

Box I. Trypanosomiasis

Publication/Creation

c.1903-1912

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ON HER MAJESTY'S SERVICE

Lantern slides

Sir David Bruce







1242



- 1 7. *T. river* - same as 1.
- 2 8. Development of 15-20 p.
- 3 9. *T. gracilipes*
- 4 10. Developmental stage
- 5 11. Development of 1-2 p.
- 6 12. Development of 1-3 p.
- 7 13. Development of 1-4 p.
- 8 14. Development of 1-5 p.
- 9 15. Development of 1-6 p.
- 10 16. Developmental stage
- 11 17. *T. Sol. 5/6*
- 12 18. Development of 4
- 13 19. *T. 6/6 2. 7/6 6/6*
- 14 20. *T. 6/6 11 6/6 6/6*
- 15 21. *P. P. 6/6 6/6 6/6*
- 16 22. *P. 6/6 6/6 6/6*
- 17 23. *P. 6/6 6/6 6/6*
- 18 24. *P. 6/6 6/6 6/6*
- 19 25. *P. 6/6 6/6 6/6*
- 20 26. *P. 6/6 6/6 6/6*
- 21 27. *P. 6/6 6/6 6/6*
- 22 28. *P. 6/6 6/6 6/6*
- 23 29. *P. 6/6 6/6 6/6*
- 24 30. *P. 6/6 6/6 6/6*
- 25 31. *P. 6/6 6/6 6/6*
- 26 32. *P. 6/6 6/6 6/6*
- 27 33. *P. 6/6 6/6 6/6*
- 28 34. *P. 6/6 6/6 6/6*
- 29 35. *P. 6/6 6/6 6/6*
- 30 36. *P. 6/6 6/6 6/6*
- 31 37. *P. 6/6 6/6 6/6*
- 32 38. *P. 6/6 6/6 6/6*
- 33 39. *P. 6/6 6/6 6/6*
- 34 40. *P. 6/6 6/6 6/6*
- 35 41. *P. 6/6 6/6 6/6*
- 36 42. *P. 6/6 6/6 6/6*
- 37 43. *P. 6/6 6/6 6/6*
- 38 44. *P. 6/6 6/6 6/6*
- 39 45. *P. 6/6 6/6 6/6*
- 40 46. *P. 6/6 6/6 6/6*
- 41 47. *P. 6/6 6/6 6/6*
- 42 48. *P. 6/6 6/6 6/6*
- 43 49. *P. 6/6 6/6 6/6*
- 44 50. *P. 6/6 6/6 6/6*

- 1 T. Vwaase Curose
- 2 Table 1. 1566 days. Dev't of T3 in S.p.
- 3 T.gamb. from salivary of S.p. 1st 4th days
- 4 - 150 - Normal dev't types
- 5 - 150 - Masses of Trypas
- 6 - 150 - Smaller, sweet types
- 7 - 150 - Small forms
- 8 - 150 - Regenerative type
- 9 - 80 - 150 more so
- 10 - 150 - Long narrow, bottle-like
- 11 - 150 - Aberrant forms in Sol. Sal.
- 12 - 150 - Sol. glands, Blood forms
- 13 Table 2. Sept 7 as above by type of flies
- 14 " 3 Continuation of masses of Sol. Sal. 2nd of flies
- 15 P. placenta parvum. Transvaal.
- 16 P. mutans cattle - 150 -
- 17 P. biguttatum - Uganda &c
- 18 Blue bodies - Males coll. Uganda
- 19 T. brevis of man. Mysalaland
- 20 T. brevis Zulu. 1913 - 150
- 21 T. Gambosus. Tanganyika
- 22 T. pecorum. Mysalaland
- 23 150 development in T. fly - 1
- 24 T. Vwaase -
- 25 T. Simiae. Mysalaland
- 26 T. Vwaase - Uganda
- 27 T. Caprae. Uganda
- 28 T. uniformis. Uganda
- 29 T. Caprae. Dev't in Posterior of S. M.
- 30 T. gambosus Tanganyika II. in animals.
- 31 " " S.I. "
- 32 " " S.I. "
- 33 T.g. in S.p. injection of mixed up flies. 1500
- 34 " " " Days
- 35 Superf. of S.p. in Uganda 1905 & 1912
- 36 Length & breadth of T.g. compared with T.b.
- 37 Development of T.g. in antelope
- 38 Feeding Lab. but flies on Antelope (superf. of T.g.)
- 39 No. of times T.b. found among 150 with
- 40 per cent. of Rec. virus, of animals with T. virus
- 41 " of posterior bacillus in Mysalaland
- 42 Distribution of trypan diseases in the world
- 43 Table. Dev't of T3 in S. palpalis
- 44 - The propolis of wild S. m. infested with T. virus
- 45 Length of various strains of T. brevis
- 46 - Development of T. fly
- 47 " "
- 48 " "

14. Tryouri house
dosa in N. J., N.J.
E. E. VELLA

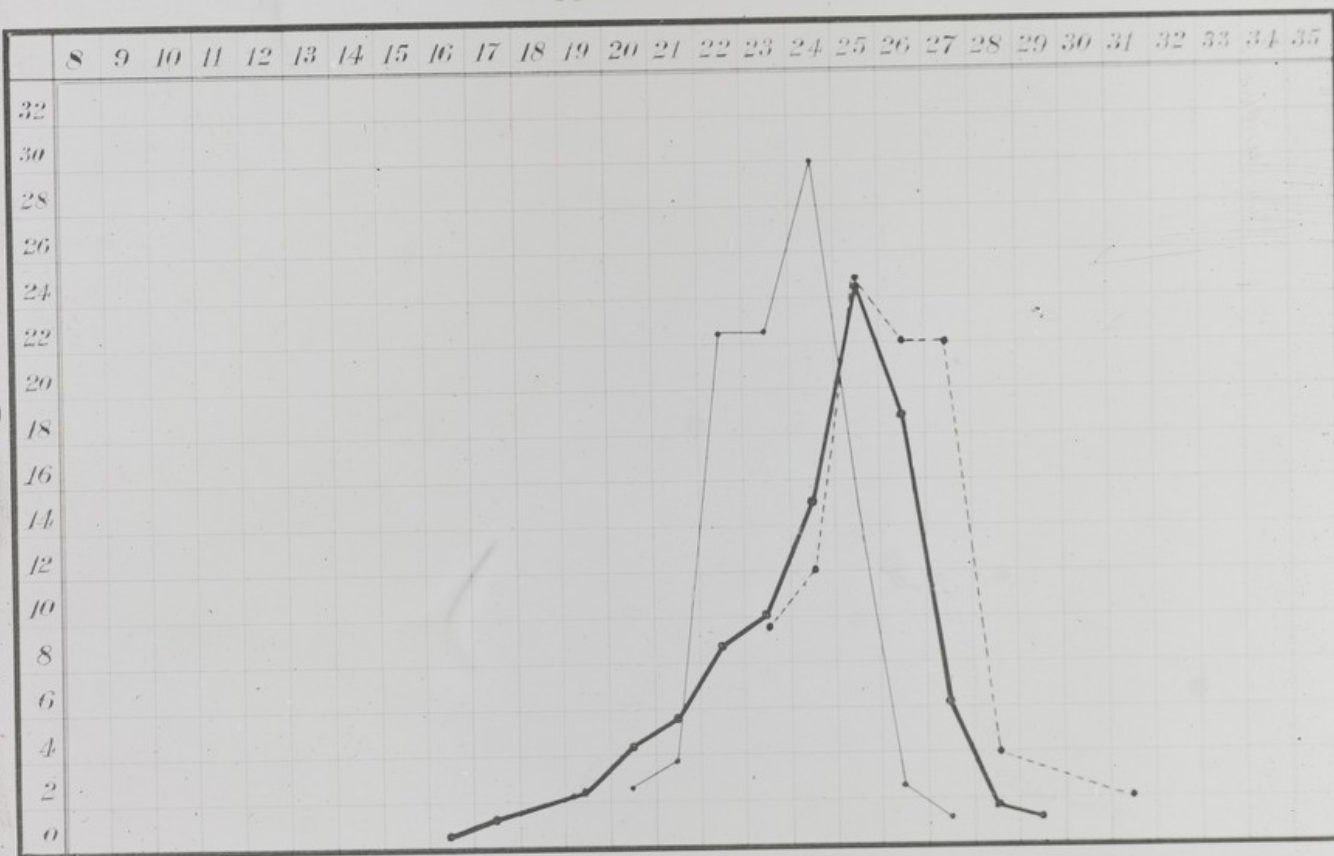
1	2. T. vivax Curves
2	2. a. Development of T. vivax
3	2. b. T. gambiense
4	2. c. Development of T. vivax
5	2. d. Development of T. vivax
6	2. e. Development of T. vivax
7	2. f. Development of T. vivax
8	2. g. Development of T. vivax
9	2. h. Development of T. vivax
10	2. i. Development of T. vivax
11	2. j. Development of T. vivax
12	2. k. Development of T. vivax
13	2. l. Development of T. vivax
14	2. m. Development of T. vivax
15	2. n. Development of T. vivax
16	2. o. Development of T. vivax
17	2. p. Development of T. vivax
18	2. q. Development of T. vivax
19	2. r. Development of T. vivax
20	2. s. Development of T. vivax
21	2. t. Development of T. vivax
22	2. u. Development of T. vivax
23	2. v. Development of T. vivax
24	2. w. Development of T. vivax
25	2. x. Development of T. vivax
26	2. y. Development of T. vivax
27	2. z. Development of T. vivax
28	2. aa. Development of T. vivax
29	2. ab. Development of T. vivax
30	2. ac. Development of T. vivax
31	2. ad. Development of T. vivax
32	2. ae. Development of T. vivax
33	2. af. Development of T. vivax
34	2. ag. Development of T. vivax
35	2. ah. Development of T. vivax
36	2. ai. Development of T. vivax
37	2. aj. Development of T. vivax
38	2. ak. Development of T. vivax
39	2. al. Development of T. vivax
40	2. am. Development of T. vivax
41	2. an. Development of T. vivax
42	2. ao. Development of T. vivax
43	2. ap. Development of T. vivax
44	2. aq. Development of T. vivax
45	2. ar. Development of T. vivax
46	2. as. Development of T. vivax
47	2. at. Development of T. vivax
48	2. au. Development of T. vivax
49	2. av. Development of T. vivax
50	2. aw. Development of T. vivax

1	T. vivax Curves
2	Table 1. 1556 days. Dev't of T. vivax in S.p.
3	T. gambiense from infection of S.p. 1 st 4 th days
4	- 1 st - - - - - Minimal devel't types
5	- 1 st - - - - - Masses of hyphae
6	- 1 st - - - - - Smaller devel't types
7	- 1 st - - - - - Small forms
8	- 1 st - - - - - Degenerative types
9	- 1 st - - - - - 1 st more so
10	- 1 st - - - - - Long narrow, butts like
11	- 1 st - - - - - Aberrant forms in Sal. Sol.
12	- 1 st - - - - - Sal. glands, Blood forms
13	Table 2. 1556 days. Dev't of T. vivax in S.p.
14	a 3. Location of masses of hyphae in S.p.
15	P. mutans from S.p. 1556 days
16	P. mutans cells - 1 st -
17	P. biguttatus - Uganda 1556
18	Blue bodies - M. 1556 days
19	T. vivax from M. 1556 days
20	T. vivax from M. 1556 days
21	T. gambiense from M. 1556 days
22	T. vivax from M. 1556 days
23	1 st development in the fly -
24	T. vivax -
25	T. vivax - Uganda
26	T. vivax - Uganda
27	T. vivax - Uganda
28	T. vivax - Uganda
29	T. vivax - Uganda
30	T. vivax - Uganda
31	T. vivax - Uganda
32	T. vivax - Uganda
33	T. vivax - Uganda
34	T. vivax - Uganda
35	T. vivax - Uganda
36	T. vivax - Uganda
37	T. vivax - Uganda
38	T. vivax - Uganda
39	T. vivax - Uganda
40	T. vivax - Uganda
41	T. vivax - Uganda
42	T. vivax - Uganda
43	T. vivax - Uganda
44	T. vivax - Uganda
45	T. vivax - Uganda
46	T. vivax - Uganda
47	T. vivax - Uganda
48	T. vivax - Uganda
49	T. vivax - Uganda
50	T. vivax - Uganda

#1.1 T. vivax - U & Togoland

T. vivax.

Microns



— Uganda 1909.
 — Uganda 1905.
 ---- Togoland 1905.

