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ROTYLENCHUS CYPRIENSIS SP. N.  
(NEMATODA: HOPLOLAIMIDAE) FROM CYPRUS

by

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During a survey of grapevines in Cyprus for plant parasitic nematodes, a new species of *Rotylenchus* Filipjev, 1936 was found (Antoniou, 1979), in small numbers at 6 different localities in the Limassol and Paphos region. The specimens were fixed in 4% formalin and mounted in dehydrated glycerine after being processed by the Seinhorst (1959) rapid ethanol-glycerol method.

ROTYLENCHUS CYPRIENSIS SP. N.  
(Fig. 1, A-H)

*Measurements*; Holotype ♀: L = 0.63 mm; a = 27; b = 5.9; c = 46; c' = 1.4; V = 57; spear = 24 µm.

16 ♀ ♀ *paratypes*: L = 0.50-0.69 (0.6) mm; a = 25-39 (30); b = 5.3-6.4 (5.7); c = 40-49 (45); c' = 0.9-1.5 (1.2); V = 57-66 (63); O = 10-20 (14); spear = 21-24 (23) µm.

*Description: Female*: Body elongate, cylindrical, straight or arcuate to « C » shaped when relaxed by heat. Lateral fields with 4 smooth incisures, not areolated except in oesophageal region. Annules 1.2 to 1.7 µm wide at mid-body. Head hemispherical, well set off from the body contour, with 3 to 4 distinct annules; labial disc distinct. Cephalic framework strong. Head width at lip region 6.6 to 8.4 µm. Spear

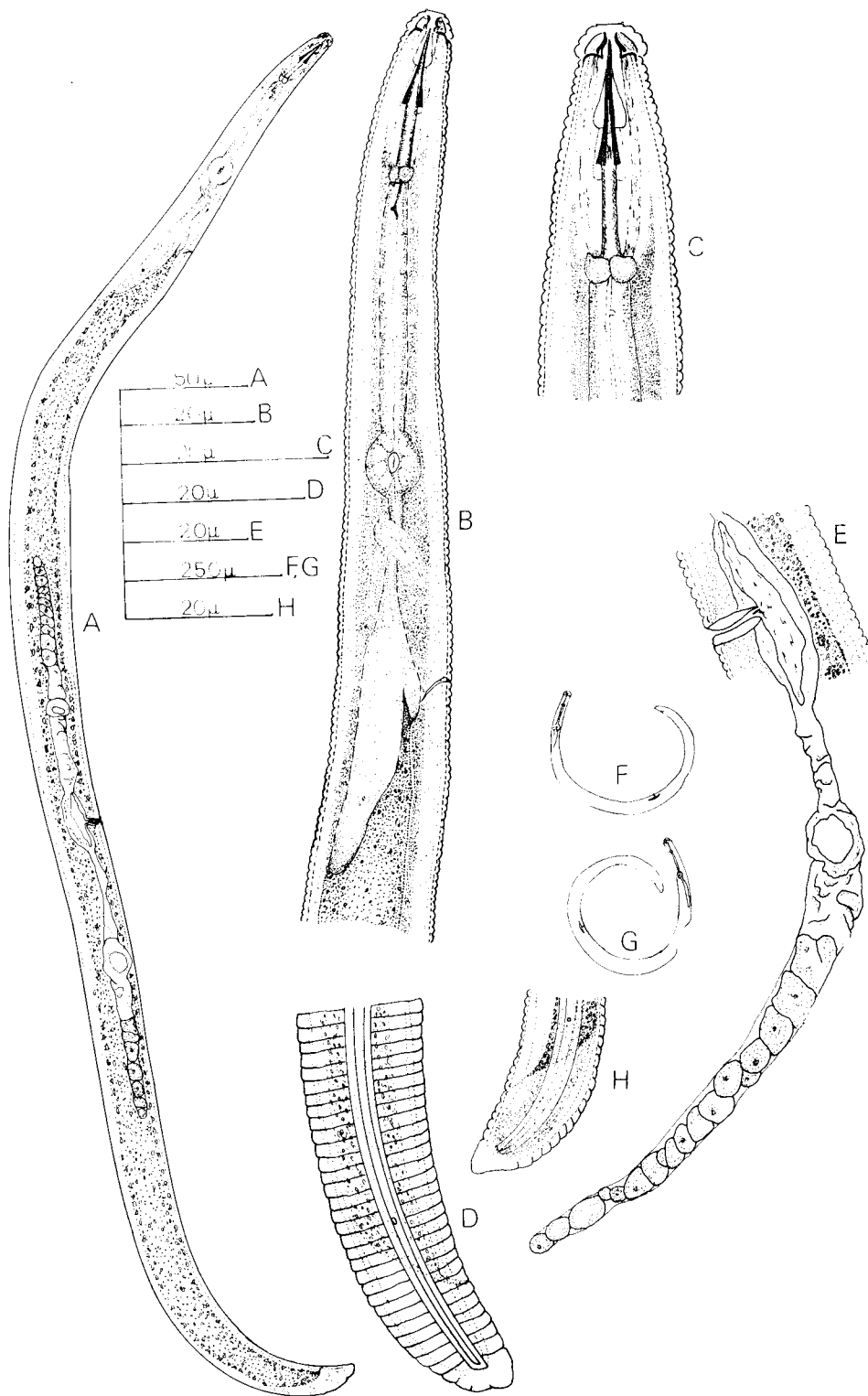


Fig. 1 - *Rotylenchus cypriensis* sp. n.: A, Entire body of holotype female; B, oesophageal region; C, head end; D, H, tail end; E, posterior ovary; F, G, paratype females.

