

**PELLIODITIS PELLIO (SCHNEIDER) (NEMATODA: RHABDITIDAE)  
PARASITIZING SCAPTIA (SCAPTIA) LATA (GUERIN-MENEVILLE)  
(DIPTERA: TABANIDAE)**

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*Pellioiditis pello* (Schneider) (Rhabditidae: Nematoda) was found for first time, parasitizing tabanid larvae of *Scaptia* (*Scaptia*) *lata* (Guerin-Meneville), along the shores of Puyehue lake in Osorno, Chile.

A complementary description of this parasite is given.

Key words: Nematoda – Rhabditidae – *Pellioiditis pello* – Tabanidae

The present knowledge concerning the parasitism of tabanid insects by nematodes is short and fragmentary. Only five species of Filariidae, four of Mermithidae and one of Diplogasteridae have been reported (Poinar, 1975).

In this work *Pellioiditis pello* a parasite of *Scaptia* (*Scaptia*) *lata* larvae is reported for first time and a complementary description of it is given.

MATERIALS AND METHODS

*Scaptia* (*S.*) *lata* larvae were collected in the Puyehue lake, Osorno, Chile. The emerging nematodes were isolated from the host and reared *in vivo* with fifth instar larvae of *Galleria mellonella* L. (Lepidoptera: Noctuidae). Adult nematodes were killed in Ringer solution at 60 °C during 2 min and then fixed in TAF.

All measurements are in micrometers ( $\mu\text{m}$ ) except where noted.

COMPLEMENTARY DESCRIPTION

Order Rhabditida Chitwood, 1933

Suborder Rhabditina (Orley, 1880; Chitwood, 1933)

Superfamily Rhabditoidea (Orley, 1880)  
Travassos, 1920

Family Rhabditidae (Orley, 1880)

Subfamily Pelloderinae Andrassy, 1976

Genus *Pellioiditis* (Dougherty, 1953) Timm, 1960

*Pellioiditis pello* (Schneider, 1866) Timm, 1960

Syn. *Pelodera pello* Schneider, 1866

*Rhabditis pello* (Schneider, 1866) Butschli, 1873

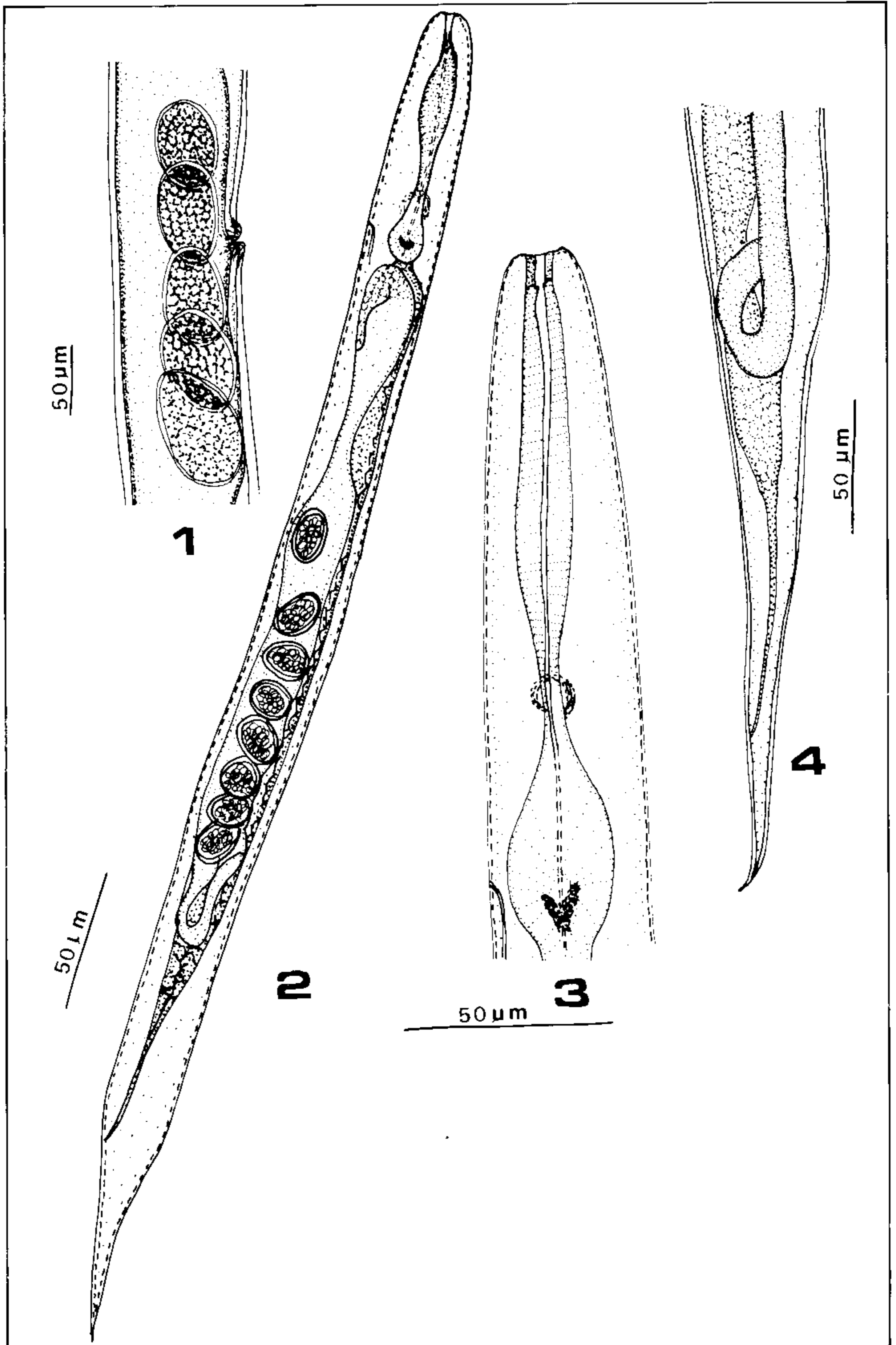
*Rhabditis* (*Choriorhabditis*) *pello* (Schneider, 1866)

