenville.		
	" Rouault.	(France) Vitré, Poligné, &c.		
Racine Lst., Niag.	Hoyi, M'Chesney.			Racine (Wisconsin).
Tr.	Huronense, Billings.	(Canada West) Lake Huron, La Cloche.		
Fauna E, Carad., Llandov.	ibex, Sowerby.	Westmoreland, (Wales) Bala Lake, Haverfordwest.	Coolin (Galway), Norway, France.	Norway, Gothland (North and Central), Russia, (England) Shropshire, Hagley Park, (Wales) Builth, Usk, Malvern, Kendal, &c.
	Cycloceras.			
Carad., Niag., L. Llandov., Oslo Gp.	imbricatum, Wahlenb.	Coniston (Lancashire), Norway.		(England) Ludlow, Kendal, Benson Knot, (Gothland) Katthammar, Esthonia, (New York) Lockport, Pennsylvania, Ferriter's Cove (Ireland).
	Actinoceras.			
Carad.	incertum, Portlock.	Ireland.		
CS.	indagator, Billings.	Mingan Isles (G. St. Lawr.).		
Div. H, Mayhill, Anticosti G.	infelix, "		Anticosti Island.	

Subdivision.	Genus, Species, and Author.	Lower Stage.	Middle Stage.	Upper Stage.
Pleta	insigne, Eichw.	St. Petersburg, Kotly (Russia), Baltischport (Baltic).		
Niag.	irregulare, M'Chesney.	.....	.....	Milwaukee (Wisconsin).
,,	Jolietense, Meek&Worthen.	.....	.....	Joliet (Illinois).
	Jovellana, De Verneuil.	(Spain) Asturia, Ferrones.		
Tr.	junceum, Hall.	(New York) Watertown.		
	Kemas, Salter.	(Himalaya) Niti Chorhoti Pass.		
Onon. S. G.....	læve, Hall.	.....	.....	(New York) Wayne County.
Div. G, H, Queb. G., CS.	Lamarckii, Billings.	(Newfoundland N.)Schooner Island, Godmanchester, Beauharnois (Canada E.).		
H. R. G., Niag...	lamellosum, Hall.	(Can. W.) Toronto, N. York, Wisconsin, N.W. Michigan.		
Niag.	Laphami, M'Chesney.	.....	.....	Wauwautosa, Milwaukee (Wisconsin).
Carad., CS., Tr., W., L.	laqueatum, Hall.	(N. York) Watertown, (Lancashire) Coniston, Turkey River (Iowa).	.....	Westmoreland, (Wales) Dinas Bran.
	,, Dawson.	.....	.....	Nictaux (Nova Scotia).
	var. *a*, Hall.	New York.		
Tr.	late-annulatum,	(N. York) Middleville.		
Niag.	lineatum, M'Chesney.	.....	.....	Joliet (Illinois).
Fauna E, Pleta, Carad.	lineare, Barrande, Münster.	(Esthonia) Wesenberg &c., (Irel.) Chair of Kildare.	.....	Franconia, Bohemia.
Pleta	lineatum, Hising.	(Ireland) Tipperary & Clare Counties, Norway, (Sweden) Mosseberg, Odinsholm Isle (Baltic).	Galway (Ireland).	
	,, Hall.	Missouri.		
L. H. G.	longe-cameratum, ,,	.....	.....	(N. York East) Albany Co. &c.
BL.	longissimum, Billings.	(Can. W.) Mid. Ottawa Riv.		
Fauna E, Pleta, W., L. & U.L.	Ludense, Sowerby.	(Baltic) Isle Odinsholm ?....	.....	Bohemia, north and central Gothland, Malverns, Leintwardine, &c., Benson Knot, Kendal (England), Presteign (Wales).
H. R. G.	Lyelli, Billings.	(Anticosti I.) Salmon River.		
W.	Maclareni, Salter.	.....	.....	(Scotland) Carlops, Peebles, Pentland Hills, Llanbadarn (Radnorshire).
H. R. G.	magnisulcatum, Billings.	Anticosti Isle, Charleton Pt.		
Tr.	magniventrum, ?	(Can. W.) Cornwall Townsh.		
W.	Marloense, Phillips.	.....	.....	(S. Wales) Wooltack and Marloes Bay.
CH.	Maro, Billings.	Mingan Isles (G. St. Lawr.).		
Niag.	medullare, D. D. Owen.	.....	.....	Upper Mississippi River.
,,	,, Hall & Whitney.	.....	.....	,, ,,
Llan.	mendax, Salter.	North-west Scotland.		
BL.	Menelaus, Billings.	(Can. W.) Kingston, (Can. E.) Montreal &c.		
CH., B., BL. ...	Minganense, ,,	Mingan Isles.		
B 2, Queb. G. ...	Missisquoi-ense, ,,	(Canada East) Phillipsburg.		
L.	Mocktree-ense, Sowerby.	.....	.....	(England) Mocktree Hays, Ledbury, Abberley, Newent.
CS.	Montrealense, Billings.	(Canada E.) St. Eustache.		
CH., B., BL.?...	multicameratum, Hall.	(Canada W.) Lake Huron, La Cloche, (New York) Watertown, (Canada E.) Montreal, Mingan Isles, Pennsylvania, Wisconsin, N.W. Michigan.		
Tr.	multilineatum, Hall.	New York.		
M. Sa. &c.	multiseptum, ,,	Thuringia (drift).	(N. York) Medina, Lockport.	
BL.	multitubulatum, ,,	(Canada W.) Middle Ottawa River, (Can. E.) Montreal.		
Tr.	Murchisoni, Salter.	Tasmania West.		
B., BL., Tr.....	Murrayi, Dawson.	(Can. E.) Murray Bay, (Can. W.) L. Huron, La Cloche.		
CS.	natator, Billings.	Mingan Isles.		
Niag.	nodocostum, M'Chesney.	.....	.....	Milwaukee (Wisconsin).
U.Llandov.	nummularium, Sowerby. *docens*, Barr.	.....	Llandovery (Wales)	Bohemia, (Engl.) Tortworth, Norway, Arisaig (Nova Scotia), (Can. W.) Grimsby.

Subdivision.	Genus, Species, and Author.		Lower Stage.	Middle Stage.	Upper Stage.
Niag.	Oberon,	Billings.			(Canada West) Grimsby.
Pleta?	obliquum,	Eichw.	(Esthonia) Kirna.		
	Okemas,	Salter.	Himalaya, Niti Pass (E. I.).		
	Ommaneyii,	,,			Arctic Seas (America).
CS.	ordinatum,	Billings.	(Can. W.) Oxford, (Can. E.) St. Anne.		
B., BL., Tr.	Ottawaensis,	,,	(Can. W.) Mid. Ottawa River.		
Delth. Sh. Lst.	pauciseptum,	Hall.			(N. York, east) Schoharie Co.
	pelagicum,	Barr.	(France) La Sarthe, Bohemia.		
Carad.	perannulatum,	Portlock.	Desertcreate, Tyrone (Irel.).		
H. R. G.	,, *crocus.*	Billings.	Anticosti Isle, west end.		
W., U.L.	perelegans, *Lituites articulatus.*	Salter.			(Wales) Usk Castle, Llansannan, (Engl.) Ludlow, Malvern, Hagley, (N. York, east) Schoharie County.
BL.	perparvum,	Billings.	(Canada W.) Lake Huron, north-west end.		
P., Queb. G.	Perseus,	,,	(Canada East) Phillipsburg.		
Div. 3, Antic. G.	persiphonatum,	,,		Cormorant Pt. (Anticosti).	
Delth. Sh. Lst.	perstriatum,	Hall.			(New York, east) Schoharie County.
B., BL.	Pertinax,	Billings.	(Canada West) Kingston.		
Div. 2, Antic. G.	pileolum,	,,		Anticosti (Jupiter River).	
Divs. I, K, L, M, N, Queb. G.	piscator,	,,	(Newfoundland W.) W.N.W. Point Rich &c.		
H. R. G.	Piso,	,,	(Lake Huron) Cape Smyth.		
Tr.	plano-convexum,	Hall & Whitney.	Wisconsin.		
Carad.	politum,	M'Coy.	(Scotl.) Ayreshire, Penquaple, Knockgeirn, &c.		
,,	Pomeroense,	Portlock.	Desertcreate, Tyrone (Irel.).		
	pressum,	H. D. Rogers.	Pennsylvania.		
Divs. L, M, Queb. G.	Priamus,	Billings.	Newfoundland W. & W.N.W.		
Carad., W.	primævum,	Forbes.	Radnorshire, Builth Bridge, Dry Bridge (Horton).		Cwm Bach, Builth (Wales).
CS.	primigenium,	Hall.	(N. York, north-east) Mohawk River.		
	prolapsum,	Richter.	Thuringia.		
H. R. G.	propinquum, *fulgur.*	Billings.	(Anticosti Isle) Charlton Point.		
CS., Tr.	proteiforme,	Billings.	(Can. W.) Lake Huron, La Cloche, (Can. E.) Montmorenci Falls.		
	pseudo-regulare,	Portlock.	Reagh fadda, Tipperary (Ireland).		
Carad.	pseudo-speciosum,	Portl.?	Desertcreate (Tyrone).		
L. H. G.	puncto-striatum,	Hall.			Upper Mississippi River, Arisaig (Nova Scotia).
Niag.	Pylades,	Billings.			(Central Canada) Grimsby.
L.L.	pyriforme,	Sowerby.			Mocktree Hill (Herefordsh.).
Tr.	Python,	Billings.	(Can. E.) Montreal, Kenyon Township.		
B., BL.	rapax,	,,	(Canada West) Kingston.		
Div. 4, Antic. G.	raptor,	,,		(Anticosti) S.W. Point.	
CH. (Lst.)	rectiannulatum,	Hall.	(New York) Clinton County.		
CH., BL.	recticameratum,	,,	(Can. E.) Murray Bay, (Can. W.) Marmora, (N. York) Clinton County, Highgate Springs, North Vermont.		
Pleta, Fauna E, W.	regulare,	Schloth.	(Esthonia) Réval, Baltischport, France, Norway?, Fermanagh (Ireland).	Silesia (drift)	Bohemia, (Gothland) Klefva, Mosseberg, Russia, Franconia (*Barrande*).
?	remotum,	Richter.	Thuringia.		
	,,	Salter.	(Portugal) Vallongo.		
Niag.	Remus,	Billings.			(Central Canada) Grimsby.
B 2, Queb. G.	repens,	Billings.	Phillipsburg (Canada East).		
L. H. G	rigidum,	Hall.			(New York, central) Herkimer County.
Niag.	rotulatum,	Billings.			(Canada West) Lake Temiscaming.
L. H. G.	rudis,	Hall.			(New York, east) Schoharie County.
Queb. G.	Sayi,	Billings.	Phillipsburg (Canada East), Lake Champlin		

Subdivision.	Genus, Species, and Author.	Lower Stage.	Middle Stage.	Upper Stage.
Niag.	Scammoni, M'Chesney.			Bridgeport, near Chicago (Illinois).
Div. 1 & H. R. G. W.	Sedgwickii, Billings.	Anticosti Isle, west end	(Anticosti) Gamache Bay.	
	„ Forbes.			(Wales) Llansannan.
Guelph	Selwynii, Billings.			Galt Township (CanadaW.).
Llandov., U.L.	semipartitum, Sowerby.		Tonlegee (Galway)	(S.Wales)Felindre, Usk, &c., Deerhope, Pentlands(Scotland).
Pleta, Corall. Lst.	seps, Eichw.	(Esthonia) Wesenberg, St. Petersburg (Russia).		
U.Tremad.	sericeum, Salter.	(Wales) Garth, Tuhwynt-yr-bwlch.		
Div. L, Queb. G.	servile, Billings.	(Newfoundl.W.) Point Rich.		
CH.	Shumardii, „	Mingan Isles (G. St. Lawr.).		
Div. 1 & H. R. G.	Sieboldi, „	(Anticosti) west end, Lighthouse.	(Anticosti) Gamache Bay.	
?	simplex, Desnoyers.		(Sardinia) Flumini Maggiore.	
CH.	Simpsoni, Billings.	LakeWinnipeg (Rupert'sL.).		
?	sinuato-septum, Römer.	Thuringia (drift).		
?	sinuatum, Richter.	Thuringia.		
CS.	sordidum, Billings.	Mingan Isles (G. St. Lawr.).		
Niag.	striælineatum, M'Chesney.			Bridgeport, Chicago (Illin.).
	striatissimum, Salter.	Himalaya, Chorhoti Pass.		
B., BL., Tr.	strigatum, Hall.	(N.York) Middleville, Highgate Springs, N. Vermont.		
Faunæ D, E. e. 1, 2, &c.	styloideum, Barr.	Col. Krejci (Boh.), (France) St. Sauveur le Vicomte.		(Boh.) Butovitz, Thuringia.
Carad., U.L.	subannulare, Münster.	(Radnorsh.) Builth, (Westmorel.) Coldwell, (Lancashire) Coniston, Ireland, (Bohemia) Col. Krejci.	(Sardinia) Flumini Maggiore.	(Bohemia) Dlauha Hora, Butovitz, (Westmoreland) Brigsteer.
Carad., CH.	subarcuatum, Hall, Portl.	(N.E. New York) Clinton County, (Can. E.) Cornwall, Montreal.		
BL.	subcentrale, Münster.	(Can. W.) Mid. Ottawa R.		
?	subconoideum, Meneghini.	(Sardin.) Flumini Maggiore.		
?	subcyprium, „	„ „		
Corall. Lst.	subflexuosum, Münster.			(Russia) Petschora, Oust-Gukhta.
Llan., L.L., U.L.	subgregarium, M'Coy.		(Ireland)Leenane &c.,Galway.	Forden, Presteign (Radnorshire), Kington (Herefordshire).
Carad.	subimbricatum, Portlock.	(Ireland) Tyrone.		
?	subjunceum, Meneghini.		Sardinia.	
?	submoniliforme, „		(Sard.) Flumini Maggiore.	
Carad.	subpyriforme, Münster. *Poterioceras approximatum.*	Pomeroy (Ireland).		
L.	substriatum, D'Orbigny.			(Engl.) Ludlow, Tortworth.
L. H. G.	subtextile, Hall.			(N. York E.) Scholarie Co.
?	subtrochleatum, Münster.		(Sard.) Flumini Maggiore.	
Niag.	subulatum, Meek & Worth.			Joliet (Illinois).
Carad., Llandov., W., L. & U.L.	subundulatum. Portlock.	(Wales) Builth Bridge &c., (England) River Onny, Coniston (Lancashire), N.W. Yorkshire.	Wales	Leintwardine, Ludlow, Malvern, Underbarrow (Westmoreland), (Wales) Llangollen, Craig-hir,&c., (Ireland) Tirnaskea, Kilmaculla, Co. Clare, Derrymore Glen.
	Tallivignesi, Rouault.	(France) Poligné.		
B., BL.	tenerum, Billings.	(Can. W.) Mid. Ottawa R.		
	tenue, Wahlenb.			Isle Oesel, Roodzekulle (Esthonia), (Sweden) Mount Mosseberg.
L.L.	tenuiannulatum, M'Coy.			Brigsteer (Westmoreland), Leintwardine, Aymestry (Herefordshire), Oernaut (Wales).
Delth. Sh. Lst.	„ Hall.			(East New York) Albany Co.
Fauna E, Carad., W.	tenuicinctum, Portlock.	(S. Scotland) Lammermuir, Coniston (Lancash.), Coldwell (Westmoreland), Desertcreate (Tyrone), Tipperary, Latteragh, Clare County &c. (Ireland).	England, (Irel.) Galway.	Kendal (Westmoreland) Dinas Bran.

Subdivision.	Genus, Species, and Author.	Lower Stage.	Middle Stage.	Upper Stage.
CH.	tenuiseptum, Hall.	(N.E. New York) Clinton Co.		
Fauna E, Carad., U.Llandov.	tenuistriatum, Münster.	Desertcreate (Irel.), (Westmoreland) Randy Pike, Ambleside.	(S.W. Scotland) Girvan, Haverfordwest (Wales).	Bohemia, Franconia (*Barrande*).
U.L.	textile, Phillips.			Freshwater East (Pembrokeshire).
Tr.	,, Hall.	(New York) Watertown.		
?	textum-araneum, Römer.	Lower Silesia.		
Tr.	theca, Salter.	Tasmania West.		
Queb. G.	Tityrus, Billings.	Phillipsburg (Canada E.).		
U.L.	torquatum, Münster.			(Westmoreland) Helmfoot.
,,	tracheale, Sowerby. *Cycloceras.*			(Westmorel.) Kendal, Kirkby Moor, Howgill Fell, (Herefordsh.) Kington, (Wales) Llandovery, Horeb Chapel, Dinas Bran, Llangollen, Stormhill.
	tracheatum ?, Richter.	Thuringia.		
Tr.	Trentonense, Hall.	(New York) Trenton Falls.		
U.L.	trochleare, Hisinger.			Westmoreland, Norway, N. & central Gothland, (Dalecarlia) L. Siljan, Vicarby.
Car., Col. Krejci.	tumidum, Barr.	Bohemia, Desertcreate, Tyrone.		Tirnaskea ? (Ireland).
L.Llandov., Tr...	undulatum, Murch., Hall.			(Gothland) Djupricken, Norway, Wisconsin, N.W. Michigan, (Canada West) Flamborough, Cape Hurd, Lake Huron, Tennessee, (New York) Lockport &c.
	undulobellicinctum, Murch.			(S.W. Scotland) Balmæ.
L.Llandov., Tr...	undulostriatum, Hall.	(N. Scotl.) Durness, Sutherlandshire, (New York) Middleville, Upper Mississippi River.		
Car., L.Llandov.	vagans, Salter.	Westmoreland, (Lancashire) Coniston, (Wales) Bala.	(Wales) Builth &c.	
Carad.	vaginatum, Schloth.	England, (Scotl.) Ardwell, (Russia) Archangel, Lake Ladoga, &c., Esthonia, Thuringia, Silesia, Sweden.		
Niag.	Varro, Billings.			(Central Canada) Grimsby.
Carad.	velatum, Portlock.	Chair of Kildare (Ireland), (Wales) Rhiwlas nr. Bala.		
CH.	velox, Billings.	Mingan Isles, Montreal (Can. E.).		
W., L.	ventricosum, Sharpe. *Creseis.*			(Wales) Corwen, Builth Bridge, Bron Einion, &c.
L.Llandov., Tr., L.	vertebrale, Hall.	(N. York) Middleville, (Rupert's Land) Fort Garry, Missouri, Pennsylvania.		(Engl.) Woodside, (Wales) Presteign.
?	,, Salter ?.	Durness (N.W. Scotland).		
	verticillatum, Von Hagenow.			Gothland.
CS.	veterator, Billings.	(Can. W.) Oxford Township.		
Llandovery, L., Niag.	virgatum, Sowerby.	Ireland.	(S.W. Scotland) Kennedy's Pass.	(New York) Rochester &c., N.W. Michigan, (England) Mocktree Hill, Malvern.
	annulatum, Wahlenb.			
	virgo, Giebel.	Lower Harz (Germany).		
CL., Niag.	virgulatum, Hall.		(New York) Reynale's Basin, Lockport.	(New York) Lockport.
W.	Wahlenbergii, Helmersen.			Sweden.
Queb. G.	Xerxes, Billings.	Phillipsburg (Canada E.).		
Tr., H. R. G.	Xiphias, ,,	(Can. W.) Ottawa City, (Anticosti I.) English Head.		
Tr.	Youngii, Salter.	Tasmania West.		
Queb. G.	sp. ind. (6),	Point Lévis (Canada East).		
Niag.	,, Hall.			(New York) Rochester.
	,, Bonissent.	(France) La Manche.		
	,, Leymerie.	(Pyrenees) Luchon.		
Queb. G.	,, Logan.	Point Lévis (Canada E.).		
	,, Meneghini.	Isle Sardinia.		
	,, Salter.			(Arctic Amer.) Griffith's Isle.
	,, ,,			(Arct. Amer.) Beechey's Isle.
	,, (2), Swallow.	Missouri, State of.		
Carad.	,, Salter.	(Merionethshire) Bala Lake.		
W.	,, ,,			Plas Madoc (Wales).

