

A NEW SPECIES OF THE GENUS *PARALONGIDORUS* (LONGIDORIDAE :
NEMATODA)

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ABSTRACT

A new species of the genus *Paralongidorus*, *P. distinctus*, belonging to the family Longidoridae (Nematoda) is being described from Rohtang Pass, district Kulu, Himachal Pradesh. *Paralongidorus distinctus* n. sp. is characterized by having 7.35 mm long body, odontostyle 161 μ m, odontophore 86 μ m, guiding ring 45 μ m from anterior end and tail less than one anal body-width long.

INTRODUCTION

The present paper reports a new species of plant parasitic nematode, *Paralongidorus distinctus* n. sp. collected from Rohtang Pass, Kulu, Himachal Pradesh, India. The type locality is situated at an altitude of 14,000 ft. and remains under snow during the major part of the year.

MATERIAL AND METHODS

Collected by the second author in October, 1970 ; fixed in hot 4% formalin and mounted on slide H. A. 5/*Paralongidorus distinctus*/1, juveniles on slides H. A. 5/*Paralongidorus distinctus*/2-3 ; deposited with the Museum of Department of Zoology, Aligarh Muslim University, Aligarh (U. P.).

Paralongidorus distinctus n. sp.

Measurements :

Female (Holotype) : L=7.35 mm ; a=86 ; b=11.6 ; c=223 ; $V=10.7 \ 48^{9.6}$.

Juveniles (3) : L=1.71—3.33 mm ; a=49—72 ; b=5.1—7.0 ; c=43—77 ; odontostyle=82—111 μ m ; odontophore=40—66 μ m ; guiding ring from anterior end=24—34 μ m.

Description : Body ventrally curved in posterior two-thirds of its length, tapering slightly towards extremities. Cuticle smooth except at tail end where it is marked with fine transverse striations. The thickness of the cuticle varies from 4-10 μ m on different part of body (6 μ m at head end and 10 μ m on tail

