

An interesting specimen of *Taenia saginata* / by Frederick Tuckerman.

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Publication/Creation

[Leipzig] : [publisher not identified], 1888.

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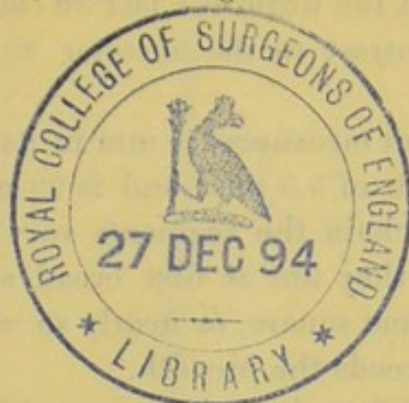
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An Interesting specimen of *Taenia saginata*.

By Frederick Tuckerman, M. D., Amherst, Mass.

I am indebted to Dr. John G. Stanton, of New London, Conn., for kindly sending me this interesting entozoon.

The specimen is chiefly remarkable for its unusual length and the malformations which it presents. It consists of one long unbroken chain, four shorter ones, and a few detached portions, the latter containing from one to three segments. All of these disjointed parts were expelled by their host (with the aid of a powerful anthelmintic) at a single evacuation of the bowels. The head, neck, and cervical joints unfortunately were not found. The long ribbon or chain measures 6.516 metres in length and contains 653 joints. The aggregate length of the shorter ribbons and smaller pieces is 0.939 metres and is composed of 58 joints. From a careful measurement of the cephalic extremity in other *Taeniae* of this species I estimate the number of missing joints of this region in this specimen at 350. Adding this number of joints to those already enumerated will give a total of 1061 joints in a chain about 7.655 metres long.

Leuckart, the distinguished helminthologist, in his diagnosis of *Taenia saginata* gives the length of this species of tape-worm, when extended, as 7 or 8 metres. But at the bottom of p. 427 in the English edition of his classic treatise on »Die menschlichen Parasiten und die von ihnen herrührenden Krankheiten« is the following note:

»According to Bremser and Diesing, the famous Viennese collection of Helminths contains chains 20 to 24 feet long, very much longer, therefore, than the preserved specimens I have measured, which were at most only slightly above 14 feet.«

It thus appears that this specimen is of unusual size and that the principal chain alone would make a very long worm. The joints are not correspondingly increased in number, even after a fair allowance has been made for those which are wanting at its anterior extremity, but fall rather below the mean.

At the caudal end of the worm the last 30 cm of the chain contain 12 joints, a striking contrast to the anterior 30 cm in which there are 77.

The smallest segment measures 2.5 mm in its transverse diameter. The largest has a breadth of 5.5 mm, and is 29 mm long. At the anterior extremity of the chain the segments vary somewhat in shape, but generally speaking they are at first broad and short, at 185 cm from the head they become square, or nearly so, and finally in the last 356 joints the length exceeds the breadth.

This specimen apart from its rather unusual length presents a few points of special interest.

One example of supernumerary joint is present in the long chain, 91 cm from the posterior end.

This extra joint is somewhat heart-shaped, and measures 7.5 mm in its longest diameter. Its inner border rests in a semicircular depression at one side of the chain, opposite the point of union of two adjoining segments of large size. Its free border extends some distance beyond the lateral margins of the two adjacent joints and terminates in a slightly rounded point. On one side of this extra joint, a little anterior to the genital pore, is a straight superficial groove extending from the inner border to the free edge.

One of the shorter chains possesses a joint of somewhat peculiar appearance. One of its lateral borders is comparatively straight, whilst the other is marked at the centre by a rounded eminence. The breadth of the joint at this point is 11 mm, whereas at the two extremities it is only 6.5 mm. The interior of the joint is nearly filled by the genitalia. The porus genitalis opens upon the straight border, just beyond the middle of the joint.

One of the joints of the posterior extremity shows two genital pores, but unfortunately the arrangement of the generative apparatus cannot be seen with any distinctness. The two openings are situated at very nearly corresponding points on each lateral border of the joint.

The largest number of successive joints having genital foramina on the same side is six.

The structure of the adult proglottides, so far as I have examined them, appears to be normal.

Amherst, Mass., U. S. A.
