

*Istituto di Nematologia Agraria, C.N.R., 70126 Bari, Italy*  
*Istituto Sperimentale per la Viticoltura MiPAF, 31015 Conegliano, Italy*

## FIRST RECORD OF *XIPHINEMA COXI EUROPAEUM* (NEMATODA, DORYLAIMIDA) IN ITALY

by

M. I. COIRO, F. LAMBERTI, M. BORGO, A. AGOSTINELLI and V. RADICCI

**Summary.** The longidorid nematode *Xiphinema coxi* Tarjan, 1964, ssp. *europaeum* Sturhan, 1985 is reported for the first time in Italy. It occurred in soil collected from a replanted vineyard in the Province of Treviso in north-east Italy.

A sample collected in September 1980 in a replanted vineyard at Giavera del Montello, in the Province of Treviso, in north-east Italy, contained a few specimens of a *Xiphinema* species that was identified as *X. coxi* Tarjan, 1964 ssp. *europaeum* Sturhan, 1985. This is the first record of *X. coxi europaeum* in Italy.

Nematodes were extracted from soil samples by Cobb's wet sieving technique, mounted in anhydrous glycerol after fixation in hot 5% formalin, and measured with the aid of a camera lucida.

The only three females in good condition were measured (Table I). They were 3.8 mm long, with an odontostyle 138 µm long, 43% vulva position and 1.4 value of the c' ratio. The body is hook shaped, more curved in the posterior region, cylindrical in almost all its length, tapering abruptly at the extremities. Lip region (Fig. 1, A and B) distinct from the rest of the body by a slight constriction, frontally rounded.

Odontostyle, odontophore, guiding sheath and oesophagus typical of the genus. Female genital system amphidelphic, with equally developed branches. Pseudo-Z-organ (Figs 1, C and D) formed by five globular bodies (Grimaldi-De Zio *et al.*, 1979); next to the pseudo-Z-organ there is a spermatheca filled with sperms (Figs 1, C and D). Rectum approximately as long as body diameter at anus. Tail short, conoid, digitate (Fig. 1 E).

Identification codes for this population are: A4, B2, C4, D5, E4, F4, G3, I3 which fits with *X. coxi europaeum* in Group 5 of the Loof and Luc polytomous key (1990).

*Xiphinema coxi* ssp. *europaeum* was originally described from Germany (Sturhan, 1985) and later reported from Spain (Arias *et al.*, 1987) and Portugal (Bravo *et al.*, 2001).

Compared with German populations *X. coxi europaeum* from Italy has a shorter body (3.8 vs 4 and over mm) and longer odontostyle (138