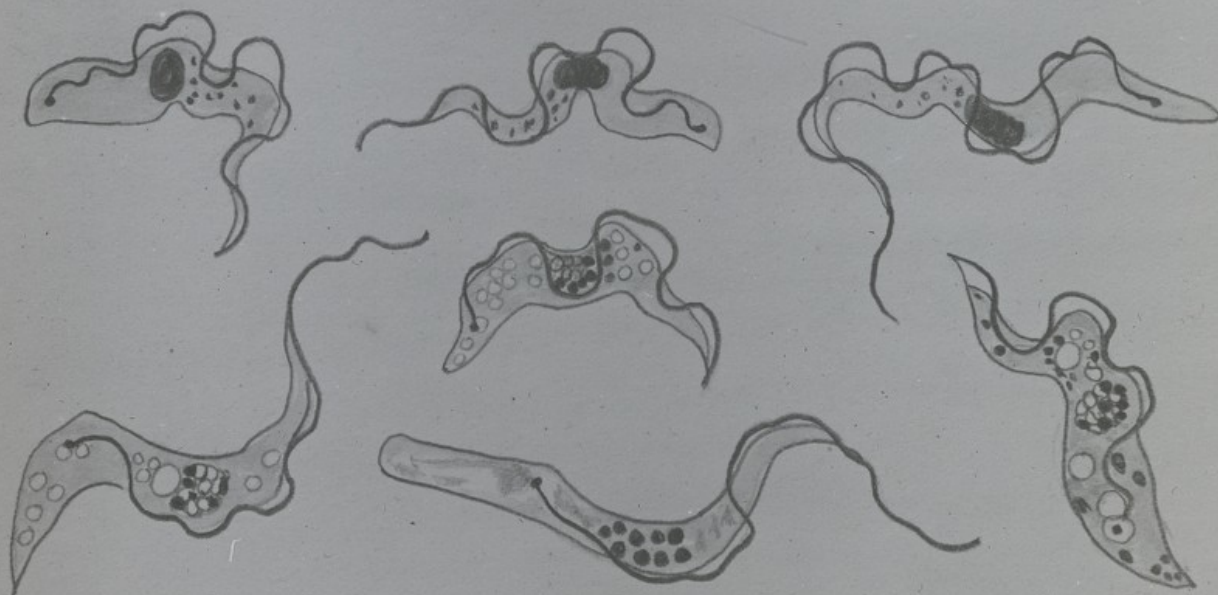
J. D. T. Sankhara

Table I.—Number of Trypanosomes found in the Various Parts of the Alimentary Canal and Salivary Glands.

Time, days.	Pro-boscis.	Proventriculus.	Crop.	General smear of gut.	Fore-gut.	Mid-gut.	Hind-gut.	Procto-dæum.	Salivary glands.
1	—	—				++			—
1	—	—				+	+		—
2	—				+	++	++		—
3	—					++	++		—
4	—				+	+	+	—	—
5	—	—	—	+	+	+	—		—
6	—	—	—	+	+				—
7	—	—	—						—
8	—	+			+	++	++		—
8	—				±	±	±		—
9	—	—			±	++		—	—
9	—				+	+	+		
10	—				+	++	++		
10	—					+			
11	—	±	—	++	—	±	±		—
11	—	±	—	++	++	±			—
11	—	++			++	++	++		—
14	—	+++	—		++	++		—	—
14	—	++	—		++	++	++	—	—
15	—	—			+	+			—
17	—	—	—		±	++	++		—
17	—	++		—	++	++			—
18	—	—			++	+	++		—
18	—					++	++		—
20	—	++			++	++	++	±	—
21	—			+++					
22	—			++					
23	—				+	+	+		
24	—				+++	+++	+++		
25	—	—	—		+	+++	++		+
28	—			++		++			+
30	—	+			++	++			+
30	—	+			++	++	±		—
31	—	+	+		+++	++			—
31	—			+					
34	—			++	++	+++	+++	—	—
35	—	—			+	++	++		—
36	—			+++	+++	+++	+		+
36	—	—		+++	++	+++			—
36	—	++		+++					
37	—			++					
40	—			++					
40	—			++					
42	—	++		+	++				+
43	—			++					++
44	—	+			++	+++			+
44	—				+	++	++		+
44	—	+			+	++	+		+
46	—	+			+++	+++	+++		++
49	—	—	—		+	±			—
51	—				+	±	++		—
53	—	—			±	±			—
53	—	—	—		+	++			—
53	—					±			+
56	—			++					+

