

# *Pararotylenchus graminis* sp. n. (Tylenchida: Pararotylenchidae) from native meadows in the Primorsky region, Russian Far East

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**Summary.** *Pararotylenchus graminis* sp. n. is described from the rhizosphere of wild grasses growing in the south of the Primorsky region, Russian Far East. It differs from *P. pini* by having a shorter body and stylet and a longer tail and from *P. flexuosus* by having a shorter body and stylet and by the presence of males.

**Key words:** *Pararotylenchus graminis* sp. n., spiral nematode, Pararotylenchidae, taxonomy, Primorsky region, Russia.

A previously undescribed spiral nematode *Pararotylenchus graminis* sp. n. was found in a soil sample collected in the valley of the river Lebedinka in the south of the Primorsky region of the Russian Far East during the summer, 1991. A description of this nematode, which belongs to the family Pararotylenchidae, is given here.

## MATERIAL AND METHODS

Nematodes were recovered from the soil by a centrifugation-flotation technique (Jenkins, 1964), fixed in TAF, processed to glycerol by the Seinhorst (1959) rapid method and mounted in anhydrous glycerol on the glass slides.

## DESCRIPTION

### *Pararotylenchus graminis* sp. n. (Fig. 1)

**Holotype female:** L = 0.69 mm; a = 26; b = 5.8; c = 29; c' = 1.4; V = 59%; stylet = 24.5  $\mu$ m; o = 20.

**Paratype females (n = 11):** L = 0.59 - 0.72 (0.68) mm; a = 20 - 27 (22.4); b = 5.1 - 5.8 (5.4); c = 27 - 39 (32.7); c' = 1.0-1.4 (1.1); V = 55 - 61 (57.4)%; stylet = 22 - 24.5 (23.4)  $\mu$ m; o = 17 - 25 (21.7).

**Paratype males (n=6):** L = 0.58 - 0.69 (0.65) mm; a = 22 - 28 (24.0); b = 5.2 - 6.1 (5.6); c = 24 - 29 (27.4); stylet = 22 - 22.5 (22.1)  $\mu$ m; o = 21 - 23 (22.2); T = 26 - 46 (40.1); spicule = 22 - 25 (24.0)  $\mu$ m; gubernaculum = 6 - 8  $\mu$ m.

**Female.** Body a spiral when relaxed. Lateral field with four incisures. Annules 2  $\mu$ m wide at mid-body. Head region almost continuous with body contour, slightly flattened anteriorly, 7 x 4  $\mu$ m, with six to seven annules. Stylet moderately developed, with rounded knobs, 4 x 2  $\mu$ m. DGO = 4.8 - 5.6  $\mu$ m. Median bulb spheroid, esophageal glands forming a basal bulb. Cardia present. Excretory pore at the level of basal bulb. Hemizonid just anterior to excretory pore. Spermatheca rounded, axial, with sperm of 2  $\mu$ m dia. Ovaries outstretched with oocytes in single row. Eggs in uteri 56-58 x 22-24  $\mu$ m. Vulva with small epiptygma. Tail broadly conoid, more curved on dorsal side, with rounded crenate terminus. Tail 18 to 25 (20.5)  $\mu$ m long, with 9 to 13 ventral annules. Phasmids located 2 to 12 annules anterior to anus.

**Male.** Smaller and more slender than female. Body C-shaped when relaxed. Spicules arcuate, slightly cephalated. Gubernaculum reflexed