Subdivision.	Genus, Species, and Author.	Lower Stage.	Middle Stage.	Upper Stage.
	sp. ind., Coquand.	(Morocco, *passim*) Ceuta.		
L.Llandov.	,, Salter.	(Wales) Portmadoc, Ty-obry.		
Carad.	,, ,,	(Caernarvonshire) Dolwyddalan &c.		
L. H. G.	,, Honeyman.			Arisaig (Nova Scotia).
M. Sa.	,, Hall.		(New York) Lockport.	
	,, Meek.			Kennedy's Channel (Arctic America).
Tr.	,, Hall.	(New York) Middleville.		
Pentam. Lst.	,, ,,			(N. York E.) Schoharie Co.
P., Tremad.	,, Salter.	Ramsey I. &c. (S.W. Wales).		
Utica Sl.	,, Hall.	(New York) Lewis County.		
	Phragmoceras, *Broderip*; ONCOCERAS, *Hall.*			
Carad.	approximatum, M'Coy.	Tyrone (Ireland).		
L.	arcuatum, Sowerby.			(England) Ledbury, Ludlow, Shelderton, Bohemia.
	Cyrtoceras.			
Carad.	Brateri, Portlock (*non* Münster).	Tyrone (Ireland).		
Pleta	complanatum, Eichw.	Lyckholm (Esthonia).		
Plet., Tr., L.Llandov., W., L.L.	compressum, Sowerby.	(Esthon.) Wesenberg, I. Dago, (Wiscons.) Mineral Point.	(Wales) Haverfordwest, England.	(Engl.) Aymestry, Ledbury, (Wales) Presteign.
Pleta	conicum, Eichw.	(Baltic) Isle Odinsholm.		
W.	contractum, Salter MSS.			Little Hope, Woolhope (*Sharpe*).
Pleta	curtum, Eichw.	(St. Petersburg) Poulkova.		
,,	eximium, ,,	Lyckholm (Esthonia).		
,,	flexuosum, Schloth.	Lyckholm (Esthon.), I Dago.		
Guelph	Hector, Billings.			Guelph Township (Can. W.).
L.L.	intermedium, M'Coy.			(England) Leintwardine.
W., L.	nautileum, Sowerby.			(Wales) Usk, Plas Madoc, Middeton Hall.
Pleta?	oryx, Eichw.	(Baltic) Isles Dago and Oesel.		
Pentam. Lst.	paradoxum, ,,		(Esthonia) Kattentak.	
Tr.	præmaturum, Billings.	(Can. W.) La Cloche, Lake Huron, Mid. Ottawa River.		
L.L.	pyriforme, Sowerby.			(Engl.) Walsall, Ledbury, Leintwardine, &c.
Pleta	rectiseptatum, Römer.	(Baltic) Réval, Silesia.		
,,	Sphynx, Schmidt.	(Esthonia) Lyckholm, Presqu'ile de Neuk.		
,,	sulciferum, Eichw.	(Esthonia) Lyckholm, Isle Oesel, Hohenholm.		
Carad., U.Llandov., W., L.L., Faunæ E, G.	ventricosum, Sowerby. *Broderipi.*	(South Wales) St. Clair ...	Mayhill (England), Norway.	Bohemia, Gothland, (Engl.) Aymestry, Dudley, &c., (Wales) Cardiff.
	sp. ind., Angelin?			Gothland.
L. H. G.	,, Honeyman.			Arisaig (Nova Scotia).
Corall.Lst., Schoharie.	,, Hall.			New York (U. S. America).
	Piloceras, *Salter*, 1859.			
Divs. F, G, CS.	Canadense, Billings.	Mingan Isles and Newfoundland, north-west.		
	gracile, ,,	(Newfoundland N.) Schooner Island.		
L.Llan.	invaginatum, Salter.	(North Scotland) Durness.		
CS.	,, Billings.	Canada.		
Divs. H, I, Queb. G., CS.	Triton, ,,	(Newfoundland N.) Pistolet Bay.		
Div. H, Queb.G., CS.	Wortheni, ,,	(Newfoundland West) Port au Choix.		
L.Llan.	sp. ind., Salter.	(North Scotland) Durness.		
	,, Billings.	(Canada West) Kingston.		
	Streptoceras, *Billings*, 1866. See PHRAGMOCERAS.			
Niag.	heros, Billings.			(Central Canada) Grimsby.
,,	Janus, ,,			,, ,,
	Trematoceras, *Eichwald*, 1861.			
Pleta	discors, Eichw.	Wesenberg (Esthonia).		
	Tretoceras, *Salter*, 1857.			
U.Llandov.	bisiphonatum, Sowerby.		(Wales) Llandovery, Gorllwynfach.	
L.	semipartitum?, ,,			Ludlow (England).
	Trochoceras, *Hall*, 1852.			
Corall.Lst., Schoharie.	Gebhardi, Hall.			(New York, east) Schoharie County.
Carad., L.L.	giganteum, Sowerby.	Builth (Radnorshire)		(Engl.) Shropshire, Aymestry (Herefordshire).

Subdivision.	Genus, Species, and Author.	Lower Stage.	Middle Stage.	Upper Stage.
Corall.Lst.,Schoharie.	turbinatum, Hall.	.....	.....	(N.York) Schoharie County.
	Trocholites, *Conrad.* (LITUITES.)			
Tr., Ut. Slate ...	Ammonius, Conrad.	(New York) Canojoharie &c., Fort Snelling(Minnesota), Prairie du Chien (Wisconsin), Lorette (Can. E.).		
Upper Carad. ...	anguiformis, Salter.	Norway, (Denbighsh.) Mynydd Frons.		
Pleta	depressus, Eichw.	(Baltic) Isle Odinsholm.		
,,	flexuosus, Munster.	,, Isle Dago.		
Carad.	Hibernicus, Salter.	Ireland.		
Pleta	incongruus, Eichw.	(Baltic) Isle Odinsholm.		

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Stage.	Genus, Species, and Author.	Locality.	Stage.	Genus, Species, and Author.	Locality.
	Cyrtoceras, *Goldfuss,* 1833.		E. e. 2	corbulatum, Barr.	Karlstein, Hinter-Kopanina, Dvoretz, &c.
E. e. 1	accessor, Barr.	Butowitz.			
,,	acies, ,,	,,	,,	cordigerum, ,,	Lockhov.
E. e. 2	acinaces, ,,	,, Dlauha Hora.	,,	corniculum. ,,	,, Karlstein,&c.
,,	acutum, ,,	Karlstein.	G. g. 3	crassiusculum, ,,	Hlubocep.
,,	acyrtos, ,,	Viscocilka.	E. e. 2	cuneiforme, ,,	Lockhov, Hinter-Kopanina.
,,	adjutor, ,,	Lockhov, Kozorz.			
F. f. 2	aduncum, ,,	Dvoretz, Konieprus.	,,	cyathus, ,,	Kozorz, Dlauha Hora.
D. d. 4, 5	advena, ,,	Motol (Colony).	,,	cycloideum, ,,	,, ,, Karlstein, &c.
E. e. 2	æmulum, ,,	Lockhov.			
,,	æquale, ,,	Lockhov, Viscocilka.	E. e. 1	cyclostomum, ,,	Viscocilka, Butovitz.
,,	agnatum, ,,	Viscocilka.	E. e. 2	cylindraceum, ,,	Dvoretz.
,,	Ajax, ,,	Lockhov.	,,	Danai, ,,	Kozorz.
G. g. 1	alienum, ,,	Tetin.	,,	debile, ,,	,, Lockhov.
E. e. 2	Alinæ, ,,	Lockhov, Kozorz.	,,	decipiens, ,,	Karlstein, Lockhov,&c.
,,	Alphæus, ,,	Slivenetz.	,,	decurio, ,,	Slivenitz.
,,	ambiguum ,,	Butovitz, Kozorz, &c.	,,	delicatum, ,,	Lockhov.
E. e. 2	ancillans, ,,	,, Slivenetz.	,,	derelictum, ,,	Kozorz.
,,	Angelini, ,,	Hinter-Kopanina, Konvarka.	G. g. 3	Devonicans, ,,	Hlubocep.
			E. e. 2	discoideum, ,,	Karlstein.
,,	anormale, ,,	Dvoretz.	,,	discrepans, ,,	Lockhov.
G. g. 3	apertum, ,,	Lhubocep.	,,	discretum, ,,	Kozorz.
E. e. 2	baculoides, ,,	Kozorz, Lockhov, &c.	F. f. 1	distentum, ,,	Lockhov.
,,	Baylei, ,,	Viscocilka, Lockhov, &c.	E. e. 2	dives, ,,	Dlauha Hora, Dvoretz.
E. e. 1, 2	Beaumonti, ,,	Kozorz, Lockhov, &c.	,,	dolium, ,,	Kozorz.
G. g. 1	bellulum, ,,	Lhubocep.	,,	dorsuosum, ,,	Lockhov.
E. e. 2	Beraunense, ,,	Dlauha Hora.	,,	electum, ,,	,, Viscocilka,&c.
,,	bigener, ,,	,,	,,	elongatum, ,,	,, DlauhaHora,&c.
,, ?	Billingsi, ,,	,,	,,	Eremita, ,,	Konieprus.
G. g. 3	Bolli, ,,	,, Lhubocep.	,,	errans, ,,	Butovitz.
E. e. 2	bombyx, ,,	Dvoretz.	,,	esuriens, ,,	Dlauha Hora.
,,	bonum, ,,	Lockhov.	F. f. 1	exesum, ,,	Lockhov.
G. g. 3	botylus, ,,	Lhubocep.	E. e. 2	exile, ,,	,, Kozorz.
G. g. 1	bryozoon, ,,	Chotecz.	,,	expandens, ,,	,,
E. e. 2	Camillæ, ,,	Dlauha Hora, Kozorz, Lockhov.	,,	extenuatum, ,,	Kozorz.
			,,	fallax, ,,	,, &c.
,,	Canna, ,,	Hinter-Kopanina.	,,	famelicum, ,,	Hinter-Kopanina.
,,	capuloides, ,,	Kozorz.	E. e. 1, 2	fasciatum, ,,	Karlstein, Butowitz.
,,	carum, ,,	Vohrada.	E. e. 2	fenestratum, ,,	Bubovitz.
E. e. 1	Castor, ,,	Butovitz, Viscocilka.	,,	fidum, ,,	Dvoretz.
	var. Pollux, ,,	Viscocilka.	Carad., E. e. 2	Forbesi (Wales), ,,	Dlauha Hora.
E. e. 2	circumflexum, ,,	Karlstein, Zmrzlik.	E. e. 2	formidandum, ,,	Dvoretz.
,,	clava, ,,	Lockhov, Kozorz.	,,	forte, ,,	Hinter-Kopanina,Kozorz, Lockhov.
E. e. 1, 2	clavulum, ,,	Butovitz, Kozorz, &c.			
E. e. 2	cognatum, ,,	Lockhov, ,,	E. e. 1	fortiusculum, ,,	Butovitz.
,,	concors, ,,	,, ,,	,,	fortunatum, ,,	,,
,,	confertum, ,,	,,	E. e. 2	fractum, ,,	Dvoretz.
,,	confine, ,,	,, Kozorz.	,,	fragile, ,,	Konieprus.
,,	consangue, ,,	Kozorz, Slivenetz, &c.	,,	fratrorum, ,,	Hint.-Kopanina,Lockhov, Butowitz, &c.
,,	consimile, ,,	,, Lockhov.			
,,	conspicuum, ,,	Lockhov.	E. e. 1	fugax, ,,	Butovitz.
,,	constringens, ,,	Kozorz.	E. e. 2	Geinitzi, ,,	Kozorz, Lockhov.
,,	contrarium, ,,	,,	,,	gibbum, ,,	Karlstein.
,,	var. quasirectum, ,,	Lockhov.	,,	Gebeli, ,,	Kozorz.

Stage.	Genus, Species, and Author.	Locality.
E. e. 2	grande, Barr.	Lockhov.
G. g. 1	grave, ,,	Chotecz.
,,	Halli, ,,	,,
E. e. 2	Haueri, ,,	Zmrzlik, Kozorz, &c.
,,	Hebes, ,,	Slivenetz.
F. f. 2	heteroclytum, ,,	Konieprus, Mnienian.
E. e. 2	Hoernesi, ,,	Dlauha Hora.
,,	honestum, ,,	Butowitz.
,,	hospitale, ,,	Luzetz.
,,	humile, ,,	Butovitz.
,,	hybrida, ,,	Dlauha Hora, Lockhov.
,,	ibis, ,,	Lockhov.
,,	Icarus, ,,	,,
,,	imbelle, ,,	,, Kozorz.
,,	imbricans, ,,	,,
,,	impatiens, ,,	Slivenetz, Kozorz.
,,	imperiale, ,,	Kozorz, Butowitz.
,,	imperatum, ,,	Lodenitz.
,,	indomitum, ,,	Lockhov, Slivenetz, &c.
,,	iners, ,,	Kozorz, Lockhof.
F. f. 1	inexpectatum, ,,	,, ,,
E. e. 2	infidum, ,,	Butowitz.
,,	inflectans, ,,	Kozorz, Lockhov.
,,	innoxium, ,,	Lockhov.
,,	insociale, ,,	Kozorz, Lockhov.
,,	intermedium, ,,	,, Karlstein, Tobolka.
,,	inversum, ,,	Lockhov.
,,	invisum, ,,	,, Kozorz.
,,	Iridis, ,,	Karlstein.
?	lævе, ,,	?
,,	latens, ,,	Luzetz.
,,	lentigradum, ,,	Lockhov.
,,	lentum, ,,	Dlauha Hora.
,,	var. sociale, ,,	,,
E. e. 1, 2	lepidum, ,,	Lockhov, Butowitz, &c.
E. e. 2	lethæum, ,,	,, Dlauha Hora.
,,	limosum, ,,	Dvoretz.
,,	Logani, ,,	Lockhov.
,,	longævum, ,,	Kozorz.
,,	longiventris, ,,	Karlstein.
,,	maculosum, ,,	Butowitz.
G. g. 3	malefidum, ,,	Hlubocep.
E. e. 2	Marcoui, ,,	Viscocilka.
,,	medullosum, ,,	Dlauha Hora, Kozorz.
,,	miles, ,,	Lockhov, Kozorz, &c.
,,	mimicum, ,,	Kozorz.
,,	minusculum, ,,	Luzetz.
,,	mirum, ,,	Slivenetz, Lockhov.
G. g. 1	miserum ?, ,,	Dvoretz.
F. f. 2	modicum, ,,	Konieprus.
E. e. 2	mœstum, ,,	Lockhov.
,,	Murchisoni, ,,	Slivenetz, Dlauha Hora, &c.
,,	nautarum, ,,	Dvoretz.
G. g. 3	negatum, ,,	Hlubocep.
E. e. 2	nescium, ,,	Butovitz, Lockhov, Kozorz.
,,	neutrum, ,,	Viscocilka, Lockhov, Kozorz, &c.
,,	nigrum, ,,	Dvoretz.
,,	nitidum, ,,	Hinter-Kopanina, Kozorz, Dlauha Hora.
,,	nobile, ,,	Lockhov.
,,	nocturnum, ,,	Kozorz.
,,	Numa, ,,	Hinter-Kopanina.
E. e. 1	nuntius, ,,	Butowitz,
E. e. 1, 2	obesum, ,,	St. Procop.
E. e. 1	obscurum, ,,	Butowitz.
E. e. 2	obtusum, ,,	Vohrada.
,,	omissum, ,,	Butowitz.
,,	Orion, ,,	Listice, Butovitz, Bubovitz, Luzetz.
,,	orphanus, ,,	Kozorz.
,,	Panderi, ,,	Dvoretz, Zmrzlik.
,,	parvulum, ,,	Kozorz, Lockhov, &c.
E. e. 2	patiens, Barr.	Viscocilka.
,,	patulum, ,,	Kozorz, Zmrzlik.
,,	pergratum, ,,	,, Lockhov, Viscocilka, &c.
E. e. 1	perversum, ,,	Butovitz.
,,	Phillipsi, ,,	,,
E. e. 2	pileolus, ,,	Karlstein.
D Col., E. e. 1, 2	plebeium, ,,	Dlauha Hora, Kozorz, &c.
E. e. 2	Pluto, ,,	Dvoretz.
E. e. 1	Pollux, ,,	Viscocilka.
,,	var. Castor, ,,	Butovitz.
E. e. 2	potens, ,,	Dvoretz.
E. e. 1, 2	præposterum, ,,	Karlstein, Lockhov, &c.
E. e. 2	primitium, ,,	Lockhov.
E. e. 1, 2	problematicum, ,,	Kozolup, Dvoretz, &c.
E. e. 2	prudens, ,,	Kozorz.
F. f. 1	pugio, ,,	Lockhov, Slivenetz.
,,	var. junceum, ,,	,,
E. e. 2	pulchellum, ,,	Konieprus.
,,	quasi-rectum, ,,	Dlauha Hora, Lockhov, &c.
,,	var. contrarium, ,,	Kozorz &c.
,,	quidam, ,,	Hinter-Kopanina.
,,	Ramsayi, ,,	,, Kozorz, &c.
E. e. 1	rarum ?, ,,	Butovitz.
E. e. 2	rebelle, ,,	,,
,,	recurvum, ,,	Lockhov.
G. g. 3	residuum, ,,	Hlubocep.
E. e. 2	retroflexum, ,,	Kozorz.
,,	rivale, ,,	Lockhov.
,,	Roemeri, ,,	Kozorz.
G. g. 1	rotundum, ,,	Lockhov.
E. e. 2	rugulatum, ,,	Kozorz.
,,	Salteri, ,,	Lockhov.
G. g. 3	sanum, ,,	Hlubocep.
E. e. 2	secans, ,,	Zmrzlik, Hinter-Kopanina.
,,	selectum, ,,	Lockhov, Kozorz.
,,	semitectum, ,,	Dlauha Hora.
,,	sequax, ,,	Karlstein, Hinter-Kopanina.
E. e. 1	serratum, ,,	Butowitz.
E. e. 2	serum, ,,	Lockhov, Kozorz.
,,	Sharyi, ,,	,, ,,
,,	sica, ,,	Slivenetz, Rzepora.
F	Silenus, ,,	Konieprus.
E. e. 2	simulans, ,,	Hinter-Kopanina.
,,	Sinon, ,,	Kozorz.
,,	sinuatulum, ,,	Konieprus.
,,	sociale, ,,	Dlauha Hora, Lockhov, &c.
,,	var. lenta, ,,	Dlauha Hora.
,,	solitarium, ,,	Dvoretz.
,,	Sosia, ,,	Jarov.
,,	speciosum, ,,	Viscocilka, Lockhov, &c.
F. f. 1, 2	sporadicum, ,,	Konieprus, Lockhov, &c
E. e. 2	strangulatum, ,,	Dvoretz.
,,	stygiale, ,,	,,
,,	subrectum, ,,	Lockhov.
,,	var. corniculum, ,,	,, Kozorz.
,,	Suessi, ,,	,,
,,	sulcatulum, ,,	Vohrada, Butowitz.
E. e. 2	superbum, ,,	Dvoretz, Karlstein.
G. g. 3	superstes, ,,	Hlubocep.
E. e. 2	tardum, ,,	Karlstein, Hinter-Kopanina.
,,	tesseratum, ,,	Dlauha Hora.
,,	Thetidis, ,,	Viscocilka, Lockhov, &c.
,,	timidum, ,,	Kozorz, Lockhov.
,,	Trilby, ,,	Lockhov.
,,	truncum, ,,	Kaukalova Hora.
,,	tumefactum, ,,	Lockhov.