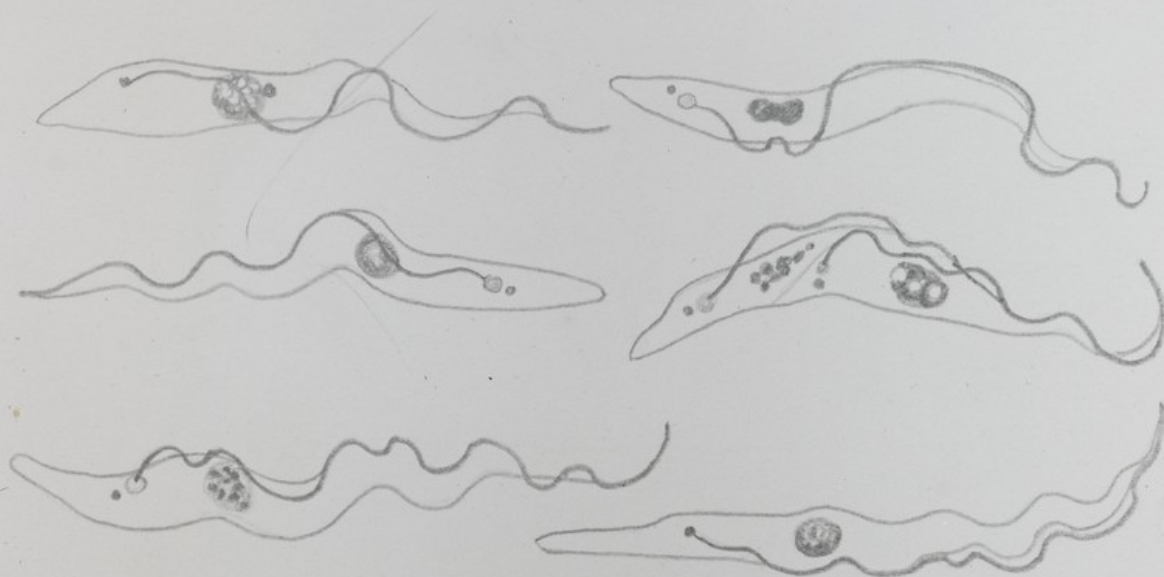
in Tacta, fly - 1 to 4 days

13

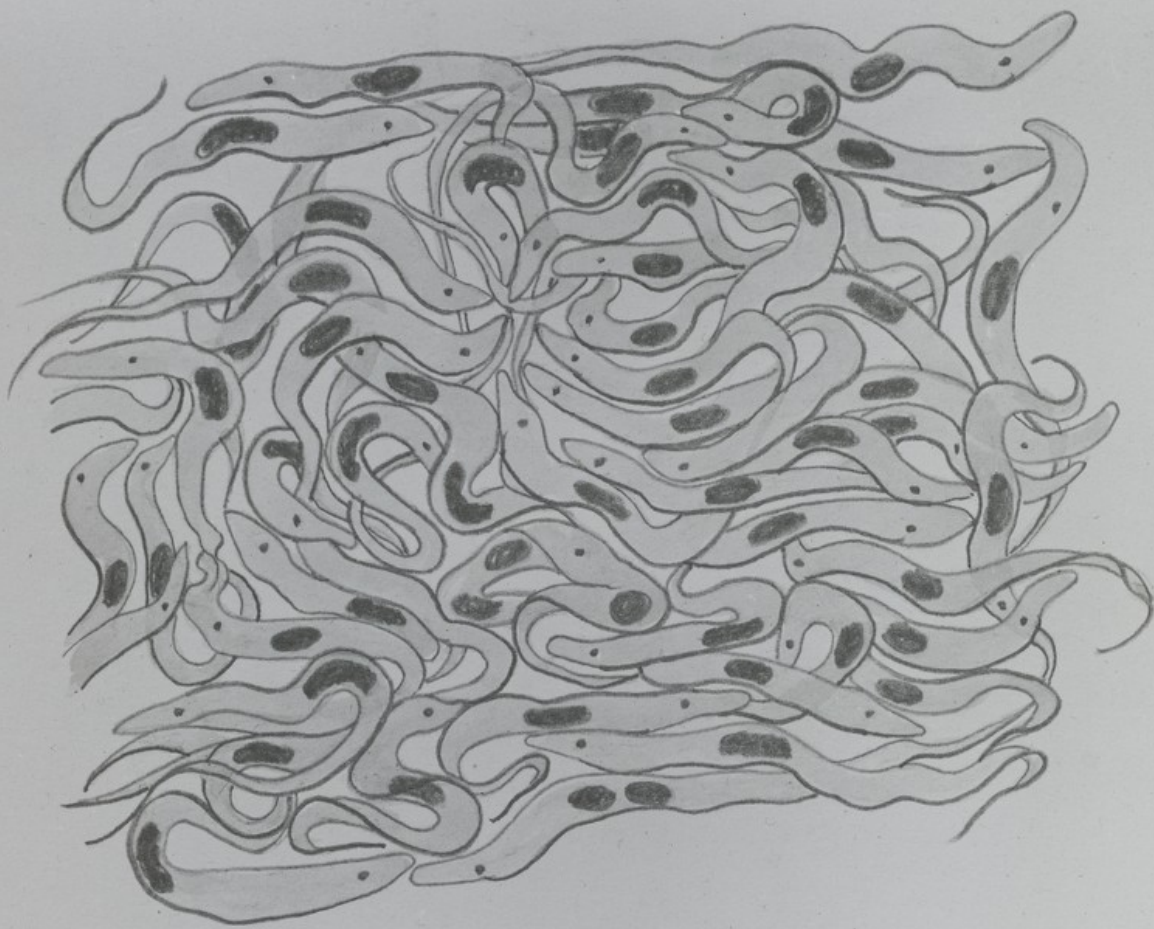


T. Gambusia in S. palpalis

14



T. Gambusia in G. palpealis

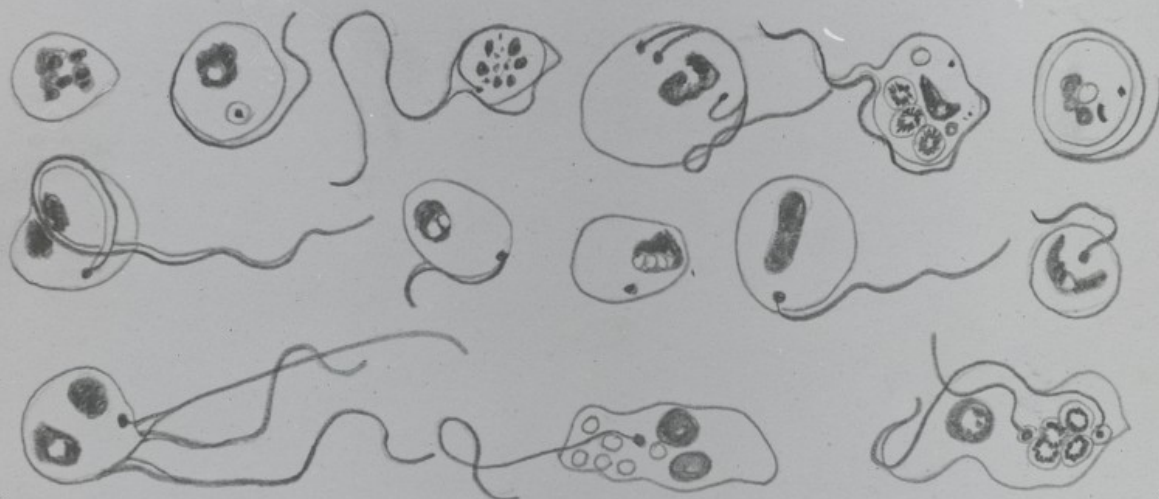


T. cantharus in *S. palpalis*.

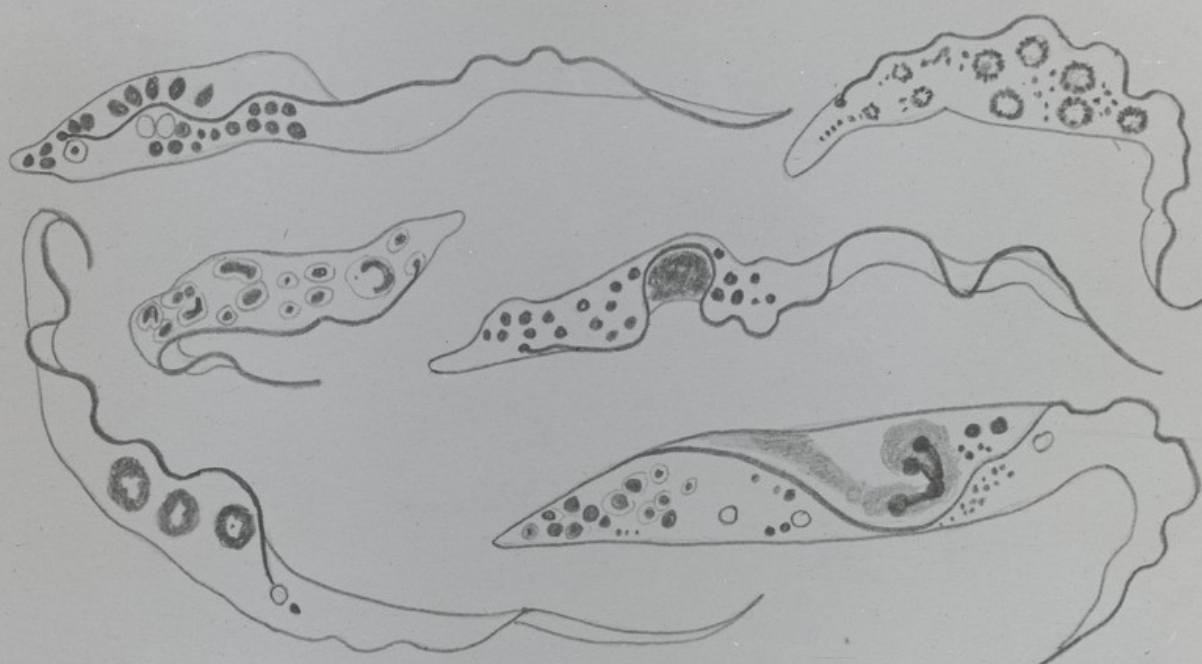


T. canaliculatus in *S. palpalis* -

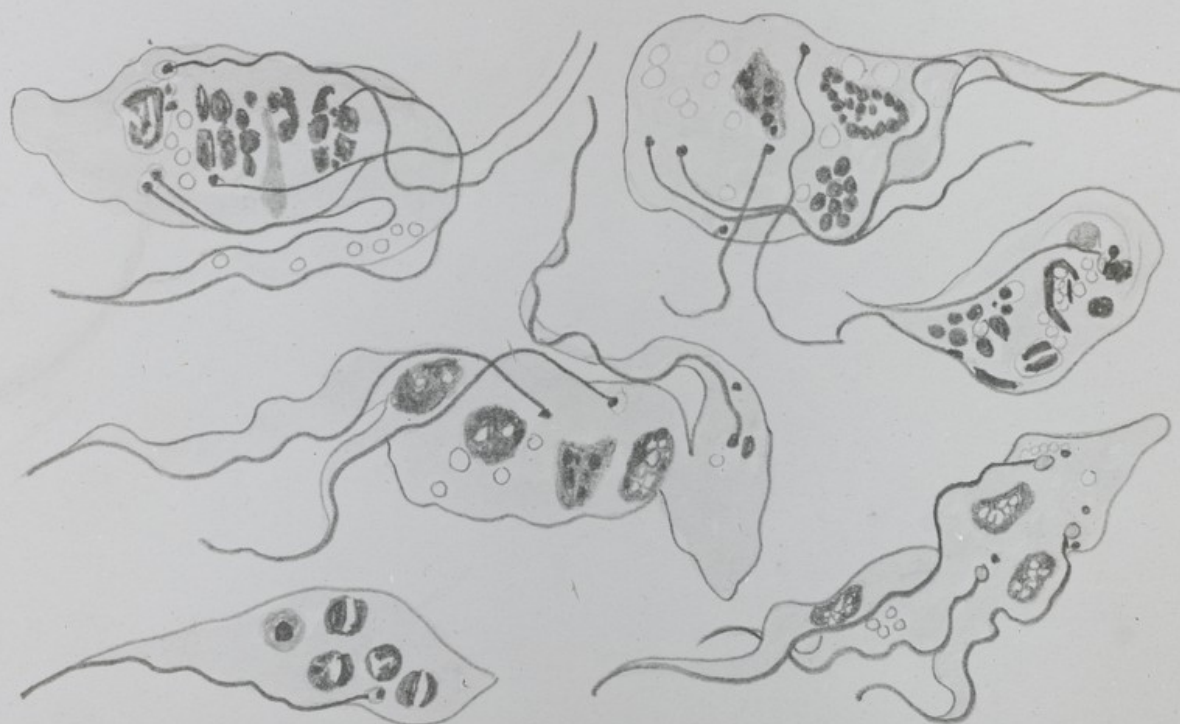
16



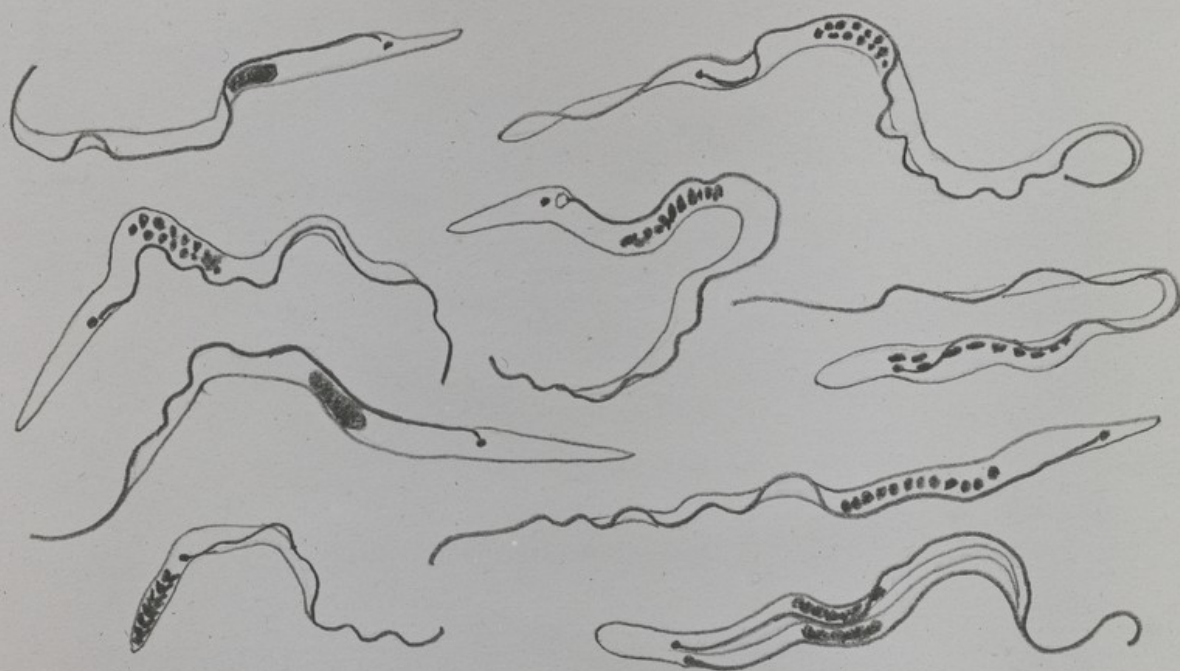
I 8. Trematode in *S. palpalis*



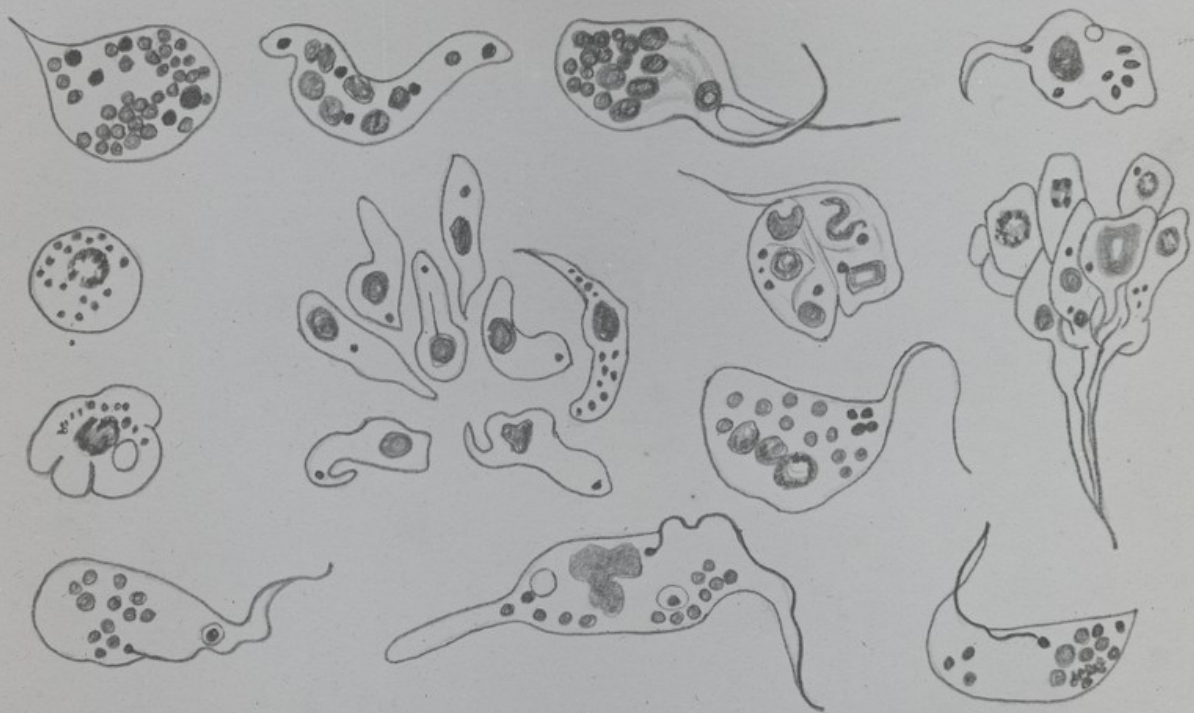
I. 9 T. gambuense in 9 palpalis



of *T. gambiense* in *S. palpalis*

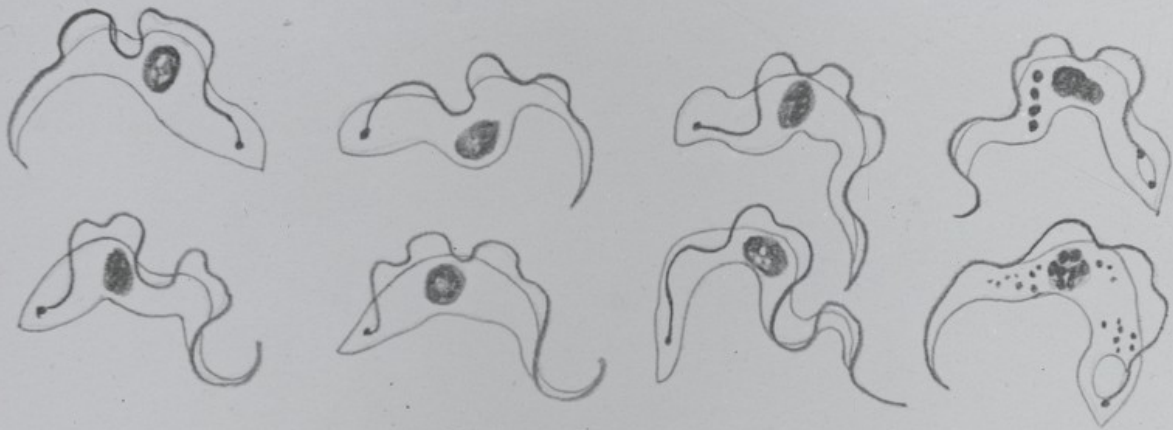


E. gambusia in *S. palpalis*



T. saubere in Spalpa —

18



2. 13. after no 8 days.

Table II.—The Result of the Bites of Flies at Varying Periods after Infective Feed.

No. of days after infective feed.	Result of bites.	No. of days after infective feed.	Result of bites.
1	—	28	+
2	—	30	—
3	—	31	—
4	—	34	+
5	—	35	—
6	—	36	—
8	—	37	+
9	—	40	+
11	—	40	+
