

NEMATODA.

STENOLAIMUS, Marion, 1870.

4. *Stenolaimus serialis*, sp. n.

The nematode most abundantly represented in the collection is an interesting form which may be provisionally referred to the genus *Stenolaimus*. Out of twenty-six examples only two are males.

Measurements (in mm.), taken from two males and three mature females:—

	♂.	♀.
Length	5.2-6	5.52-6
Thickness—at crown of hairs	0.033-0.037	0.037
" at base of œsophagus.	0.15-0.16	0.14-0.15
" at middle of body....	0.22-0.24	0.19-0.25
" at anus	0.09	0.09-0.1
Length of œsophagus	0.8-0.93	0.81-0.9
" tail	0.33-0.35	0.4-0.5
" spicules	0.12-0.15
Distance from head-end to excretory pore	0.065	0.0625-0.075
Distance from head-end to nerve-ring	0.40-0.44	0.39-0.42
Distance from head-end to vulva	1.41-1.65

α	23.6-25	22.2-29
β	6.4-6.5	6.6-6.8
γ	15.7-17	11.1-13.8

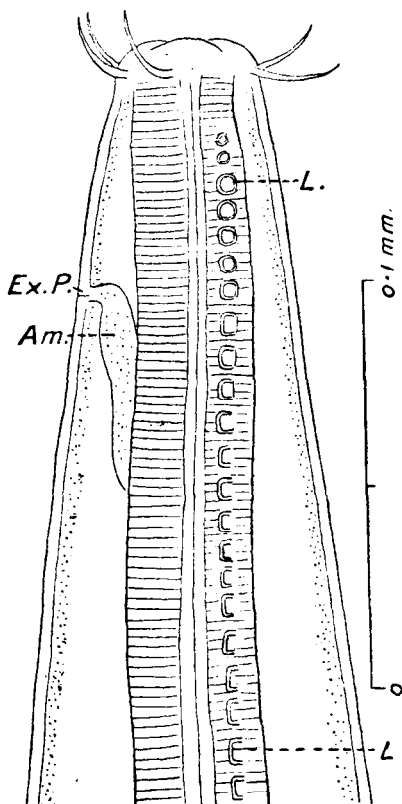
The body tapers considerably both anteriorly and posteriorly, the neck especially being very slender. Posteriorly the tapering begins a little in front of the anus. The cuticle is quite smooth, no transverse striations having been detected. In the *male* only there are a few slender hairs (fig. 2, p. 292) on the ventral surface in front of and behind the anus, and a few shorter and more scattered hairs on the tail. The lateral fields are of a coarsely cellular appearance, and measure 0.025 mm. in width.

The head (fig. 1) is very narrow. Near the extremity there is a crown of six stoutish bristles, which stand out at right angles to the long axis of the body, their tips curving forward. Two of the bristles are lateral, two subdorsal, and two subventral. The chief peculiarity of the species is the fact that instead of the pair of circular or spiral lateral organs near the anterior end, characteristic of the majority of free-living nematodes, there appears to be on either side a longitudinal row of thirty or more very small pits in the cuticle (fig. 1, *L.*), which may possibly be regarded as "lateral organs." They are situated just above the level of the lateral field on either side, and are, therefore, subdorsal in position. De Man (1884, pl. i. figs. 3, 3 *a*, 3 *d*) figures a row of organs in *Deontolaimus papillatus*, which would appear, from the figures, to be of a somewhat similar nature. According to his account of this species, however (1884, p. 32), they are "papillæ" rather than pits, and occur, in the *male only*, in a single median *ventral* row extending throughout the whole

oesophageal region of the body. In the species now under consideration the pits are present in both sexes, and extend in two rows from a little behind the anterior extremity to about the level of the nerve-ring.

