A NEW GENUS OF HOPLOLAIMINAE: PLESIOROTYLENCHUS STRIATICEPS N.GEN., N.SP. (NEMATODA: TYLENCHIDA)

BY

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The ectoparasite Plesiorotylenchus striaticeps n. gen., n. sp., obtained from the rhizosphere of grapevines at Osman, Turkey, is described. The new genus is close to Rotylenchus Filipjev, 1936, but differs from it and is characterized by the presence of a lip region with longitudinal striae radially disposed and a rectangular labial disc. Plesiorotylenchus n. gen. is considered as Hoplolaiminae because of the short and rounded tail with annulation following its contour, phasmids near anus, strong stylet and labial framework. Bursa not indented terminally. Plesiorotylenchus striaticeps n. sp. is characterized by a truncate lip region in profile with 35-40 longitudinal striae, C-shaped habitus and oesophageal gland overlapping intestine with three gland nuclei.

Keywords: Hoplolaiminae, new genus, new species, scanning electron microscopy (SEM), spiral nematode, taxonomy.

Soil samples collected at Osman (Turkey) from the rhizosphere of grapevines contained numerous specimens of an ectoparasitic species which, at first observation, was thought to be a new species of Rotylenchus. Closer examination indicated that the specimens should be assigned to a new genus, morphologically similar to Rotylenchus Filipjev, 1936. The proposal of a new taxon was encouraged by the unique, striated lip of the specimens as lip region structures are considered to be of major diagnostic significance in generic or higher taxonomic categories (Hirschmann, 1983; Luc et al., 1987). It is described here as Plesiorotylenchus striaticeps n. gen., n. sp. The specific name refers to the characteristic striated lip region, using adapted epithets.

MATERIAL AND METHODS

Specimens used in this study were extracted from soil by Cobb’s sieving and decanting method, fixed in hot 4% formaldehyde + 1% propionic acid, and processed to glycerine by Seinhorst’s rapid method. Wergin’s (1981) method was used for the preparation of nematodes for scanning electron microscopy (SEM). The specimens were coated with gold and observed with a JEOL 50A stereoscan at 5-10 kV accelerating voltage. Abbreviations used are defined in Siddiqi (1986). All measurements are in micrometers (μm) unless otherwise stated.
DESCRIPTIONS

_Plesiorotylenchus_ n. gen.
(Figs 1-6)

*Diagnosis:* Hoplolaiminae. Females: Body C-shaped. Lip region continuous with body contour, anteriorly truncated, without any transverse annulation, but with longitudinal striae radially disposed and a rectangular (*en face* view by SEM) labial disc. Lateral field with four lines, with scattered transverse striae at oesophageal region, but not on the rest of body. Labial framework strongly sclerotized, stylet well developed with rounded basal knobs. Oesophageal gland overlapping intestine dorsally and laterally, with three gland nuclei. Two genital branches outstretched and equally developed. Epiptygma double. Tail short, conoid-rounded with annulation following its contour. Phasmids pore-like, near anus level. *Males:* Lip region similar to that of the female. Secondary sexual dimorphism not marked, sometimes its body slightly smaller than female. Caudal alae enveloping tail, not lobed.

*Etymology:* Compound name from Greek plesios = near, and Rotylenchus

*Type and only species:* _Plesiorotylenchus striaticeps_ n. gen., n. sp.

_Plesiorotylenchus striaticeps_ n. sp.
(Table I, Figs 1-6)

_Holotype (female in glycerine): L = 1584; a = 23.4; b = 7.6; c = 68.9; c' = 0.8; V = 57; stylet = 50; m = 48; o = 20; excretory pore = 193; lateral field = 13; tail length = 23; tail annuli = 11.

_Females in glycerine (n = 24):* Measurements in Table I.

_Description_

Large body, ventrally curved in C-shape. Body annuli 3.0-3.5 wide at mid-body. Lateral field with four longitudinal incisures, 1/5 of body width. Lip region truncate in profile, measuring 16 ± 0.6 (15-17) wide, 10 ± 0.7 (9-11) high, continuous with body contour, with 35-40 longitudinal striae, radially disposed (Figs 1, 2). Large slit-like or ovoidal amphidial apertures open on the lateral edges of a rectangular labial disc, bearing the centrally located oral opening. Cephalic framework strongly developed. Stylet long, basal knobs rounded, 9 ± 1.0(8-10) wide. Orifice of dorsal oesophageal gland 9 ± 1.6 (6-12) from stylet base. Procorpus cylindrical, narrowing slightly at junction with median oesophageal bulb, 53 ± 5.7 (43-62) long. Median oesophageal bulb round-oval, with valvular apparatus well developed. Excretory pore anterior to oesophago-intestinal junction; at level of or posterior to the junction. Hemizonid 0-2 annuli anterior to excretory pore, poorly developed, occupying 1 body annulus. Hemizonion larger than hemizonid, occupying usually 2 body annuli.

Nerve ring enveloping isthmus at middle. Oesophageal gland overlapping intestine dorsally, overlap length 48 ± 12.0 (23-77). Three oesophageal gland