14	—	42	+
15	—	43	+
17	—	44	+
18	—	46	+
20	—	51	—
23	—	53	+
25	—	56	+

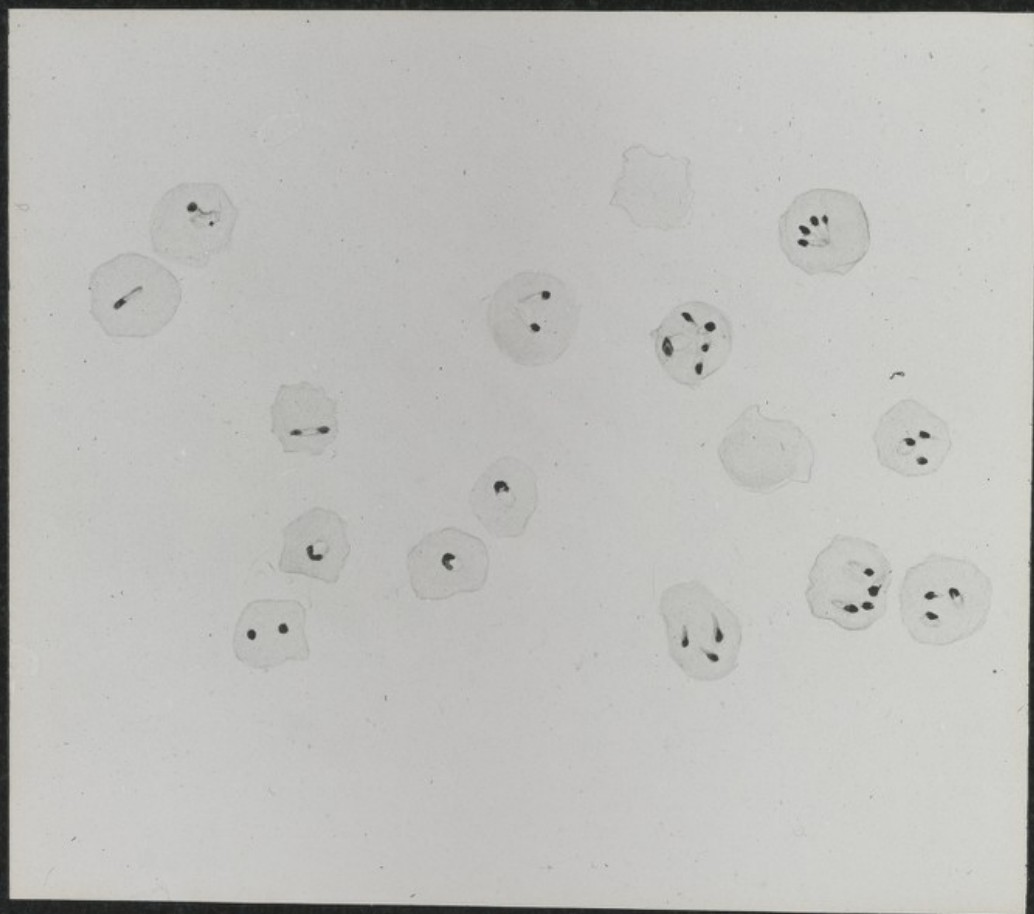
Sal glands *T. gambiense*

Table III.—To show Correlation between the Invasion of the Salivary Glands of *Glossina palpalis* by *Trypanosoma gambiense* and Infection by the Bite of the Fly.

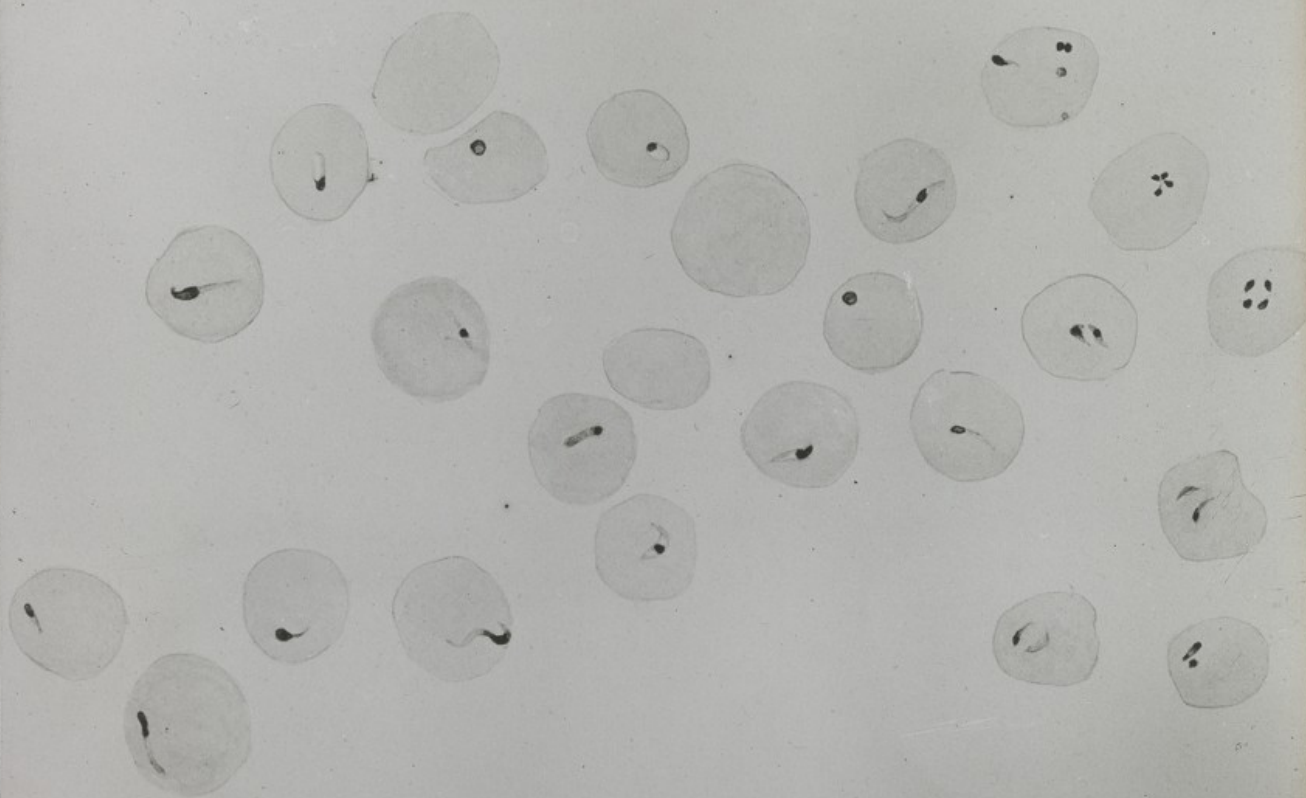
Experiment No.	No of days after infective feed.	Bites of fly infective or non-infective.	Salivary glands.	Remarks.
1910	1	—	—	
1910	2	—	—	
1910	3	—	—	
1910	4	—	—	
1910	5	—	—	
1910	6	—	—	
1910	7	—	—	
1894	8	—	—	
1894	9	—	—	
2216	10	—	—	
1894	11	—	—	
1871	14	—	—	
1693	15	—	—	
1945	17	—	—	
1945	18	—	—	
1945	20	—	—	
1718	25	—	+	Blood-type not present.
1602	28	+	+	Blood-type present.
1801	30	—	—	
1945	31	—	—	
1760	34	+	+	" "
1769	36	—	—	
1712	42	+	+	" "
2034	43	+	+	" "
1549	44	+	+	" "
2034	44	+	+	" "
1706	51	—	—	
1566	53	+	+	" "
1651	56	+	+	" "

I. 15 P. Parvum.

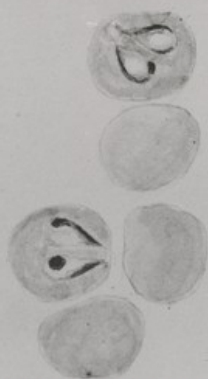
Yonavaal.



