REVISION OF THE GENUS *TYLENCHOLAIMUS* DE MAN, 1876.

DIDELPHIC SPECIES

BY

R. PENA SANTIAGO¹) and A. COOMANS²)

¹) Dpto. Biologia Animal, Escuela Universitaria Formacion Profesorado EGB, Virgen de la Cabeza nº 2, 23008-Jaén, Spain; ²) Instituut voor Dierkunde, Rijksuniversiteit Gent, Ledeganckstraat 35, B-9000 Gent, Belgium.


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The genus *Tylencholaimus* was proposed by de Man (1876) more than a century ago. Since that time numerous contributions have been made by several authors, mostly comprising descriptions of new species, but only Loof & Jairajpuri (1968) and Vinciguerra (1986) have published monographic taxonomic papers on the genus. About forty different species have been identified so far as belonging to *Tylencholaimus* and no general revision of its taxonomy is available.

On the other hand, *Tylencholaimus* is a very frequent and widely distributed genus in most soils and it also occurs in freshwater. Its ecological role and importance is far from being sufficiently clarified.

This is the first paper of a series on the taxonomy of the genus; it deals with didelphic species. Jairajpuri & Ahmad (1992) have recently included these species in the new subgenus *Amphitylencholaimus*; this action will be discussed in the final paper of the series. *T. viduus* Jairajpuri, 1965 will also be dealt with in the final paper.

MATERIALS AND METHODS

The study is largely based on the examination of type material obtained from the different collections where it is deposited. More precise data about this material are given together with the description of each species.

Additional material of some species has been collected mainly from Spanish soils. In these cases nematodes were extracted by a modified Baermann funnel method, fixed in 4% formaldehyde and mounted in anhydrous glycerin.
DESCRIPTIONS

Tylencholaimus congestus Loof & Jairajpuri, 1968

(Fig. 1; measurements in Table I)

Tylencholaimus congestus

Female: Slender nematodes of small size, under 1 mm long. Body cylindrical, tapering towards both extremities but more so towards the anterior end. Habitus regularly ventrally arcuate to C-shape (Fig. 1E). Outer cuticle thin, with fine transverse striations. Inner cuticle somewhat separated from the outer layer. Radial refractive elements present but not abundant. Lateral pores obscure. Lateral chord about one-third of midbody diameter.

Lip region set off by constriction (Fig. 1 C, D), twice as wide as high and about one-third of body width at neck base. Lips apparently separated; its inner part somewhat protruding, forming liplets. Labial and cephalic papillae clear but not interfering with the contour of the head. Amphids cup-shaped, opening at level of cephalic constriction and occupying about half of the corresponding body diameter. Stoma less visible in the specimen examined. Odontostyle typical of the genus, about three-fourths the lip region width long; its aperture about half of its total length. Odontophore rod-like, with clear basal knobs; its length equal to lip region diameter. Guiding ring simple.

Anterior part of the pharynx slender (Fig. 1 A), expanding gradually into the basal bulb (Fig. 1 G). Pharyngeal bulb cylindroid, about 5.5 times as long as wide and occupying about two-fifths of the total neck length. Nerve ring situated at 40% of the total neck length. Pharyngeal gland nuclei and outlets clear; DN just behind DO; S1N smaller than S2N. Cardia bluntly conoid (Fig. 1 F), almost entirely surrounded by intestinal tissue.

Genital system didelphic-amphidelphic (Fig. 1 B). Ovaries reflexed, relatively small and with few oocytes, reaching less than half the oviduct length. Oviduct with a very long slender part and a scarcely developed pars dilatata. Sphincter present at the oviduct-uterus junction. Uterus very short, wider than oviduct and without special modifications. Vagina practically cylindrical, extending inwards about half of the corresponding body diameter; its wall adjacent to the vulva not offset from the body cuticle, other part encircled by well-developed musculature. In the vaginal area there are several large cells (Fig. 1 H). Vulva a transverse slit or oval. Genital tract not containing sperm.

Prerectum rather obscure in the only specimen examined, apparently about 5 times the anal body width long (Fig. 1 I). Rectum length equal to anal body width. Tail convex conoid to hemispheroid (Fig. 1 J). Caudal pores two pairs towards middle of tail: one lateral, the other subdorsal.

Male: Unknown.

Diagnosis: The species is characterized by its small size (L = 0.72-0.83 mm), elevated perioral region, odontostyle 6-7 μm long or about as long as the lip