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A BIVULVAL FEMALE OF *TRICHODORUS VIRULIFERUS*

by
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During a plant parasitic nematode survey of the vineyards of the province of Verona, Northeastern Italy, conducted in 1981-82 a bivulval specimen was found within a population of *Trichodorus viruliferus* Hooper.

The morphometric characters of the normal female

specimens, which were killed by hot 4% formalin and mounted in anhydrous glycerin by a slow method, do not differ from those of the paratypes (Hooper, 1963) and of other Italian populations (Roca and Lamberti, 1984) of the species:

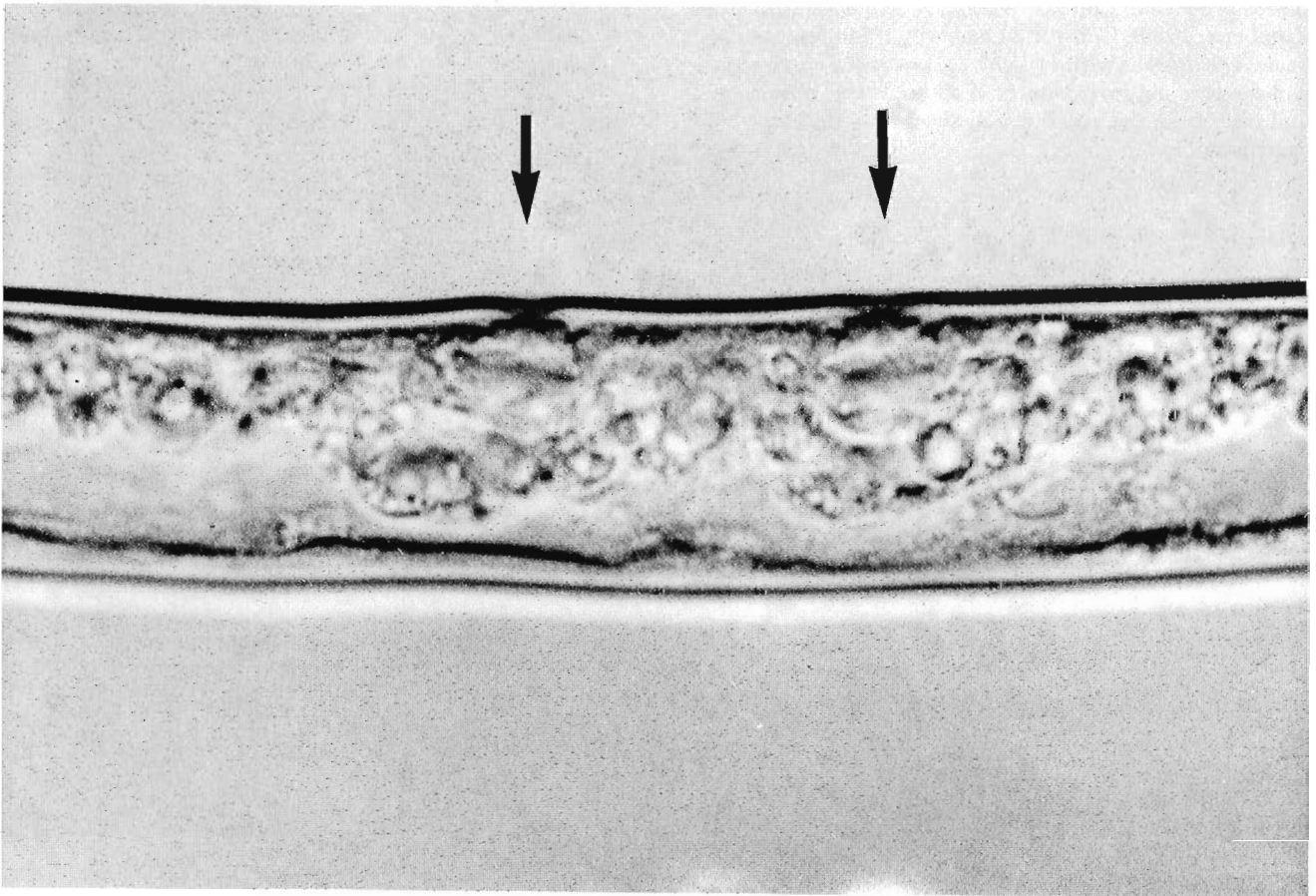


Fig. 1 - A female specimen of *Trichodorus viruliferus* with two vulvae.

8 ♀♀: L = 0.71 (0.61-0.81) mm; a = 23.5 (20.7-24.6); b = 5.6 (4.9-6.5); V = 56.7 (54.7-58.4); onchiostyle = 45.4 (44.1-47.1) μ m.

The morphometrics of the bivulval female are:

L = 0.718 mm; a₁ = 24.7; a₂ = 23.9; b = 6.8; V₁ = 52.4; V₂ = 57.4; distance from V₁ to V₂ = 34.7 μ m; distance from anterior to V₂ = 137.1 μ m; onchiostyle = 44.7 μ m.

The specimen is morphologically similar to other females from the population except for the atypical reproductive apparatus which comprises two discrete vulvae (Fig. 1). The vulvae are apparently functional as oocytes are clearly visible in the ovaries. The two vulvae are interconnected and are fused with the adjacent uteri. The distal gonads are normally and almost equally developed.

Several authors have reported the existence of bivulval specimens in various nematode genera (Azizova 1969; Geraert 1963). In the order *Dorylaimida* bivulval specimens of *Longidorus* have been reported by Jairajpuri and Ahmad (1969) and Lamberti *et al.* (1987). In the genus *Xiphinema* female specimens with abnormal genital tracts are reported for *X. americanum* (Khan *et al.*, 1978), *X. basiri* (Bajaj and Jairajpuri, 1977), *X. diversicaudatum* (Arias, 1978; Brown and Coiro, 1984) and *X. vuittenezi* (Coiro and Lamberti, 1980). Coiro and Lamberti (1980) reported a female *X. vuittenezi* with two vulvae, but in the specimen the vulvae were not interconnected and only the anterior genital tract from the anterior vulva was fully developed and functional.

This report is the first record of a bivulval trichodorid nematode and the specimen is deposited at the Istituto di Nematologia Agraria del CNR, Bari, Italy.

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