massive, 21 to 24  $\mu\text{m}$  long. Basal knobs rounded with flat to indented anterior surfaces. Oesophagus 96 to 129  $\mu\text{m}$  long, with well developed rounded median bulb, 7.8 to 11  $\mu\text{m}$  width and 11 to 12  $\mu\text{m}$  length. Oesophageal glands overlap the intestine mostly dorsally for 22 to 34  $\mu\text{m}$ . Dorsal oesophageal gland outlet 2.4 to 5.9  $\mu\text{m}$  from the base of the stylet. Excretory pore 91 to 106  $\mu\text{m}$  from anterior end. Nerve ring 2.5 to 5.0  $\mu\text{m}$  behind the end of the basal bulb of the oesophagus. Gonads symmetrical, amphidelphic, outstretched, anterior gonad 96 to 147  $\mu\text{m}$  long and posterior 95 to 117  $\mu\text{m}$  long. Oocytes in a single row except in region of multiplication. Spermatheca small, empty, non-functional. Intestine does not overlap rectum. Phasmids 7 to 14 annules anterior to anus. Tail slightly tapering, rounded, 11 to 14  $\mu\text{m}$  long and 8 to 11  $\mu\text{m}$  wide at the region of the anus, with 6 to 7 annules and a ventral mucron at tip. (Fig. 1.D) No males were found.

*Type host and locality:* Specimens were collected from soil around the roots of *Vitis vinifera* growing in fields in the locality of Akhelia, Timi, Kouklia, Peyia and Koloni in the district of Paphos, and Trakhoni in the district of Limassol, Cyprus.

*Type material:* Holotype ♀ (56-17-1) and 3 ♀ ♀ paratypes (56-17-2) at Rothamsted Experimental Station, Harpenden, England; 2 ♀ ♀ paratypes (T. 62.5) at the Commonwealth Institute of Helminthology, St. Albans, England; 2 ♀ ♀ paratypes at Nematology Department, Ministry of Agriculture and Natural Resources, Nicosia, Cyprus; 3 ♀ ♀ paratypes at Laboratorio di Nematologia Agraria Applicata ai Vegetali, 70126 Bari, Italy.

*Differential diagnosis:* Thirty three valid species of *Rotylenchus* Filipjev, 1936, have been described (Boag, 1978) but *Rotylenchus cypriensis* sp. n. is recognized by a characteristic smooth mucron on the ventral tail terminus. This has not been found in previously described members of this genus, except in *R. breviglans* Sher, 1965 and *R. buxophilus* Golden, 1956. All other members of the genus have a hemispherical annulated tail terminus, occasionally with a small round ventral projection (Boag, 1978).

*R. cypriensis* resembles some *Helicotylenchus* species in the shape of the tail, but the lip region is offset and the oesophageal glands overlap the intestine dorsally instead of ventrally.

*R. cypriensis* differs from *R. breviglans* and *R. buxophilus* by the shorter body and spear length. It is distinguished from *R. bre-*

*viglans* by the extensive dorsal overlap of the intestine by the oesophageal glands and by the location of the phasmids anterior to the anus. The tail of *R. breviglans* has a ventral projection which sometimes resembles that of *R. cypriensis* but usually it is less developed in the former species. *R. cypriensis* is distinguished from *R. buxophilus* by its rounded hemispherical tail compared with the dorsally convex-conoid tail of *R. buxophilus* and again by the overlap of the intestine by the oesophageal glands which in *R. buxophilus* form a short conoid tail of *R. buxophilus* and again by the overlap of the intestine

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#### S U M M A R Y

A new species of *Rotylenchus*, *R. cypriensis* is described from the rhizosphere of *Vitis vinifera* in Cyprus. The species is characterized by the smooth mucron on the ventral tail terminus, a long overlap of the intestine by the oesophageal glands and a set off head.

#### R I A S S U N T O

Viene descritto *Rotylenchus cypriensis* una nuova specie di nematode Hoplolaimidae trovata a Cipro nella rizosfera di *Vitis vinifera* L. Essa è caratterizzata da un mucrone liscio situato ventralmente sulla parte terminale della coda, da un lungo accavallamento dorsale delle ghiandole esofagee con l'intestino e dalla testa nettamente separata dal resto del corpo da una costrizione.

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