

Polenchus curvicauda sp. n., second species of a rare genus (Nemata : Tylenchidae)

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SUMMARY

Polenchus curvicauda sp. n. differs from *P. politus* Andrassy, 1980 by the short basal oesophageal bulb and the curved tail (elongated bulb and straight tail in *P. politus*). The genus *Polenchus* Andrassy, 1980 resembles most *Tylenchus* but differs by cuticular and lip area structures.

RÉSUMÉ

Polenchus curvicauda sp. n., deuxième espèce d'un genre rare (Nemata : Tylenchidae)

Polenchus curvicauda sp. n. diffère de *P. politus* Andrassy, 1980 par son bulbe œsophagien terminal court et sa queue recourbée (bulbe allongé et queue droite chez *P. politus*). Le genre *Polenchus* Andrassy, 1980 ressemble à *Tylenchus*, mais en diffère par la structure cuticulaire et celle de la région labiale.

In two samples from Orange Bay, Hoste Island, Tierra del Fuego, Chile, D. J. Raski collected one female, one male and two juveniles of a species similar to *Polenchus politus* Andrassy, 1980. Since its description this genus has never been rediscovered so it is well worth to describe the few specimens; the differences with the type species are not profound but enough to permit differentiation.

The specimens were killed in hot water, then preserved in 4 % formalin, transferred to FAA, dehydrated to glycerin and mounted in glycerin.

Polenchus curvicauda sp. n. (Fig. 1)

MEASUREMENTS

Female (holotype) : L = 0.71 mm; a = 37.3; b = 6.2; c = 3.1; c' = 19; V = 55.1; G₁ = 25 %; G₂ = 3.7 %; V' = 81.7 %; oesoph. = 115 µm; excret. pore = 96.5 µm; MB = 46.5 %; tail = 231 µm; L. tail/vulva-anus dist. = 2.6.

Male (paratype) : L = 0.77 mm; a = 40.5; b = 6.4; c = 3.2; c' = 16; T = 46 %; oesoph. = 120 µm; ex. p. = 110 µm; MB = 47 %; tail = 240 µm; spicules, along arc = 28 µm, straight = 21 µm; gubernaculum = 7.5 µm.

Juveniles : (n = 2) : L = 0.47-0.52 mm; a = 29.5-32.4; b = 4.7-5.1; c = ?; developing gonad 26 µm long, beginning at 246 µm from anterior end; oesoph. =

100-101 µm; MB = 46.2-46.5 %; stylet = 12-14 µm; cone = 5-7 µm.

DESCRIPTION

Tylenchs of median length with straight body and fine, long, curved tail. Cuticle rather thick with very faint transverse annulation (2 µm wide in male), lateral field not observed.

Head slightly offset, rounded-truncate; exteriorly the offset part is 5 µm high but interiorly the basal head framework is more anterior (at about 3.5 µm); head width 7.5 µm; in the male the amphidial aperture is an elongated slit predominantly on the lateral side of the head. Except for the cheilorhabdia the head framework is not sclerotized. Stylet well developed, 14 µm long with anterior part about half that length; knobs well developed, rounded. Median bulb well developed, oval with elongated crescentic valves; terminal bulb small, pear shaped; oesophago-intestinal valve rounded. Excretory pore at beginning of terminal bulb; hemizonid anterior to excretory pore in male and at same level in female; deirids weakly developed, near end of oesophagus. Female reproductive system with large, empty postvulval uterine sac (26 µm = 1.4 vulval body diam.); prevulval uterine sac longer (about 30 µm); quadricolumellar uterus followed by a kind of fertilization chamber into which the elongated, offset spermatheca and the oviduct empty. Male reproductive system with usual, slightly curved tylench spicule and delicate gubernaculum; caudal alae very small and weakly expressed; cloacal aperture slightly protruded.