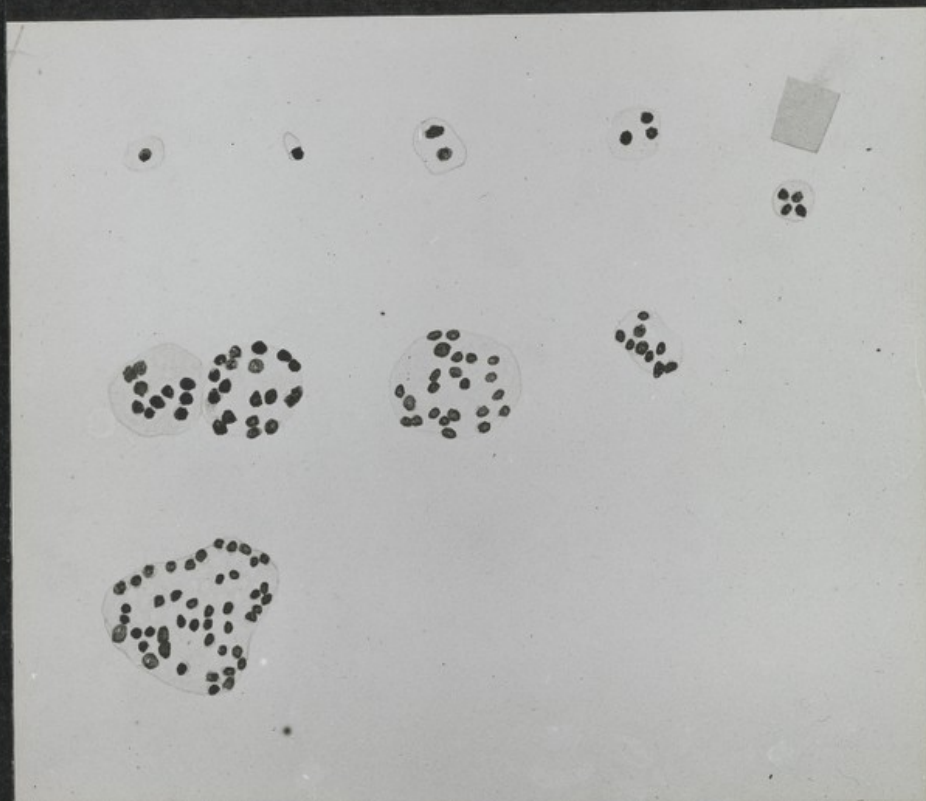
1.16 P. mutans, cattle - Namuael



1.17 *P. bigominum* . *liquida*



1.18. Blue bodies. Mitebe calf.



19.11.07. Man. Nyasaland



Trypanosome causing Disease in Man in Nyasaland, Africa.

F. Bruce, del.

X 2000.

1.20 *T. brucei* Zululand 1913



Trypanosoma brucei. (Plimmer & Bradford).

Zululand 1913.

N. E. Bruce, del.

X 2000.

1-24. Gambiense Tanganyika



Trypanosoma gambiense. Dutton.

M.E. Bruce, del.

Tanganyika 1913.

X 2000.

1.22 T Pecorum.

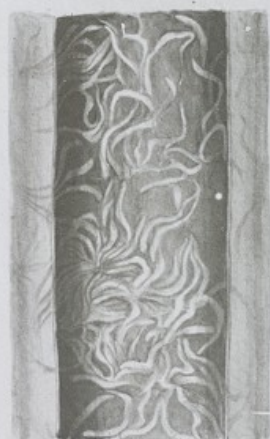


Trypanosoma pecorum.

re, del.

X 20

1.23 Protoscois - T. pecorum

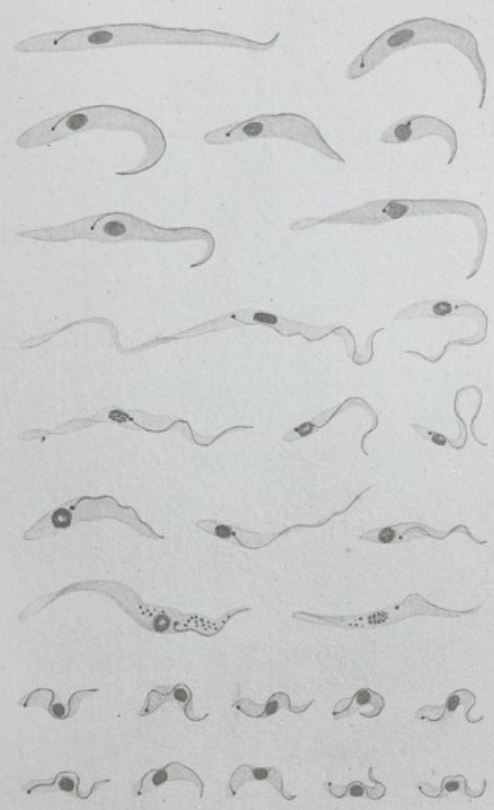


Labrum

Hypopharynx

Trypanosoma pecorum.

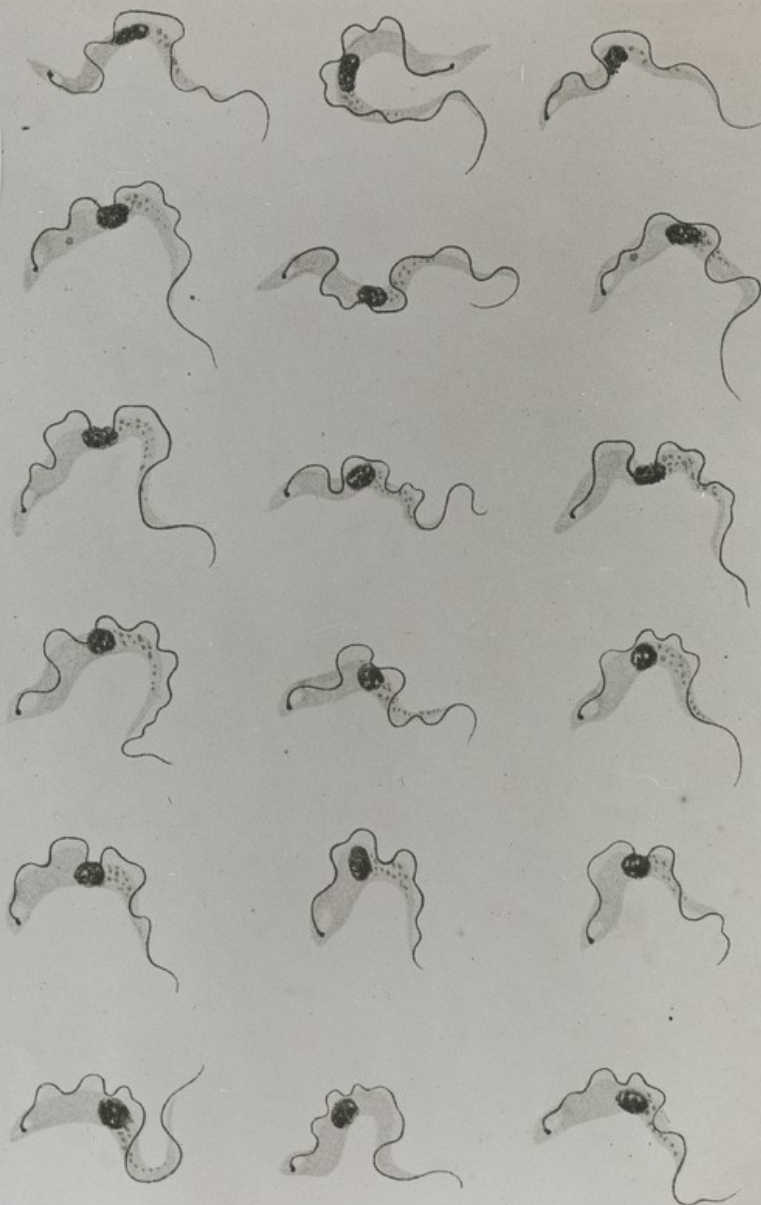
N. E. Bruce, del.



Trypanosoma pecorum.

N. E. Bruce, del.

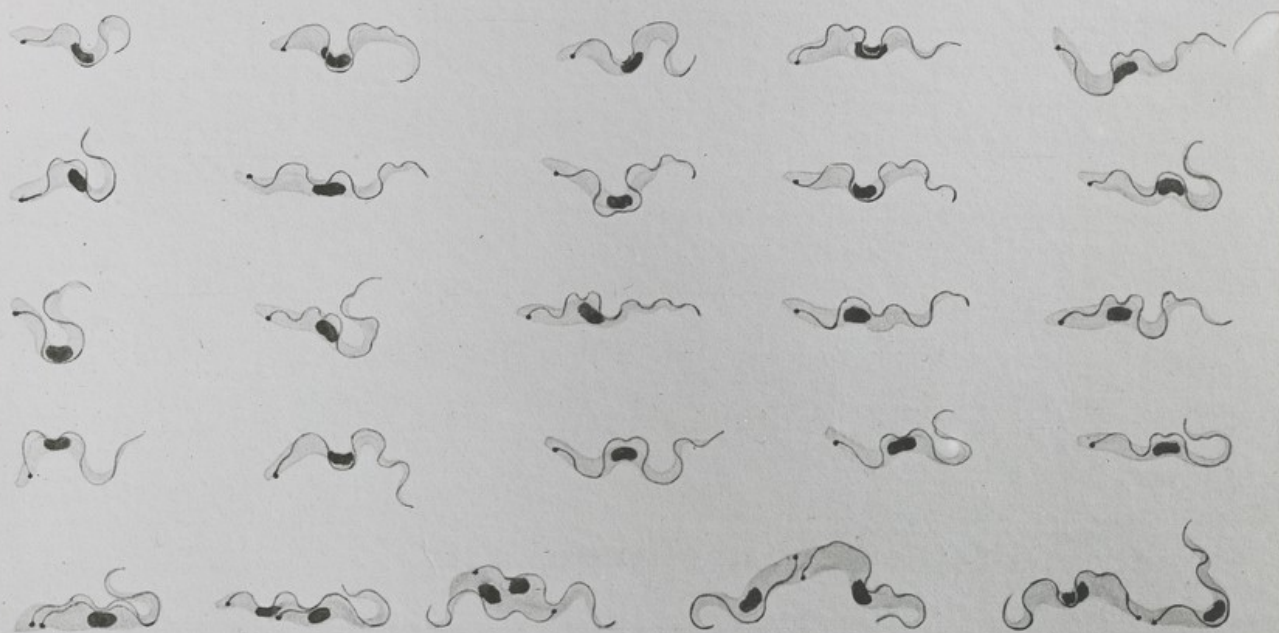
1.24 T. Evansi



T. Evansi.

1.25. *T. Simiae* .

9



Trypanosoma simiae .

Bruce, del.

X 2000.

126. *T. Vivax*

14



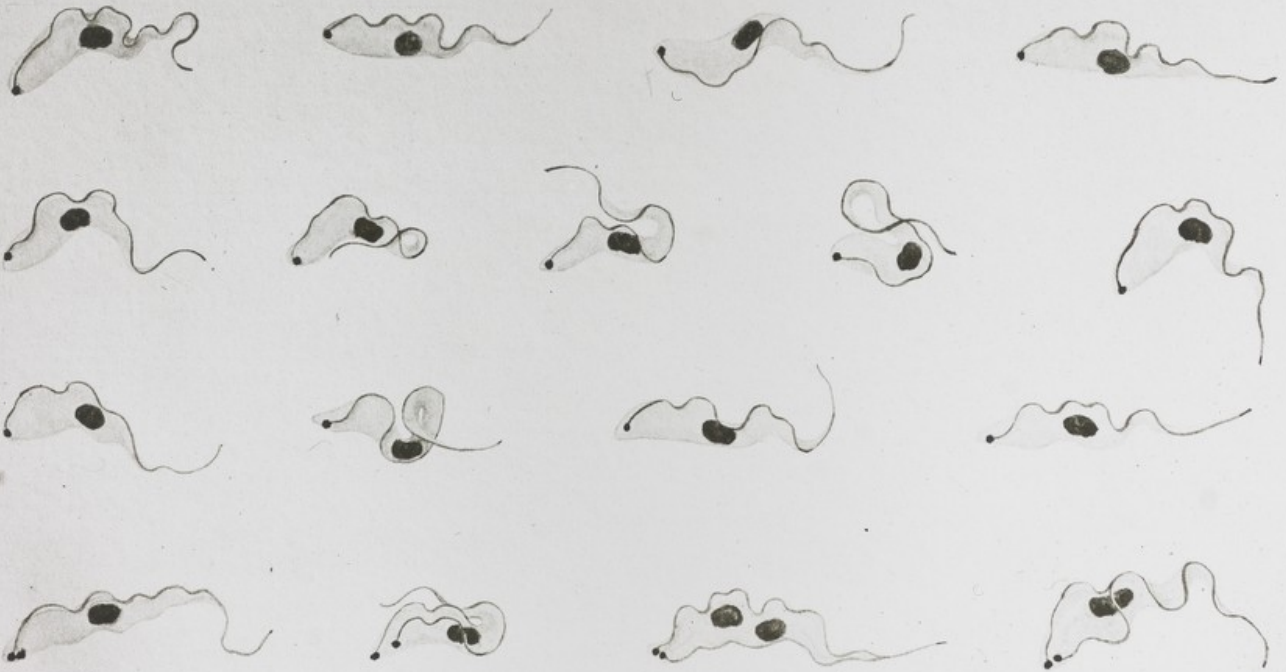
Trypanosoma vivax. Ziemann.

