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A BISEXUAL POPULATION OF *LONGIDORUS PROXIMUS*
STURHAN ET ARGO, (NEMATODA, DORYLAIMIDA)
FROM GREECE

by
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During a survey of artichoke fields in Greece, undertaken to investigate the occurrence of nematode vector of a strain of raspberry ringpost virus (RRV) (Rana *et al.*, 1985), a bisexual population of *Longidorus proximus* Sturhan *et* Argo, 1983, was found. As the original description refers to the characters of a German population, in which males were not found (Sturhan and Argo, 1983), the morphometrics and description of the Greek population are here given.

Nematodes were extracted from soil samples by the Cobb wet sieve technique, killed and fixed in 5% hot formalin and mounted in glycerin on nematology slides by the slow method. Specimens were measured with the aid of a camera lucida.

Longidorus proximus Sturhan *et* Argo, 1983 (Fig. 1, Tab. I)

The measurements refer to material collected in March 1984 from the rhizosphere of artichoke at Kato Souli village, Marathon area (Greece) (Tab. I).

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Table I - *Morphometrics of the Greek population of Longidorus proximus.*

	Range (means \pm standard deviation)	
	14 ♀♀	13 ♂♂
n		
L mm	6.5-9.2 (7.9 \pm 0.71)	7.1-10.7 (8.5 \pm 0.94)
a	98-126 (113 \pm 8.62)	139-183 (165 \pm 13.43)
b	14-23 (19 \pm 2.57)	12-21.8 (17.6 \pm 2.59)
c	199-355 (237 \pm 37.98)	155-246 (195 \pm 26.6)
c'	0.5-0.8 (0.7 \pm 0.086)	0.8-1.2 (1.03 \pm 0.12)
V	50-52 (51 \pm 0.91)	
Odontostyle μ m	103-112 (108 \pm 2.68)	112-129 (119 \pm 5.88)
Odontophore μ m	54-71 (64 \pm 4.95)	43-79 (62 \pm 9.45)
Oral aperture to guiding ring μ m	34-39 (37 \pm 1.37)	32-40 (36.3 \pm 2.48)
Tail μ m	21-39 (38 \pm 4.41)	37-50 (43 \pm 3.65)
J μ m	11-16 (13 \pm 1.81)	11-20 (16 \pm 2.37)
Body diam at lip region μ m	17-20 (18 \pm 0.79)	14-19 (17 \pm 1.36)
Body diam at guiding ring μ m	25-31 (27 \pm 1.49)	24-33 (26 \pm 2.74)
Body diam at base of oesophagus μ m	51-55 (53 \pm 1.71)	41-55 (47 \pm 3.94)
Body diam at vulva μ m	66-73 (70 \pm 2.13)	
Body diam at mid body μ m		45-66 (53 \pm 6.43)
Body diam at anus μ m	45-51 (48 \pm 2.11)	39-51 (42 \pm 3.63)
Body diam at beginning of J μ m	30-41 (36 \pm 3.17)	19-31 (24 \pm 3.07)
Spicules μ m		59-79 (69 \pm 5.66)

Description

Male: habitus when dead as a more or less open C to single spiral, more coiled in the posterior region: body cylindrical, tapering very gradually towards the anterior extremity; cuticle very finely transversely striated, 4-5 μ m thick along the body, more thickened just behind lip region; lateral pores numerous along the body, 4-6 within the range of odontostyle, the first located just anterior to level of guiding ring; dorsal and ventral pores 2-4 within the range of odontostyle; glandular structures well evident in the lateral ipodermal corde; labial region expanded, rounded later-

ally and slightly flattened frontally, separated from neck contour by a large constriction; amphidial pouches wide, extending half the distance from oral opening to guiding ring, not lobed, with base outline clearly irregular; odontostyle slender, odontophore and guiding sheath typical of the genus; oesophagus dorylaimoid, with basal portion occupying one third of the oesophagus total length; the muscular bulb is 150-160 μm long and 20-25 μm wide; dorsal oesophageal gland nucleus located almost at the mid bulb with large nucleolus; subventral gland nuclei located posteriorly just within the last quarter of oesophagus, with smaller nucleoli; testis