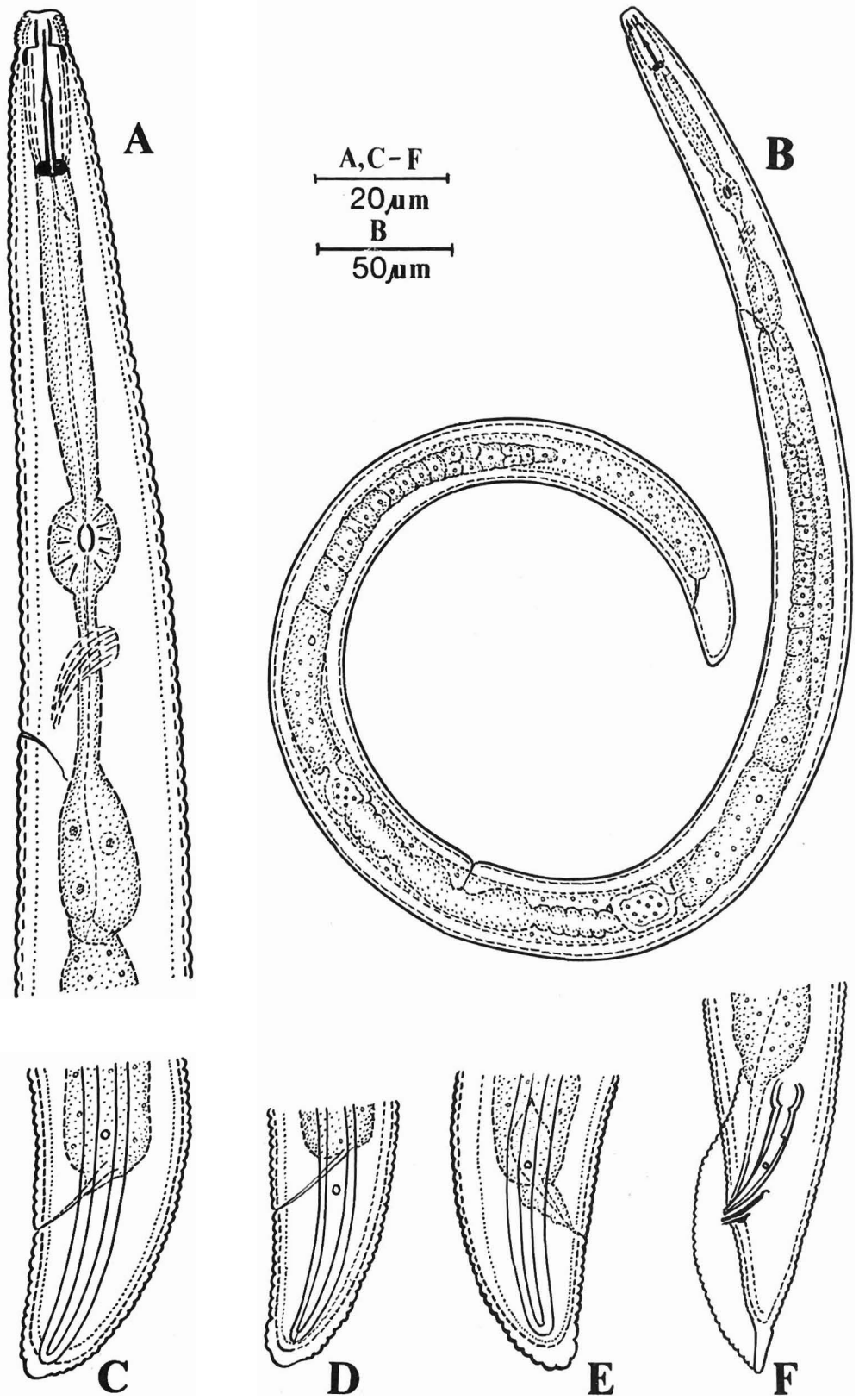


Fig. 1. *Pararotylenchus graminis* sp. n. A: anterior region of female; B: entire female; C-E: tail shapes of females; F: tail of male.

proximally, with small titillae. Bursa broad, striated, enveloping the tail. Phasmids small, present at level of mid-spicules. Tail terminus digitate, smooth.

**Type locality.** *Pararotylenchus graminis* sp. n. was recovered from soil around the roots of native grasses growing in the valley of the river Lebedinka in the south of the Primorsky region, Russia. The soil sample was collected 17th June 1991.

**Type material.** Holotype female (PKh 691/1) deposited in the collection of the Phytogelminthological Laboratory at the Institute of Biology and Pedology, Vladivostok. Paratype females and males (PKh 691/2-11) deposited in the same collection. Paratype females and males (71/40) deposited in the collection of the Institute of Parasitology, Moscow.

**Differential diagnosis.** From the position of the phasmids *Pararotylenchus graminis* sp. n. is most similar to the far-eastern species *P. pini* (Mamiya, 1968) Baldwin & Bell, 1981 and *P. flexuosus* Eroshenko, 1984 (Eroshenko, 1984; Eroshenko & Kovrizhnykh, 1985). It differs from *P. pini* by having a shorter body and stylet, longer tail and phasmids positioned more posteriorly (in *P. pini* L = 0.8 - 1.05;

stylet = 28 - 31  $\mu\text{m}$ ; c' = 0.7 - 1.0) and from *P. flexuosus* by the presence of males and shorter body and stylet (in *P. flexuosus* L = 0.79 - 0.84 mm; stylet = 27 - 29  $\mu\text{m}$ ).

**Etymology.** The name *P. graminis* sp. n. is derived from the Latin 'graminis', which in English translates as 'meadowy'.

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Волкова Т.В., Ерошенко А.С. *Pararotylenchus graminis* sp. n. (Tylenchida: Pararotylenchidae) из естественных лугов Приморского края Дальнего Востока России.

Резюме. Описывается *Pararotylenchus graminis* sp. n. из ризосферы луговых трав, произрастающих в Приморском крае Дальнего Востока России. Новый вид отличается от *P. pini* коротким телом и стилетом, а также большей длиной хвоста, от *P. flexuosus* - меньшей длиной тела и стилета, наличием самцов.

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