T. E. Bruce, del.

X 2000.

1-27 T. Caprae -

16



Trypanosoma caprae. Kleine..

1.28 *Proboscidea* re. *T. Caprae*

21



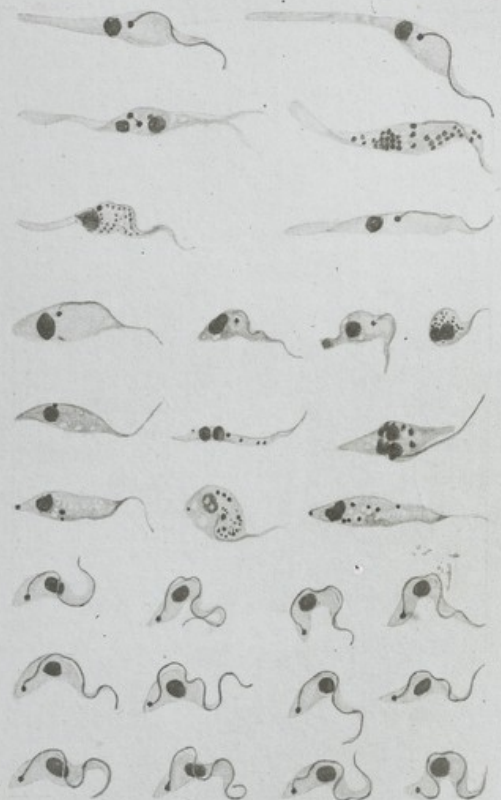
Labrum



Hypopharynx

Trypanosoma caprae (Kleine).

M. E. Bruce, del.

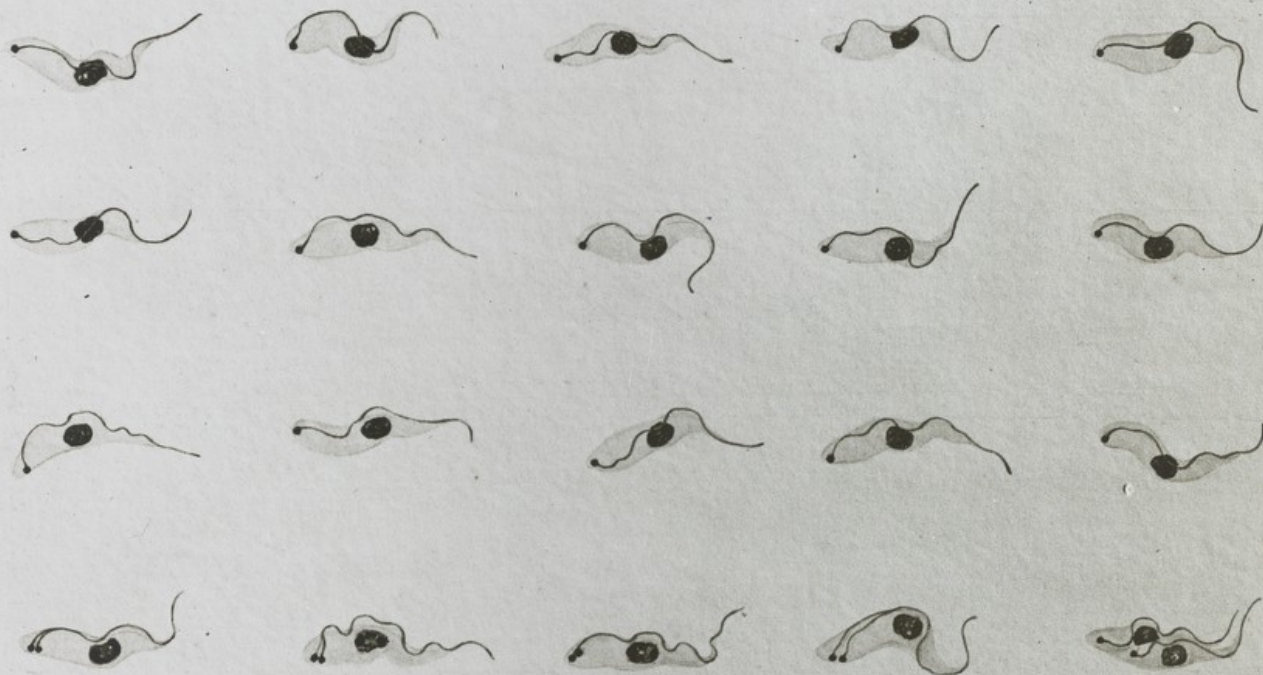


Trypanosoma caprae (Kleine).

M. E. Bruce, del.

129 Trypanosoma uniforme

15



Trypanosoma uniforme.

E. Bruce, del.

X 200

J. 29. Tg. Tanganyika II mice in animals.

Trypanosoma gambiense, Tanganyika.

Strain II

Date.	No of experiment.	Source of virus	Period of incubation in days	Duration of Disease in days
GOAT				
1913 Feb 12	1376	From Monkey. 1301	-	-
" 12	1377	" " 1301	-	-
MONKEY.				
1912 Nov. 19	1801	From Man, Tanganyika	?	-
1913 Feb. 12	1369	From Monkey 1301	-	-
" 12	1370	" " 1301	-	-
DOG				
Feb 12	1371	From Monkey 1301	-	-
" 12	1372	" " 1301	-	-
GUINEA-PIG				
Feb 12	1373	From Monkey 1301	-	-
RAT.				
Jan 28	1315	From Monkey 1301	-	-
" 28	1316	" " 1301	9	35
Feb 12	1374	" " 1301	-	-
" 12	1375	" " 1301	-	-

J.31. Tanganyika - Strain I

4

Trypanosoma gambiense, Tanganyika. Strain I.

Date.	No of. experiment	Source of virus	Period of incubation in days	Duration of Disease in days.
GOAT				
1913				
Feb. 12	1867	From Monkey 1800	-	-
" 12	1868	" " 1800	-	-
Mar. 1	1867	From Rat 1819	-	-
" 1	1868	" " 1819	-	-
Jun. 11	2221	From Monkey 2113	16	-
" 11	2222	" " 2113	-	-
Jly 4	2263	" " 1800	-	-
" 4	2264	" " 1800	-	-
" 4	2265	" " 1800	-	-
MONKEY.				
1912				
Nov. 19	1800	From Man, Tanganyika	?	264
1913				
Feb 12	1860	From Monkey 1800	-	-
" 12	1861	" " 1800	-	-
" 28	1860	From Rat. 1819	16	-
Mar. 1	1972	" " 1819	10	-
Apr 26	2113	Laboratory-bred Flies	?	171
May 28	2192	From Monkey 2113	12	-
" 28	2193	" " 2113	12	226
" 28	2194	" " 2113	12	217
" 28	2195	" " 2113	12	-
Nov 27	2441	Laboratory-bred Flies	?	46
DOG				
Feb 12	1862	From Monkey 1800	-	-
" 12	1863	" " 1800	-	-
Mar 1	1862	From Rat. 1819	-	-
" 1	1863	" " 1819	19	180
Jun. 11	2223	From Monkey 2113	15	124
" 11	2224	" " 2113	15	23
Jly 1	2249	" " 1972	23	53

Date	No of experiment	Source of virus	Period of incubation in days	Duration of Disease in days
GUINEA-PIG				
1912				
Feb 12	1864	From Monkey 1800	-	-
Mar 1	1864	From Rat. 1819	-	-
Jly 4	2259	From Monkey 1800	-	-
" 4	2260	" " 1800	-	-
" 4	2261	" " 1800	-	-
" 4	2262	" " 1800	-	-
BAT.				
1913				
Jan 28	1818	From Monkey 1800	9	24
" 28	1819	" " 1800	16	-
Feb 12	1865	" " 1800	-	-
" 12	1866	" " 1800	-	-
Mar 1	1865	From Rat. 1819	23	237
" 1	1866	" " 1810	26	196
May 17	2170	From Monkey 2113	12	75
" 17	2171	" " 2113	23	80
Jly 4	2256	" " 1800	17	89
" 4	2257	" " 1800	-	-
" 4	2258	" " 1800	24	142
Dec 12	2452	" " 2441	6	25

9.32 Tanganyika Strain III

Trypanosoma gambiense, Tanganyika. Strain III.

Date.	No of experiment	Source of virus	Period of incubation in days	Duration of Disease in days.
GOAT				
1913 Feb. 12	1885	From Monkey 1802	-	-
" 12	1886	" " 1802	-	-
Mar. 1	1885	From Rat 1821	-	-
" 1	1886	" " 1821	-	-
Jly. 4	2273	From Monkey 1802	-	-
" 4	2274	" " 1802	-	-
" 4	2275	" " 1802	-	-
MONKEY				
1912 Nov. 19	1802	From Man, Tanganyika	?	-
1913 Feb. 22	1879	From Monkey 1802	-	-
" 22	1879	" " 1802	-	-
Mar. 1	1878	From Rat. . 1821	23	31
" 1	1879	" " 1821	9	
DOG				
Feb. 12	1880	From Monkey 1802	-	-
" 12	1881	" " 1802	-	-
Mar. 1	1880	From Rat. 1821	-	-
" 1	1881	" " 1821	-	-

Date.	No of experiment	Source of virus.	Period of incubation in days	Duration of Disease in Days
GUINEA-PIG				
1913 Feb. 12	1802	From Monkey. 1802	-	-
Mar. 1	1882	From Rat 1821	26	264
Jly 4	2266	From Monkey 1802	-	-
" 4	2267	" " 1802	-	-
" 4	2268	" " 1802	-	-
" 4	2269	" " 1802	-	-
RAT.				
Jan 28	1820	From Monkey 1802	13	134
" 28	1821	" " 1802	16	-
Feb 12	1883	" " 1802	-	-
" 12	1884	" " 1802	-	-
Mar. 1	1883	From Rat. . 1821	9	-
" 1	1884	" " 1821	26	-
Jly. 4	2270	From Monkey 1802	17	-
" 4	2271	" " 1802	-	-
" 4	2272	" " 1802	-	-

6

J. 33. Inoculation of minced-up flies. Hours

Injection of minced-up flies, at various times,
after feeding on an infected animal.

-Glossina palpalis and Trypanosoma gambiense.

