

ON A NEW SPECIES OF LINGUATULID FROM PALESTINE.

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Several specimens of Linguatulids were sent to me for examination by the Director of the Zoological Survey of India, Calcutta, in February 1923. Among them were some belonging to a new species which I have placed provisionally in the genus *Raillietiella*. As in the other members of this genus, the mouth is terminal, the hooks surrounded by fleshy protruberances, and the genital aperture appears to be anterior in the female as well as in the male ; but, unlike the hitherto described species of *Raillietiella*, the female is spirally coiled and in both sexes there is a narrow wing-like lateral expansion on each side of the body.

***Raillietiella spiralis*, sp. nov.**

There were three specimens :—

- (a) a mature female specimen,
- (b) a damaged specimen—apparently the anterior half of a female,
- (c) a smaller specimen—either a male or an immature female, probably the former.

(a) This specimen is spirally coiled, the posterior part of the body forming two complete turns. Uncoiled, the entire length would be about 20 mm. ; width of head 1.5 mm. The centre of the body is cylindrical but there are two narrow wing-like expansions on either side extending from a point just behind the cephalothorax to the extreme posterior end. There is a slight narrowing of the body between the cephalothorax and the abdomen but, except for this constriction, the diameter of the body is fairly uniform, only decreasing to a small extent posteriorly. The mouth lies at the extreme anterior end ; the armature is thimble-shaped. The hooks are single and sharply curved, the anterior pair well in advance of the posterior and slightly closer together. Each hook is surrounded by small fleshy protruberances and there are also a pair of prominent soft projections from the dorso-lateral aspect of the cephalothorax—probably dorsal papillae.

It was not possible to determine the position of the genital aperture with absolute certainty, but there is an anterior depression guarded by a papilla which I have little hesitation in describing as such. The posterior extremity is bifid but the characteristic flattened projections on either side of the anus are scarcely developed : it bears more resemblance to the posterior end of *Porocephalus teretiusculus*. This, however, is scarcely a diagnostic character as I have found a good deal of variation in this respect among undoubted specimens of *Raillietiella*.

The rings are difficult to count but there are about 60.

The cuticle has a dotted appearance, but whether this is due to numerous stigmata or to an irregular surface I could not determine.

The specimen is a mature female ; the body is slightly distended and eggs can be seen in the uterus.

(b) The head of the damaged specimen resembles that of (a), but the body is only half the length and not spirally coiled ; probably the coiled portion has been broken off. It is almost certainly a female specimen because there are two large oval structures visible through the semi-transparent body-wall, just behind the cephalothorax, which are apparently spermathecae.

(c) The smaller specimen is curved but not coiled. Length 13 mm. Rings 60 to 70. At first sight this appeared to be of a different species, as the cephalothorax is only about half the width of the abdomen. But on closer examination it is quite evident that the cephalothorax of this specimen closely resembles that of the larger individuals and that the characteristic wing-like expansions are present in the abdominal region. The difference in shape is probably due to the distension of the body by the eggs in the uterus of the mature female ; this swelling renders the body more cylindrical and therefore narrower. An immature specimen or a male is flatter and thus appears more expanded in the abdominal portion.

It is not always easy to distinguish an immature female *Raillietiella* from a male specimen since the genital aperture is anterior in both sexes. I am inclined to think that the specimen in question is a male because in those Linguatulids where the female is spirally coiled while the male is not, the female generally shows some signs of torsion at an early stage, and there is no such tendency in this specimen.

The specimens were taken in the lung of a snake (*Coelopeltis monepessulana*) at Khan Junis in Southern Palestine by Major R. B. Seymour Sewell, I.M.S., in March, 1917.

The only other Linguatulids in which wing-like expansions of the lateral body-wall are found belong to the genus *Linguatula* ; but here the expansions are very much more prominent and the species above described differs from species of *Linguatula* in almost every other particular. The general appearance of the expansion, as viewed by transmitted light, gives the impression that it does not contain an extension of the body cavity, the dorsal and ventral walls having coalesced in this region ; this, however, cannot be established without dissection. This peculiar structure marks the species off from all the other species of *Raillietiella* but, as on the other hand all the characteristic features of the genus are present, I feel that it should be included in this group, and I have therefore named it *Raillietiella spiralis*.