Stage.	Genus, Species, and Author.	Locality.
E. e. 2	ultimum, Barr.	Lockhov, Kozorz.
E. e. 1	uniforme, ,,	Zmrzlik, Butowitz.
,,	Uranus, ,,	Tachlowic, Butowitz.
E. e. 2	urbanum, ,,	Vohrada, Karlstein, Slivenetz, &c.
E. e. 1, 2	validum, ,,	Dlauha Hora &c.
,,	velox, ,,	Bubovitz, Hinter-Kopanina, &c.
,,	verna, ,,	Dlauha Hora, Hinter-Kopanina.
E. e. 1	vestitum, ,,	Butovitz.
E. e. 2	veteranum, ,,	Kozorz.
,,	victor, ,,	Dvoretz.
,,	virgula, ,,	Konieprus, Vohrada, Lockhov.
,,	vittatum, ,,	Konieprus.
,,	vivax, ,,	Dlauha Hora.
,,	zebra, ,,	Lockhov.
	Gomphoceras, *Sow.*; POTERIOCERAS, *M'Coy.*	
E. e. 2	accedens, Barr.	Karlstein, Hinter-Kopanina.
,,	ægrum, ,,	Karlstein.
,,	Agassizi, ,,	Dvoretz, Hinter-Kopanina, St. Procop, &c.
,,	Alphæus, ,,	Hinter-Kopanina.
,,	amphora, ,,	Karlstein, Lockhov, &c.
,,	amygdala, ,,	Dlauha Hora, Dvoretz, Karlstein, &c.
E. e. 1 ?	anonymum, ,,	Butovitz.
E. e. 2	atrophum, ,,	Hinter-Kopanina, Dvoretz, &c.
,,	Belloti, ,,	Kozorz, Bubovitz.
G. g. 3	biconicum, ,,	Hlubocep.
E. e. 2	Billingsii, ,,	Dvoretz.
,,	Bohemicum, ,,	,,
E. e. 4	capitatum, ,,	Hinter-Kopanina.
,,	centrale, ,,	Karlstein.
,,	cingulatum, ,,	Lockhov, Kozorz, Viscocilka.
,,	clava, ,,	Lockhov, Karlstein, Kozorz, Viscocilka, Dvoretz.
,,	conicum, ,,	Lockhov, Karlstein, Viscocilka, Esthonia, Dvoretz.
E. e. 2	consobrinum, ,,	Lockhov, Karlstein.
,,	contrarium, ,,	Kozorz, Viscocilka.
,,	conulus, ,,	Bohemia.
,,	crassiventer, ,,	Dlauha Hora.
G. g. 3	curtum, ,,	Hlubocep.
E. e. 2	cylindricum, ,,	Karlstein, DlauhaHora, Lockhov.
,,	decurtatum, ,,	Kozorz.
,,	Deshayesi, ,,	Lockhov.
G. g. 3	emaciatum, ,,	Hlubocep.
E. e. 2.....	extenuatum, ,,	Karlstein.
,,	ferum, ,,	Lockhov.
,,	gracile, ,,	Lockhov, Dvoretz.
,,	gratum, ,,	Bubovitz, Lodenitz.
,,	Halli, ,,	Karlstein, Dvoretz.
,,	Haueri, ,,	Karlstein.
,,	imperiale, ,,	Dvoretz, Novy Mlyn.
G. g. 3	? incertum, ,,	Hlubocep.
E. e. 2.....	incola, ,,	Viscocilka, Lockhov, Slivenetz &c.
,,	magnum, ,,	Hinter-Kopanina.
,,	mancum, ,,	Lockhov.
,,	marsupium, ,,	Hinter-Kopanina.
,,	microstoma, ,,	Bubovitz, Lockhov &c.
,,	mirum, ,,	H.-Kopanina, Zmrzlik, &c.
,,	Mumia, ,,	Dvoretz, Slivenetz.
,,	Myrmido, ,,	Lockhov, H.-Kopanina.
,,	nanum, ,,	Lockhov.
,,	nuciforme, ,,	Dvoretz.
,,	obscurum, ,,	Lockhov.
E. e. 2	ovum, Barr.	Viscocilka, Dvoretz, Lockhov, Dlauha Hora.
G. g. 3	peramplum, ,,	Hlubocep.
E. e. 2.....	pollens, ,,	Kozorz, H.-Kopanina.
,,	porrectum, ,,	Lockhov, Karlstein.
D. d. 5	primum, ,,	Leiskov.
E. e. 2.....	probum, ,,	Lockhov.
,,	rectum, ,,	Lockh., Kozorz, Dvoretz.
,,	rigidum, ,,	Dvoretz.
,,	robustum, ,,	Kozorz.
,,	rugosum, ,,	Karlstein.
F. f. 2.....	semiclausum, ,,	Konieprus, Mnienian.
G. g. 3	senex, ,,	Hlubocep.
E. e. 2.....	simplex, ,,	Karlstein, Lockhov.
,,	singulare, ,,	Kozorz.
,,	Spei, ,,	Lockhov.
,,	sphærosoma, ,,	Dvoretz.
,,	staurostoma, ,,	Kozorz.
,,	stigmatum, ,,	Lockhov.
,,	striatulum, ,,	Dvoretz.
,,	tenerum, ,,	Karlstein.
,,	transgrediens, ,,	,,
,,	transversum, ,,	Dvoretz.
,,	tumescens, ,,	Dvoretz, Karlstein.
,,	vellerosum, ,,	Hint.-Kopanina, Dlauha Hora.
,,	Verneuilli, ,,	Lockhov, Kozorz.
,,	vespa, ,,	Karlstein.
,,	sp. ind. (young), ,,	Dvoretz.
	Goniatites, *Haan* (*De Haen*), 1825.	
G. g. 3	ambigena, Barr.	Hlubocep.
,,	amœnus, ,,	,,
,,	Bohemicus, ,,	Hlubocep, Klukovitz, Gross Morzin.
,,	crebriseptus, ,,	Hlubocep.
F. 2, G. g. 3 ...	crispus, ,,	Hlubocep, Konieprus.
G. g. 3	emaciatus, ,,	Hlubocep.
G. g. 1, 2, 3, H. h. 1.	fecundus, ,,	Hlubocep, Hostin, Franta, Vavrovitz, Pekarckovitz, Chotecz, &c.
F. f. 2.....	fidelis, ,,	Konieprus.
G. g. 1	lituus, ,,	Chotecz.
G. g. 3	neglectus, ,,	Hlubocep.
,,	occultus, ,,	,,
F, G. g. 3	plebeius, ,,	Hlubocep, Cheynitz, Konieprus, Trzebotov &c.
G. g. 3	simulans, ,,	Hlubocep.
,,	solitarius, ,,	,,
F. f. 2.....	solus, ,,	Konieprus.
G. g. 3	tabuloides, ,,	,,
F. f. 2, G. g. 3...	verna, ,,	Konieprus, Hlubocep.
	Gyroceras, *De Koninck*, 1844.	
F. f. 2, G. g. 1...	alatum, Barr.	Tetin, Konieprus, Mnienian, &c.
G. g. 1	annulatum, ,,	Lockhov.
,,	circulare, ,,	Chotecz.
G. g. 3	Devonicans, ,,	Hlubocep.
,,	minusculum, ,,	,,
,,	nudum, ,,	,,
,,	proximum, ,,	,,
G. g. 2, H. h. 1	tenue, ,,	Kozorz, Hostin.
	Hercoceras, *Barrande*, 1865.	
G. g. 3	mirum, Barr.	Hlubocep,
,,	var. irregulare, ,,	,,
	Lituites, *Breynius*, 1732. (The Bohemian species are of the Sub genus OPHIOCERAS, *J.W.S.*)	
E. e. 1.....	amissus, Barr.	Königshof.
D. d. 1	primulus, ,,	Sancta Benigna.
E. e. 1.....	proximus, ,, *Ophidioceras.*	Butovitz.
,,	rudens, ,, *Ophidioceras.*	Tachlovitz, Butowitz, &c.

Stage.	Genus, Species, and Author.	Locality.
E. e. 1	simplex, Barr. *Ophidioceras.*	Lockhov, Kozorz, Dlauha Hora, &c.
„	tener, „ *Ophidioceras.*	Viscocilka.
„	tessellatus, „ *Ophidioceras.*	Lockhov, Butovitz.
	Lituunculus, *Barrande*, 1867.	
Subgenus	DISCOCERAS.	
	Nautilus, *Breynius*, 1732.	
G. g. 3	anomalus, Barr.	Hlubocep.
E. e. 2.....	Bohemicus, „	Konieprus, Lockhov, Karlstein.
„	desideratus, „	Lockhov.
„	Sacheri, „	Lockhov, Smichov, &c.
„	Sternbergii, „	Lockhov, Viscocilka.
„	tyrannus, „	Lockhov, Slivenetz.
G. g. 3	vetustus, „	Hlubocep.
?	sp. ind., „	Bohemia.
	Nothoceras, *Barrande*, 1856.	
G. g. 3	Bohemicum, Barr.	Hlubocep.
	Orthoceras, *Breynius*, 1732.	
E. e. 2.....	aberrans, Barr.	Slivenetz.
G. g. 1	ablatum, „	Tetin.
E. e. 2.....	accedens, „	Ratinka, Lockhov.
„	Acis, „	Kozorz, Butovitz.
„	Actæon, „	Kozorz.
Col. D. d. 3, E. e. 2	acuarium?, „	Lockhov.
E. e. 1, 2.....	æquale, „ var. *Panderi.*	Lockhov, Butowitz.
E. e. 2, G. g. 1, 3.	Agassizi, „	Lockhov, Hlubocep, Branik.
E. e. 2..... ...	alpha, „	Konieprus.
„	alternans, „	Vohrada.
„	alticola, „	Hint.-Kopanina, Kozorz
F. f. 2.....	alumnus, „	Konieprus.
E. e. 2.....	ambifarium, „	Lockhov.
„	ambigena, „	„
E. e. 1, 2.....	amœnum, „	Lockhov, Butovitz.
G. g. 3	analogum, „	Hlubocep.
E. e. 1, 2.....	annulatum, Sowerby.	Dvoretz, Butovitz.
E. e. 2.....	anomalum, Barr.	Karlstein.
E. e. 1, 2.....	aperiens, „ (var. of *transiens.*)	Lockhov, Butovitz.
E. e. 2.....	aphragma, „	Viscocilka, Listice.
G. g. 1	Apis, „	Tetin.
E. e. 1, 2.....	Apollo, „	Rzepora, Bubovitz.
E. e. 2.....	approximans, „ (var. of *Hærnesi.*)	Lockhov, Slivenetz.
„	araneosum, „	Dlauha Hora, Kozorz, Hinter-Kopanina.
G. g. 3	Archiaci, „	Hlubocep.
D. d. 1	arcitenens, „	Vosek.
F. f. 2.....	Argus, „	Konieprus.
E. e. 1, 2.....	Arion, „	Kozorz, Slivenetz.
E. e. 2.....	asparagus, „	Dvoretz.
„	astutum, „	Lockhov.
E. e. 2, G. g. 1	Bacchus, „	Lockhov, Dlauha Hora, Tetin.
G. g. 1	baculus, „	Tetin.
„	barbarum, „	Dvoretz, Tetin.
E. e. 2.....	bifidum, „	Hinter-Kopanina.
„	bifrons, „	Kozel.
„	Billingsi, „	Slivenetz, Kozorz.
„	bipellis, „	Viscocilka.
D. d. 4, 5	bisignatum, „	Liëben, Lodenitz, Vraz.
G. g. 3	Bohemicans, „	Hlubocep.
E. e. 1, 2.....	Bohemicum, „	Lockhov, Karlstein, Dvoretz.
D. d. 1	bonum, „	Vosek, Rokitzan.
E. e. 2.....	Bronni, „	Kozorz.
H. h. 1	bubo, „	Trubsko.
E. e. 1.....	caduceum, „	Kozel, Col. Krejci.
E. e. 2.....	cælebs, „ (var. of *dulce.*)	Konieprus.
„	calamoides, „	Lockhov.
E. e. 2	capax, Barr.	Kozorz, Slivenetz.
E. e. 1, 2, F. f. 2, G. g. 1, 2	capillosum, „	Butovitz, Konieprus, &c.
E. e. 1, 2.....	captor, „	Viscocilka, Kozorz.
E. e. 2.....	carcerale, „	Dlauha Hora.
E. e. 1.....	carminatum, „	Ratinka.
E. e. 1, 2, G. g. 3.	cavum, „	Hinter-Kopanina, Hlubocep, &c.
E. e. 2.....	centrifugum, „	Dvoretz.
„	circumrosum, „	Lockhov.
„	circumsutum, „	Dvoretz.
F. f. 2.....	citum, „	Konieprus.
„	clepsydra, „	„
E. e. 2.....	columella, „	Karlstein.
„	columen, „	Kozorz.
„	comatum, „	Lockhov.
D. d. 1	complexum, „	Rokitzan.
E. e. 2.....	comptum, „	Kozel.
„	compulsum, „	Dvoretz.
G. g. 3	concors, „	Hlubocep.
E. e. 1.....	concretum, „	Kozel.
E. e. 2.....	confraternum, „	Dvoretz.
„	conjugatum, „	„
„	connexum, „	Lockhov.
„	consobrinum, „	„
G. g. 3	consolans, „	Hlubocep.
E. e. 2.....	conspicuum, „	Dlauha Hora.
„	contextum, „	Listice.
E. e. 1.....	contrahens, „ (var. of *pellucidum.*)	Butovitz.
E. e. 2.....	contrarium, Barr.	Kozel.
E. e. 1.....	contrastans, „	Butovitz.
D.d.5, Col. F.f.2	contumax, „	Konieprus.
E. e. 1, 2.....	conviva, „	Konvarka, Butowitz.
E. e. 2.....	convolvulus, „	Kozorz.
„	corticosum, „	Lockhov.
„	crinoideum, „	Karlstein.
„	culter, „	Lockhov, Konieprus.
D. d. 5, E. e. 2	currens, „	Dlauha Hora, Slivenetz.
E. e. 2.....	curtum, „	Kozel.
„	Cuvieri, „	Lockhov, Konieprus.
E. e. 1.....	debilitatum, „	Butowitz.
E. e. 1, 2.....	decipiens, „	Dlauha Hora, Kozorz.
F. f. 1.....	decorum, „	Lockhov.
E. e. 1.....	decurtatum, „	Butowitz.
E. e. 2.....	deficiens, „	Viscocilka.
G. g. 1	degener, „	Cheinitz.
F. f. 1.....	deletum, „	Lockhov.
E. e. 2.....	despectum, „	Konieprus.
F. f. 2.....	digitus, „	„
E. e. 2.....	discors, „	Hinter-Kopanina.
F. f. 2.....	discretum, „	Konieprus.
E. e. 1.....	disjunctum, „	Butowitz.
„	dispar, „	„
D. d. 5	disruptum, „	Leiskov.
E. e. 2.....	docens, „	Dvoretz, Karlstein.
F. f. 2.....	dominus, „	Konieprus.
E. e. 2.....	Doricum, „	Viscocilka.
„	dorsatum, „	Lockhov.
„	dorulites, „	Lockhov, Kozorz.
E. e. 1, 2.....	dulce, „	Branik, Karlstein, Kozorz, Dvoretz.
E. e. 2.....	duplicans, „	Viscocilka, Konieprus.
E. e. 1, 2.....	Duponti, „	Butovitz.
G. g. 1	egens, „	Chotecz.
G. g. 3	Eichwaldi, „	Hlubocep.
E. e. 1, 2.....	electum, „	Lodenitz, Butovitz.
E. e. 2.....	emeritum, „	Lockhov, Kozorz.
„	emicans, „	Kozorz.
E. e. 1.....	Endymion, „	Kozel, Vohrada.
„	epulans, „	Butowitz.
G. g. 2, H. h. 1	equisetum, „	Hostin, Hlubocep.
D. d. 5	erosum, „	Königshof.
E. e. 2.....	Eryx, „	Dlauha Hora.
E. e. 1, 2, G. g. 1	evanescens, „	Viscocilka, Kozel, Lockhov, Chotecz.

Stage.	Genus, Species, and Author.	Locality.
D. d. 5	evictum, Barr.	Leiskov.
G. g. 1	evisceratum, „	Chotecz.
E. e. 2	evocandum, „	Dvoretz.
„	evolvens, „	Konvarka.
„	exaratum, „	Lockhov.
F. f. 2	excussum, „	Konieprus.
E. e. 2	eximium, „	„
„	exoticum, „	Kozorz.
„	explanans, „	Kozorz, Lockhov.
„	extensum, „	Karlstein.
„	extenuatum, „	Hinter-Kopanina.
„	extraneum, „	Lockhov, Kozorz.
„	extremum, „	Dvoretz.
„	famulus, „	Hinter-Kopanina.
D.d.5, Col. E.e.2	fasciolatum, „	„ „
G. g. 3	felis, „	Hlubocep.
E. e. 2	fidum, „	Konvarka.
„	firmum, „	Kozorz, Dlauha Hora.
E. e. 1	fistula, „	Butovitz.
D. d. 2, 4	fractum, „	Mt. Drabow, Lodenitz.
E. e. 1	fraternum, „ (var. of *styloideum.*)	Butowitz.
E. e. 2	Ganymedes, „	Lockhov, Viscocilka.
„	Geminorum, „ (var. of *Janus.*)	Dlauha Hora.
„	Giebeli, „	Butowitz.
„	grave, „	Dvoretz.
„	gravidum, „	„
E. e. 1, 2	Grewingki, „	Dlauha Hora.
E. e. 2	Gruenewaldti, „	Lockhov, Tobolka.
„	gryphus, „	Dlauha Hora.
G. g. 3	gurgitum, „	Hlubocep.
E. e. 1	Halli, „	Viscocilka.
„	hastile, „	Kozel.
E. e. 2	Heberti, „	Hinter-Kopanina, Viscocilka.
„	helluo, „	Lockhov.
E. e. 1, 2	Hoernesi, „	Kozorz, Slivenetz.
F. f. 2	homologum, „	Mnienian.
E. e. 2	Humberti, „	Karlstein.
„	Hylas, „	Smerlik.
„	ignotum, „	St. Procop, Rzepora.
E. e. 1	illudens, „	Butowitz.
E. e. 2	imitator, „	Viscocilka.
„	impatiens, „	Karlstein.
E. e. 1	imperficiens, „	Butovitz.
D. d. 5	importunum, „	Trubsko.
E. e. 2	inchoatum, „	Lockhov, Kozorz.
G. g. 2	incisum, „	Vavrovitz, Hlubocep.
E. e. 2	incongruens, „	Slivenetz.
E. e. 1, 2	incultum, „	Kozorz.
G. g. 1	incumbens, „	Chotecz.
E. e. 2	index, „ (var. of *truncatum.*)	Hinter-Kopanina.
„	indocile, „	Kozorz.
„	infirmum, „	Dlauha Hora.
„	infundibulum, „	Lockhov, Karlstein.
D. d. 4	ingenuum, „	Lodenitz.
E. e. 2	innotatum, „	Tachlowitz, Dvoretz.
„	inops, „	Kozorz.
„	insectum, „	Karlstein.
„	insons, „	Lockhov.
„	interferens, „	Novy Mlyn.
E. e. 1	intermittens, „	Butowitz.
E. e. 2	intermixtum, „	Lockhov, Kozorz.
E. e. 1	intricatum, „	Butowitz.
E. e. 2	invitum, „	Tachlowitz.
„	Janus, „	Viscocilka, Kozorz.
E. e. 1	Jonesi, „	Butowitz.
E. e. 2	joviale, „	Vohrada.
„	jucundum, „	Dvoretz.
E. e. 1	Kjerulfi, „	Butovitz.
G. g. 1	lacsum, „	Tetin.
E. e. 2	lancea, „	Lockhov, Slivenetz.
E. e. 1	latusculum, „	Butowitz.
E. e. 2	Le Honi, „	Kozorz, Lockhov.
F. f. 2	lepidulum, Barr.	Konieprus.
Col. D. d. 5, E. e. 2	liberum, „	Viscocilka.
E. e. 1, 2	littorale, „	Butovitz, Kozors.
E. e. 2	longissimum, „	Kozorz, Karlstein.
„	longulum, „	Hinter-Kopanina.
E. e. 2, F. f. 2, G. g. 1, 3.	loricatum, „	Dvoretz, Tetin.
E. e. 2	Losseni, „	Gross Kuchel.
„	lunaticum, „	Kozorz, Lockhov.
„	lupus, „ (var. of *alticola.*)	„
„	Lychas, „	Lockhov.
„	lynx, „	„
„	mactum, „	Konieprus.
„	magister, „	Dvoretz.
„	major, „ (var. of *senile.*)	Dlauha Hora.
E. e. 1	mancum, „	Butowitz.
G. g. 1	Martium, „	Tetin.
E. e. 2	memor, „	Viscocilka.
G. g. 1	Mercurii, „	Tetin.
E. e. 2	Michelini, „	Lockhov, Karlstein.
„	micromegas, „	Viscocilka.
G. g. 1	Midas, „	Tetin.
E. e. 1, 2	migrans, „	Slivenetz, Lockhov.
„	mimus, „	Kozel, Lockhov.
E. e. 2	minoratum, „	Lockhov.
„	Minos, „	Karlstein.
G. g. 3	miserum, „	Hlubocep.
E. e. 2	mitra, „	Viskocilka.
E. e. 1	modestum, „	Kozel, Konieprus.
D. 5, Col. E. e. 2.	Morrisi, „	Lockhov, Rzepora.
E. e. 2	mundum, „	Karlstein, Hinter-Kopanina.
D. d. 5, Col. E. e. 2.	Murchisoni, „	Dvoretz, Kozorz, Lockhov, Konieprus.
E. e. 2	mus, „	Dvoretz.
„	mutabile, „	„ Karlstein.
„	Myrmido, „	Lockhov.
D. d. 1	naufragum, „	Vosek.
E. e. 2	nemo, „	Luzetz, Lodenitz.
G. g. 1	Nepos, „	Tetin.
E. e. 2	Neptunicum, „	Dlauha Hora, Lockhov.
„	Nereidum, „	„ Konieprus.
„	Nestor, „	Karlstein.
„	nobile, „	Dlauha Hora.
D. d. 1	novator, „	Vosek.
E. e. 1, 2	novellum, „	Dlauha Hora.
F. f. 2	nudum, „	Konieprus.
G. g. 1	nugax, „	Branik.
E. e. 2	oblitum, „	Viscocilka.
D. d. 5	obscurum, „	Königshof.
E. e. 1	obsequens, „	Butovitz, Slivenetz.
E. e. 2	obsolescens, „	Hinter-Kopanina.
„	occludens, „	Luzetz, Lodenitz.
D. d. 1	occultum, „	Vosek.
E. e. 1, 2	omega, „ (var. of *dulce.*)	Karlstein, Branik, Dvoretz.
E. e. 2	omnium, „	Konieprus.
G. g. 1, 2, 3, H. h. 1.	opimum, „	Chotecz, Vavrovitz.
G. g. 1	orca, „	Tetin.
D. d. 5, Col. E. e. 1, 2, G. g. 1.	originale, „	Karlstein, Lockhov.
E. e. 1, 2	Palemon, „	Butovitz, Kozorz.
F. f. 2	pallidum, „	Konieprus.
„	palus, „	„
E. e. 1, 2	Panderi, „	Lockhov, Butovitz.
F. f. 2	parallelum, „	Konieprus.
E. e. 2	particeps, „	Dvoretz.
„	passer, „	Viscocilka.
F. f. 2, G. g. 3	pastinaca, „	Hlubocep.
F. f. 2, G. g. 1, 2, 3.	patronus, „	Konieprus, Mnienian.

