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TRICHODORUS CASTELLANENSIS, ARIAS DELGADO,
JIMENEZ MILLAN *ET* LOPEZ PEDREGAL,
A JUNIOR SYNONYM OF
TRICHODORUS PRIMITIVUS (DE MAN)

by
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Arias, Jimenez and Lopez (1965) described *Trichodorus castellanensis* from individuals collected at Segovia (Spain) from the rhizosphere of *Ulmus* sp. Loof (1975), in examining one male and one female of the species, pointed out that the female did not differ in any respect from *T. primitivus* (de Man, 1880) Micoletzky, 1922. Furthermore, he observed that the male spicules, although not very distinct because of poorly fixed material, appeared similar in shape to those of *T. primitivus*. He suggested to examine fresh material for establishing the definitive taxonomic status. Decraemer (1980) too, in her review of *Trichodoridae*, stated that *T. castellanensis* cannot be identified.

To examine these doubts soil samples were collected in December 1985 from around the roots of *Ulmus* sp. at the type locality of *T. castellanensis*.

Nematodes were extracted 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.

Morphometrics are given in Table I.

The morphometric characters of the male are identical with those given by Seinhorst (1963) in his redescription of *T. primitivus*. The excretory pore lies at the anterior end of the expanded portion of the oesophagus, just posteriorly to the nerve ring. The three ventromedian cervical papillae are located anteriorly to the excretory pore: the first at the level of half spear length from the anterior extremity, the second at the level of the onchiostyle base, the third at the level of the nerve ring. Lateral body

Table I - *Morphometrics of Trichodorus primitivus (synonym T. castellanensis) from Spain.*

	RANGE (MEANS ± STANDARD DEVIATION)	
	MALES n=20	FEMALES n=15
L mm	0.733 - 0.928 (0.822 ± 0.055)	0.731 - 0.831 (0.769 ± 0.033)
Body width μm	27,5 - 94 (31 ± 1.792)	30 - 36 (33 ± 2.232)
Neck length μm	142 - 171.5 (161 ± 7.464)	155 - 185 (167.5 ± 9.604)
Onchiostyle length μm	47 - 58.5 (52 ± 3.165)	50 - 57 (55 ± 2.337)
Oral aperture to guiding ring μm	20.5 - 26 (23 ± 1.174)	22 - 25 (22.5 ± 1.076)
Oral aperture to excretory pore μm	86.5 - 112 (97.4 ± 6.506)	86 - 99 (90 ± 4.434)
Spicules length μm	36 - 54 (45 ± 5.354)	
Gubernaculum μm	13 - 19.5 (15.5 ± 1.291)	
Cloaca to SP ₁ μm	20 - 26 (23 ± 1.667)	
Cloaca to SP ₂ μm	32 - 41 (37 ± 2.838)	
Cloaca to SP ₃ μm	32 - 54.5 (41.5 ± 5.563)	
a	22.5 - 29.5 (26 ± 1.630)	22 - 25 (23.5 ± 1.286)
b	4.5 - 6.5 (5 ± 0.454)	4.4 - 5.0 (4.5 ± 0.205)
c	44 - 67 (58 ± 6.509)	subterm
c'	0.56 - 0.78 (0.64 ± 0.048)	subterm
T	59 - 70 (63.05 ± 3.142)	
V		56 - 58 (57.5 ± 0.614)
Oral aperture to excretory pore / neck length %	50 - 72.5 (60.5 ± 5.796)	46 - 62 (54 ± 4.610)
Onchiostyle length / neck length %	30 - 35.5 (32.5 ± 1.699)	30-36 (33 ± 2.241)

pores are situated at two-thirds of the onchiostyle length from the anterior end.

No differences were observed in the ventromedian supplementary papillae, spicules and gubernaculum compared with those of *T. primitivus*. Post anal ventromedian papillae and caudal pores are also present and situated as in *T. primitivus*.

Females do not show any major difference from *T. primitivus*. The refractive vaginal thickenings appear as two transverse elongated oval pieces in lateral view.

Although examined paratypes of *T. castellanensis* are poorly fixed, it is concluded that *T. castellanensis* is a junior synonym of *T. primitivus*.

LITERATURE CITED

- ARIAS DELGADO M., JIMENEZ MILLAN F. and LOPEZ PEDREGAL J. M., 1965. Tres nuevas especies de nematodos posible fitoparasitos en suelos españoles. *Pbl. Inst. Biol. Apl.*, 38: 47-58.
- DECRAEMER W., 1980. Systematics of the *Trichodoridae* (Nematoda) with keys to their species. *Revue Nématol.*, 3: 81-99.
- LOOF P. A. A., 1975. Taxonomy of *Trichodoridae*. In: «Nematode Vectors of Plant Viruses» (F. Lamberti, C.E. Taylor and J.W. Seinhorst, Eds.) Plenum Press, New York, London, pp. 103-127.
- SEINHORST J. W., 1963. A redescription of the male of *Trichodorus primitivus* (de Man), and the description of a new species *T. similis*. *Nematologica*, 9: 125-130.