Date.	Expt. No.	No. of hours after infected feed.	No. of flies injected.	Result.	Incubation period in monkey.
1909.					
Mar. 10	521	$\frac{1}{2}$ hour	2	+	8 days.
Jan. 6	420	$\frac{3}{4}$ "	1	-	
" 6	421	1 "	2	-	
Feb. 18	518	1 "	2	-	
Mar. 19	604	1 "	2	+	6 "
" 19	605	$1\frac{1}{2}$ hours	2	+	6 "
Feb. 18	519	2 "	2	-	
June 22	1038	3 "	1	+	6 "
" 22	1043	3 "	1	+	6 "
Mar. 29	622	4 "	8	+	7 "
June 11	984	4 "	5	+	8 "
" 16	1009	4 "	5	+	6 "
" 22	1039	6 "	1	+	6 "
" 22	1044	6 "	1	+	6 "
" 22	1045	7 "	1	+	9 "
" 22	1041	8 "	1	+	9 "
" 22	1046	8 "	1	+	10 "
" 22	1042	9 "	1	+	9 "
" 22	1047	9 "	1	+	9 "
" 26	1154	16 "	1	-	
" 26	1155	16 "	1	-	
" 26	1156	17 "	1	+	13 "
" 26	1157	17 "	1	-	
" 26	1158	18 "	1	+	9 "
" 26	1159	18 "	1	+	13 "
Mar. 20	600	19 "	5	-	
June 26	1161	19 "	1	-	
Mar. 4	524	23 "	6	-	
" 5	585	44 "	6	-	

1.34 flies in days - Sp. & Tg.

Injection of minced-up flies, at various times,
after feeding on an infected animal.

-*Glossina palpalis* and *Trypanosoma gambiense*.

Date.	Expt. No.	No. of hours or days after infected feed.	No. of flies injected.	Result.	Incubation period in monkey.
1909.					
Aug. 24	1545	1 hour	1	+	7 days
" 24	1546	2 hours	1	+	7 "
Feb. 18	520	4 "	2	-	
Aug. 24	1547	4 "	1	+	7 "
Sept. 14	1681	1 day	3	-	
" 23	1756	2 days	3	+	12 "
" 26	1723	3 "	15	-	
Oct. 2	1713	4 "	10	-	
" 3	1783	5 "	11	-	
" 4	1752	6 "	10	-	
*Sept. 28	1721	7 "	1	-	
*Nov. 16	1906	8 "	2	-	
Oct. 7	1788	9 "	10	-	
*Nov. 17	1909	9 "	1	-	
Oct. 8	1795	10 "	8	-	
" 9	1799	10 "	8	-	
*Nov. 18	1911	10 "	1	-	
" 19	1913	11 "	2	-	
*" 29	1923	11 "	1	-	
Oct. 11	1807	13 "	5	-	
Nov. 26	1864	14 "	30	-	
*Nov. 15	1905	14 "	2	-	
*Oct. 3	1781	15 "	1	-	
" 27	1865	15 "	12	-	
" 19	1838	16 "	34	-	
" 29	1872	17 "	12	-	
*Dec. 13	1939	17 "	1	-	
Oct. 30	1873	18 "	12	-	
*Dec. 14	1940	18 "	2	-	
Nov. 1	1877	20 "	12	-	
" 16	1951	20 "	1	-	
Nov. 2	1879	21 "	20	-	
" 4	1886	23 "	15	-	
Dec. 5	1887	24 "	10	-	
*" 20	1958	24 "	1	+	8 "
" 6	1889	25 "	22	-	
*Sept. 28	1749	28 "	1	-	
" 29	1759	28 "	1	+	11 "
*Nov. 9	1866	30 "	1	+	12 "
" 4	1884	34 "	1	-	
" 11	1897	36 "	2	+	5 "
" 16	1907	37 "	1	-	
" 4	1885	42 "	1	-	
*Oct. 8	1791	46 "	2	+	9 "
*Nov. 3	1881	49 "	1	-	
" 11	1898	51 "	1	-	
" 4	1856	53 "	1	-	

J. 35. in Uganda. 1903 to 1912

8

Infectivity of *Glossina palpalis*.

Year..Locality.	No of Flies examined	No of Flies infected	Proportion of infected Flies per 1000.
1903 Entebbe.			11.2
1904 "			1.2
1908 Mpumu. .	7200	11	1.3
1099 "	13691	7	0.4
1910 "	27179	4	0.14
1911 "	23899	1	0.04
1912 "	28279	4	0.14

J. 36. Tanganyika & T. brucei.

Table showing length of *Trypanosoma gambiense*,
compared with *Trypanosoma brucei*, Zululand 1913.

Length

Strain	Average	Maximum	Minimum
<i>Trypanosoma gambiense</i> . Uganda	22.1	33.0	13.0
" " Tanganyika. I	22.7	34.0	15.0
" " " II	25.8	36.0	16.0
" " " III	21.3	34.0	16.0
<i>Trypanosoma brucei</i> . Zululand. 1913	21.0	35.0	12.0

Breadth

	Average	Maximum	Minimum
<i>Trypanosoma gambiense</i> , Tanganyika.	2.81	4.75	1.25

2.37. Develop of T.g in Antelope

Development of *Glossina palpalis* in Antelope.

No of experiment	Species of Antelope.	No of days infected Flies fed.	No of days before Trypanosomes appeared.	Result		Remarks
				Posi-tive.	Nega-tive.	
2328	Bush-buck	5	-	+		Trypanosomes never seen.
2357	Reed-buck	12	25	+		
2359	"	6	11	+		
2371	Bush-buck	8	12	+		
2372	"	6	8	+		
2378	Waterbuck	8	-	+		Trypanosomes never seen
2427	Reed-buck	6	7	+		
2428	Bush-buck	13	-	+		Trypanosomes never seen
2429	Reed-buck	8	9	+		
2431	"	6	10	+		
2445	"	7	8	+		

2.38. Antelope infected with T. g.

-Giving the Result of Feeding Laboratory-Bred Flies on Antelope Infected with Sleeping Sickness.

23

No. of experiment.	No. of clean flies used.	Species of antelope flies fed on.	No. of days flies fed on antelope.	No. of days before flies became infective.	Result.		Remarks.
					Posi- tive.	Nega- tive.	
2346	160	Bush-buck 2328	12	29	+		Buck 2328 never showed <i>T. gambiense</i> in blood. In spite of this, flies fed on it became infected 55 days after the buck's infection.
2384	100	"	8	28	+		
2414	70	"	6	29	+		
2501	100	"	8	39	+		
2351	100	Reed-buck 2357	7	41	+		Buck 2357 showed <i>T. gambiense</i> in its blood for 5 days only.
2500	100	"	8	—		—	
2510	100	"	5	—		—	
2507	200	Reed-buck 2359	6	44	+		Buck 2359 showed <i>T. gambiense</i> in its blood for 7 days only.
2421	50	Bush-buck 2371	6	—		—	Buck 2371 showed <i>T. gambiense</i> in its blood for 3 days only.
2477	60	"	6	29	+		
2499	100	Bush-buck 2372	8	—		—	Buck 2372 showed <i>T. gambiense</i> in its blood for 2 days only.
2451	95	Water-buck 2378	6	30	+		Buck 2378 never showed <i>T. gambiense</i> in its blood.
2478	60	"	6	—		—	
2559	50	"	4	—		—	
2454	110	Reed-buck 2427	6	24	+		Buck 2427 showed <i>T. gambiense</i> in its blood for 4 days only.
2456	60	"	4	33	+		
2508	100	"	6	30	+		
2485	50	Bush-buck 2428	7	28	+		Buck 2428 never showed <i>T. gambiense</i> in its blood.
2460	50	Reed-buck 2429	4	27	+		Buck 2429 showed <i>T. gambiense</i> in its blood for 3 days only.
2543	100	"	6	49	+		
2464	55	Reed-buck 2431	3	28	+		Buck 2431 showed <i>T. gambiense</i> in its blood for 4 days only. In spite of this, flies fed on it became infected 81 days after its infection.
2544	90	"	6	36	+		
2592	100	"	5	43	+		
2476	50	Reed-buck 2445	4	—		—	Buck 2445 showed <i>T. gambiense</i> in its blood for 6 days only.

J. 39. found among 180 wild animals

The following Table represents the number of times
Trypanosoma brucei was found among the 180 wild animals examined
and the species of Game which harboured it

Species of Animal	Number examined	No infected with T. brucei
Eland.	10	0
Sable.	5	0
Waterbuck. . . .	13	3
Koodoo.	3	0
Bushbuck.	10	0
Hartebeeste. . .	35	5
Reedbuck.	19	3
Oribi.	26	4

Species of Animal	Number examined	No infected with T. brucei
Duiker.	7	1
Buffalo.	9	0
Lion.	1	0
Hyaena.	3	0
Elephant.	2	0
Warthog.	33	1
Wild Cat.	3	0
Porcupine. . . .	1	0

J. 40 in animal infected with T.b.

14

The percentages of Recoveries in various animals
infected with *Trypanosoma brucei*.

Strain	Man	Horse	Oxen	Goats & Sheep	Monkeys	Dogs	Rabbits	Guinea pigs	Rats
Human. .	0		80%	0	0	0	0	0	0
Wild Game			100%	0	0				0
Wild Glossina morsitans			100%	6%	7%	4%	0	0	0
Zululand. 1913. .		0	83%	0	0	0	0	0	0

The Number of Animals employed.

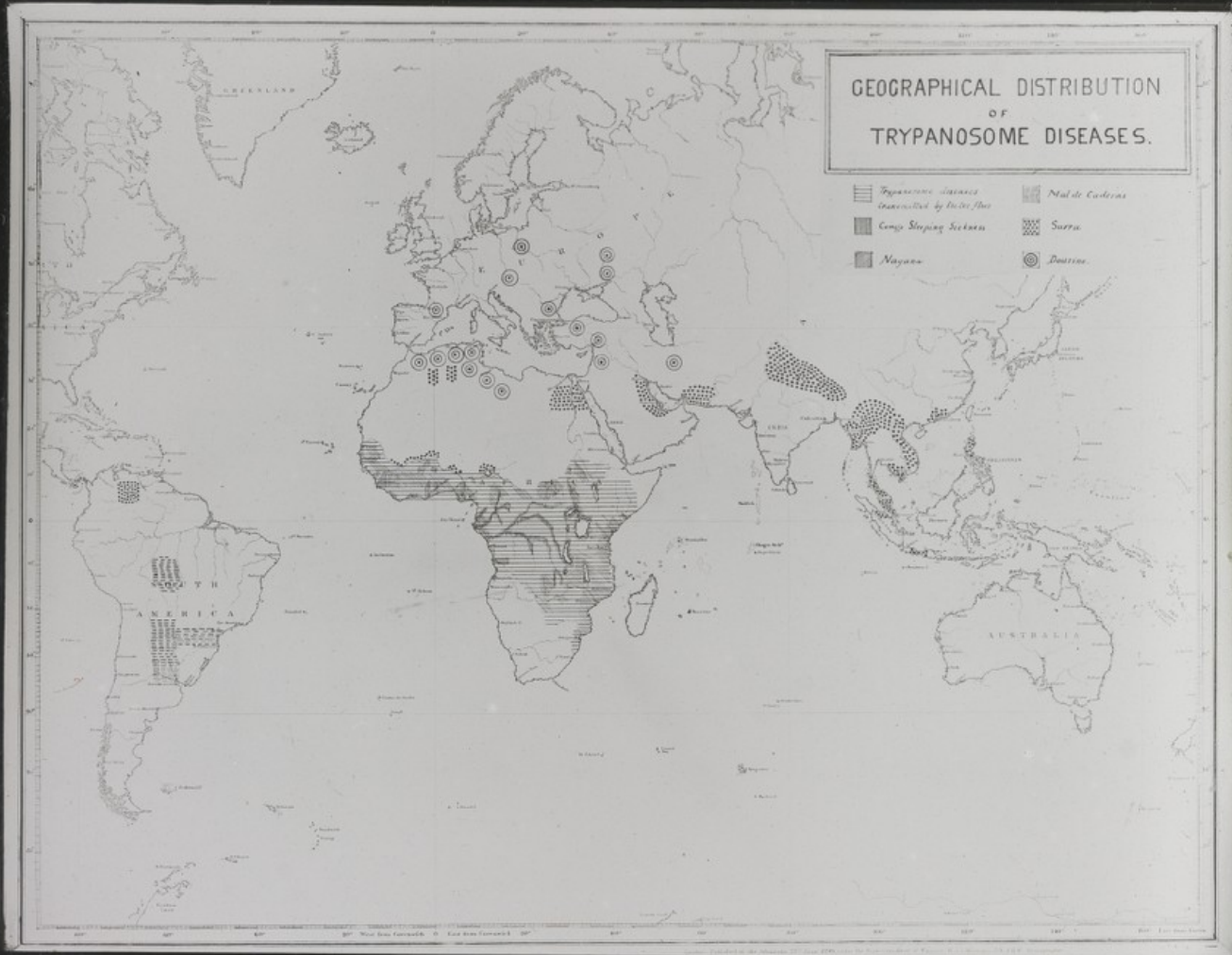
Strain	Man	Horse	Oxen	Goats & Sheep.	Monkeys	Dogs	Rabbits	Guinea pigs	Rats
Human. . . .	?		5	29	20	25	7	15	21
Wild game. .				5	9	13			6
Wild Glossina morsitans			2	17	15	26	3	10	19
Zululand. 1913.		3	6	4	3	17	3	10	23