Stage.	Genus, Species, and Author.	Locality.
F. f. 2	pauper, Barr.	Konieprus.
E. e. 1	pectinatum, „	Butovitz.
„	pedum, „	Kozel.
E. e. 2, F. f. 2	pelagium, „	Konieprus, Dlauha Hora.
E. e. 1, 2	pellucidum, „	Butovitz, Kozorz.
E. e. 1	penetrans, „	„
D. d. 1	peregrinum, „	Vosek.
E. e. 2	perstrictum, „	Listice.
E. e. 1	Picteti, „	Viskocilka.
E. e. 2	pileus, „	„ Hinter-Kopanina.
„	pinguis, „ (var. of teres.)	Konieprus.
E. e. 1, 2	placens, „	Viskocilka.
„	placidum, „	Butovitz, Lockhov.
„	pleurotomum, „	„ Hinter-Kopanina.
E. e. 2	poculum, „	Dvoretz.
„	pollex, „	Hinter-Kopanina.
„	polygaster, „	Lockhov.
„	polytrema, „	Dlauha Hora.
„	ponderosum, „	Vohrada.
„	porites, „	Kolednik.
„	potens, „	Butovitz, Slivenetz.
D. d. 4	præcox, „	Lodenitz.
E. e. 1	præda, „	Kozel.
G. g. 1	prægrave, „	Hlubocep.
F. f. 2	præpotens, „	Konieprus.
E. e. 1, 2	præses, „	Butovitz.
E. e. 2	præstans, „	Gros Kuchell.
E. e. 1, 2	prævalens, „	Kozolup, Tachlovitz.
D. d. 1	primum, „	Vosek.
E. e. 2	princeps, „	Vohrada, Kozorz.
D. d. 5, Col. ..	pristinum, „	Beranka.
E. e. 2	probum, „	Dvoretz.
F. f. 1	procerulum, „	Butovitz.
E. e. 2	proclinus, „	Viskocilka.
„	productum, „	Slivenitz.
„	progrediens, „	Karlstein.
„	prosperum, „	Lockhov.
„	protendens, „	Viskocilka.
E. e. 1, 2. F. f. 2, G. g. 1.	pseudo-calamiteum, „	Konieprus, Butowitz.
E. e. 2	puer, „	Dlauha Hora.
F. f. 1	pugio, „	Lockhov.
F. f. 2, G. g. 1, 2	pulchrum, „	Konieprus.
E. e. 2	pullens, „	„
„	Puteolum, „	Viskocilka.
G. g. 1	radix, „	Tetin.
E. e. 2	rectissimum, „	Vohrada.
G. g. 3	redux, „	Hlubocep.
„	relapsum, „	„
G. g. 1	reluctans, „	Branik, Tetin.
G. g. 1, 2	renovatum, „	Vavrovitz.
„	repetitum, „	Kozorz.
H. h. 1	revertens, „	Hostin.
E. e. 2	Richteri, „	Kozorz, Hinter-Kopanina.
E. e. 2, F. f. 2, G. g. 1.	rigescens, „	Kozorz, Lockhov.
E. e. 2	rivale, „	„ Dlauha Hora.
E. e. 1	robustulum, „	Kozel.
E. e. 1, 2	robustum, „	Lockhov, Hinter-Kopanina.
E. e. 2	rude, „	Butovitz.
E. e. 1, 2	sacculus, „	Lockhov, Butovitz.
E. e. 1	sarcinatum, „	Butovitz.
D. d. 5, E. e. 2	Saturni, „	Hinter-Kopanina, Col. Krejci.
E. e. 2	Schmidti, „	Slivenetz.
„	Schnuri, „	„
„	scutigerum, „	Viskocilka.
D. d. 5, Col. ...	semiannulatum, „	Rzepora.
E. e. 2	semilæve, „	Kozel.
„	semiplanum, „	Lockhov.
E. e. 2	senile, Barr.	Kozorz, Dlauha Hora.
„	sericatum, „	Lockhov, Kozek.
„	serratulum, „	Lockhov.
D. d. 5, Col. ...	sertiferum, „	Rzepora.
E. e. 2	Severum, „	Dlauha Hora, Viskocilka.
F. f. 2	signatulum, „	Konieprus.
E. e. 1	Simois, „	Butowitz.
E. e. 1, 2	Sinon, „	Kozorz, Viskocilka.
D. d. 5, Col. E. e. 1, 2	socium, „	„ Dlauha Hora.
D. d. 1, 4, 5 ...	sodale, „	Leiskov, Vosek.
E. e. 2	solitarium, „	Dlauha Hora.
„	spectandum, „	Konieprus.
„	Sphynx, „	Viskocilka.
E. e. 1	spiculum, „	Butowitz.
E. e. 2	splendidum, „	„
D. d. 5, Col., E. e. 2.	squamulatum, „	Viskocilka, Dvoretz.
E. e. 2	Steiningeri, „	Dvoretz.
„	Sternbergi, „	Konieprus, Lockhov.
„	Stokesi, „	Dvoretz.
E. e. 1, 2	striato-punctatum, Münster.	Kozorz, Lockhov.
D. d. 5, Col., E. e. 1, 2.	styloideum, Barr.	Butovitz.
„ „	subannulare, Münster.	„ Dlauha Hora.
G. g. 1	subjectum, Barr.	Tetin.
E. e. 2	subnotatum, „	Hinter-Kopanina.
„	suboriens, „ (var. of Murchisoni.)	Dvoretz.
„	substructum, „	Holin.
„	subtile, „	Hinter-Kopanina.
„	Suessi, „	Lockhov, Dvoretz.
E. e. 1	sylphoideum, „	Kozel.
E. e. 2	tæniale, „	Karlstein, Dvoretz.
„	Telephus, „	Holin.
G. g. 2	teliforme, „	Vavrovitz.
E. e. 2	temperans, „	Lockhov, Viskocilka.
„	teres, „	Konieprus, Kozorz.
„	Terminus, „	Lockhov.
G. g. 1	Tetinense, „	Tetin.
E. e. 1, 2	Tiphys, „	Lockhov, Dvoretz.
E. e. 2	tiro, „	Dvoretz.
„	transforme, „	Kozorz.
E. e. 1, 2	transiens, „	Kozel, Butovitz.
G. g. 3	Trinacrium, „	Hlubocep.
„	triste, „	„
E. e. 2	Tritonum, „	Kozorz, Slivenetz.
D. d. 5, Col., E. e. 1, 2.	truncatum, „	Hinter-Kopanina, Lockhov, Slivenetz.
E. e. 1, 2	tumidum, „	Lockhov, Viskocilka.
D. d. 5, Col., E. e. 1, 2.	valens, „	Butovitz, Kozel.
G. g. 1	veles, „	Tetin.
E. e. 1	venustulum, „	Butovitz, Tachlovitz.
E. e. 2	vermis, „	Konieprus.
„	versatile, „	Lockhov.
D. d. 1	veteranum, „	Vosek.
E. e. 1, 2	Vibragei, „	Butovitz.
G. g. 3	vicarians, „	Hlubocep.
F. f. 2	victima, „	Konieprus.
G. g. 3	victor, „	Hlubocep.
G. g. 1	virescens, „	Tetin.
E. e. 2	visitatum, „	Viskocilka, Gross Kuchell.
„	Volborthi, „	Lockhov.
„	vulgare, „	Kozolup.
„	vulpes, „	Dlauha Hora.
F. f. 2	Woodwardi, „	Konieprus.
E. e. 1	Xanthus, „	Butovitz.
E. e. 1, 2	zonatum, „	„ Konieprus.
	Phragmoceras, *Broderip.*	
E. e. 2	bellatulum, Barr.	Viskocilka.
„	bicinctum, „	„

Stage.	Genus, Species, and Author.	Locality.
E. e. 2	bi-impressum, Barr.	Tobolka, Bubovitz, Kozorz.
E. e. 2, G. g. 3...	Broderipi, „	Lockhov, St. Ivan, Butovitz, &c.
E. e. 2	var. sublæve, „	Hinter-Kopanina.
E. e. 1, 2	callistoma, „	Butovitz, Vohrada, &c.
G. g. 3	comes, „	Hlubocep.
E. e. 2	Conradi, „	Lockhov, Kozorz, Hinter-Kopanina.
„	desideratum, „	Butovitz.
G. g. 3	Devonicans, „	Hlubocep.
E. e. 2	discrepans, „	Lockhov.
G. g. 3	Forbesii, „	Gelinek, Burian, Hlubocep.
E. e. 2	globulosum, „	Dlauha Hora.
G. g. 3	gutturosum, „	Hlubocep.
E. e. 1	imbricatum, „	Viskocilka, Butovitz.
E. e. 2	infaustum, „	Lockhov, Kozorz.
„	insolitum, „	„ „
„	labiosum, „	Konieprus, Hinter-Kopanina.
„	longum, „	Konieprus, Lockhov, Hinter-Kopanina.
„	Loveni, „	Karlstein, Lockhov.
„	Panderi, „	Lockhov, Dvoretz, Gross Kuchell.
„	pavidum, „	Karlstein.
„	perversum, „	Kozorz, Lockhov, Butovitz, &c.
„	var. falciforme, „	Hinter-Kopanina.
	„ subrectum, „	Butovitz.
G. g. 3	pigrum, „	Hlubocep.
E. e. 2	problematicum, „	Lockhov.
„	pusillum, „	„ Kozorz.
G. g. 3	rex, „	Hlubocep.
E. e. 2	rimosum, „	Lockhov, Hinter-Kopanina.
„	Saturnum, „	St. Procop.
G. g. 3	Suessi, „	Hlubocep.
E. e. 2	sulcatum, „	Lockhov, Slivenetz.
G. g. 3	Verneuilli, „	Hlubocep.
E. e. 2	vetus, „	Lockhov, Kozorz.
	Trochoceras, *Hall.*	
E. e. 2	æquale, Barr.	Lockhov.
„	æquistriatum, „	Slivenetz.
E. e. 1	amicum, „	Butowitz, Vohrada, &c.
E. e. 2	anguis, „	Lockhov.
„	anomalum, „	„ Konieprus.
E. e. 2	Archiaci, Barr.	Lockhov.
„	arietinum, „	Kozorz, Hinter-Kopanina, &c.
„	asperum, „	Viskocilka, Slivenetz, &c.
„	clavum, „	Lockhov.
„	crassius, „	„
F. f. 2	Davidsoni, „	Konieprus.
E. e. 2	debile, „	Slichov, Dvoretz, &c.
E. e. 1, 2	degenerum, „	Lockhov.
E. e. 2	disjunctum, „	„ Kozorz.
G. g. 1	distortum, „	„ Tetin, Branik, &c.
„	flexum, „	Tetin.
E. e. 2	Hoernesi, „	Kozorz.
E. e. 1	imperfectum, „	Viskocilka.
E. e. 2	inclytum, „	Hinter-Kopanina.
„	interstriale, „	Lockhov.
F	mancum, „	Konieprus.
E. e. 2	minus, „	Lockhov.
„	mirandum, „	Karlstein.
„	modestum, „	Kozorz.
„	mulus, „	„ Viskocilka, &c.
E. e. 1, 2	nodosum, „	Lockhov, Slichov, &c.
„	var. robustum, „	Lockhov.
E. e. 2	optatum, „	„ Tachlovitz, &c.
„	oxynotum, „	„ Kozorz, Hinter-Kopanina.
„	pingue, „	Hinter-Kopanina.
	var. of arietinum.	
E. e. 1, 2	placidum, „	Kozorz, Butovitz.
E. e. 2	postulatum, „	„
„	priscum, „	Lockhov, Slivenetz, &c.
E. e. 1	pulchrum, „	„ Butovitz, Vohrada.
E. e. 2	rapax, „	Rzepora.
„	regale, „	Lockhov, Dlauha Hora, &c.
„	Sandbergeri, „	„ Kozorz, Dlauha Hora, &c.
„	secula, „	Lockhov, Kozorz.
„	signatulum, „	Lockhov.
„	simplex, „	„
„	simulans, „	„ St. Procop.
„	speciosum, „	Hinter-Kopanina.
G	tardum, „	Tetin.
G. g. 3	transiens, „	Hlubocep.
E. e. 2	trochoides, „	Lockhov, Kozorz, Viskocilka, &c.
„	turgescens, „	Kozorz.

Summary (Geographical).

Genera.	AMERICA.																			EUROPE &c.																						
	Arctic America.	Rupert's Land.	N.W. Michigan.	Minnesota.	Wisconsin.	Iowa.	Missouri.	Illinois.	Tennessee.	Pennsylvania.	New York.	Canada West.	Canada East.	Vermont.	Nova Scotia.	Anticosti Island.	Mingan Isles.	Newfoundland.	Total Appearances (America).	Ireland.	Scotland.	England.	Wales.	France.	Spain.	Sardinia.	Bohemia.	Harz.	Franconia.	Silesia.	Podolia.	Baltic (Russia).	Russia.	Sweden.	Norway.	North India.	South Australia.	Tasmania.	Total Appearances (Europe).	Grand Total of Appearances.	Number of Species.	Number of Countries inhabited.
Actinoceras	1	3	1		2		1		1	2	7	7	1		1				27	1		2	1			1						2			1			1	9	36	22	18
Ascoceras													1			3			4		1	1					11					1			1				15	19	17	5
Aphragmatites (subgenus)																											2												2	2	2	1
Glossoceras (subgenus)																1			1								2												2	3	3	2
Bactrites																											2						2						4	4	3	2
Bathmoceras																											2												2	2	2	1
Cameroceras											1								1							1													1	2	2	2
Clymenia																																6							6	6	6	1
Cochlioceras																															1		1						2	2	1	1
Cycloceras																					2	4	3									7	2						18	18	11	5
Cyrtoceras	1			1	12	1		2		1	12	18	9			1	2		60	4	3	4	6			1	254					15	3		1	1	1		293	353	317	22
Cyrtocerina												1	1						2																				...	2	2	2
Dictyoceras																																1							1	1	1	1
Discosurus (subgenus)		1									1	1							3																				...	3	1	3
Endoceras		1	1		1	3			1	1	21		1						30				1									9	4						14	44	34	11
Gomphoceras					1			2					1			1			5	1		1					69					5	2						78	83	82	9
Goniatites																											17												17	17	17	1
Gonioceras			1		2		1		1		1	1							7																				...	7	2	6
Gyroceras								1					1						2								8												8	10	10	3
Heloceras																																1							1	1	1	1
Hemiceras																																3							3	3	3	1
Hercoceras																											2												2	2	2	1
Lituites	1				4			1	1		3		4		1	1	2	1	19	3	2	7	8		1		7			1		6	4	2	1	1		1	44	63	41	23
Nautilus					1							1				1	4	4	11								7						1	1		1			10	21	21	9
Nothoceras																											1						1						2	2	2	2
Oncoceras					5	1			1		5	3	1			3			19		1		1																2	21	17	1
Orthoceras	5	2	6	2	14	2	4	7	3	4	51	45	32	5	6	19	12	10	229	37	17	45	40	11	4	13	396	12	6	6		24	14	19	13	3	2	5	667	896	704	36
Phragmoceras					1						1	2			1				5	2		6	3							1		10	1	2					25	30	24	11
Piloceras												1	?1				1	4	7		2																		2	9	8	4
Streptoceras												2							2																				...	2	2	1
Trematoceras																																1							1	1	1	1
Tretoceras																						1	1																2	2	2	2
Trochoceras											2								2			1	1				46												48	50	50	4
Trocholites				1							1		1						3	1			1									3			1				6	9	6	7
	8	7	9	4	43	7	6	13	8	8	106	82	54	5	9	30	21	19	439	49	28	72	66	11	5	16	826	12	6	8	1	94	35	24	18	6	3	7	1287	1726	1419	

N.B.—Orthoceras (additional), Ohio 1, Indiana 2, Saxony 1.

INCERTÆ SEDIS.

Subdivision.	Genus, Species, and Author.	Lower Stage.	Middle Stage.	Upper Stage.
	Caryon, *Barrande. Ord*	*re incertain.*		
Fauna D. d. 2...	Bohemicum, Barr.	Mount Drabow (Bohemia).		
	Cophinus, *König*, 1839.	(? Markings of Crinoids, *Morris.*)		
L.	dubius, Murch.	.....	.....	(Engl.)Ludlow, Hagley Park.
	Furca, *Barrande.*			
Fauna D. d. 2...	Bohemica, Barr.	Mount Drabow (Bohemia).		
	Lobolithus, *Barrande*, 1	867 ?		
Fauna E. e. 1, 2	Michelini, Barr.	.....	.....	(Boh.) Viskocilka, Lockhov.
	Pasceolus, *Billings*, 185	7=Sphærospondia, *Salter*,	1855.	
Tr.	globosus, Billings.	(Canada W.) Ottawa City.		
Div. 1, Anticosti G., Llandov.	gregarius, „	.....	(Anticosti) Reef Point.	
Tr.	Halli, „	(Canada W.) Ottawa City.		
	intermedius, „	.....	(Anticosti) Jupiter River.	
L.	Sedgwickii, Salter, MS.	.....	.....	Kendal (Westmoreland).
	sp. ind., Billings.	.....	(Anticosti) Fox River.	
	Pleurodictyum, *Goldfuss*, 1830.			
Carad.	megastoma, M'Coy.	Yarra, South Australia.		
	Polymeres, *Murchison*, 1	839.		
	Demetarum,	Pensarn (Caermarthen).		
	Serpulites.			
D. d. 5	Bohemicus, Barr.	(Boh.) Königshof, Leiskow.		

PISCES.

[Note.—The late Professor Pander has described many genera of Upper-Silurian fishes, mostly Ganoids; but the strata holding them are of very doubtful age.]

