

Thoracostoma Marion.

Of this genus representatives of three different species are present, all new to science. After having commenced the working out of the Ingolf-Nematodes and after having determined most of the material, I met with one of the Thoracostomes from the Ingolf-Expedition in the material brought home by Dr. Th. Mortensen from the Auckland and Campbell Islands. As the material of the mentioned species, which I named *Thoracostoma elegans*, was rather copious in the Ingolf-Expedition, while from the Campbell islands only one young specimen was present, I did not give a description of the species in my paper dealing with the Auckland and Campbell-Nematodes, but put it off till now.

Thoracostoma elegans n. sp.

Pl. V, figs. 3, 5; Pl. VI, fig. 3; Pl. VII, fig. 3.

Locality: Ingolf Expedition St. 126. $67^{\circ}19'$ L. N. $15^{\circ}52'$ L. W. 293 fms. Bottom temp. $\div 0^{\circ}5$. North of Iceland.

"Thor" St. 1566. $57^{\circ}24'$ L. N. $7^{\circ}25'$ L. E. 108 m. 42 Sea-miles N.W. $\frac{3}{4}$ W. of Hanstholm.

"Thor" St. 1569. $57^{\circ}48'$ L. N. $7^{\circ}40'$ L. E. 440—460 m. Mud. 52 Sea-miles N.N.W. $\frac{1}{4}$ W. of Hanstholm.

Female: Length 6,5 mm. $\alpha = 32,8$ $\beta = 4,6$ $\gamma = 46$.

Male: Length 7,1 mm. $\alpha = 32,8$ $\beta = 5$ $\gamma = 50$.

Most of the specimens present are secured by the investigation-steamer "Thor" and originate from the Skagerrack; only one specimen, a male was taken by the Ingolf Expedition North of Iceland.

It is with some hesitation that I refer this species to the genus *Thoracostoma*. I am fully aware that, sooner or later, a new genus will have to be established for this and related forms, or at any rate a subgenus. In some respects it seems to be a real *Thoracostoma*, in some important facts it differs considerably from this genus. As to the shape of the lateral organ it approaches the genus *Phanoderma*.

The shape of the body is — in comparison with what is the average shape in other *Thoracostomes* — relatively short and thick (α is in both sexes 32,8). It keeps its width throughout almost the whole length; in the foremost part of the body it begins to taper evenly and rather quickly almost at the level of the base of the oesophagus, the very front-end being constricted to a neck-like part caudad to the head; this is somewhat truncate and three rounded lips seem to be present, Pl. VI fig. 3. The front end is provided with a mail or "thorax" as usually in the *Thoracostomes*, and judging from what can be observed in optical section this mail is relatively thick. Its caudad edge projects into rounded lobes. Behind the neck-like constriction the cephalic bristles have their place. They are stout and thick at their base, of medium length and arranged in one ring in a number of ten.

The lateral organ differs considerably from what is usual in *Thoracostomes*. It is arch-shaped and is open towards the caudal end of the animal just as is the case in most of the *Phanoderms*; it is relatively large and between its two ends is a distance of ca. 17μ . Besides the cephalic setæ the cuticle is richly beset with rather thick and short bristles, spread over the foremost part of the animal and, as is often seen in *Thoracostomes*, arranged in more or less regular longitudinal rows. Stout and numerous bristles are also met with in the bursal region of the male, but these will be described later on.

The buccal cavity is relatively small and almost globular, as is seen in fig. 3, Pl. VI, and the limit between this and the chitinous tube of the oesophagus is rather sharp. This latter, being rather short, increases evenly in width towards the base. No eyes are present but a rather rich supply of pigment granules are present, scattered over the surface of the oesophagus. At a distance behind the neck these pigment granules congregate in heaps but they do not fuse into veritable eye-spots. The nerve ring is situated relatively near the head; it divides the oesophagus in the ratio of approximately three to eleven. — The cells of the intestine are not to be seen in my preparations.

I have observed no ventral gland nor any trace of the excretory pore, and I am inclined to mean

that this organ is lacking. The caudal gland consists, as usual, of three cells which in the species under consideration are found crowded together in the post-anal part of the body-cavity. Their efferent ducts are rather thick and somewhat twined; in their distal end, they form an ampulla each and open by means of an exceedingly fine tube into the utmost part of the tail's tip, from where the efferent duct carries out the products of excretion.