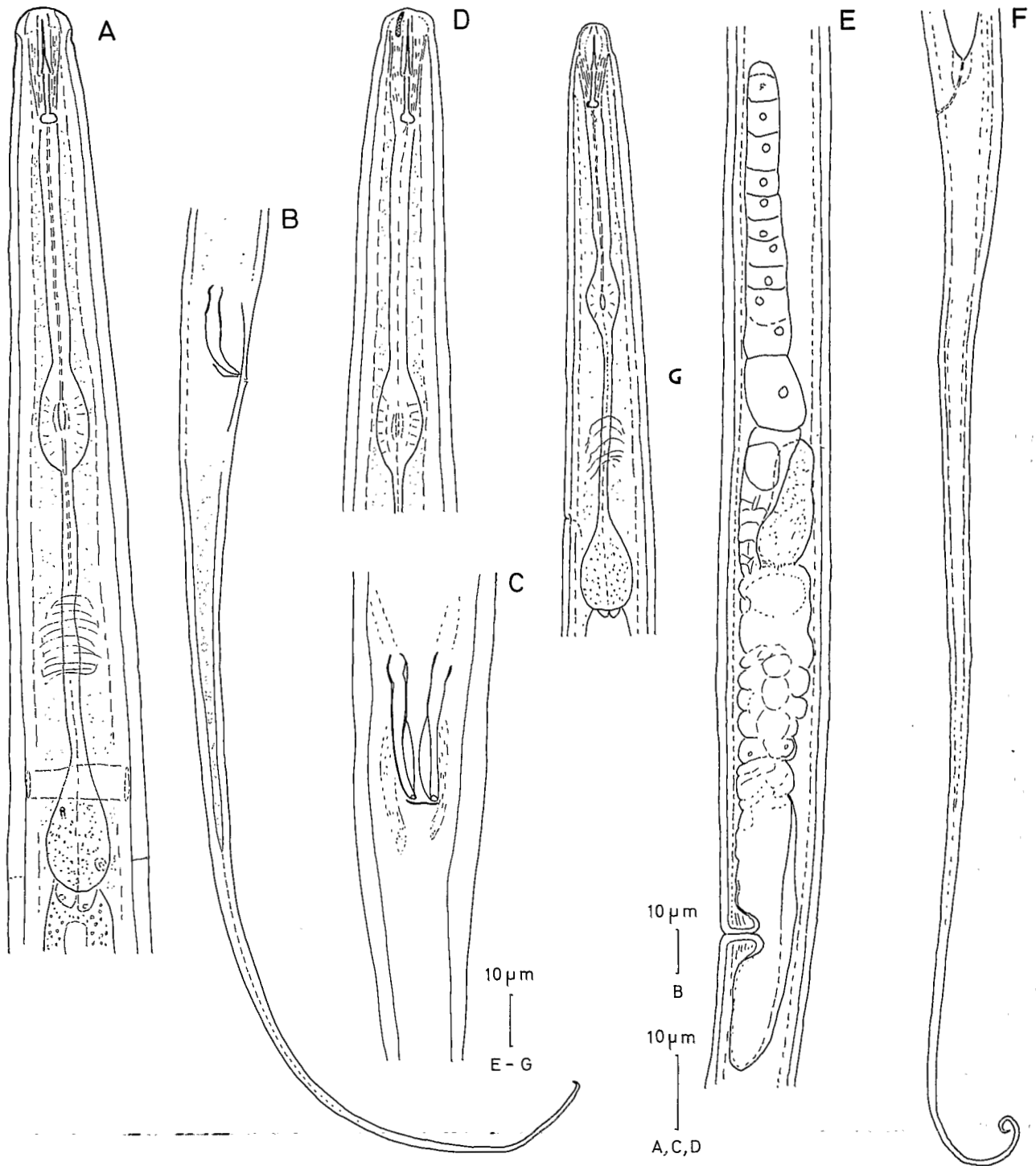


Fig. 1. *Polenchus curvicauda* sp. n. — A-D : Male. A : Anterior end in dorso-ventral view; B : Tail in lateral view; C : Spicular region in ventral view; D : Anterior end, nearly lateral view (amphid aperture indicated) — E-G : Female. E : Reproductive system; F : Tail; G : Anterior end.

Both female and male tail elongated, filiform with curved ending (ventrally in the male and dorsally in the female and the two juveniles)

TYPE SPECIMENS

Collected on 19 January 1983 by D. J. Raski. Holotype, female deposited on slide number 2270 in University of California Nematode Collection (UCNC), Davis, California. Paratype, male, on slide 860 in the Collection of the Instituut voor Dierkunde, Ghent University, Belgium. Two juveniles deposited in UCNC.

TYPE HABITAT AND LOCALITY

Moist, freshwater soil under thick tundra at Orange Bay, Hoste Island, Chile.

DIAGNOSIS AND RELATIONSHIPS

Polenchus curvicauda sp. n. is the second species of the genus *Polenchus* and it has much in common with

P. politus Andrassy, 1980. But in *P. politus* the head is not offset, tail is straight and oesophageal terminal bulb is elongated.

The presence of a very faint annulation in *P. curvicauda* sp. n. weakens the position of *Polenchus* as a separate genus. Because of the large body, the large robust stylet with two equal parts and the curved tail of the new species, *Polenchus* is most closely related to *Tylenchus*. The thick and almost smooth cuticle and the weakly developed caudal alae are characters not found in *Tylenchus*; the head structure may provide further differences (in *Tylenchus* the amphids seem to be more confined to the anterior end; in *Polenchus* the longitudinal slits are at the lateral side of the head) but more species must be studied.

REFERENCES

- ANDRÁSSY, I. (1980). The genera and species of the family Tylenchidae Örley, 1880 (Nematoda). The genera *Aglenchus* (Andrassy, 1954) Meyl, 1961, *Miculenchus* Andrassy, 1959 and *Polenchus* gen. n. *Acta zool. hung.*, 26 : 1-20.

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