	Asterolepis, *Eichwald*, 1	840.		
Fauna G. g. 1 ...	Bohemicus, Barr.	.....	.....	(Bohemia) Chotecz.
	Auchenaspis, *Egerton*,	*Sir P. M., Bart.*, 1857.		
Tilestone	Salteri, Egerton.	.....	.....	Railway Cutting, Ludlow, Kidderminster, Ledbury (England).
	Cephalaspis, *Agassiz*, 18	35.		
	Lewisii, Murch.	.....	.....	River Dniester (Russia).
	Lloydii, „	.....	.....	„ „
U.L.	Murchisoni, „	.....	.....	Paper-mill, Ludlow, Russia.
Tilestone	ornatus, Egerton.	.....	.....	(Downton Sandstone) Kington (Herefordshire).
	Schrenckii, Pander.	.....	.....	Russia, Isle Oesel (Baltic).
U.L.	verrucosus, Murch.	.....	.....	„ „
	Coccosteus, *Agassiz*, 184	3.		
Fauna G. g. 1 ...	Agassizi, Barr.	.....	.....	(Bohemia) Sous-Chotecz.
Fauna F	primus, „	.....	.....	(Bohemia) Konieprus.
	Ctenacanthus, *Agassiz*,	1837.		
	abnormis, Giebel.	.....	.....	Scheerensteig, Harz (Germ.).
Fauna G. g. 1 ...	Bohemicus, Barr.	.....	.....	(Bohemia) Chotecz, Tetin, &c.
	Dendrodus, *R. Owen*, 18	40.		
	lævis, Giebel.	.....	.....	Schneckenberg, Harz (Germany).
	Dipterus, *Valenciennes & Pentland*, 1828.			
Corall. Lst.? ...	sp. ind.,	.....	.....	Isle Oesel (Baltic).
	Glyptolepis, *Agassiz*, 18	43.		
	orbis, Eichw.	.....	.....	Pilnaya-Melnitza (Russia).
	Gompholepis, *Pander.*			
Fauna G. g. 1 ...	Panderi, Barr.	.....	.....	(Bohemia) Sous-Chotecz.
	Leptocephalus, *Agassiz*	(*Gron.*, 1754).		
	gracilis, Agassiz,	Poissons fossiles, p. 307.		
	medius, „	„ „		
	tænia, „	„ „		
	Macropetalichthys, *Bronn.*			
Up. Silurian.....	sp. ind., Bronn.	.....	.....	?
	Odontolodus, *Pander*, 18	56.		
Eurypterus Lst...	Roodziküllensis, Pander.	.....	.....	Roodzikülle, I. Oesel (Balt.).
	Onchus, *Agassiz*, 1837.			
Pass.-beds, U.L.	Murchisoni, Murch.	.....	.....	Ludlow, Woolhope, Kington (England), Russia, Isle Oesel (Baltic).
Bone-bed, U.L...	tenuistriatus, „	.....	.....	Ludford Lane (Ludlow).
	Parka, *Fleming.*			
Devonian ?	decipiens,	.....	.....	Balruddery Glen, Perthshire (Scotland).

Subdivision.	Genus, Species, and Author.	Lower Stage.	Middle Stage.	Upper Stage.
	Plectrodus, *Agassiz*, 1839.			
U.L.	mirabilis, Agassiz.			Ludlow (England).
,,	pleiopristis, ,,			,,
,,	pustuliferus, ,,			,,
	Sclerodus.			
	Pteraspis, *Kner*, 1847.			
Pass.-bds., Downton Sa.	Banksii, Huxley & Salter.			Kington and vicinity (Herefordshire).
L.L.	Ludensis, ?			Church Hill (England).
Passage-beds	truncatus, Huxley & Salter.			Kington (Herefordshire).
Downton Sa.	sp. ind., ,, ,,			Kington, Ludford L. (Ludlow).
	Sclerodus, *Agassiz*, 1839.			
U.L.	parvidens, Agassiz?			Norton & Ludlow (Shropsh.).
,,	pustuliferus, ,, ?			,, ,,
	Sphagodus, *Agassiz*, 1839.			
Bone-bed	pristodontus, Agassiz.			Ludlow.
	Thelodus, *Agassiz*, 1839.			
Bone-bed	parvidens, Agassiz.			Ludlow.
	Thyestes, *Eichwald*, 1854.			
Eurypterus Lst.	verrucosus, Eichw.			Roodziküle, I. Oesel (Baltic).
	Cephalaspis.			
	Tollipeltis, *Pander*, 1856.			
	undulatus, Pander.			Ohhesaar, I. Oesel (Baltic).

ADDENDA.

PLANTÆ.

Subdivision.	Genus, Species, and Author.	Locality.
	Actinophyllum.	
UL.	plicatum, Phillips.	(England) Ludlow, Perton, Woolhope (Shropshire).
	Beatricea.	
H. R. G.	undulata, Billings.	Manitouline Island, L. Huron.
	Buthotrephis.	
Primordial ...	Goepperti, Geinitz.	Lobenstein (Reuss, Germany).
,, Tr.	succulens, Hall.	Lobenstein, Wisconsin.
	Hostinella, *Barrande*. (A land plant.)	
H. h. 1	Hostinensis, Barr.	Hostin (Bohemia).
	Leptophycus, *Barrande*, 1866. (A Fucoid).	
D. d. 2	papyrus, Barr.	Mount Drabow.
,,	venosus, ,,	,,
	Palæophycus.	
Primordial ...	Hartungi, Geinitz.	Lobenstein (Reuss, Germany).
,,	macrocystoides, ,,	,, ,,
,,	spinatus, ,,	,, ,,
	Phytopsis. (See Annelida.)	
B., Tr.	tubulosum, Hall.	Wisconsin, Illinois (U. S. A.).
	Sagenaria, *Brongniart*, non *Sternberg*?	
H. h. 1	Bohemica, Barr.	Hostin (Bohemia). A land plant.
?	sp. ind., Geinitz.	Lobenstein (Reuss, Germany).
	Sargassites, *Sternberg*. (A Fucoid.)	
H. h. 1	Hostinensis, Barr.	Hostin (Bohemia).

AMORPHOZOA.

	Amphispongia.	
W.	oblonga, Salter.	Pentland Hills (Scotl.).
	Brachiospongia, *Marsh*, 1867.	
Lower Silurian.	Lyonii, ? Marsh.	Franklin County (Kentucky).
,, ,,	Römerana, ,,	,, ,,
	Cliona.	
Llandov., L. ...	prisca, M'Coy.	Broom (Shropsh.), Malvern.
	Coscinium.	
B., BL.	flabellatum, Billings.	(Can. W.) Lake Huron, Camp d'Ours.
	Eospongia.	
CH.	Römeri, Billings.	Mingan Isles.
	varians, ,,	,,
	Favospongia, *M'Coy*.	
L.	Ruthveni, Salter.	Kendal (Westmorel.).
	Ischadites = Receptaculites.	
G. g. 2	Bohemica, Barr.	Hlubocep (Bohemia).
W.	Grindrodi, Salter.	Malvern (England).
Llan., W., L., E. e. 2.	Königi, Murchison.	Shropshire, (Bohemia) Bubovitz.
B., BL., Tr. ...	occidentalis, Salter.	Murray Bay (Can. E.), La Cloche Island, L. Huron.
Niag.	tessellatus, Wnch. & Mar.	Chicago (Illin.), Shropshire.
	Pachyspongarium.	
Passage-beds ...	pilula, Salter.	
	Palæomanon.	
	sp. ind. Lindström.	Gothland.
	Sphærospongia.	
	sp. ind., Salter.	Onny River (Shropsh.).
	Stromatocerium.	
BL.	rugosum, Hall.	Madison (Indiana).
	Stromatopora.	
E. e. 2	Bohemica, Barr.	Kozel, Tachlovitz.
P., Queb. G., CH.	compacta, Billings.	N.W. Vermont &c.
E. e. 2	concentrica, Goldfuss.	Hinter-Kopanina (Bohemia), Wales, England, New York, Canada.
F. f. 2.	conferta, ,,	Esthonia, Konieprus (Bohemia).
L. Silur. (top).	mammillata, Bell.	(L. Huron) Manit. Isl.
E. e. 2	micacea, Barr.	Tachlovitz (Bohemia).
,,	perfoliata, ,,	,, ,,
F. f. 2.	tubulata, ,,	Konieprus ,,
	Tetradium. ?	
	Saffordi, ?	Tennessee.

CŒLENTERATA.

	Acervularia.	
Llandov.	typus, M'Coy.	?
	Alveolites.	
W.	Bechii, Salter.	Ferriter's Cove, Kerry.
,,	squamula, Lindström.	Gothland.
	Bolborites.	
CH.	Americanus, Billings.	Montreal (Mingan Is.).
	Callopora.	
?	Missouriensis, Meek & Worth.	Missouri.
	Campophyllum, *M.-Edw. &c.*, 1850.	
W.	Lovéni, M.-Edw. &c.	Gothland.
	Chætetes.	
Upper Silurian	Fletcheri, M.-Edw.	Podolia.
B., Tr., &c. ...	lycoperdon, Hall.	Greenbay (Wisconsin).
H. R. G.	Pavonia, Rominger.	Madison, Richmond, (Indiana).
,, ?	quadratus, ,,	,, ,,
	Chonophyllum.	
	Niagarense, Hall.	Gothland.
	Columnaria.	
BL.	alveolata, Billings.	(Can. E.) Montreal &c.
CH.	incerta, ,,	Mingan Isles, Montreal.
,,	parva, ,,	,, ,,
	Cyathophyllum.	
Llandov., W....	angustum, Lonsdale.	Wenlock, Woolhope (Engl.), Gothland.
U. & L. Silurian	articulatum, Wahl.	Podolia.
W.	ceratites, Goldfuss.	(Gothland) Capellhammar, Slitehamn.
,,	flexuosum, Lonsd.	(Gothland) Klinteberg, Djupviken, Podolia.
	helianthoides ?, Haughton?	(Iowa) Dubuque, Arctic Seas, Lake Huron.
Guelph	irregulare, Billings.	Hespeler (Canada W.).
W.	mitratum, Hisinger.	(Gothland) Djupviken, (Ostrog.) Borenshult.
	patulum, Lindström.	Gothland.
Tr.	profundum, Conrad.	(Wiscons.) Mineral Pt.
W.	pseudoceratites, M'Coy. *Strephodes.*	Gothland, (Wales) Presteign, (Engl.) Dudley.
	pyramidalis, Hising.	Gothland.
	stellare, Lindström.	,,
W.	trochiforme, M'Coy. *Strephodes.*	Dudley (England).

Subdivision.	Genus, Species, and Author.	Locality.
Carad.	turbinatum, Sowerby.	Chair of Kildare, Cong (Galway), (Gothland) Djupviken, (Vestrogoth.) Alleberg.
	var. echinatum, Hising.	(Gothland) Djupviken, (Vestrog.) Alleberg.
	,, verrucosum, ,,	,, ,,
Niag.	Vennori, Billings.	High Hill, Manitouline Island (Lake Huron).
W.	vermiculare, Hising.	(Gothland) Klinteberg, Podolia.
,,	vortex, M'Coy. *Clisiophyllum.*	Wenlock (Shropshire).
	Cystiphyllum.	
E. e. 2	Bohemicum, Barr.	(Bohemia) Tachlowitz.
,,	Siluriense, Lonsdale.	,, ,,
	Diplophyllum.	
L. Silur. (top).	fasciculus, Kutorga.	Borkholm (Esthonia).
	Eridophyllum.	
Niag.	Huronense, Billings.	High Hill (Manitouline, Lake Huron).
	Favistella.	
Loraine Shales.	stellata, Hall.	(Canada E.) Farnham, West Bay, C. Smyth (Manitouline, Lake Huron).
	Favosites.	
L. H. G.	basalticus, Goldfuss.	(Can. E.) Gaspé, (Gothland) Djupviken.
,,	cervicornis, Billings?	(Canada East) Gaspé.
E. e. 2	cristatus, Blumenbach.	(Bohemia) Kozel, Portrane (Dublin), Coosemore &c. (Ireland).
E. e. 2 &c.	fibrosus, Goldfuss.	Dent (Yorkshire), Chair of Kildare, Wexford, Waterford, (Bohem.) Listice.
,,	Gothlandicus,	Podolia, (Bohem.) Tachlowitz, Guelph, High Hill, Manitouline I., Malvern (England).
	Hisingeri, M.-Edw. &c.	Wenlock Edge, Tortworth (Engl.), Port Daniel (Canada E.), Thorold, Manitouline Island (Canada W.).
?	lycopodioides, Say.	Sardinia, Conway, Meifod (Wales), North America.
Guelph &c. ...	polymorphus, Goldfuss.	(Galway) Coolin, Ferriter's Cove, Kerry Co.
	var. tuberosa ramosa, Hising.	Gothland.
	,, ramoso-divaricata, Hising.	,,
Carad., W. ...	ramulosus, Phill.	Dudley, Westmoreland (England), Mercklin, Acton Scott (Shropshire), S.W. Scotland.
Llan., Car., &c.	regularis, M'Coy.	Dent (Yorkshire), Kendal (Westmoreland).
	spongites, Goldfuss.	(Gothl.) Capellhamn.
	Fistulipora.	
Upper Silurian.	cribrosa, M'Coy.	Podolia.
W.	decipiens, ,,	,, Mayhill, Wenlock Edge.
	Fletcheria.	
	clausa, Lindström.	Gothland.
	Halli, Meek & Worth.	Waldron (Indiana), Rochester (New York).
	neglecta, ,, ,,	Waldron (Indiana), Lockport (N. York).
	Hallia, *M.-Edwards*	&c., 1850.
	calceoloides?, Lindst.	Gothland.
	pinnata?, ,,	,,
	Halysites.	
? Tr., Llandov. &c., Galena L., CL., Niag., E. e. 2.	catenulatus, Linnæus.	Lake St. John, Port Daniel (Canada E.), Penlan, Llandovery, Dudley, Ledbury, Wenlock, Elora (Can. W.), Upper Glenmore &c. (Ireland), (Boh.) Kozel, Podolia.
L. Silur. (top).	labyrinthica, Goldfuss.	Borkholm (Esthonia).
	parallela, Schmidt.	,, ,,
	Heliolites.	
Low. Stage (top).	favosus, M'Coy.	Craighead (Ayrshire).
W.	Grayi, M.-Edw. &c.	(Gothland) Wisby &c.
Car. &c., W. ...	inordinatus, Lonsd.	(Can. E.) Port Daniel &c.
Llan., H. R. G., CL., &c.	interstinctus, Wahlenb.	Dudley, Walsall (England), Glyn Ceiriog &c. (Wales), Port Daniel (Can. E), West Bay, Manitouline Island (Lake Huron), Middle Gothland, Podolia.
Niag.	macrostylum, Billings?	High Hill (L. Huron).
Carad., Llandov., &c.	megastoma, ,,	Thorold (Canada West), Creaghmartin (Irel.), Malvern (England).
W., L. H. G....	Murchisoni.	Podolia, Middle Gothland, Port Daniel (Canada East).
	pyriformis, Guettard.	Wisconsin.
Llandov., W....	tubulatus, Lonsd.	Cefn-y-Garreg (Wales), Malvern.
	Labechia.	
Llandov., W....	conferta, Lonsd.	S. and Mid. Gothland.
	Laceripora.	
	cribrosa, Eichw.	South Gothland.
	Lithostrotion.	
F. f. 2	Bohemicum, Barr.	Konieprus (Bohemia).
	Lithophyllum, *M.-Edwards & Haimé*, 1850.	
	sp. ind.?, Lindström.	Gothland.
	Millepora.	
G. g. 1	Bohemica, Barr.	(Bohemia) Chotecz.
W.	repens, Sowerby.	(Gothl.) Kapellhamn.
	Monticulipora.	
W.	bifurcata, Lonsd.	Middle Gothland.
,,	Bowerbankii, M.-Edw.	Gothland.
Carad.	favulosa, Phill.	(Shropshire) Gretton &c., Gothland.
W.	Fletcheri, M.-Edw.	Dudley?, Gothland.
L.L.....	papillata, M'Coy.	Ludlow &c. (England).
Llan., Tr., Pleta.	petropolitana, Pander.	St. Petersburg &c. (Russia), Podolia, Esthonia, Baltic (*passim*).
	Oldhamia.	
Primordial ...	antiqua, Forbes.	Howth, Bray, Delgany (Ireland).
	Omphyma.	
E. e. 2	grandis, Barr.	Tachlowitz, Kozel (Boh.)
W.	Murchisoni, M.-Edw.	Tortworth (England), Cardiff &c. (Wales).
W. &c.	turbinatum, Goldfuss.	Podolia, Malvern, Ledbury, &c.
	Ossiculum, *Barrande.*	
F. f. 2.....	Bohemicum, Barr.	Konieprus.
	Palæocyclus.	
W., L. H. G....	porpita, M.-Edw. &c.	Port Daniel (Canada East) &c.
	Pelliculites, *Barrande.*	
F. f. 2	simplex, Barr.	Konieprus.
	Petraia.	
Carad.	æquisulcata, M'Coy.	Dent (Yorksh.), Dolbenmaen (Caernarvonshire), Yspatty Evan (Wales).

Subdivision.	Genus, Species, and Author.	Locality.
Aymestry L. ...	bina, Lonsd.	Creaghmartin(Ireland), Shelve, Malvern, &c. (England).
H. R. G.	Canadensis, Billings.	Canada.
?	corniculum, Hall. *Streptelasma.*	(Can. E.) St. Antoine, Lindsay, Wisconsin, (Esthon.) Borkholm.
	Du Noyerii, Baily ?	Ballycar (Ireland).
Carad., Llandov., W.	elongata, Phill.	(Ireland) Kilmoculla, Bull's Head (Kerry), Llandovery, Gwyddon (Wales), Coniston, Waterhead (Lancashire).
BL., Tr.	profunda, Hall.	Marmora (Canada W.), Montreal, L. St.John, River Metabechouan.
Carad., W., &c.	subduplicata, M'Coy.	Bull's Head, Kerry, Creaghmartin, Ballycar, Clare County (Ireland), Haverfordwest, Builth, Bogmine, &c.
	Plasmopora.	
W.	petaliformis, M.-Edw.	Gothland.
,,	scita, ,,	,,
	Protarea.	
	inordinata, M'Coy.	Ferriter's Cove, Doonquin (Ireland).
Llandov., Niag.	pyriformis, D. D. Owen ?	Dubuque (Iowa) &c.
	Ptychophyllum.	
Niag.	Belli, Billings.	High Hill (Manitouline Island, Lake Huron).
Div. 4, Antic. G.	sp. ind.	(Anticosti) South-west Point.
	Römeria ?	
F. f. 2.....	Bohemica, Barr.	Konieprus (Bohemia).
	Stenopora.	
CH.	adhærens, Billings.	Mingan Isles (G. St. Lawr.).
	fibrosa, Goldfuss.	Podolia, Cape Santé (Can. E.), High Hill, Cape Smyth (Lake Huron).
Tr. &c.	Petropolitana, Pander.	Montreal (Canada E.), River Don, Osnabruck (Canada W.).
L. H. G.	pulchella, Billings.	Port Daniel, Gaspé (Canada East).
	Strombodes.	
	Murchisoni, M.-Edw. &c	Middle Gothland, Egool &c. (Ireland), High Hill (Manitouline Island, Lake Huron).
Niag.	pentagonus, Billings.	West Bay, Manitouline Island (Lake Huron).
W.	Phillipsii, Phill.	Gothland.
	plicatus, Goldfuss.	Doonquin (Ireland).
	Syringopora.	
	cancellata, Eichw.	Gothland.
Upper Silurian	fascicularis, ,,	Podolia.
Niag.	junciformis, Hall.	High Hill (Lake Huron).
,,	Lyelli, Billings.	(Can. W.) Sydenham.
W.	serpens, Lonsdale. *Aulopora.*	Gothland &c.
Niag.	verticillata, Goldfuss.	Lake Tematscaming (Canada West).
	Zaphrentis.	
H. R. G.....	bilateralis, Hall.	West Bay (Manitouline Island, Lake Huron).
CL.....	Marcoui, Billings.	(Canada W.) Thorold.
	Stokesii, ,,	S.W. Point (Anticosti), Flamborough (Canada West).
L. ?.....	turbinata, Hall.	(Ireland) Derrymore Glen &c.

CRINOIDEA.

Subdivision.	Genus, Species, and Author.	Locality.
	Actinocrinus.	
?	Christyi, Hall.	Waldron (Indiana).
W.	moniliformis, Goldfuss.	Norway.
,,	pulcher, Salter.	Nant Glyn (Wales).
,,	regularis, Hising.	Gothland.
,,	tesseracontadactylus, Goldfuss.	,,
,,	Wynnei, Baily.	Kilnacreagh, Clare, and Tipperary Counties.
	Anthocrinus.	
W.	Lovéni, Müller, Lindst	Middle Gothland.
	Ascocrinus, *Barrande*, 1865–6.	
Carad.	Barrandei, ?	Moitiers d'Allone, Cherbourg (France).
D. d. 2	Draboviensis, Barr.	Mt. Drabow (Bohem).
	Balanocrinus, *Troost*, non *Agassiz.*	
Racine Lst. = Niag.	inflatus, Hall.	Milwaukee &c. (Wisconsin).
	Crotalocrinus.	
W.	rugosus, Salter, Miller.	Gothland, Podolia, Wenlock Edge (England).
	Cyathocrinus.	
W.	coralliferus, Hising.	Gothland.
,,	Dudleyensis, Austin.	Dudley (England).
Niag.	ornatus, Billings.	Thorold (Can. W.).
W.	pulcher, Hising.	Gothland.
Corall. Lst. ...	rugosus, Miller.	,, Mount Klinteberg, Slitcham, &c.
	scrobiculatus, Hising.	Gothland.
W.	sp. ind., Hall.	Wisconsin.
	Eugeniacrinus.	
W.	costatus, Hising.	Gothland, Mt. Klinteberg.
	Glyptocrinus.	
Primordial, H. R. G.	decadactylus, M'Coy.	Lobenstein (Reuss, Germany).
	lævis, Portlock. *Trochocrinus.*	Bardahessiagh (Tyrone).
B., BL.	ramulosus, Billings.	(Can. W.) River Moira, Camp d'Ours, Lake Huron, (Can. E.) Montreal, Murray Bay.
Niag.	siphonatus, Hall & Whit.	New York, Wisconsin.
	Heliocrinites.	
Pleta	echinoides, De Vern.	(Russia) Poulkova.
	Heterocrinus.	
Tr.	Canadensis, Billings.	Lindsay, Ops Township (Canada West).
,,	heterodactylus, Hall.	Savanna (Illinois).
	Mariacrinus.	
L. H. G.	ramosus, Hall.	Herkimer County (New York).
	Palæchinus ?	
	Phillipsii, Forbes.	Worcester Beacon, Malvern.
	Palæocrinus.	
Tr.	angulatus, Billings.	(Canada West) Middle Ottawa River.
	Retiocrinus.	
H. R. G.	fimbriatus, Billings.	(Canada West) Middle Ottawa River &c.
	Rhodocrinus.	
CH., B.	pyriformis, Billings.	(Canada E.) Montreal.

