

## LEPTOSOMATIDES ANTARCTICUS n.sp.

(Fig. 1, a-c.)

Stations : 39, 41, 42, 103, 107.

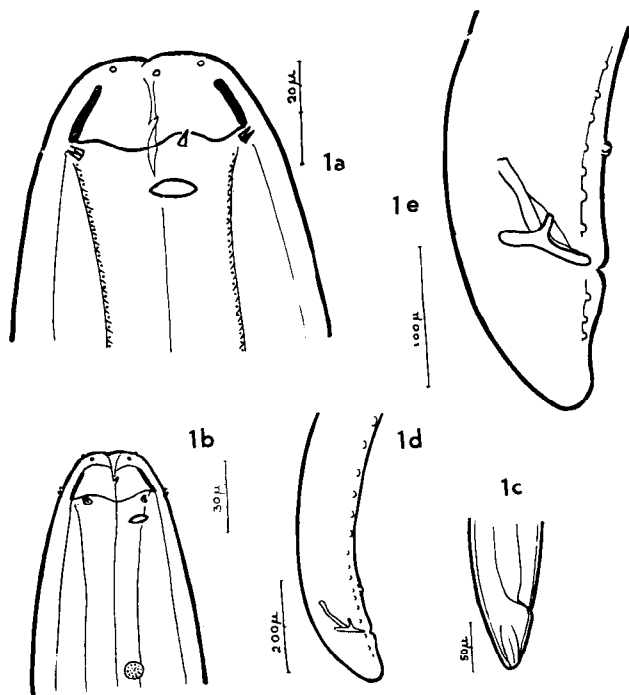
Female (7x) : L = 9.9-15.8 mm. ;  $\alpha$  = 70.7-83.3 ;  $\beta$  = 5.8-7.9 ;  $\gamma$  = 80-123 ; V = 63-68%.Male (3x) : L = 7.9-10.2 mm. ;  $\alpha$  = 65-79 ;  $\beta$  = 4.9-6.0 ;  $\gamma$  = 72-85.

These are elongate worms of almost even width throughout their lengths, and with rounded head and tail ends. The widths at different levels in a male specimen are as follows : at cephalic setae  $45 \mu$ , at amphid,  $48-50 \mu$  ; at eyes  $85 \mu$ , at nerve ring  $97 \mu$ , at base of oesophagus  $0.15 \text{ mm.}$ , maximum breadth  $0.16 \text{ mm.}$ , at anus  $0.12 \text{ mm.}$  The cuticle in the nuchal region bears very small setae. The cephalic setae are small but stout, each about  $3.9 \mu$  long, or about  $1/13$  of the corresponding body diameter. The helmet is well developed, its base undulating so that a shallow lobe lies between each set of cephalic setae. The head width at its base is  $2.2-2.5$  times its length. No teeth are present around the mouth, but a small tooth lies at the anterior end of the oesophagus. The eyes are placed at  $1/5-1/6$  of the distance of the nerve ring from the anterior end, and this distance is  $1/3.6-1/4.7$  of the length of the oesophagus.

The tail in both sexes is bluntly conical, rounded at the tip, its length rather greater than the anal breadth (6 : 5). No caudal setae were seen. In the female no more than one ripe egg was present in any specimen ; this egg is from  $0.24-0.35 \text{ mm.}$  long,  $0.1 \text{ mm.}$  wide.

A small preanal organ lies  $3/4$  of the tail length in front of the anus. The male tail bears no setae. There is on each side a row of about 10-12 small papillae extending from behind the anus to just in front of the preanal organ ; in front of these are two rows of six larger papillae. The spicules measure  $100 \mu$  from end to end. The gubernaculum is  $60-65 \mu$  long, and has a delicate anterior projection.

The species differ from the other two of the genus, *L. euxima* Filipjev, and *L. conisetosum* Schuurmans Stekhoven and Mawson, in the slighter development of the cephalic capsule, and in the absence of an anterior prolongation on the gubernaculum.



1. *Leptosomatides antarcticus* : (a) head, lateral view ; (b) anterior end ; (c) tail of female ; (d) posterior end of male ; (e) tail of male.

STATION 39 : 66° 10' S., 49° 41' E., T M L : 300 m.

Big haul characterized by silicious sponges with glass rope spicules. *Synapta*—like Holothurian common ; many Polyzoa of different species.

STATION 41 : 65° 48' S., 53° 16' E., T M L : 193 m.

Large haul. Trawl full of sponges and sponge mud : glass rope sponge predominant. Much mud with very many molluscs : many ophiuroids. Later, operating at this station with the Large Otter Trawl (O.T.L.), the catch comprised a striking haul of alcyonarians, holothurians " many ", compound ascidians " common ".

STATION 42 : 65° 50' S., 54° 23' E., T M L : 220 m.

Haul essentially as at Station 41, T M L.

STATION 103 : 67° 03' S., 74° 29' E., D R L : 437 m.

Mud bottom (ooze). All groups represented, none referred to as abundant.

STATION 107 : 66° 45' S., 62° 03' E., D R L : 219 m.

Dredging on an off-shore submarine bank. Fine grey mud. Ophiuroids and Polyzoa chief animals. Nematodes among sponge spicules. Later the Large Otter Trawl brought up a catch with Polyzoa as the dominant group : calcareous and chitinous species.