

Xiphidorus parthenus n. sp.
(NEMATA: LONGIDORIDAE) FROM BRAZIL

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As a part of a joint Research Programme of Tropical Agricultural Research Center of Japan and Department of Zoology of Escola Superior de Agricultura «Luiz de Queiroz», USP, investigations on the nematode fauna found in a sugar-cane field at São Pedro County, SP, were carried out. These led to the discovery of an interesting new species of the genus *Xiphidorus* Monteiro, 1976., which is described as *Xiphidorus parthenus* n. sp.

Observations were made on specimens mounted according to Golden's method (SOUTHEY, 1970).

Xiphidorus parthenus n. sp.

Dimensions. Female holotype: L = 3,304 μ m; a = 102; b = 11.5; c = 113; c' = 1.4; V = 54; odontostyle = 90 μ m; odontophore = 43 μ m. Female paratypes (n = 6): L = 3,376 (2,990 –

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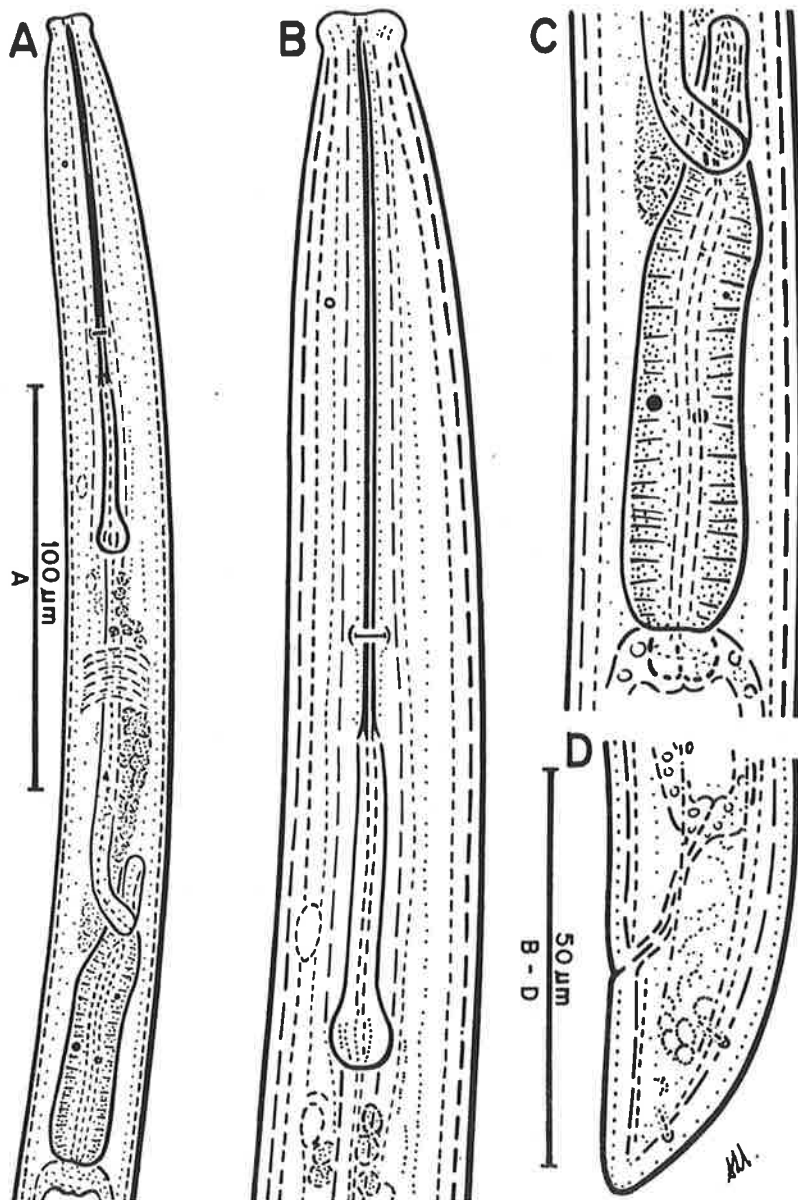
3,593); a = 103 (96 - 108); b = 11.8 (9.5 - 13.4); c = 127 (115 - 134); c' = 1.3 (1.3 - 1.5); V = 53 (51 - 55); odontostyle = 89 (86 - 90) μm ; odontophore = 44 (43 - 46) μm .

Males: unknown.