The mouth is very small, and is not provided with distinct

Fig. 1



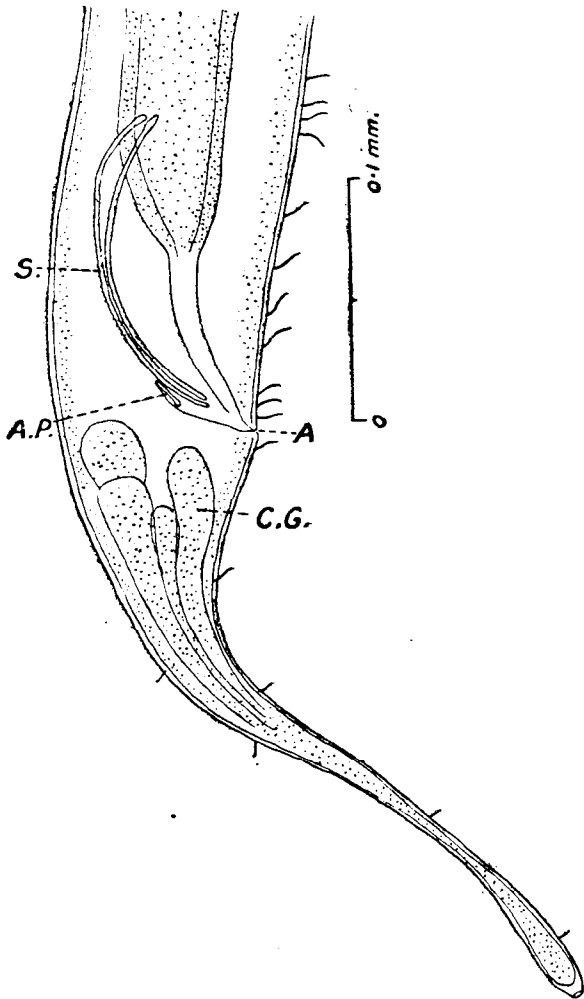
Stenolaimus serialis. Anterior end of female, lateral view.

Am., ampulla of excretory gland; *Ex.P.*, excretory pore;
L., "lateral organs" (?).

lips or papillæ. There is no buccal cavity, the mouth leading directly into the oesophagus. The latter is long and slender; it increases gradually in thickness towards its posterior end, but there is no distinct bulb. The nerve-ring

crosses the œsophagus at about the middle. The cells of the chyle-intestine are small, tessellated, and filled with brownish granules.

Fig. 2.



Stenolaimus serialis. Posterior end of male, lateral view.

A., anus; A.P., accessory piece; C.G., caudal glands; S., spicules.

The tail (fig. 2), in both sexes, tapers rapidly at first from the anus for about $\frac{2}{3}$ of its length, becoming more cylindrical

posteriorly. There is a slight bulbous expansion of the cuticle just before the tip. At the extreme tip there is a distinct pore, from which there may sometimes be seen issuing a coagulated stream of the secretion from the caudal glands, which are well developed.

The minute pore of the excretory gland (fig. 1, *Ex.P.*) is situated close behind the head, the duct expanding into a slight ampulla (*Am.*) just before the opening.

The spicules of the male (fig. 2, *S.*) are very slender curved rods; there is apparently a slender accessory piece (*A.P.*) near their distal ends. In the male the posterior end of the body is well provided with diagonal muscle-bands, probably serving to bring about the ventral coiling of the tail.

In the female the genital organs are characteristic. The vulva is anteriorly placed, and the two branches of the uterus are very unequal, the posterior branch being $4\frac{1}{2}$ times as long as the anterior. Both ovaries are doubly reflexed, *i. e.*, bent back upon the uterus and bent back again upon themselves near their blind ends.

This species appears to be common between tide-marks, occurring under stones &c. at Roy Cove. It agrees with *Stenolaimus marioni*, Southern (1914), and differs from the type-species, *S. lepturus*, de Man, in the absence of any hairs on the neck besides the cephalic crown of bristles. It may be remarked that no lateral organs are mentioned in the descriptions of either of these species; it is therefore doubtful whether the rows of pits described above for *S. serialis* are of generic or only of specific importance. It is possible that the species should be regarded as belonging to a new genus, with close relationships to *Stenolaimus* and *Anticoma*.