CYSTIDEA.

	Apiocystites.	
W. Marly Lst...	punctatus, Hising.	(Gothland) Mt. Klinteberg.
	Caryocystites.	
Niag.	alternatus, Hall & Whit.	(Wisconsin) Racine.
Carad.	granatus, Forbes.	Chair of Kildare (Irel.).

Subdivision.	Genus, Species, and Author.	Locality.
	Dendrocystites, *Barrande*, 1865.	
D. d. 4	Bohemicus, Barr.	Lodenitz, Zahorzan, &c. (Bohemia).
„	Sedgwickii, „	Zahorzan (Bohemia).
	Echino-encrinites, *Volborth.*	
D. d. 2	Bohemicus, Barr.	Trubsko (Bohemia).
D. d. 1	longulus, „	Vosek „
	Echino-encrinus.	
	anatiformis, Hall.	Fort Atkinson (Iowa) &c.
	Echinosphærites.	
Carad.	Balthicus, Eichw. *granatus.*	Garrihadaggan, Wexford, Norway, &c.
	citrus, Kloden. *aurantium.*	Œland, Gothland, Vestrogotha.
	Davisii, M'Coy.	Pont Hafod (Wales).
D. d. 1	deletus, Barr.	Vosek (Bohemia).
D. d. 2	ferrigena, „	Holaubka (Bohemia).
F. f. 2	flavus, „	Mnienian „
D. d. 4	infaustus, „	Zahorzan „
D. d. 1	pirum, „	Vosek „
	Glyptocystites.	
	multiporus, Billings.	(Can.W.)Riv.Moira &c.
	Hemicosmites.	
	rugatus, Forbes.	Rhiwlas, Bala (Wales).
	Palæocystites.	
CH.	pulcher, Billings.	Mingan Isles (G. St. Lawr.).
„	tenuiradiatus, Hall.	(Canada E.) Phillipsburg &c.
	Pseudocrinites.	
L.L.	quadrifasciatus, Pearce.	Dudley(Engl.), Marloes Bay (Pembroke).
	Scyphocrinites.	
E. e. 2	elegans, Barr.	Dvoretz, Karlstein (Bohemia).
	Sphæronites.	
Carad.	aurantium, Wahl.	Dalecarlia, Rhiwlas, Sholes Hook (Wales).
„	munitus, Forbes.	Sholes Hook, Rhiwlas (Wales).
„	punctatus, „	„ „
	Trochocystites.	
Fauna C.....	Bohemicus, Barr.	Skrey (Bohem.), Spain.
D. d. 1	mitra, „	Vosek (Bohemia).

ASTERIDEA.

	Agelacrinites.	
D. d. 2	Bohemicus, Barr.	Mt. Drabow (Bohem.).
	Asterias, *Linnæus.*	
D. d. 4	Bohemica, Barr.	Zahorzan (Bohemia).
D. d. 1	primula, „	Vosek „
	Palæaster.	
Carad.	Caractaci, Salter.	Marshbrook &c. (Shropshire).
	Palæocoma.	
W., L.L.	Marstoni, Salter.	Leintwardine (Shropshire).
	vermiformis, „ *Bdellacoma.*	Ludlow (Engl.), Mocktree (Wales).
	Protaster.	
Carad.	Salteri, Forbes. *Tæniaster.*	(Wales) Denbighshire.

ANNELIDA.

	Chondrites.	
Prim.& Pleta...	informis, M'Coy.	Réval (Esthonia) &c.
W.	verisimilis, Salter.	Pentland Hills (Scotl.).
	Cornulites.	
	serpularius, Schloth.	(Wales) Usk, Shelve, Marloes Bay, Northwest Harz, &c.

Subdivision.	Genus, Species, and Author.	Locality.
	Crossopodia.	
	Henrici, Geinitz.	Lobenstein (*Reuss*, Germany).
Llan., Carad....	Scotica, M'Coy.	Dunse (Berwick) &c.
	Fucoides. (Worm-burrows.)	
Llan.?	Alleghaniensis, ?	The Harz (Germany).
	cauda-galli, Billings, Hall.	Gaspé (Canada East).
	Helmintholites.	
Llan.	sp. ind., ?	Bray Head (Ireland).
	Lophotenium, *Geinitz.*	
Taconic	comosum, Richter.	Lobenstein (*Reuss*, Germany).
„	Hartungi, Geinitz.	„ „
	Myrianites.	
	tenuissimus, Emmons.	Lobenstein (*Reuss*, Germany).
	Naites, *Geinitz.*	
	priscus, Geinitz.	Lobenstein.
	Phyllodocites, *Geinitz.*	
Prim., Taconic.	Jacksoni, Emmons.	Lobenstein.
„ „	Thuringiacus, Geinitz.	„
	Scolecoderma.	
Primordial ...	antiquissima, Salter.	Malvern (England).
	Scolithus.	
D. d. 2	Bohemicus, Barr.	Mt. Drabow (Bohem.).
„	cylindricus, „	„ „
P., Potsd., Tremad., Llan.	linearis, Hall. *Arenicolites.*	(Wiscons.) Baraboo &c.
	Serpulites.	
	sp. ind., Salter.	Milain Glacier, Nita, Himalaya.
	Spirorbis.	
W.	Lewisii, Sowerby.	Gothland &c.
	Tentaculites.	
Carad., Llandov.	Anglicus, Salter.	Norway, Acton Scot (Shropshire), &c.
W., L. H. G....	ornatus, Sowerby.	Wenlock Edge (Engl.), Llandeilo (Wales), Gothland &c.
	scalaris, Schloth.	Galway (Ireland).
	tenuis, Sowerby.	Ferriter's Cove (Irel.), Saxony, Gothland.
	sp. ind.. Salter.	Damschen, Niti (Himalaya).
	Trachyderma.	
U.L.	squamosa, Phill.	Woolhope (Engl.), Ferriter'sCove (Ireland).
	sp. ind., Baily.	Cappatcemore, Co. Clare (Ireland).
	Trichoides, *Harkness*, 1855.	
	ambiguus, Harkness.	(S.W. Scotland) Barlae.

CIRRIPEDES.

	Anatifopsis, *Barrande.*	
D. d. 1, 2	acuta, Barr.	Mount Drabow, Vosek (Bohemia).
D. d. 3	Bohemica, „	Trubin (Bohemia).
D. d. 4	longa, „	Zahorzan (Bohemia).
	Plumulites, *Barrande*, 1864.	
D. d. 1	Bohemicum, Barr.	Vosek (Bohemia).
D. d. 4	folliculum, „	Trubsko „
D. d. 5	regius, „	Königshof „
„	squamatula, „	Mt. Kosov „

TRILOBITA.

	Acidaspis.	
W.	Barrandei, Fletcher.	Dudley.
Carad., W.....	bispinosa, M'Coy.	Dudley &c.
?	centrina, Dalm.	(Vestrogotha) Mount Mosseberg.
Llan., Carad....	Jamesii, Salter.	Wexford &c.

Subdivision.	Genus, Species, and Author.	Locality.
	Æglina.	
Llan., Carad....	mirabilis, Forbes.	Stoneford, Haverfordwest (S. Wales), &c.
D. d. 3, 4, 5 ...	rediviva, Barr.	Ballyvorgal, Clare Co. (Ireland).
D. d. 1, 5	sulcata, ,,	Königshof, Vosek (Bohemia).
	Agnostus.	
Carad.	limbatus, Salter.	(S.W. Scotl.) Piedmont Glen, Chair of Kildare (Ireland).
L.Llan.	Morei, ,,	Skiddaw (Westmoreland) &c.
	nodosus, Belt.	Mawddach R., Dolgelly (Wales).
Upper Dolgelly beds.	obtusus, ,,	Moel, Corse-y-Garnedd (Wales).
Alum Shale ...	pisiformis, Linnæus.	Norway &c.
L.Lingula Fl....	var. obesus, Belt.	R. Mawddach, Dolgelly (Wales).
L. & U.Ling.Fl.	princeps, Salter.	(England) Malvern.
Llan. ?	pusillus, Naumann.	Norway.
P., Carad.	trinodus, Salter.	Newfoundland, (Wales) Dolgelly, Rhiwlas, &c., Haverfordwest, (Irel.) Chair of Kildare, Ballyvorgal, (S.W. Scotl.) Piedmont Glen.
P., Lingula Fl.	trisectus, ,,	Dolgelly (Wales).
L.Lingula Fl...	Turneri, ,,	Malvern (England)
Potsd. Sa.	sp. ind., Hall.	Wisconsin.
	Amphion.	
Queb. G.	Caylei, Billings.	Point Lévis (Can. E.).
Carad.	pseudo-articulatus, Portlock.	Tramore, Waterford (Ireland).
	Ampyx.	
CH.	Halli, Billings.	(Can. E.) Farnham.
Llan., Carad....	mammillatus, Sars.	(S.W. Scotl.) Penwhapple Glen.
L.L.	parvulus, Forbes.	Vinnal Hill, Ludlow, &c.
P., Llan.	princeps, Salter.	
Llan., Carad....	rostratus, Sars.	(Irel.) Desertcreate &c.
	Arionellus.	
Potsd. Sa.	Oweni, Hayden.	Dacota Territory (U. States of America).
	Agraulos.	
	Asaphus.	
Carad.	Barrandei, Hall&Whit.	Wisconsin &c.
W.	caudatus, Dalm.	Gothland.
Lower Silurian.	cornigerus, Verneuil.	Russia.
Oslo G.	expansus, Wahlenb.	Sweden &c.
	var. cornutus ?	Russia.
	extenuatus, Dalman.	(Ostrogotha) Husbyfjol, Heda, &c.
	fallax, ,,	(Smaland) Humlenas, (Dalecarlia) Sjurberg.
Tr., Carad.....	gigas, Dekay.	(Ireland) Desertcreate, New York.
Carad.	Guettardi, Brongn.	(France) Brittany &c.
Ut. Slate	Hincksii, Billings.	Canada.
Carad.	hybridus, Salter.	
CH., BL., H. R. G.	obtusus, Billings.	Anticosti, west end.
CH., B., BL., &c.	platycephalus, Stokes.	(L. Huron) La Cloche Isle.
Llan., Carad....	Powisii, Murchison.	(Wales) Berwyns, (England) Westmoreland.
Reg. C	remulosus, Angel.	Sweden.
Llan.	tyrannus, ,,	Wales, Odinsholm (Esthonia), St. Petersburg (Russia).
	Barrandia.	
Llan.	Cordai, M'Coy.	Wales.
,,	Portlockii, Salter.	Ireland.
,,	radians, M'Coy.	Wales.

Subdivision.	Genus, Species, and Author.	Locality.
	Bathyonotus, *Hall,* **Bathyurus.**	1859.
	Angelina, Billings.	(Canada W.) Kingston, (Canada East) Huntley.
	Bronteus.	
?	insignitus, Beyrich.	
Carad., W. ...	laticauda, Wahlenb.	Britain, Sweden.
?	pendulus, Beyrich.	Prague.
Reg. E	platyactin, Angel.	Wisby (Gothland).
In iron-stained Lst.	signatus, Römer.	Harz (Germany).
	Bumastes.	
Niag.	Barriensis, Hall.	Gothland, Podolia, (Canada W.) Thorold, (Iowa) Turkey River &c.
	Calymene.	
	Baylei, Barr.	Podolia &c.
	Blumenbachii, Blumenbach.	Roosetherrig, Bull's Head (Irel.), Podolia.
	var. Niagarensis, Hall.	(Wisconsin) Milwaukee, Racine.
Llan., Fauna E.	duplicata, Murchison.	Abereiddy Bay (South Wales).
	mammillata, Hall & Whitney.	Wisconsin.
Primordial ...	obtusa, M'Coy.	Chair of Kildare? (Ireland).
Pleta	polytoma, Dalm.	Russia.
,,	sclerops, Dalm.	Russia, (Scania) Scarpaden, (Dalecarlia) Furundal.
	senaria, Conrad.	(Wisconsin) Plattville, (Iowa) Bellevue, (Kentucky) Frankford &c., (Ohio) Oxford, (Tennessee) Davidson County, (Indiana) Madison, (Canada W.) Russell.
Carad., D. d. 2, 4.	Verneuilli, Rouault.	Brittany, Bohemia.
	Cheirurus.	
Carad. &c.	bimucronatus, Murch.	(England) Dent, Yorkshire, Ledbury.
Carad., L.&U.L.	clavifrons, Dalm.	Llanfyllin, Bala, &c. (Wales), Westmoreland, Sweden.
Upper Silurian.	Jaschei, Römer.	N.W. Harz (Germany).
Carad.	juvenis, Salter.	England, Ireland, Scotland.
Tr., M. Sa., &c.	pleurexanthemus, Green.	(Canada E.) Montreal, (Canada W.) Lake Huron, Camp d'Ours, (Minnesota) Falls of St. Anthony, (Illinois) Dunleith &c., (Wisconsin) Mineral Point, (Ohio) Cincinnati.
Reg. E	speciosus, Hising.	Sholes Hook (Wales) &c.
	Conocoryphe.	
U. Lingula Fl...	abdita, Salter.	Dolgelly &c. (Wales).
U.Dolgelly beds	longispina, Belt.	,, ,,
L. Potsd. Sa....	minor, Shumard.	Wisconsin.
U.Dolgelly beds	Williamsi, Belt.	Dolgelly (Wales).
	Crepicocephalus.	
Potsd. Sa.	Miniscaensis, D. D. Owen.	Minisca (Minnesota).
,,	sp. ind., Hall.	(N. Wisconsin) Mountain Isle.
	Cromus.	
	Arcticus, Haughton? Salter.	Garnier Bay (Arctic America).
E. e. 2	Bohemicus, Barr.	(Bohemia) Lockhov &c., Belgium.

Subdivision.	Genus, Species, and Author.	Locality.
	Cybele.	
Carad.	sexcostata, Salter.	SholesHook (Wales) &c.
„ Llandov.	verrucosa, Dalm.	Russia, (Yorksh.) Dent.
	Dalmania.	
D. d. 2	Hawlei, Barr.	Bohemia, New York.
Delth. Sh. Lst.	„ Hall.	„ „
Niag., Racine Lst.	vigilans, Hall&Whitney.	(Wisconsin) Waukesha &c.
	Dikelocephalus.	
	Pepinensis, D. D.Owen.	(Minnesota) Head of L.Pepin, Mazomania.
	Dindymene.	
D. d. 1, 5	Haidingeri, Barr.	Ballyvorgan, Co. Clare (Ireland), Bohemia.
	Ellipsocephalus.	
LingulaFlags...	depressus, Salter. *Conocoryphe.*	(Wales) Wern, Penmorfa.
	Encrinurus.	
Carad., W., &c.	punctatus, Wahlenb. *Calymene.*	(Canada W.) Thorold, Gothland, Podolia.
	vigilans, Hall.	(Canada E.) Malbay, Lakes St. John and St. Louis, &c.
	Eurycare.	
Reg. A	latum, Angelini.	(Sweden) Andrarum, Norway, &c.
	Homalonotus.	
L.	Harrisoni, M'Coy.	Victoria (S. Australia).
	Illænus.	
Niag. &c.	Barrandei, D. D. Owen.	(Wisconsin) Waushaka, Racine.
Corall. Lst., E. e. 1.	Bouchardi, Barr.	
Lower Silurian.	centrotus,	(Ostrogotha) Husbyfjol, (Tyrone) Bardahassigh.
	Lusitanus, Verneuil, Sharpe.	(Spain) Sierra Morena &c.
	ovalis, D. D. Owen.	(Minnesota) Prairie du Chien, (Iowa) Elkader.
Carad.	Rosenbergii, Eichw.	Llandeilo (Wales) &c.
	Lichas.	
W., L.	Anglicus, Beyr.	Ferriter's Cove (Ireland) &c.
W.	Barrandei, Fletcher.	„ „
L. H. G.	Canadensis, Hall.	Port Daniel, Gaspé (Canada East).
Upper Pleta ...	margaritifer, Nieszk.	Borkholm (Esthonia).
W.	rotundifrons, Angelin.	Gothland.
	Lonchocephalus.	
Primordial ...	Chippeway-ensis, D. D. Owen.	Pennsylvania, Marine Mills, Menomonie River (Wisconsin).
„	sp. ind.,	Mountain Island, Lake Pepin.
	Olenus.	
Up. Ling. Fl. ..	alatus, Boeck.	Norway &c.
Primordial ...	forficula,	Norway.
Alum Slate ...	spinulosus, Dalm.	Norway &c.
	Paradoxides.	
	actinura, Dalm.	(Ostrogotha) Berg.
	Phacops.	
E, F, G. g. 1 ...	Bronni, Barr.	N.W. Harz, Bohemia.
B., BL., Tr., H. R. G.	callicephalus, Hall.	(Minnesota) Fort Snelling &c.
L. &c.	caudatus, Brünn.	Ferriter's Cove (Irel.).
Carad.	conicophthalmus, Boeck. *Asaphus Powisii.*	Kilmoculla, Co. Clare (Ireland).
Lower Silurian.	Dujardini, Rouault.	(Spain) Sierra Morena &c.
Carad. &c.	mucronatus, Brongn.	(Vestrogotha) Mounts Mosseberg & Alteberg.
Llandov., W., L.	Stokesii, M.-Edw.	South Thuringia, (England) Gunwick Mill, Malvern.

Subdivision.	Genus, Species, and Author.	Locality.
	Proetus.	
Corall. Lst. ...	concinnus, Dalm.	Podolia.
W.	elegantulus, Angel.	Gothland.
Llandov., W., L.	latifrons, M'Coy.	Bull's Head, Kerry, Ferriter's Cove (Irel.).
L.Silur. (top)...	ramisulcatus, Nieszk.	Esthonia.
	Ptychaspis.	
Potsd. Sa.	granulosus, D. D.Owen.	(Minnesota) Miniska R.
	Ptychopyge.	
Pleta	applanata, Angelin.	Tosna &c. (Russia).
	Sphærexochus.	
	alatus, Angel. *Olenus.*	Norway.
Carad.	juvenis, Phill. (MS.).	Chair of Kildare (Irel.).
D. d. 5	latens, Barr.	Königshof (Bohemia).
D.d.4, Niag. &c.	mirus, Beyrich.	Bohemia, Irel., Ohio, &c.
	Sphærophthalmus.	
U.Ling. beds...	humilis, Phill.	Upper Dolgelly Beds (North Wales).
	Staurocephalus.	
Carad., Llan., W., E. e. 2....	Murchisoni, Murch.	Bohemia, Rhiwlas (W.), Chair of Kildare, (Bohem.) Listice &c.
	Trinucleus.	
Llan., Carad....	concentricus, Eaton.	Trough, Co. Clare (Ireland) &c.
Carad.	seticornis, Hising.	Norway &c.
Carad. ?	Wahlenbergi, Rouault.	„ „

ENTOMOSTRACA.

