

Thoracostoma Campbelli n. sp.

Pl. III, figs. 1, 2, 5.

Locality: Campbell Island. Perseverance harbour. The coast at ebb-tide; under stones.

Length: Female 16,5 mm. Male 15,2 mm.

Female: $\alpha = 70$. $\beta = 6$. $\gamma = 105$.

Male: $\alpha = 76,8$. $\beta = 6,5$. $\gamma = 115$.

The shape of the body is slender, almost filiform. In the foremost end it tapers from about at the level of the base of the oesophagus. In the hind-part the body is keeping its width unto the anal region. The tail is very short and rounded. A characteristic feature for this species is that a rather considerable constriction is found in the front end about at the level of the lateral organ, which recalls the well known constriction in the genus *Sabatieria*.

The cuticle is smooth and relatively thick. On the head — in front of the constriction — a ring of ten short, conical setæ is seen. It seems as if these ten bristles are found in most of the known species of this genus, and arranged in the same way. On each side a single bristle is found laterally situated, and the other eight are arranged in four groups of two bristles each. The two of these groups are situated subventrally, the other two subdorsally. In front of the setæ is seen a ring of four rather large papillæ, sublaterally situated.

The cephalic mail is of the usual shape. In each of the six lobes there are, as a rule, two locules to be seen, but occasionally there are found three of them. In fig. 2, Pl. III is seen that the lobe dorsally to the lateral organ has

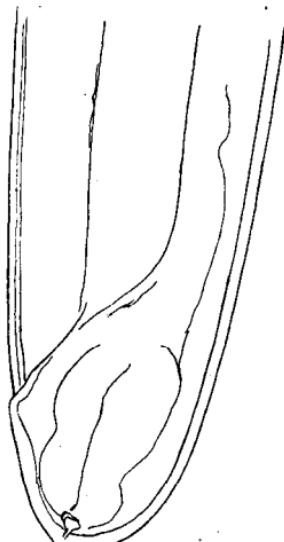


Fig. 15. *Thoracostoma campbelli*; tail of female.

three locules, in another specimen it is the lobe, situated ventrally to the lateral organ, that has three locules; there seems to be no fixed rule for that. The species is easily recognizable on the band of minute, polygonal chitinous granules which is found immediately behind the cephalic mail. The species under consideration has this feature in common with the *T. figuratum*, but from this form it is distinguished by the fact that it has the above named cephalic constriction which lacks entirely in *T. figuratum*.

In the œsophageal region the cuticle is set with numerous papilliform setæ, arranged in longitudinal rows. The lateral row only consists of a few setæ which are not so regularly arranged as those in the subdorsal and subventral rows.

The two eyes each form a cyathiform pigment spot in which a lens has had its place. As there is no lens to be seen now it is to be supposed that it has been diluted by the preservation fluid or has disappeared in some other way. At any rate it is not uncommon that preserved specimens of freeliving Nematodes prove to be deprived of their eye-lenses. The distance from the front end to the eyes is in a female of this species measuring 16,5 mm c. 128 μ , and in a male, the length of which makes 15,2 mm, c. 120 μ . The lateral organ which is as usual situated immediately caudad to the single lateral cephalic bristle, is pear-shaped and measures in longitudinal diameter c. 9 μ . The lateral fields are in this species, as in most species of this genus, characterized by the large glandular cells, already observed and described by several investigators. In the species under consideration the lateral fields are, in some specimens, rather strongly pigmented with granules of a deep, brown colour; this pigment can locally be so dense that it hides the organs below and impedes the investigation.

The œsophagus is rather long as in related species. It has its broadest width at the base and tapers evenly towards the front. The nerve ring is rather distinct; it is situated at the limit of about the first third of the œsophagus.

The vulva is situated a considerable distance caudad to the middle. In a female, the length of which makes 13,8 mm, its place is 10,6 mm from the front end. It forms a large transverse slit. In some of the female species the surroundings of the vulva are covered with a layer of a granulated mass, probably the rests of

an adhesive fluid which during the copulation serves for fixing the male bursal region to the body of the female. The feature would thus — according to my opinion — be analogous to what is known

in certain insects as copulation-markings, viz. the Dytisci. The female organs are symmetrical and the ovaries are reflexed. Only two eggs are found in each uterus-branch of the females at my disposal. The hindpart of the male is bent inwards in this and related forms. In the mid-line, ventrally, a papilla is situated with the opening for the gland which Jägerskiöld has named „accessorische Drüse“ and which, according to the same author, serves as an organ of fixation during the copulation. I think that this organ, in spite of its somewhat different structure, is to be considered as homologous to what is commonly called the supplementary organ in the Enoploids and other genera of freeliving Nematodes. Besides the supplementary organ a subventral row of large mamma-shaped papillæ is found in this species on each side, each row counting five papillæ. These “bursal papillæ” are found in most of the Thoracostomes belonging to this group;

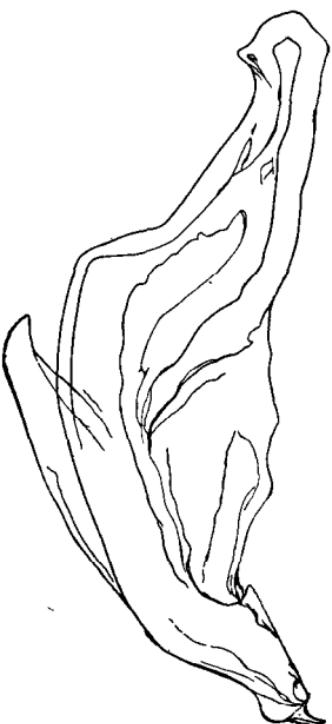


Fig. 16. *Thoracostoma campbelli*; spicular apparatus.

they are found in *T. papillosum* also described in this paper, and de Man states their presence in *T. setosum* as well as in *T. antarcticum*. The spicules are rather short and thick, and on their ventral edge a rather thin crest is seen. They are provided with a thickening-list in the middle. From the proximal end to the distal tip is a length of 200μ . A rather large accessory piece embraces their distal ends and is provided with a backwards pointing, somewhat curved apophyse.

Pl. III.

Fig. 1. *Thoracostoma campbelli* n. sp. ♂ Tail. Zeiss Obj. C. Oc. 2.

„ 2. — — „ Head. Winkel Homog. Imm. 2,2 mm.
Comp. Oc. 4.

„ 5. *Thoracostoma campbelli* n. sp. Vulva and surroundings. Zeiss Obj. C.
Oc. 2.