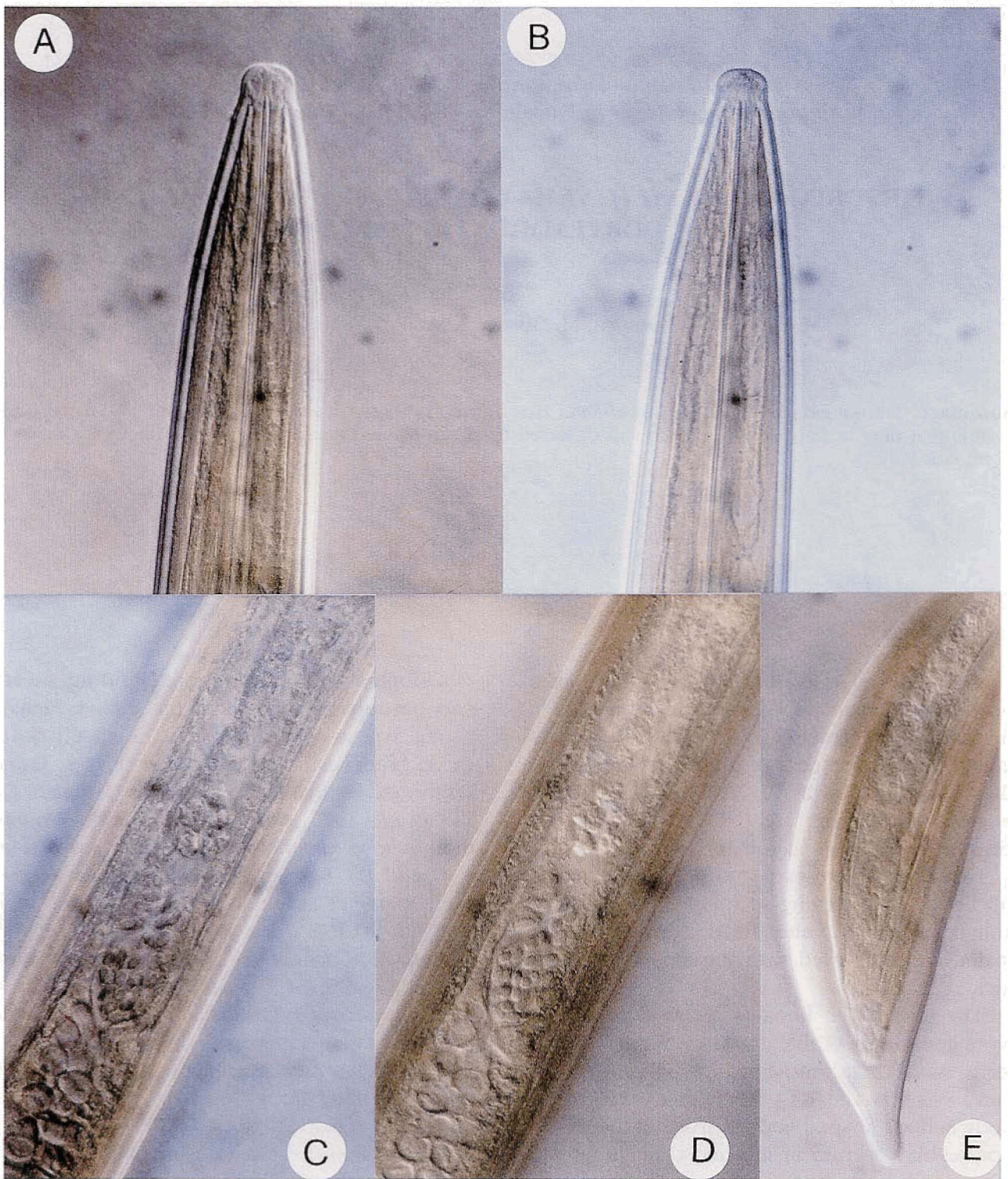


Fig. 1 - Photomicrographs of female *Xiphinema coxi* ssp. *europaeum* from Italy: A and B, anterior region; C and D, pseudo-Z-organ and spermatheca with sperms; E, posterior region.

TABLE I - *Biometrics of Xiphinema coxi ssp. europaeum from Italy.*

Locality Host	Giavera del Montello Grapevine	Locality Host	Giavera del Montello Grapevine
n	3 ♀	Oral aperture to basal guide ring $\mu\text{m}$	119 $\pm$ 5.14 114.7-124.7
L (mm)	3.8 $\pm$ 0.25 3.6-4.1	Tail $\mu\text{m}$	52 $\pm$ 1.73 50-53
a	72.9 $\pm$ 4.00 70.2-77.5	J (hyaline portion of tail) $\mu\text{m}$	20.6 $\pm$ 2.75 17.6-23
b	8.1 $\pm$ 0.46 7.8-8.6	Body diam. at lip region $\mu\text{m}$	11.8 $\pm$ 0.55 11.2-12.3
c	73.6 $\pm$ 2.95 71.8-77	Body diam. at guide ring $\mu\text{m}$	37.3 $\pm$ 1.14 36-38.2
c'	1.4 $\pm$ 0.00 1.4-1.4	Body diam. at base of oesophagus $\mu\text{m}$	47 $\pm$ 2.35 44.7-49.4
V%	43 $\pm$ 1.89 41.5-45	Body diam. at vulva $\mu\text{m}$	52.5 $\pm$ 1.75 50.6-54
Odontostyle $\mu\text{m}$	137.9 $\pm$ 6.85 131.8-145.3	Body diam. at anus $\mu\text{m}$	37.1 $\pm$ 0.98 36.5-38.2
Odontophore $\mu\text{m}$	73.8 $\pm$ 3.28 70-76	Body diam. at beginning of J $\mu\text{m}$	17.3 $\pm$ 1.14 16-18.2

vs 123-130  $\mu\text{m}$ ); conversely it seems to be biometrically identical to Spanish and Portuguese populations.

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