	Bactropus, *Barrande.*	
F. f. 2	longipes, Barr.	Konieprus (Bohemia).
	Bairdia.	
Carad.	Griffithiana, Jones & Holl.	Chair of Kildare (Irel.).
„	Murchisoniana, „	„ „
„	Salteriana, „	„ „
	Beyrichia.	
D. d. 3	Bohemica, Barr.	(Bohemia) Trubin.
L.	Jonesi, Boll.	Gothland.
	tuberculata, var. nuda, R. Jones.	„ (Lindström).
	Ceratiocaris.	
D. d. 5, E. e. 2.	Bohemicus, Barr.	(Bohem.) Dvoretz, Kozorz, Beranka (col.).
F. f. 2	debilis, „	(Bohemia) Konieprus.
D. d. 5	elegans, „	„ Leiskow.
L.	ensis, Salter.	
D. d. 5	imperfectus, Barr.	Leiskow (Bohemia).
E. e. 1, 2	inæqualis, „	Borek, Lodenitz (Boh.).
	Murchisoni, ? *leptocheles.*	Saxony.
D. d. 5	primulus, Barr.	Leiskow (Bohemia).
G. g. 1	tardus, „	Tetin „
	sp. ind., Lindström.	Gothland.
?	„ Baily.	Boulannunane, County Clare (Ireland).
	Cythere.	
	Bailyana, Jones & Holl.	Chair of Kildare (Irel.).
	Jukesiana, „	„ „
	Harknessiana, „	„ „
	Wrightiana, „	„ „
	Entomoconchus, *M'Coy,* 1844.	
F. f. 2	inchoatus, Barr.	Konieprus (Bohemia).
„	pinguis, „	„ „
	Eurypterus.	
E. e. 2	leptonotus, Barr.	Dlauha Hora, Tobolka (Bohemia).
U.L.	obesus, H. Woodward.	Lanarkshire (Scotland).
„	raniceps, „	„ „
L. H. G.	remipes, Dekay.	Gothland, New York.
U.L.	scorpioides, H. Woodw.	Lanarkshire (Scotland).
	tetragonophthalmus, Fischer.	Russia, Podolia, &c.

Subdivision.	Genus, Species, and Author.	Locality.
	Hymenocaris.	
	Salteri, M'Coy.	Victoria (S. Australia).
	Leperditia.	
Pleta	brachynota, Schmidt.	Borkholm (Esthonia).
,,	marginata, Keyserling.	Esthonia &c.
L. Silur. (top).	obliqua,	Borckholm (Esthonia).
Pleta &c.	phaseolus, Hising.	Russia, Podolia.
Primordial ...	punctatissima, Salter. *buprestis.*	Skiddaw (Cumberland).
E. e. 2	solitarius, Barr.	Bohemia, S. Wales.
L. Lingula Fl...	Solvensis, Jones. *Primitia.*	Solva (South Wales).
	Neolimulus, *H. Woodward*, 1867.	
Uppermost Sh.	falcatus, H. Woodward.	Lanarkshire, W. Scotl.
	Primitia.	
F. f. 2	consobrina, Barr.	Konieprus (Bohemia).
D. d. 5	gregaria, ,,	Königshof ,,
	M'Coyi, Salter.	Chair of Kildare (Irel.).
D. d. 1, 5	prunella, Barr.	Vosek. Mt. Kosow (Boh.)
Carad. ?	Salteriana, Jones.	Gothland &c.
Carad.	Sancti Patrici, Jones & Holl.	Chair of Kildare (Irel.).
F. f. 2	tarda, Barr.	Konieprus (Bohemia).

OSTRACODA.

	Aristozoe, *Barrande*,	1866 ?
F. f. 2	amisa, Barr.	Konieprus (Bohemia).
,,	bisulcata, ,,	,, ,,
,,	memoranda, ,,	,, ,,
,,	mira, ,,	,, ,,
,,	orphana, ,,	,, ,,
,,	perlonga, ,,	,, ,,
,,	regina, ,,	,, ,,
	Bolbozoe, *Barrande*,	1866 ?
E. e. 2	anomala, Barr.	Lockhov (Bohemia).
,,	Bohemica, ,,	Kozel ,,
G. g. 1	Jonesi, ,,	Branik ,,
	Callizoe, *Barrande*,	1866 ?
F. f. 2	Bohemica, Barr.	Konieprus.
	Nothozoe, *Barrande.*	
E. e. 2	Bohemica, Barr.	Dlauha Hora.
D. d. 2	pollens, ,,	Mount Drabow.

POLYZOA.

	Cladograpsus, *Carruthers*, 1868; PLEUROGRAPSUS, *Nicholson.*	
Llan.	capillaris, Carruthers.	Moffat (Scotland).
,,	gracilis, Hall,	Moffat (Scotland) &c.
,,	linearis, Carruthers.	Moffat (Scotland).
	Cladopora.	
Niag.	lichenoides, Winchell & Marcy.	Chicago (Illinois).
,,	verticillata ,,	,, ,,
	Climacograptus.	
Llan.	bicornis, Hall.	Moffat (Scotland) &c.
,,	minutus, Carruthers.	Moffat (Scotland).
	Cyrtograptus, *Carruthers*, 1867.	
W.	Murchisoni, Carruthers.	Builth, Pencerrig (W.),
	Dendograptus.	
Carad.	lentus, Carruthers.	Fermanagh (Ireland).
	Dichograptus.	
P., Queb. G. ..	Logani, Hall.	Victoria (S. Australia).
	var. ,,	Point Lévis (Canada E.), Skiddaw (England).
L.Llan.	multiplex, Nicholson.	Skiddaw (Cumberland).
Queb. G.	octobrachiatus, Hall.	Point Lévis (Canada E.), Skiddaw (England), South Australia.
L.Llan.	reticularis, Nicholson.	Skiddaw.
	Dictyonema.	
Queb. G.	bifida, Hall.	Point Lévis (Canada E.). Skiddaw (England).
L.Tremad.	fenestrata, Salter.	Rhiw-felyn, Dolgelly (Wales).
E. e. 2	grandis, Barr.	Karlstein (Bohemia).
Primordial ...	Hisingeri, ?	Norway.
Tr.	Neenah, D. D. Owen.	Appleton, Fox River (Wisconsin).
	Didymograpsus.	
Llan.	Clingani, Carruthers.	Moffat.
,,	elegans, ,,	,,
,,	flaccidus, Hall.	Skiddaw (Cumberland).
,,	Forchhammeri, Geinitz.	Moffat &c.
,,	fractus, Salter.	Skiddaw Slates (Cumberland).
Llan.	patulus, Hall.	P. Lévis (C E.), Skiddaw.
,,	ramosus, ,	Moffat (Scotl.), Bendigo (Australia), &c.
,,	sextans, ,,	Moffat &c.
D. d. 1	Suessi, Barr.	Vosek (Bohemia).
	Diplograpsus, *M'Coy.*	
	angustifolius, Hall.	Bendigo (S. Austral.) &c.
L.Llan.	antennarius,	Skiddaw Gp. (Cumberl.).
,,	cometa, Geinitz.	Moffat (Dumfries).
,,	minutus, Carruthers.	,, ,,
,,	mucronatus, Hall.	Belvoir (Irel.), Bendigo (South Australia).
,,	palmeus, Barr.	Bendigo (Australia) &c.
	persculptus, ?	Gogofau, Caermarthenshire.
L.Llan.	pristis, Hising.	Moffat, Bendigo (Australia), &c.
	quadrangularis, M'Coy.	Bendigo (S. Australia).
	Discopora.	
L.Silur. (top)...	rhombifera, Schmidt.	Borkholm (Esthonia).
	Fenestella.	
F. f. 2.....	bifrons, Barr.	Konieprus (Bohemia).
	gracilis, ,,	,, ,,
E. e. 2	Ivanensis, ,,	St. Ivan (Bohemia).
F. f. 2	nobilis, ,,	Konieprus (Bohemia).
,,	parallela, ,,	,, ,,
W.	prisca, Baily.	Derrymore Glen (Ireland) &c.
	Filites, *Barrande.*	
	Bohemicus, Barr.	Konieprus (Bohemia).
	Graptolithus.	
D. d. 1	avus, Barr.	Vosek (Bohemia).
Carad., Fau. D	Beckii, ,,	Moffat (Scotland) &c.
Queb. G.	bryonoides, Hall.	South Australia &c.
	Clingani, Carruthers.	Moffat.
Llan.	Halli, Barr.	Moffat &c.
,,	intermedius, Carruthers.	,,
Queb. G.	nitidus, Hall.	Point Lévis (Canada E), South Australia.
	ovatus, Barr.	Bohemia.
Llan.	Salteri, Carruthers.	Moffat.
Llan., Carad. ...	Sedgwickii, Portlock.	Kilnacreagh, Garrana, &c. (Ireland).
	Hellipora.	
?	antheloidea, Meek & Worthen.	Illinois ?
	Nereograpsus, *Geinitz.*	
Llan. ?	Cambrensis, Geinitz.	Thuringia.
Llan.	Sedgwickii, ,,	,,
,,	tenuissimus, Emmons.	Saxony &c.
	Phyllograptus, *Hall*; GRAPTOPORA, *Salter.*	
Queb. G., CS., CH.	angustifolius, Hall.	Skiddaw Slate (Cumberland) &c.
CH.	Anna, ,,	Canada.
	flabelliformis, Angel.	Norway.
CS., CH.	iliciformis, Hall.	Canada.
,, ,,	typus, ,,	,,
	Ptilograptus, *Hall*,	1865.
Queb. Shales ...	Geinitzianus, Hall.	Point Lévis (Can. E.).
,, ,,	plumosus, ,,	,, ,,
	Retepora.	
W.	ramosa, Hising.	Gothland.
E. e. 2	sacculus, Barr.	Konieprus (Bohemia).

Subdivision.	Genus, Species, and Author.	Locality.
	Retiolites.	
Pleta	boletiformis, Eichw.	Poulkova (Russia).
,,	deformatus, ,,	Czarskoe-selo (Russia).
	Rhinopora.	
CL.....	angulata, Hall?	New York.
Niag.	tuberculosa, Hall.	,,
CL.....	tubulosa, ,,	,,
,, Niag.....	verrucosa, ,,	,, Dundas (Canada West).
	Tetragrapsus, *Salter.*	
L.Llan.	crucifer, Hall.	Skiddaw (Cumberland) &c.
L.Llan., Queb. G.	Headi, ,, *Graptolithus.*	Skiddaw, Point Lévis (Canada East).

BRACHIOPODA.

	Athyris.	
W., L.	didyma, Sowerby. *Rhynchonella.*	(Ireland) Derrymore Glen &c.
W., L.L.	obovata, ,,	Thuringia &c.
,, ,,	tumida, Dalm. *Meristella.*	(Ireland) Coosathorig, Bull's Head, Kerry, &c.
	Atrypa.	
U.Llandov., W.	aspera, Schloth. *reticularis.*	Norway, England, &c.
U.Llandov.....	crassicostis? Murch.	Norway.
H. R. G.....	hemiplicata, Hall.	Turkey River, Iowa, Wisconsin.
W. &c.	hemisphærica, Sowerby.	(Ireland) Bull's Head, Kerry, &c.
Carad.,Llandov.	marginalis, Dalm.	(Irel.) Bull's Head &c.
Tr. &c.	modesta, Hall.	Savannah (Illinois).
Pleta	nucella, Dalm.	(Ostrogoth.) Husbyfjol, (Esthon.)Reval,(Russia) St. Petersburg.
	phoca, Salter.	Gothland &c.
W. &c.	reticularis, Linnæus.	Norway, (Irel.) Bull's Head.
Pentam. L., W.	tumida, Dalm.	Norway, Walsall (England), New York.
	Chonetes.	
Lower Silurian.	nana, Verneuil.	(Indiana) Charlston, (Ohio) Louisville.
	Discina.	
L. H. G.....	bella, Billings.	Cape Bonami, Gaspé.
Tr.	cancellata, Sowerby. *Trematis.*	New York &c.
Potsdam Sa. ...	inutilis, Hall.	(N. Wisconsin) Mazomania.
Obolus Sa.	reversa, Sowerby.	Russia, Ireland, &c.
	Leptæna.	
	Himalensis, Salter.	(Himalaya) Niti, Chorhoti Pass.
	var. textilis, ,,	,, ,,
Lower Silurian.	imbrex, Davidson.	(Canada W.) Toronto.
	Jaschei, Römer.	N.W. Harz (Germany).
U.Llandov. ...	lævigata, Sowerby. *Chonetes.*	Thuringia &c.
	minima, ,,	,, ,,
	nux, Salter.	Himalaya, Niti, Milam Glacier, and Kalajowar.
	repanda, ,,	(Himalaya) Niti, Damchen.
	rugosa, Dalm.	N.W. Harz &c.
Carad. &c.	sericea, Sowerby.	S. Thuringia (Can W.), Toronto, &c.
,,	transversalis, Dalm.	S. Thuringia.
	Lingula.	
	ancyloides, Salter.	(Himalaya) Damschen (16,500 feet high).
Potsd. Sa.	antiqua, Hall.	(Wisconsin) Falls of St. Croix &c.
L. H. G.....	Artemis, Billings.	Cape Bonami, Gaspé (Canada East).
Llan.	attenuata, Sowerby, Barr.	Norway &c.
	kali, Salter.	(Himalaya) Kalajowar.
L. H. G.	Lucretia, Billings.	Cape Bonami (Gaspé).
Potsd. Sa.	pinnæformis, D. D. Owen.	(Wisconsin) River St. Croix.
Tr.	riciniformis, Hall.	(Wisconsin) Plattville.
	sp. ind., D. D. Owen.	Fort Garry, Rupert's Land (N. America).
	Lingulella.	
L.Lingula Fl...	Davisii, M'Coy.	Christiania (Norw.) &c.
L.Llan., Menevian Gp.	ferruginea, Hicks. var. *ovalis.*	St. David's (S. Wales).
	Meganteris.	
U.Pent. Lst. ...	æquiradiata, Hall.	(New York) Schoharie County.
Delth.Sh.Lst...	elliptica, ,,	(N. York) Albany Co.
,, ,,	lævis, ,,	,, ,,
,, ,,	prima, Conrad.	,, Albany and Columbia Counties.
	Merista.	
Fauna F	Herculei, Barr.	Bohemia, Gaspé (Canada East).
Delth.Sh.Lst...	lævis, Vanuxem.	(New York) Herkimer &c. Counties.
U.Pentam. Lst.	princeps, Hall.	(New York) Carlisle and Schoharie Cos.
	Meristella.	
W.	Circe, Barr.	England, Bohemia, Gothland.
Niag., W.	nitida, Winchell & Mar.	Gothland &c. (Hall.)
	Obolus.	
Lower Silurian.	Bowlesi, Verneuil.	Spain, Norway.
	Orthis.	
Pleta	Asmussi, Verneuil.	(Esthon.) Réval, Odinsholm.
H. R. G. &c. ...	biforata, Schloth.	Russia &c.
Llandov. &c. ...	biloba, Linnæus.	Norway.
Llan., W., &c...	calligramma, Dalm.	,, Ferriter's Cove (Ireland), Thuringia.
Carad.	var. virgata, Sowerby.	Ballyvorgan, (Irel.) &c.
	compta, Salter.	(Himalaya) Niti and Mamrang Passes, Damchen.
	convexa, ,,	Himalaya, Niti, Damchen.
Carad., W., &c.	elegantula, Dalm.	(Ireland) Ballyvorgan, Bull'sHead, Ferriter's Cove, Yarra (South Austral.), N.W.Harz.
Delth.Sh.Lst...	eminens, Hall.	(N.E. New York) Carlisle County &c.
W., L.	filosa, Sowerby.	Kendal (Westmorel.), Llandeilo &c.(Wales).
Carad., L.Llandov.	insularis, Eichw.	Norway &c.
Corall.L., Schoharie.	interstriata, Hall.	(New York) Schoharie County.
Tr., Llandov....	lamellosa, Logan?	Lake St. Louis (Canada East), Norway.
L.Llandov.....	lata, Sowerby.	South Thuringia &c.
W.	Lewisii, Davidson.	Gothland &c.
	monticula, Salter.	(Himalaya) Damchen.
H. R. G.....	occidentalis, Hall.	(Wisconsin) Green Bay, L. Michigan.
	parva, Pander.	(N. York) Jacksonburg, (Ohio) Cincinnati &c.
Carad.	pecten, ?	Norway.
Tr.	pectinella, Conrad.	(Wisconsin) Mineral Point &c.
	var. semiovalis, Hall.	(N. York) Watertown &c.
Carad., W.....	rustica, Sowerby.	Bull's Head, Kerry, &c.
	striato-costata, Salter.	(Himala.)Niti, Rimkin.

Subdivision.	Genus, Species, and Author.	Locality.
	Tibetica, Salter.	(Himalaya) Niti, Kumaon.
	uncata,	(Himalaya) Niti, Chorhoti Pass.
	Pentamerus.	
W. &c.	galeatus, Dalm.	(France) Cotentin &c.
Llandov. &c.	linguiferus, Sowerby.	Russia &c.
„ „	oblongus, „	Gothland &c.
Niag.	ventricosus? Hall & Whitney.	Wisconsin.
	Retzia.	
W.	reticulata, M'Coy.	Cheney Longueville (Shropshire), Melbourne (Australia).
	Rhynchonella.	
W. &c.	borealis, Schloth.	Gothland, Norway, &c.
	deflexa, Sowerby.	Thuringia.
Fauna E &c.	navicula, „	(Bohemia) Beraun &c.
W. &c.	nucula, „	North and Mid. Gothland &c.
Delth. Sh. Lst. &c.	Stricklandia, „	Gothland &c.
	Siphonotreta.	
Pleta	unguiculata, Eichw.	(Russia) Archangelskoi, River Volkof, &c.
	Spirifera.	
Delth. Sh. Lst.	multistriata, Hall.	(New York) Albany and Schoharie Counties.
„ „	perforata, „	(New York) Albany and Hudson Counties.
	Spirigerina = Atrypa.	
W.	imbricata, Sowerby.	Britain, Russia, Gothland.
	Stricklandinia.	
U. Llandov.	Davidsoni, Billings.	(Anticosti) S.W. Point &c.
„	Salteri, „	(Anticosti) Heath Point &c.
	Strophomena*.	
Delth. Sh. Lst.	cavumbona, Hall.	(New York) Albany and Columbia Counties.

* N.B.—Hall states that the following species, described as this genus, are more nearly allied to the genus *Streptorhynchus* (King):—S. alternata. deltoidea, deflecta, filitexta, incrassata, planumbona, profunda?, recta, rugosa, subplana.

MONOMYARIA.

	Avicula.	
E. f. 2	Cybele, Barr.	Konieprus, Lockhov (Bohemia).
„	dispersa, „	Dvoretz (Bohemia).
E. e. 1	explanata, „	Butovitz „
F. f. 2	imperfecta, „	Konieprus „
E. e. 1	manulia, „	Bubovitz „
E. e. 2	migrans, „	Lockhov „
F. f. 2	Niobe, „	Konieprus „
„	palliata, „	„ „
E. e. 2	seminuda, „	Bubovitz, Lodenitz (Bohemia).
„	serviens, „	Lockhov (Bohemia).
„	varians, „	„ Dvoretz (Bohemia).
F. f. 2	volitans, „	Konieprus (Bohemia).

DIMYARIA.