Description of female. Body slender, strongly curved ventrally in an open spiral or a C shape when relaxed. Cuticle smooth, being 2 μm in median portion of body and 4 μm wide on dorsal side of tail. Lateral chord measuring 2/5 of body width, showing somewhat obscure gland cells opening on surface of body through central pores; nearly one hundred lateral cells were counted on each side of body (87 pores were seen on the left side of the holotype). Ventral and dorsal hypodermal chords also seem to contain gland cells, but they were hardly visible even on the neck region. Lip region low, rounded, set off from neck by a deep depression, as wide as 3/8 of body diameter at level of cardia, showing the usual circlets of papillae. Amphid pouches large; amphid apertures hardly visible as minute slits. Spear guiding apparatus bearing an anterior tubular sheath, located near odontostyle base, at 80 μm from anterior end. Odontostyle base forked. Odontophore with moderately developed basal flanges. Anterior portion of oesophagus convoluted. A mucro (odontostyle piece) is present in some specimens. Nerve ring surrounding anterior portion of oesophagus at 154 - 164 μm from anterior end. Dorsal gland nucleus and nucleolus small, hardly visible; anterior subventral gland pair with large and rounded nuclei and nucleoli situated near the middle of basal portion their apertures about the same level; posterior subventral glands not detected. Cardia small, rounded. Intestinal cells high, vacuolated; prerectum long (350 μm in holotype).

Tail convex conoid to a blunt terminus, larger than body width at anus, showing two papillae on each side as figured, Vulva transverse; vagina occupying half of body width. Gonads paired, reflexed, well developed. Reproductive tract without Z-organ. Uteri containing a single egg at a time, measuring 178 x 27 μm . No sperms seen in uteri.

Diagnosis. *Xiphidorus parthenus* n. sp. differs from *Xiphidorus yepesara* Monteiro, 1976 in: a) being monosexual; b) ha-



Xiphidorus parthenus n.sp. A - Oesophageal region; B - anterior region; C - basal region of oesophagus; D - tail region.

ving a differently shaped tail, without digitation; c) showing slightly posterior position of vulva ($V = 53 (51 - 55): 49 (48 - 52)$); d) having small number of lateral hypodermal glands (less than one hundred in *Xiphidorus parthenus*, about two hundreds in *Xiphidorus yepesara*); and, e) having shorter odontostyle ($89 (85 - 90): 98 (93 - 103)$).

The specific name *parthenus* was taken from Greek and means virgin.

Type locality and habitat. All specimens were obtained from soil in a sugar-cane plantation (*Saccharum officinarum* L.), cv. NA 56-79, planted on March 27th, 1978. The field was located at São Francisco Farm (Costa Pinto Mill), on a gradual slope 500 m high, facing southeast of a hill, the geographical location being $47^{\circ}48'W$ and $22^{\circ}38'S$, São Pedro County, São Paulo State. The specimens occurred deep in soil (50 cm or more below the soil surface), where the soil texture included more clay (19.4–24.2%) than the top layer (4.0 - 4.7%). Soils with Textural B - Red-yellow Podzolic soil - Laras variation (BRASIL - COMISSÃO DE SOLOS DO CNEPA, 1960).

Holotype: female on slide 620/03. Paratypes (F = female, J = juvenile): 620/02: 2F; 620/03: 2F; 620/04: 3F, 1J. Other specimens on slides 619/11: 3F; 619/13: 6F; TARC 95: 1F, 2J, besides a number of juveniles on several slides. These are held in the Nematology Collection of the Zoology Department, Escola Superior de Agricultura «Luiz de Queiroz», University of São Paulo, Piracicaba, Brazil. The type material (slide 620) was collected on August 27th, 1979; materials on slides 619 were collected on August 11th, 1979, being in poor conditions.

SUMMARY

Xiphidorus parthenus n. sp. (Nemata, Longidoridae) was found inhabiting soil in a sugar-cane field at São Pedro County, São Paulo, Brazil. Specimens occurred deep in the soil, at 50 cm or more below the soil surface.

Xiphidorus parthenus n. sp. differs from *Xiphidorus yepesara* MONTEIRO, 1976, in: a) being monosexual; b) having a

differently shaped tail; c) showing slightly posterior position of vulva; d) having small number of lateral hypodermal glands; and, e) having shorter odontostyle.

RESUMO

Xiphidorus parthenus n. sp. (Nemata, Longidoridae) foi encontrado em uma gleba cultivada com cana de açúcar no município de São Pedro, SP. Os espécimes ocorriam a 50 cm ou mais de profundidade, em um horizonte mais rico de argila.

A espécie difere de *X. yepesara* Monteiro, 1976: a) por ser monosexual; b) por apresentar cauda com forma diferente; c) pela posição levemente posterior da vulva; d) pelo número menor de glândulas das cordas laterais; e, e) pelo odontostílio mais curto.

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