Butschli, 1873 (Osche, 1952)

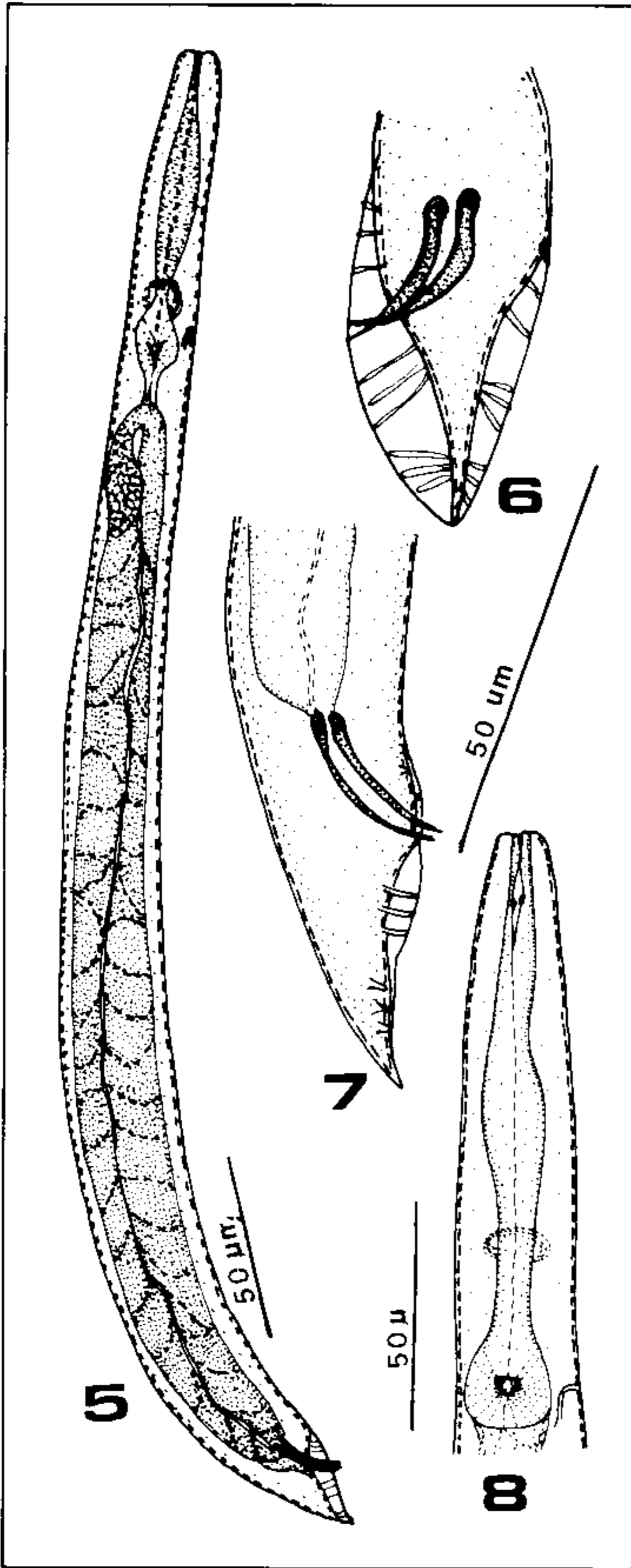
*Rhabditis* (*Pellioiditis*) *pello* (Schneider, 1866) Butschli, 1873 (Dougherty, 1953)

