

## **Observations on the tapir of America / [William Yarrell].**

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ART. XXII. *Observations on the Tapir of America.*  
By WILLIAM YARRELL, Esq., F.L.S.

THE animal which afforded an opportunity for the following remarks was presented to the Zoological Society, in the month of July last, by Lieutenant Maw of the Royal Navy, but unfortunately for the interests of science, as well as of the society, it was so far reduced by disease on its arrival in the river, as to survive its removal to the garden in the Regent's Park only a few hours; but little therefore could be ascertained of its disposition, beyond that of its submitting without any resistance to the applications that were made for its relief.

When dead, the whole length of the animal from the nose to the root of the tail was 48 inches; the girth 35 inches; and it was said to be about 12 months old. Its colour was a rusty reddish brown, with indications of lighter spots and horizontal lines on the ribs, flanks and thighs. These fawn-coloured spots and stripes are common to both species of Tapir while young; that of Sumatra not exhibiting, till it is six months old, any appearance of the well defined black and white colour which afterwards distinguishes the adult animal. The shape is well known. The incisor teeth  $\frac{c}{6}$ , very much used, the edges coming into close contact when the molars act. The canines  $\dagger \dagger$ , those of the upper jaw small, and removed a short distance from the lateral incisor, to admit the interposition of the larger canines of the lower jaw. The molars in this young animal were  $\ddagger \ddagger$ : of those in the lower jaw, the first has three lobes, with five points; the second and third two lobes, with four points. Of the four in the upper jaw, the first has two outer, and one inner point; the other three molars have each two lobes with four points; all the parallel points or tubercles are connected transversely by a slight triangular ridge; each of these triangular ridges, with their connected tubercles, shutting into similarly shaped cavities in

the teeth opposed to them, throughout the whole length of their continuous surfaces. The second, third, and fourth molars of the upper jaw have each a small additional, but less elevated, point on the external anterior angle, increasing somewhat in size from the second tooth backwards. On cutting through the palatine bones for the more complete removal of the brain, the crown of another molar tooth was found on each side, posterior to, and somewhat within the line of range of the last exposed molar. This tooth is represented in the plate annexed, and exhibits the fifth tubercle of yet increased magnitude.

The skin having been taken off for preservation, the cartilage of the *septum narium* was observed to be thick and strong, and the central ridge of the *cranium* very much elevated. The *ligamentum nuchæ* consisted of three strong cord-like portions, two of which passing, in a parallel direction, from the elongated spinous process of the first dorsal *vertebra*, were inserted together upon the extreme superior posterior angle of the central ridge of the *cranium*, supporting the whole length of the elevated crest and mane. The third portion of this strong ligament passed beneath the other two, to be inserted into the most elevated part of the elongated spinous process of the *vertebra dentata*.

The anterior portion of the *sternum* projected forwards, keel-like in form and rounded. The ribs were twenty in number on each side, the lumbar *vertebræ* four. The tracheal cartilages were firm, but the rings were incomplete throughout; the lungs consisted, on the right side, of one large and one small lobe; on the left, of one large and two small lobes, bearing evident marks of inflammation.

The *pericardium* was loaded with fat, and appeared of unusual thickness; the heart presented nothing remarkable, but the arteries were particularly thick and firm in their coats.

The *æsofagus* was narrow, the stomach a single cavity, and rather small, measuring, when moderately distended with air, but eight inches from right to left, and  $15\frac{1}{2}$  inches in circumference; the *parietes* thickened about the *pylorus*, but as it was considered desirable to preserve this organ entire, its internal surface was not examined. The stomach contained a loose mass of tow, hair, string, and shreds of cloth.

The spleen was narrow, thin in substance, and 12 inches in length.

The liver was distinctly divided into four lobes, two of which, one

large and one small, were placed on the right side; and two large equal lobes occupied the left side, the inferior one of these being partly divided and notched on the edge. The Tapir, like the Rhinoceros, has no gall bladder.

The small intestines were uniform in size throughout their whole length, and measured 21 feet; they also bore marks of inflammation.

The *cæcum* was capacious compared with the stomach, and measured 14 inches in the line of its long axis, and 24 inches in the girth at the largest part, having two deep, and several smaller, circular indentations externally, and marked with one strong longitudinal band on each surface; tapering somewhat to a point at its closed extremity, but without any *appendix vermiformis*. The precise form of the *cæcum* will be best understood by a reference to plate vii, fig. 4.

The *colon*, at the distance of two feet from its commencement, suddenly doubled upon itself, forming a fold of 16 inches in length, the inner surfaces of which were closely connected. The whole length of the large intestines was seven feet.

The sexual organs were those of a female, and from the degree of vascularity which pervaded the *uterus*, *cornua* and *ovaria*, it is probable the animal was approaching that period of her life at which she would have commenced breeding.

In the Philosophical Transactions for the year 1821, Sir Everard Home, Bart., has pointed out the differences that exist in the *crania* of the Tapirs of Sumatra and America; and has also described part of the *viscera* of the former. On comparison, some differences will also be found in the soft parts. In the Tapir of Sumatra the stomach is large, the intestinal canal very long, the *cæcum* small; in the American species the stomach is small, the intestines of moderate length, the *cæcum* large. The dentition of the two animals is similar.

Of the species described;

The length of the Tapir of Sumatra is eight feet.

Whole length of its intestinal canal 89 feet 6 inches.

Proportion as 11 to 1.

Length of the American Tapir, 4 feet.

Whole length of its intestinal canal, 28 feet.

Proportion, as 7 to 1.

*Description of the Plate.*

TAB. VII.

- Fig. 1. Fifth molar tooth, upper jaw, seen from the outside.
2. The same, seen from below.
3. The stomach: a. the *æsofagus*; b. commencement of the *duodenum*.
4. Part of the intestinal canal; a. the *ilium*; b. the *cæcum*; c. the *colon*.