	Anatina?	
D. d. 5	primula, Barr.	Mount Kosow (Bohemia).
	Antipleura, *Barrande*, 1866?	
E. e. 2	Bohemica, Barr.	Lockhov.
„	tenuissima, „	„ Kozorz.
	Astarte.	
E. e. 2	Bohemica, Barr.	Karlstein (Bohemia).
D. d. 3	præcox, „	Trubin „
G. g. 2	subrotunda, „	Vavrovitz. „
	Cardiomorpha.	
E. e. 2	ampla, Barr.	Dvoretz, Lockhov (Boh.)
	Cardiola.	
E. e. 1, 2	alata, Barr.	Butovitz, H.-Kopanina.
E. e. 1, W., L.	fibrosa, „	„ Viskocilka.
E. e. 1, D, Col.	gibbosa, „	Butovitz.
Carad., E. e. 2	interrupta, „	Dlauha Hora, Dvoretz.
E. e. 2	irregularis, „	Dvoretz.
„	spuria, Münster.	Dlauha Hora.
	Cardium.	
E. e. 2	adolescens, Barr.	Karlstein.
„	delicatum, „	Dvoretz, Lockhov.
„	primulum, „	„ Karlstein.
	Conocardium.	
F. f. 2	Bohemicum, Barr.	Konieprus.
	Ctenodonta = Nucula.	
D. d. 1, 3, 4	Bohemicum, Barr.	Trubin, Zahorzan, Vosek.
D. d. 3, 4	major, „	Trubin, Lodenitz.
	Cypricardia.	
E. e. 2	concors, Barr.	Dvoretz, Lockhov.
D. d. 2	Draboviensis, „	Mount Drabow (Bohemia).
F. f. 2	gratiosa, „	Konieprus.
E. e. 1, 2	migrans, „	Butovitz, Dvoretz.
F. f. 2	nitidula, „	Konieprus.
E. e. 2	perlata, „	Hinter-Kopanina, Leiskow.
D. d. 5	primula, „	Leiskow.
F. f. 2	secans, „	Konieprus.
„	squamosa, „	„
„	submissa, „	„
D. d. 4	veterana, „	Lodenitz.
	Hemicardium, *Cuvier.*	
D. d. 5, E. e. 2	colonum, Barr.	Col. Beranka, Butovitz.
E. e. 2	elevatum, „	Viskocilka (Bohemia).
„	humile, „	Dvoretz, Lockhov.
	Isocardium?	
E. e. 2	major, Barr.	Dvoretz (Bohemia).
„	minor, „	„ „
„	simplex, „	Hinter-Kopanina (Bohemia).
	Lucina?	
E. e. 2	calva, Barr.	Dvoretz (Bohemia).
„	mater, „	Karlstein „
„	soror, „	Dvoretz „
	Lunulacardium.	
E. e. 2	Bohemicum, Barr.	Karlstein (Bohemia).
„	Carolinum, „	Dvoretz „
„	dimidiatum, „	„ „
	Mytilus.	
E. e. 2	consors, Barr.	Dvoretz (Bohemia).
F. f. 2	conspicuus, „	Konieprus „
E. e. 2	elongatus, „	Dlauha Hora „
„	esuriens, „	Lockhov „
E. e. 1	parens, „	Tachlovitz „
F. f. 2	protendens, „	Konieprus „
E. e. 2	securiformis, „	Lockhov „
	Orthonota = Tellinites, Sanguinolaria.	
D. d. 5	antiqua, Barr.	Leiskow (Bohemia).
?	costata, Selwyn.	Victoria (S. Australia).
D. d. 5	Kosoviensis, Barr.	Mt. Kosow (Bohemia).
D. d. 1	prima, „	Vosek „
	Pholadomya, *Sowerby*, 1826.	
E. e. 2	Bohemica, Barr.	Dvoretz (Bohemia).
„	distorta, „	„ „
	Silurina, *Barrande*, 1865?	
E. e. 1	comatum, Barr.	Borek, Butovitz (Boh.).
E. e. 2	commune, „	Karlstein (Bohemia).
„	robustum, „	„ „
„	sociale, „	Dvoretz, Lockhov (Boh.)
E. e. 1	tenax, „	Butovitz.

HETEROPODA–PTEROPODA.

Subdivision.	Genus, Species, and Author.		Locality.
	Bellerophon.		
D. d. 2	acutus,	Barr.	Mount Drabow.
G. g. 1	advena,	,,	Lockhov.
E. e. 2	caudatus,	,,	Tobolka.
,,	constrictus,	,,	Dvoretz.
,,	cristatus,	,,	Lodenitz, Luzetz.
,,	decorus,	,,	Kozorz.
D. d. 5	evolvens,	,,	Mount Kosow.
E. e. 2	eximius,	,,	St. Ivan.
D. d. 5	grandis,	,,	Königshof, Leiskow.
,,	incola,	,,	Leiskow.
E. e. 1, 2	plebeius,	,,	Dlauha Hora.
D. d. 1	pusillus,	,,	Vosek.
D. d. 4	Römeri,	,,	Trubsko.
E. e. 2	rugosus,	,,	Butovitz, Dlauha Hora.
G. g. 1	solitarius,	,,	Tetin.
D. d. 5	suspectus,	,,	Mount Kosow.
E. e. 2	tardus,	,,	Bubovitz, Lodenitz.
D. d. 2	trilobatus,	,,	Mount Drabow.
	Conularia.		
D. d. 2	æqualis,	Barr.	Mount Drabow.
G. g. 1	aliena,	,,	Luzetz.
D. d. 2	anomala,	,,	Vesela near Beraun.
D. d. 1	Bohemica,	,,	Vosek, St. Benigna.
,,	conferta,	,,	Vosek.
D. d. 2	consobrina,	,,	Mount Drabow.
D. d. 1, 3, 4, 5..	exquisita,	,,	Vosek, Wraz, Trubin, Leiskow, Lodenitz, Praskoles, Zahorzan.
D. d. 4	fecunda,	,,	In 16 localities.
D. d. 2 ?.	fragilis,	,,	Konieprus, Mnienian.
D. d. 3, 4	grandissima,	,,	Trubin, Wraz, Lieben, Praskoles, &c.
D. d. 3	Hawlei,	,,	Trubin.
D. d. 4	imperialis,	,,	Mauth ?
D. d. 1, 3, 4	insignis,	,,	Vosek, Trubin, Wraz, Zahorzan.
F. f. 2	invertens,	,,	Konieprus.
D. d. 1, 3	modesta,	,,	Vosek.
D. d. 2	minuta,	,,	Mount Drabow.
D. d. 1	nobilis,	,,	Zahorzan, Motol.
D. d. 2	plicosa,	,,	Mount Drabow.
D. d. 1	primula,	,,	Vosek.
D. d. 4, E, G. g. 1.	Proteica,	,,	Lodenitz, Bubovitz, Leiskow, and 5 more.
D. d. 2, 4	pyramidata,	,,	Zahorzan, Mt. Drabow.
D. d. 2	regulosa,	,,	Mount Drabow.
D. d. 1	robusta,	,,	Vosek.
F	simplex,	,,	Luzetz.
E	solitaria,	,,	Dlauha Hora.
E. e. 2	Sosia,	,,	Kozel, Hint.-Kopanina, St. Ivan.
D. d. 4	tenella,	,,	Lieben.
	Cornulites (Annelida).		
D. d. 5	Bohemicus,	Barr.	Königshof, Gross Kuchel, Leiskov.
D. d. 2, 4	confertus,	,,	Trubsko, Vraz.
E. e. 2, F. f. 1	major,	,,	Lockhov, Mnienian, Konieprus, &c.
	Ecculiomphalus.		
E. e. 2	Bohemicus,	Barr.	Gross Kuchel.
,,	subuloides,	,,	Dlauha Hora.
	Hyolites = Pugiuncu	lus, Theca.	
E, F	aduncus,	Barr.	Butovitz, Tachlovitz, and 5 more places.
F	alter,	,,	Slivenetz, Chotecz, Lockhov, &c.
D. d. 1	arcuatus,	,,	Slivenetz, Tobolka, Konieprus, Beraun.
F	catenatus,	,,	Konieprus.
D. d. 1	cinctus,	,,	Vosek.
E, F	columnaris,	,,	Tachlovitz, Borek, Kozel, and 4 more places.
F	costulatus,	Barr.	Konieprus.
D. d. 3, 4, 5	decipiens,	,,	Kosov, Königshof, Zabichlitz, Beraun.
F	discors,	,,	Konieprus.
D. d. 1, 4	elegans,	,,	Vosek, St. Benigna.
D. d. 3	elongatus,	,,	Trubin.
D. d. 1	fortis,	,,	Vosek.
F	hexagon,	,,	Mnienian.
D. d. 3, 4, 5	indistinctus,	,,	Trubin, Zahorzan, Praskoles, &c.
D. d. 4	magister,	,,	Straznitz near Prague.
C	maximus,	,,	Mleschitz (Skrey).
G. g. 1	nobilis,	,,	Hostin.
G. g. 2, H. h. 1	novellus,	,,	Srbsko, Vavrovitz.
F. f. 1	obvius,	,,	Bubovitz, Beraun.
C	parens,	,,	Mleschitz.
F	pauper,	,,	Mnienian, Konieprus.
C	primus,	,,	Ginetz, Skrey, Mleschitz.
,,	robustus,	,,	Mleschitz.
D. d. 1	rusticus,	,,	St. Benigna.
E, F	sandalinus,	,,	Konieprus, Dlauha Hora.
G. g. 1	secans,	,,	Hostin.
E	simplex,	,,	St. Ivan, Lodenitz, Kaukalova Hora, and 6 more.
D. d. 4	solitarius,	,,	Zahorzan.
D. d. 1, 3, 4, 5	striatulus,	,,	Vosek, Trubin, Lodenitz, Lieben, Sterboholy, and 3 more.
G. g. 1	tardus,	,,	Tetin.
D. d. 1	teres,	,,	Vosek.
D. d. 3, 4, 5	undulatus,	,,	Czernin, Mount Kosov, Vraz, &c.
C	venustus,	,,	Skrey.
	Phragmotheca, *Barrande*, 1867.		
E. e. 2	Bohemica,	Barr.	Lodenitz Hills.
	Pterotheca.		
E. e. 2	Bohemica,	Barr.	Lodenitz Hills.
	Rhombifera, *Barrande*, 1867.		
D. d. 4	Bohemica,	Barr.	Wraz.
	Styliola, *Lesueur.*		
G. g. 1, H. h. 2	clavulus,	Barr.	Holin, Vavrovitz, Karlstein, &c.
	Tentaculites (Annelida).		
F. f. 1	intermedius,	Barr.	Lockhov.
F. f. 2	longulus,	,,	Slichov, Mnienian, &c.

CYSTIDEA.

	Trochocystites.		
Primordial	lichenoides,	Barr.	Ginetz.
D. d. 1	mitra,	,,	Vosek.
Primordial	priscus,	,,	,,

BOHEMIAN BRACHIOPODA
(additional, 1868.—*M. Barrande*).

	Atrypa.		
E. e. 2	audax,	Barr.	Lodenitz, Luzetz.
,,	caudata,	,,	,, Bubovitz.
,,	confortata,	,,	Dlauha Hora.
F. f. 2	contumax,	,,	Konieprus.
D. d. 4	deformata,	,,	Lodenitz, Zahorzan.
E. e. 2	Dormitzeri,	,,	Dlauha Hora.
F. f. 2	felina,	,,	Mnienian.
E. e. 2	hircina,	,,	Dlauha Hora.
,,	macra,	,,	Lodenitz, Luzetz.
,,	parietalis,	,,	Kozel.
F. f. 2	præcox,	,,	Konieprus.
E. e. 2	sphærula,	,,	Dlauha Hora.
,,	squama,	,,	Lodenitz.
	Chonetes.		
F. f. 2	Bohemicus,	,,	Konieprus.

Subdivision.	Genus, Species, and Author.		Locality.
E. e. 2	margarita,	Barr.	Dlauha Hora.
„	minor,	„	St. Ivan.
„	soror,	„	Bubovitz, Sedletz.
F. f. 2	venustus,	„	Konieprus.
E. e. 1	zephyrus,	„	Borek.
	Discina.		
D. d. 2, 4	hamifera,	Barr.	Mount Drabow, Lieben.
E. e. 1	nana,	„	Borek.
E. e. 2	triangularis,	„	Dlauha Hora.
	Leptæna.		
F. f. 2	translata.	Barr.	Mnienian.
	Lingula.		
	approximans,	Barr.	Hlava.
D. d. 1	debilis,	„	Vosek.
„	Feistmanteli,	„	Kruschna Hora.
D. d. 5	fissurata,	„	Königshof.
D. d. 2	lamellosa,	„	Libetschov.
E. e. 1	nigricans,	„	Borek.
E. e. 2	perlonga,	„	Dlauha Hora.
?	zebra,	„	„ „
	Mimulus, *Barrande,*		1868.
	contrarius,	Barr.	Tetin.
	perversus,	„	Listice, St. Ivan.
	Obolus.		
D. d. 1	albescans,	Barr.	Voleschna.
Fauna C	Bohemicus,	„	Mleschitz.
D. d. 1	secundus,	„	Voleschna.
	Orthis.		
E. e. 2	accedens,	Barr.	Dlauha Hora.
D. d. 5	aciculata,	„	Gross Kuchel.
E. e. 2	adæquata,	„	Dlauha Hora.
D. d. 4	alteræ,	„	Praskoles, Zahorzan.
D. d. 1	Bohemica,	„	Hlava.
D. d. 4	capitata,	„	Chrustenitz.
E. e. 1	cognata,	„	Borek.
F. f. 2	degener,	„	Mnienian.
E. e. 2	dorsata,	„	Kozel, Ratinka.
F. f. 2	extranea,	„	Konieprus.
„	fragilis,	„	„
D. d. 2, F. f. 2	Grimmi,	„	Holaubka.
D. d. 4	inclyta,	„	Lodenitz.
E. e. 2	interjecta,	„	„
D. d. 1	mœsta,	„	Vosek.
„	neutra,	„	„
D. d. 4	notata,	„	Lahorska, Radotin.
„	partita,	„	Vraz.
„	querenda,	„	Zabiehlitz.
D. d. 5	radiatula,	„	Königshof.
D. d. 4	remota,	„	Lodenitz, Zahorzan.
F. f. 2	rudis,	„	Konieprus.
D. d. 2	soror,	„	Holaubka.
D. d. 4	suburbana,	„	Vrschovitz.
F. f. 2	tenuissima,	„	Konieprus.
	Pentamerus.		
E. e. 1	cuneus,	Barr.	Ratinka.
E. e. 2	invalidus,	„	Viskocilka.
E. e. 1	modestus,	„	Butovitz.
E. e. 2, F. f. 2	proximus,	„	St. Ivan, Konieprus.
F. f. 2	rarus,	„	Mnienian.
E. e. 2	simplex,	„	Tachlovitz.
	Porambonites?		
	Bohemicus,	Barr.	Ratinka, Bubovitz.
	robustus,	„	Hlubocep.
	Retzia.		
E. e. 2	vesta,	Barr.	Lockhov.
	Spirifera.		
F. f. 2	abscondita,	Barr.	Mnienian.
„	accedens,	„	Konieprus.
G. g. 1	advena,	„	Branik.
F. f. 2	approximans,	„	Konieprus.
E. e. 2	arata,	„	Dlauha Hora.
„	armata,	„	Lodenitz, Luzetz.
„	Bohemica,	„	„ Ratinka.
„	carens,	„	Dlauha Hora, St. Ivan.
„	deleta,	„	Bubovitz, Lodenitz.
„	Devonicans,	„	Luzetz, Lodenitz.
E. e. 2	gibbosa,	Barr.	Luzetz, Lodenitz.
„	metuens,	„	„ „
F. f. 2	occludens,	„	Konieprus.
„	orbitata,	„	„
	Strophomena.		
E. e. 1, 2	bracteola,	Barr.	Borek, Lodenitz.
D. d. 1	caduca,	„	St. Benigna.
E. e. 2	calcarifera,	„	Bubovitz, Lodenitz.
„	conferta,	„	Rzepora.
D. d. 5	conformis,	„	Mount Kosov.
„	folium,	„	Königshof.
F. f. 2	humilis,	„	Konieprus.
D. d. 5	mixta,	„	Mount Kosow.
D. d. 4	oculata,	„	Zahorzan.
E. e. 1	plicatilis,	„	Listice.
E. e. 2	rudis,	„	Dlauha Hora.
D. d. 5	rigida,	„	Königshof.
F. f. 2	suavissima,	„	Konieprus.
D. d. 5	Weitenveberi,	„	Königshof.
	Trematis.		
E. e. 2	terminalis,	Sharpe.	Bubovitz, Lodenitz.

The Silurian Faunæ of the environs of Hof, in Bavaria, determined by M. Barrande.

TRILOBITA.

	Agnostus.		
Primordial? ...	Bavaricus,	Barr.	Hof (Bavaria).
	Asaphus.		
2nd Fauna ...	Wirthi,	Barr.	Hof (Bavaria).
Subgenus ...	**Bavarilla,** *Barrande,*		1868.
Primordial ...	Hofensis,	Barr.	Hof (Bavaria).
	Calymene.		
2nd Fauna (the only species).	Tristani, var. Bavaricus.	Barr.	Hof (Bavaria).
	Cheirurus.		
2nd Fauna ...	discretus,	Barr.	Hof (Bavaria).
„	gracilis,	„	„ „
	Conocephale = Cono coryphe.		
Primordial ...	Bavarica,	Barr.	Hof (Bavaria).
„	deficiens,	„	„ „
„	discrepans,	„	„ „
„	extrema,	„	„ „
„	Geinitzi,	„	„ „
„	Hofensis,	„	„ „
„	innotata,	„	„ „
„	Münsteri,	„	„ „
„	problematica,	„	„ „
„	quæsita,	„	„ „
„	Wirthi,	„	„ „
	Lichas.		
2nd Fauna ...	primulus,	Barr.	Hof (Bavaria).
	Olenus.		
Primordial ...	expectans,	Barr.	Hof (Bavaria).
„	frequens,	„	„ „
„	Guimbeli,	„	„ „
Genus uncertain	**Trilobita.**		
2nd Fauna ...	prævalens,	Barr.	Hof (Bavaria).
„	corpulenta,	„	„ „
„	sp. *v*,	„	„ „
„	„ *x*,	„	„ „
„	„ *y*,	„	„ „
„	„ *z*,	„	„ „

ANNELIDA.

	Serpulites?		
2nd Fauna ...	Hofensis,	Barr.	Hof (Bavaria).

PTEROPODA.

	Hyolithus.		
	imperfectus,	Barr.	Hof (Bavaria).
	Wirthi,	„	„ „

BRACHIOPODA.

Subdivision.	Genus, Species, and Author.	Locality.
	Discina.	
Primordial ...	contraria, Barr.	Hof (Bavaria).
Primordial ? ...	varians, „	„ „
	Lingula, *Barrande.*	
Primordial ...	Bavarica, Barr.	Hof (Bavaria).
„	cedens, „	„ „
„	humillima, „	„ „
„	inchoans, „	„ „
Primordial ...	signata, Barr.	Hof (Bavaria).
„	Wirthi, „	„ „
	Obolus?	
Primordial ? ...	minor, Barr.	Hof (Bavaria).
Primordial ...	palliatus, „	„ „
	Orthis.	
Lower Silurian.	Bavarica, Barr.	Hof (Bavaria).

CYSTIDEA.

	Cystidea.	
2nd Fauna ...	Bavarica, Barr.	Hof (Bavaria).

N.B.—The majority of the genera and species indicate the primordial fauna, while the four genera of Trilobites, *Asaphus*, *Lichas*, *Calymene*, and *Cheirurus*, announce the second fauna, the species being rare. Thus this fauna of Hof seems to constitute a *transition and connexion* between the first two Silurian faunæ.—*M. Barrande.*

There are a few more Hof fossils scattered about in the 'Thesaurus.'

[The Addenda usually present new information, local and stratigraphical, and frequently newly acquired species.]

ERRATA.

Page.	Error.	Rectification.
1	Palæochorda	An Annelid.
2	Trichoides, *Harkness*.....	„
4	Nidulites favus	Not in Llandeilo Stage.
„	Retioulites	Ought to be Reticulites.
8	Cladopora	Is a Polyzoon.
9	Corynoides	„
12	Helopora.....	„
13	Oldhamia	„
14	Rhinopora	„
19	Cryptocrinites	A Cystidean.
26	Hemicystites parasitica.....	Only in Niag. Group.
29	Chondrites informis	In Britain also.
„	„ regularis	Not in Llandeilo Stage.
„	Crossopodia Scotica	„ „
30	Nereites Cambrensis	„ Caradoc Stage.
31	Scolithus linearis	„ Llandov. „
„	Tentaculites anglicus	„ Llandeilo „
34	Æglina caliginosa	„ Caradoc „
„	„ mirabilis	„ Llandeilo „
36	Ampyx nasutus	„ Britain.
58	Lichas verrucosus, *Eichw*....	In Pleta.
„	„ „ *Salter* ...	Woolhope, Wenlock.
65	Proetus depressus	Cancel this species.
81	Climacograptus antennarius	Point Lévis, Queb. G.
84	Rastrites Barrandei	Dele.
„	„ triangularis	„
95	Leptæna calcarata	Only in Llandov. and W.
96	„ quinquecostata ...	„ Caradoc.
97	Lingula Bechei	„ Llandeilo.
99	„ squamosa, *Holl*.....	Malvern.
102	Obolella polita	Potsdam. Sa. or Calcif. Sa.
114	Rhynchonella Davidsoni ...	Is in W. and L.
116	„ sexcostata ...	Only in Llandov. Stage.
124	Strophomena undata	„ W.
140	Palæarca Billingsiana	Llandeilo Stage.
144	Bellerophon Murchisoni ...	Ludlow „
157	Murchisonia bicincta	Only in Caradoc.
„	„ bilirata	Not in Black Riv. Lst.
174	Lituites falcatus	In Pleta only.
176	Orthoceras Avelinii	In Llan. only, Britain.
178	„ encrinale	In Low. Llan. only.
„	„ filosum	Not in Llandeilo.
181	„ subgregarium.....	In Llandov. only, Lenane &c., Galway.
182	„ undulatum.....	Dele.
„	„ undulobellicinctum..	„
„	„ undulostriatum ...	Low. Llan., not Llandov.

N.B.—Other errors undiscovered may explain themselves.

SILURIAN PALÆONTOLOGY.

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