*Leptodera pello* (Schneider, 1866) Ward, 1903

Small nematodes (0.56 – 0.90 mm). Cuticle with slight transversal striations. Head continued with the body. Lips moderately developed, slightly separated, each one with a small papillae. Amphids minute, pore-like, on the lateral lips. Stoma longer than wide. Cheilostom not cuticularized. Promesostom tubular, with parallel walls. Metastom isoglotoid with small swellings or denticles. Oesophagus corpus a little swollen. Basal bulb with sclerotized valves. Nerve ring situated in the middle of the isthmus. Excretory pore in the anterior third of the body, next to the basal bulb. Females amphimitic. Ovaries with proximal extremes flexionated. Vulva on the mid-body region. Males monorchic. Testis with reflexed anterior end. Bursa pelodera, open, well developed. Spicules



*Pellioditis pellio* – Fig. 1: vagina. Fig. 2: female. Fig. 3: head of female. Fig. 4: tail of female.



*Pellioditis pellio* – Fig. 5: male. Fig. 6: tail of male in ventral view. Fig. 7: tail of male in lateral view. Fig. 8: head of male.

paired, parallel. Gubernaculum absent. Nine pairs of genital papillae: three pairs being pre-anal, six pairs post-anal. Tail of female conoid.

**Measurements**

*Male:* n = 20. Body length: 720 (560-790); maximum width: 30 (26-32); Length of stoma:

14 (9-16); width of stoma: 3 (2-5); distance from head to base of oesophagus: 124 (108-126); distance from head to nerve ring: 82 (79-105); distance from head to excretory pore: 94 (70-101); length of corpus: 56 (44-63); width of corpus: 10 (7-12); length of isthmus: 23 (21-26); width of isthmus: 7 (5-9); length of bulb: 23 (21-30); width of bulb: 16 (16-19); distance from anus to tail: 35 (34-40); body diameter at anus region: 33 (21-35); distance from head to reflexion of testicle: 450 (368-517); length of spicules: 22 (21-26); width at middle of spicules: 2 (2-3).

*Female:* n = 25. Body length: 840 (790-900); maximum width: 305 (260-405); length of stoma: 17 (16-19); width of stoma: 5 (3-6); distance from head to base of oesophagus: 164 (152-170); distance from head to nerve ring: 110 (122-156); length of corpus: 75 (64-82); width of corpus: 12 (7-14); length of isthmus: 28 (19-42); width of isthmus: 8 (6-9); length of bulb: 28 (26-32); width of bulb: 46 (22-30); distance from anus to tail: 103 (91-108); diameter of the body at anus region: 20 (19-21); distance from head to vulva: 410 (390-440); V: 49% (49-51); length of egg: 420 (38-44); width of egg: 23 (21-26).

*Host:* larvae of *Scaptia (Scaptia) lata* (Guérin-Meneville) (Diptera: Tabanidae).

*Locality:* Puyehue lake, Osorno, Chile.

*Revised material (in vivo):* 25 ♀♀ and 20 ♂♂ Deposited in CEPAVE's Helminthological collection.

**REMARKS**

*Pellioditis pellio* (Schneider) has been cited up to the present for Europe, South America (Chile) and the United States. Schneider (1866) described this species for first time and included it in the genus *Pelodera*. Timm (1960) re-described it and transferred it to the genus *Pellioditis*. Both descriptions are incomplete, and therefore we consider it necessary to give a complementary description of this species.

*Pellioditis pellio*, as other members of the same genus are in a wide range of biotopes, being found especially in the soil and associated with earthworms (*Oligochaeta*, *Lumbricidae*) (Poinar, 1984). This nematode is probably an accidental parasite of tabanids.

## ACKNOWLEDGEMENTS

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