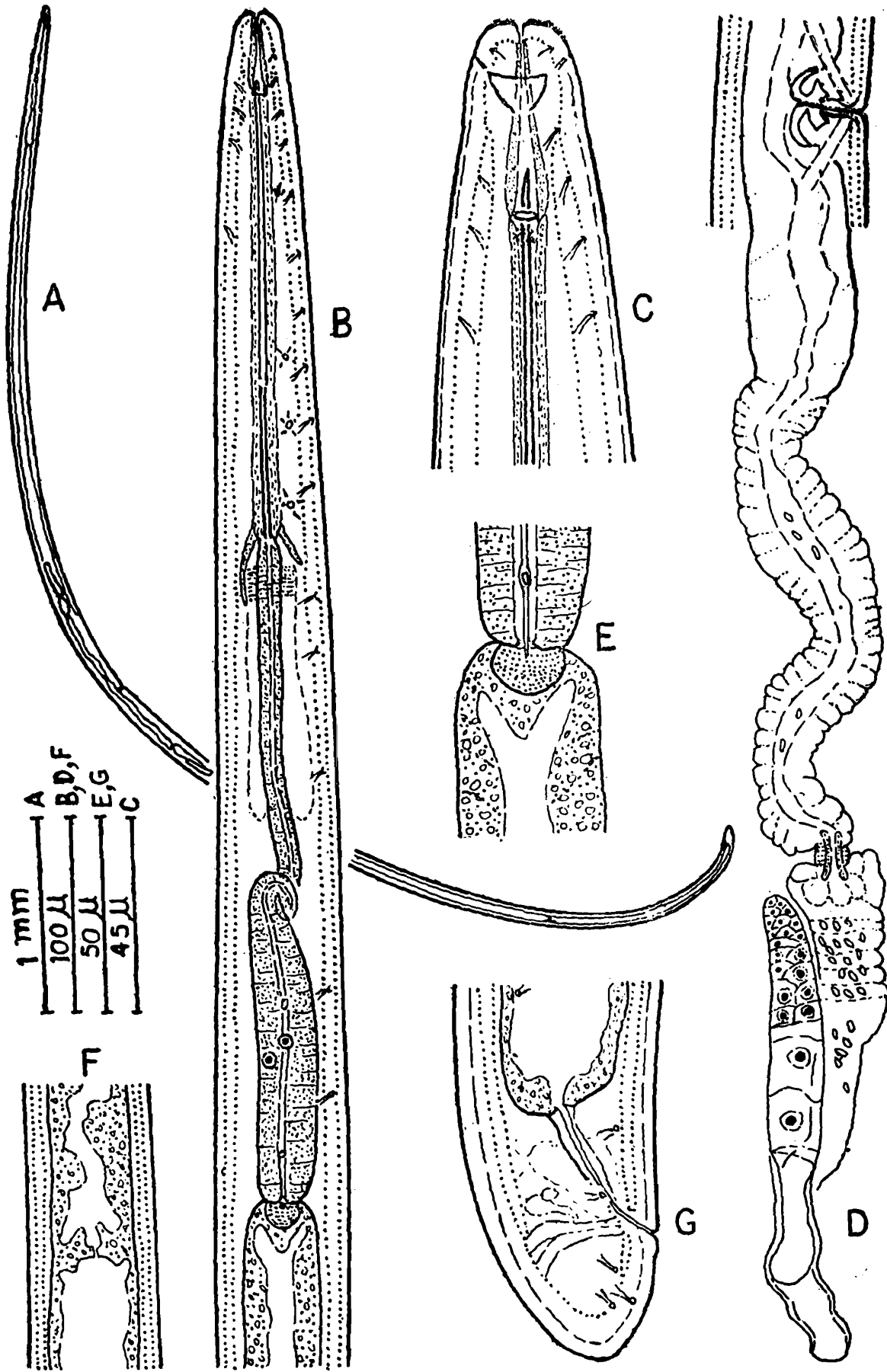


Fig. 1. *Paralongidorus distinctus* n. sp. A=Female entire, B=Oesophageal region, C=Head end, D=Posterior gound, E=Cardia region, F=Intestine prerectum junction, G=Tail.

tip). Lateral chords about $\frac{1}{4}$ th of body-width near middle. Lateral body pores inconspicuous except at anterior and posterior ends. Dorsal body pores 4, situated in the odontostyle region ; ventral body pores 15 restricted to oesophageal region.

Lip region continuous with body, subtruncate. A slight depression is present at level of base of amphidial pouch. Amphids stirrup-shaped with slit-like apertures, 12 μm from anterior end and occupy about half of corresponding body-width. Sensillar pouches not seen. Odontostyle 161 μm or 6.5 lip region-widths long. Guiding ring 45 μm or 1.8 lip region-widths from anterior end of body. Odontophore 86 μm or slightly more than half of odontostyle length.

Basal expanded portion of oesophagus about 25% of oesophageal region. The oesophageal gland nuclei and their orifices are situated as below :

$$\text{DO} = 74.9 \quad \text{S}_1\text{N}_1 = 86.6 \quad \text{S}_2\text{O} = 96$$

$$\text{DN} = 75.7 \quad \text{S}_1\text{N}_2 = 89.7$$

$$\text{DO} - \text{DN} = 0.8$$

Nerve ring surrounds the anterior slender part of oesophagus at 302 μm or 47% of oesophageal region from anterior end of body. Cardia semi-conoid, enveloped by intestinal tissue. Prerectum 1.11 mm long or about 25 times the anal body-widths.

Vulva transverse. Vagina 42 μm or about half the corresponding body-width. Gonads amphidelphic. Uterus and oviduct separated

by a well developed sphincter. Ovary reflexed ; oocytes arranged first in a single row, then in double row and at the tip in multiple rows. Sperms present in oviduct.

Tail obtusely rounded, 33 μm or about 0.7 anal body-width long with 3 caudal pores on each side.

Male : Not found.

Habitat : Soil around the grasses (unidentified) from Rohtang Pass, district Kulu, H. P.

Differential diagnosis : *Paralongidorus distinctus* n. sp., comes close to *Paralongidorus strelitzae* (Heyns, 1966) Aboul-Eid, 1970 but differs in having longer odontostyle (odontostyle 117-131 μm in *P. strelitzae*), anteriorly situated guiding ring (55-65 μm from anterior end in *P. strelitzae*), longer prerectum (three times the corresponding body-width in *P. strelitzae*), inconspicuous lateral body pores, and shorter and differently shaped tail ($c = 148-161$ in *P. strelitzae*).

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