

Ind. J. Nemat. 5(1)
publ. Dec. 1976

HELICOTYLENCHUS TRIVANDRANUS SP. N. (NEMATODA
HOPLLOLAIMIDAE) FROM KERALA IN INDIA

BY

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HELICOTYLENCHUS TRIVANDRANUS SP. N.

(Fig. 1)

16 ♀♀ (*Paratypes*) : L = 0.70-0.88 mm ; a = 25-30 ; b = 5.9-6.8 ; b' = 4.6-5.2 ;
c = 40-68 ; c' = 0.8-1.1 ; V = 55-60 ; spear = 31-33 µm ; O = 27-34.

Female (Holotype) : L = 0.84 mm ; a = 28 ; b = 6.6 ; b' = 5.1 ; c = 49 ; c' = 0.9 ;
V = 58 ; spear = 33 µm ; O = 27.

Body spirally coiled about 1½ times when fixed. Annules about 2 µm wide at midbody. Lateral field not areolated, four incisures. Phasmids in centre of lateral field located 5 annules (1-8 in paratypes) above anus. Caudalid inconspicuous, 5 annules (4-5) in front of anus. Lip region hemispherical, strongly sclerotized with 5-6 annules. Anterior and posterior cephalids 1 and 6 annules behind cephalic frame-work. Spear knobs anteriorly cupped, cone equal to or slightly longer than shaft. Dorsal oesophageal gland orifice 9 µm (8-11 µm in paratypes) from base of spear. Oesophagus typical of genus, median bulb roughly oval, one half as wide as body width. Excretory pore opposite oesophago-intestinal junction. Hemizonid about 2 annules long, 2 annules anterior to excretory pore in all specimens, sometimes double. Hemizonion 3-4 annules behind excretory pore. Prominent lateral canals present in intestinal region. Vagina extending more than half of vulval body width. Spermathecae round, axial, filled with sperms. Reduced epitygma seen in some specimens. Tail marked with 6-10 annules ventrally, about one anal body width long with a conspicuous ventral or terminal rounded to conoid projection more than 2 tail annules long. Distal tail annules similar to other tail annules, those on tail projection less prominent.

Male : 3 ♂♂ (*Paratypes*) : L = 0.65-0.74 mm ; a = 30-34 ; b = 5.6 ; b' = 4.3-4.5 ;
c = 32-39 ; c' = 1.3 ; Spear = 28-29 µm ; spicules = 27-28 µm ; gubernaculum = 9-10 µm.

Body slightly more slender than females. Tail longer than one anal body width with comparatively longer projection than female. Bursa extends to the tail tip, crenate at margins. Lateral field with four incisures, outer two distinctly areolated at posterior end, especially at region of spicule ; inner incisures only faintly areolated. Phasmids preanal as in females, appearing attached to subdorsal inner incisure.

Holotype : Type Slide No. 602, National Nematode Collection, Division of Nematology, Indian Agricultural Research Institute, New Delhi.