241. in Human Nyasaland S.S.

Percentage of Posterior Nuclear Forms found among the Short and Stumpy Varieties of the Trypanosome of the Human Trypanosome Disease of Nyasaland.

Date.	Expt. No.	Animal.	Percentage of short and stumpy forms.	Proportion to all forms per 1000.
1912.				
Mar. 1	233	Monkey	7	17
" 4	233	"	10	25
" 14	233	"	6	15
Feb. 23	234	"	21	52
Mar. 1	234	"	1	2
Feb. 29	14	Dog	7	17
" 26	157	"	16	40
" 29	243	"	41	102
" 29	13	Guinea-pig	6	15
Mar. 18	13	"	8	20
" 14	165	"	7	17
" 18	165	"	36	90
Feb. 29	166	"	17	42
Mar. 18	239	"	36	90
Feb. 22,	235	Rat	7	17
" 23	235	"	22	55
" 27	235	"	38	95
" 28	235	"	41	102
" 29	235	"	39	97
Mar. 1	235	"	51	127
" 4	235	"	29	72
" 5	235	"	30	75
" 6	235	"	36	90
" 7	235	"	30	75
" 8	235	"	38	95
" 11	235	"	39	97
" 13	235	"	45	112
Feb. 27	236	"	24	60
" 29	236	"	32	80
Mar. 1	236	"	46	115

J. 42 - diseases in the world -



J. 43. in *G. palpalis* - Table.

9

Development of *Trypanosoma gambiense* in *Glossina*
palpalis

Day of experiment	Procedure with 60 flies A. Cage with 30 flies B. Cage ..do.....	Result	
		Posi- tive	Nega- tive.
0 to 2	Flies fed on infected Monkey		
2 " 3	Flies starved 72 hours		
4 " 8	Flies fed on Monkey 579		-
9 " 13	" " 651		-
14 " 18	" " 652	+	
19 " 23	" " 653	+	
24 " 28	" " 654	+	
29 " 33	" " 655	+	
34 " 38	" " 672	+	
39 " 41	" " 722	+	
42 " 43	Starved for 72 hours.		
44 " 53	Fed on Monkey 727	+	
52 " 53	Starved for 76 hours.		

Day of Experi- ment	Procedure with 60 flies A. Cage with 30 flies B. Cage . . do. . . .	Result	
		Posi- tive	Nega- tive
54 to 58	Cage A. fed on Monkey 735	+	
" " "	Cage B. fed on Monkey 736		-
59 to 60	Starved for 74 hours.		
61 " 65	Cage A fed on Monkey 749	+	
" " "	Cage B fed on Monkey 748		-
66 " 67	Starved for 72 hours		
68 " 72	Cage A fed on Monkey 765	+	
" " "	Cage B fed on Monkey 764		-
73 " 74	Starved for 72 hours		
75 " 79	Cage A fed on Monkey 848		-
89 " 81	Starved for 72 hours		
82 " 86	Cage A fed on Monkey 911		-
87	Experiment Stopped.		

S. 44 Infected with T. Brucei in Nyasaland

The proportion of Tsetse Flies (*Glossina morsitans*) infected
with *Trypanosoma Brucei*, in Nyasaland.

1912	No of Flies fed	Monkey	Dog	Goat
Jan. 20	296	-	-	+
" 24	370	-	-	-
" 28	230	-	-	-
Feb. 2	295	-	-	-
" 8	220	-	-	-
" 13	200	-	-	-
" 16	195	-	+	+
" 21	170	-	-	-
" 26	170	-	-	-
Mar. 2	140	-	-	-
" 9	165	-	-	-
" 14	100	-	-	-
" 17	160	-	-	-
" 22	205	-	-	+
Apr. 3	135	-	-	-
" 10	275	+	+	-
" 15	330	-	-	-
" 18	200	-	-	-
" 18	180	-	-	-
" 23	230	-	-	-
" 23	140	-	-	-
" 26	100	-	-	+
" 27	260	-	-	-
May. 3	155	+	-	-
" 3	96	-	-	-
" 8	330	+	+	-
" 9	120	-	-	-
" 10	50	-	+	-

1912	No of Flies fed	Monkey	Dog	Goat
May 14	250	-	-	+
" 17	190	-	-	-
" 24	113	-	-	-
" 29	120	-	-	-
" 29	230	-	-	-
" 29	320	-	+	-
" 29	240	-	-	-
" 29	100	-	-	-
" 31	175	+	+	-
Jun. 2	300	-	-	-
" 6	210	-	-	-
" 7	230	+	+	+
" 11	160	-	-	-
" 16	135	-	-	-
" 25	90	+	+	-
July. 3	95	-	-	-
Sep. 25	70	-	-	-
" 27	25	+	-	-
Oct. 29	87	+	+	+
Nov. 5	145	-	-	-
" 11	150	-	-	-
" 16	157	-	-	-
" 21	95	+	+	+
" 25	180	-	+	+
Dec. 3	160	-	-	-
" 6	198	+	+	+
" 11	156	-	+	+
" 16	113	-	-	-

J. 45. A *T. brucei* -

This Diagram gives the length of various strains of
Trypanosoma brucei.

Source of strain	Average	Maximum	Minimum	Remarks.
Human. Nyasaland. . .	23.5	38.0	14.0	Various. 6220.
" " .	24.2	38.0	15.0	Rats. 3600.
Wild Game	22.6	35.0	15.0	Rats. 2500
Wild Glossina morsitans	22.6	35.0	15.0	Rats 2500
Zululand. 1913. . . .	21.0	35.0	12.0	Various. 1000
" 1894. . . .	22.3	35.0	13.0	Various. 200.
Uganda. . 1909. . . .	23.0	34.0	15.0	Various. 160.

J-47 disease, Tanganyika & Bruce's disease

7

Average duration in days of the disease caused by
Trypanosoma gambiense, Tanganyika, compared with that caused
by Trypanosoma brucei, Zululand.

Duration in days.	Monkey	Dog	Guinea pig	White Rat.
Trypanosoma gambiense Tanganyika.	159	96	264	137
Trypanosoma brucei Zululand	26	34	67	30

J-48. in various strains of *T. brucei*

13

This Table gives the Average duration in days of the
Disease in various strains of *Trypanosoma brucei*.

Strain	Man	Horse	Oxen	Goats & Sheep	Monkeys	Dogs	Rabbits	Guinea pigs	Rats
Human. .	90		134	42	26	34	23	67	30
Wild Game. .				46	38	41			32
Wild Glossina morsitans			Recd	54	38	29	47	31	26
Zululand. 1913		38	310	77	29	18	33	44	27

The Number of Animals employed.

Strain	Man	Horse	Oxen	Goats & Sheep	Monkeys	Dogs	Rabbits	Guinea pigs	Rats
Human. . .	?		1	?	20	25	7	15	21
Wild Game. .				5	9	13			6
Wild Glossina morsitans			2	16	14	25	3	10	19
Zululand. 1913		3	1	7	8	17	3	10	23

2.49. with *T. pecorum myosotum*

2

The Average Duration of Life, in days, of Various Animals infected by *T. pecorum*.

	Donkey.	Cattle.	Goat.	Pig.	Monkey.	Dog.	Guinea-pig.	White rat.
Average duration, in days	87?	121?	55.	21	129	48.	41.	33
Number of animals employed	1	4	59	1	11	57	5	10

Table XX.—The Percentages of Recoveries in Various Animals from *T. pecorum* Infection.

	Donkey.	Cattle.	Goat.	Pig.	Monkey.	Dog.	Guinea-pig.	White rat.
Percentages	80%	35%	12%	0	0	1%	0	0
Number of animals employed	5.	17.	70.	1.	11.	63.	5.	10.

1.50 naturally infected with *T. picorum*

3

The proportion of Tsetse Flies (*Glossina morsitans*) naturally infective with *Trypanosoma pecorum*, in Nyasaland.

1912	No of Flies fed.	Monkey	Dog	Goat
Jan. 20	296	-		-
" 24	370	-		+
" 29	230	-		+
Feb. 2	295	-		+
" 9	220	-		+
" 13	200	+		-
" 16	195		-	-
" 21	170		-	-
" 26	170		-	-
Mar. 2	140		-	-
" 9	165		+	-
" 14	160		-	-
" 17	160		+	+
" 22	205		+	+
Apr. 3	135		+	+
" 10	275	-	+	-
" 15	330	-	+	+
" 18	200	-	+	+
" 18	130	-	+	-
" 23	230	-	+	-
" 23	140	+	+	+
" 26	100	-	+	+
" 27	260	-	+	+
May. 3	155	+	+	-
" 3	96	-	+	+
" 6	330	-	-	+
" 9	120	-	+	+
" 13	50	-	-	-

1912	No of Flies fed.	Monkey	Dog	Goat
May 14	250	-	+	+
" 17	190		+	-
" 24	113		+	+
" 29	120	-	+	+
" 29	230	-	+	+
" 29	320		+	+
" 29	240	+	+	+
" 29	100		+	+
" 31	145	-	+	+
Jun. 2	300		+	-
" 6	210	+	+	+
" 7	230	-	+	+
" 11	160	-	+	+
" 13	135	-	+	+
" 25	90	-	-	+
July. 3	95		+	+
Sep. 25	70	+		
" 27	25	-		
Oct. 29	37	-	-	+
Nov. 5	145		-	-
" 11	150	-	+	+
" 13	157	-	+	-
" 21	105	-	-	-
" 25	130	-	-	+
Dec. 3	130	+	+	+
" 6	193	+	-	-
" 11	156	-	-	+
" 16	113	+	+	+