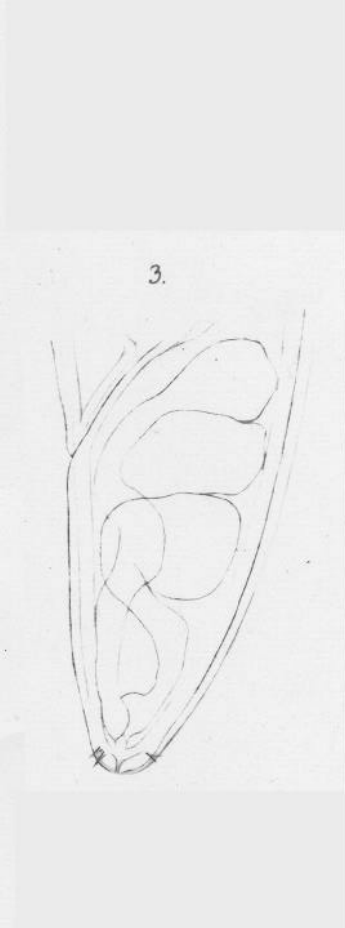
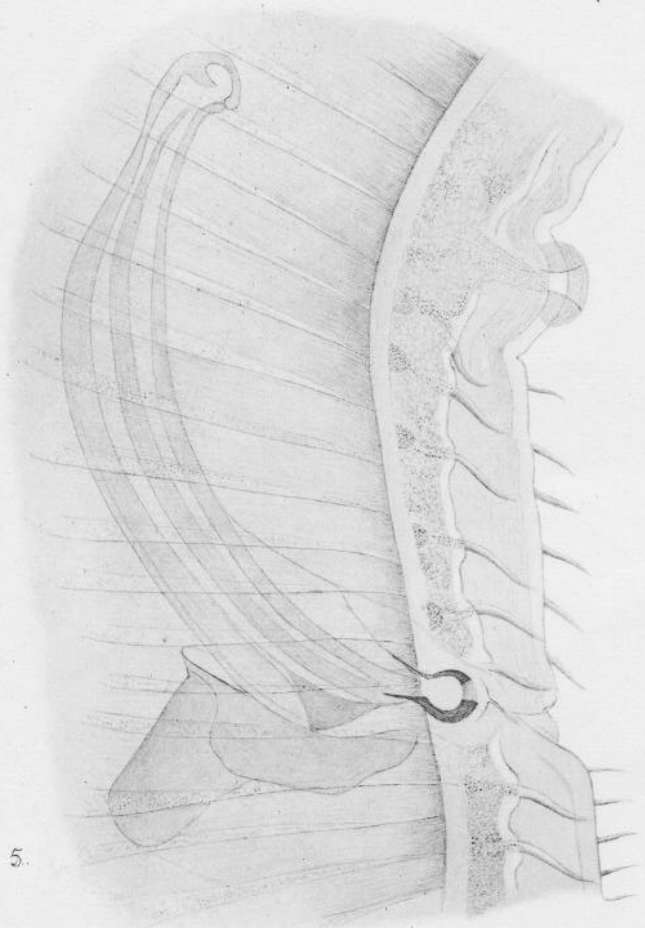
The vulva is situated a considerable distance behind the middle of the body; it divides the latter in the ratio of approximately fifteen to eight and is supplied with chitinized edges; vaginal glands are present. The ovaries are symmetrical and reflexed; only one shell-egg is seen in each uterus branch.

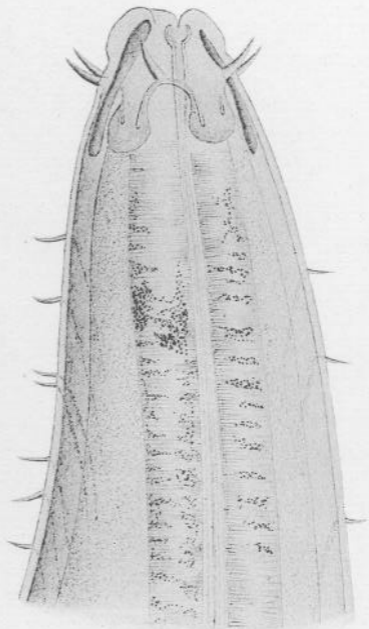
The spicules are not so complicated in structure as is often the case in this genus. They are rather slender and their proximal end is dilated and head-like and connected with the other part of the spicule by a thinner neck-like part. The distal end is — as far as I have been able to ascertain — also dilated and globular in shape. A longitudinal thickening list is seen on each side, fig. 5 Pl. V. The length of the spicules makes, measured in a straight line from the proximal to the distal end, c. $150\ \mu$. In one specimen the two spicules are somewhat diverging in length as well as in shape; the longest c. $165\ \mu$, the other only c. $150\ \mu$. The shape of the longest is seen in Pl. VII, fig. 3, which shows the hindmost part of the animal. In fig. 5 Pl. V is seen the spicular apparatus as it usually appears. A large accessory piece is present; it seems to form a sort of sledge for the spicules and is provided with a backwards pointing apophysis. The preanal supplementary organ, which seems to be developed in almost all species of this genus, is of the usual shape and situated at a distance about $90\ \mu$ cephalad to the ano-genital opening. Two sub-lateral rows of rather stout and long bursal bristles are seen, but no semi-globular-shaped papillæ have been observed.

A young specimen belonging to the species under consideration was taken by Dr. Th. Mortensen at the Campbell Island.

3. *Thoracostoma elegans* n. sp. ♀. Tail. × 380.

5. *Thoracostoma elegans* n. sp. ♂. Spicular apparatus. × 580.





Thoracostoma elegans n. sp. Anterior end. $\times 525$.

Thoracostoma elegans n. sp. ♂. Posterior end. × 230.