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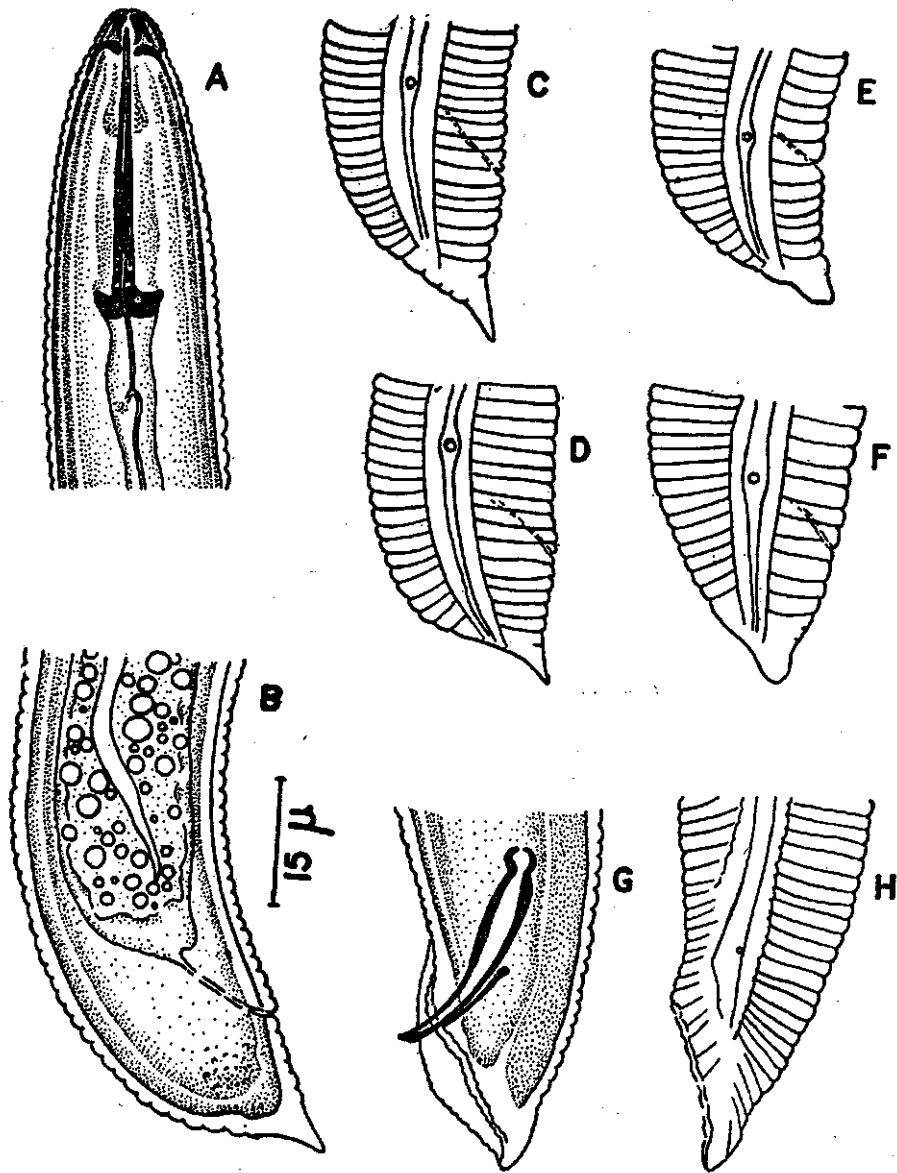


Fig. 1. *Helicotylenchus trivandranus* sp. n. Female: A—Anterior region; B—Posterior region; C-F—tail. Male: G, H—Posterior region.

Paratypes 4 ♀ ♀ and 1 ♂ deposited with the Commonwealth Institute of Helminthology, St. Albans, England; 4 ♀ ♀ and 3 juveniles on slide No. 603, and 1 ♂ on slide No. 602, National Nematode Collection, New Delhi. Paratypes also with the author.

Type habitat and locality: Collected from soil around roots of *Piper nigrum* Linn., Thirumala, Trivandrum, on 12-3-1973.

Diagnosis: This species is similar to *H. canalis* Sher, 1966, but differs in having males, axial functional spermathecae, conspicuous outer margin of labial frame-work and anteriorly cupped basal knobs of spear. It also resembles the bisexual species *H. exallus* Sher, 1966 from which it differs in having a longer tail projection and longer spear (25-28 μm in females and 23-26 μm in males in *exallus*.); from *H. hydrophilus* Sher, 1966 in having more annules on distal dorsal portion of the tail, anteriorly cupped basal knobs of spear and axial spermathecae (basal knobs round and spermathecae offset in *hydrophilus*) and from *H. dolichodoryphorus* Sher, 1966 in having a shorter spear, axial spermathecae, differently shaped tail terminus and phasmid in the centre of lateral field (spear 34-38 μm, spermathecae offset, and phasmid not in centre of lateral field in *dolichodoryphorus*).

The author is indebted to Dr. N. R. Prabhoo for guidance and reviewing the manuscript, and to Dr. M. R. Siddiqi, Commonwealth Institute of Helminthology for confirming the identity of the species and for his helpful suggestions.

REFERENCE

- SHER, S. A. (1966). Revision of the Hoplolaiminae (Nematoda) VI. *Helicorylenchus* Steiner, 1945. *Nematologica* 12: 1-56.