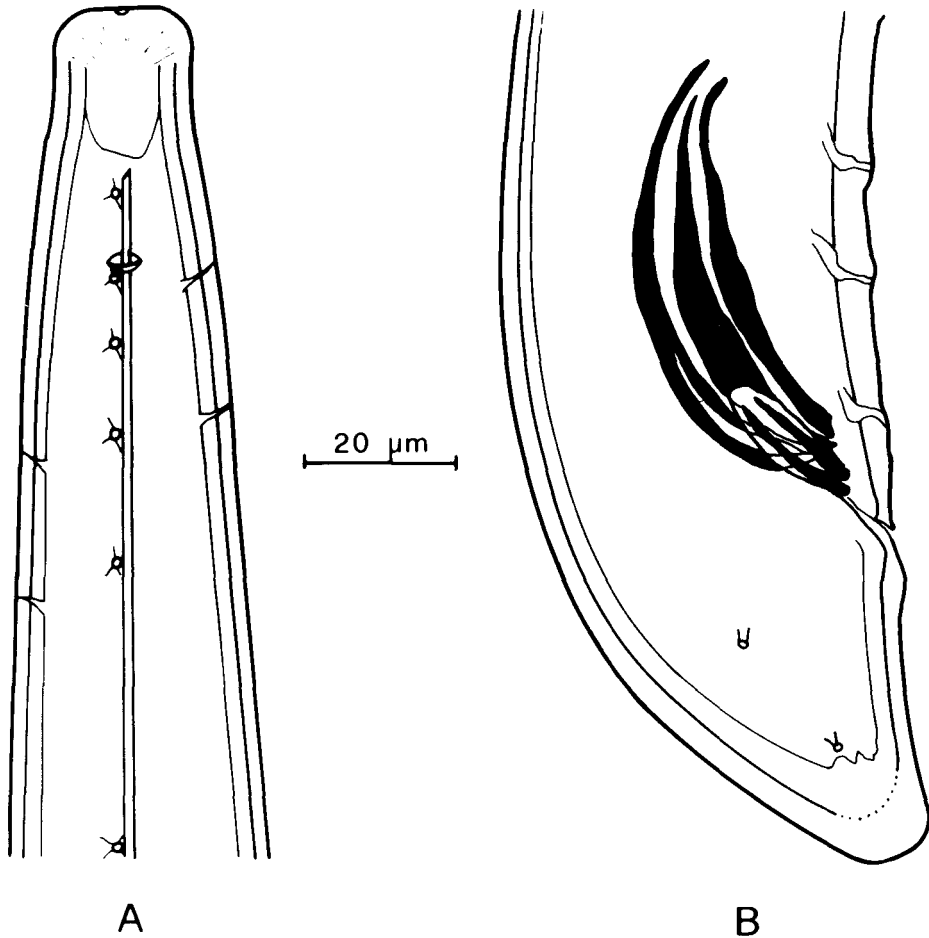


Fig. 1 - *Longidorus proximus*: A and B, anterior and posterior regions of male.

very long and well developed with many sperms inside; spicules large, heavily sclerotized with lateral guiding pieces bifid at distal end; the pair of adanal supplements is preceded by a series of 12-13 ventromedian ones; tail conoid, dorsally convex and ventrally concave with bluntly rounded terminus, bearing two pairs of caudal pores.

Female: morphologically identical to that of the original description.

Measurements of a Greek population of *L. proximus* are broadly similar to that of the original description, but with some differences. The female body of the Marathon population is a little longer than that of the German population (7.9 vs 7.3 mm); also the tail is shorter, and more variable in length and shape ("c" value=237 vs 192). The number of males in the Greek population is almost equal that of the females. Males generally are longer than females (8.5 vs 7.9 mm) and have longer odontostyles (119 vs 108 μm).

LITERATURE CITED

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