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A NOTE ON *XIPHINEMA INAEQUALE* (KHAN ET AHMAD)
AND *X. SAOPAOLENSE* KHAN ET AHMAD

by

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Khan and Ahmad described in 1975 a new species of *Xiphinema* Cobb from India: *X. neoamericanum*. At that time they were unaware that a species had been described under the same name in 1973, also from India, by Saxena, Chhabra and Joshi. These two species are clearly different, the odontostyle being 70-72 μm and the « c » value 27-29 for Saxena's *et al.* specimens but 98-105 μm and 49-69 respectively for those of Khan *et Ahmad*. However, the illustration 1D of Saxena *et al.* shows a tail of about 30 μm , which would give a « c » value of 53-68.

Recently Khan and Ahmad (1977) renamed their species *X. inaequale* (Kahn *et Ahmad*, 1975) which in the original description is considered different from *X. brevicolle* Lordello *et Da Costa* 1961 because of the longer tail ($c = 49-69$ viz. 63-93 and $c' 1$ viz. < 1) and the longer basal portion of the oesophagus (2 neck widths viz. 1.5).

We have studied populations of *X. brevicolle* of different geographical origin (Table I) and have noted that the tail length is a variable character comprising in its range the 30 μm long tail of Fig. 1 D in the original description and the 26 μm long tail of the paratype of *X. inaequale* which we have examined.

Moreover, the ratio oesophageal bulb: neck width varies in the Brazilian population of *X. brevicolle* from 1.8 to 2, being almost the same as that of *X. inaequale*. Finally, we have observed that the lip region of the two species is identical in shape: offset from the rest of the body by a slight depression.

Table I - *Some biometrical characters of different populations of Xiphinema brevicolle.*

	Brazil	India	Indonesia	Aldabra	Brazil or. descript.
n	21	3	3	10	?
tail (μm)	23-28	24-28	26-30	18-24	25-29
T ₁ /ABW	0.8-1.1	0.9	1.0-1.2	0.7-0.9	0.8
c	70-88	64-79	61-65	83-104	63-93

We suggest, therefore, that *X. inaequale* and *X. brevicolle* are probably identical.

Carvalho in 1955 reports and gives a short description of a *X. americanum* found in Brazil. Lordello and Da Costa (1961) considered it possible that this form was identical with their new species *X. brevicolle*, although differed in having a shorter spear: 108 μm viz. 156-168 μm . They overlooked, however, that whereas they understood « spear » as odontostyle plus odontophore, Carvalho used this term for the odontostyle alone. But Carvalho in 1962 repeated his 1955 description and gave the odontostyle length as 108 μm and the spear length as 146 μm . This would leave 38 μm for the odontophore, which is abnormally short for the genus; however, from his illustration 1 b an odontostyle length of 90 μm can be calculated, which leaves for the odontophore the more normal value of 56 μm . Lordello and Da Costa (1961) give 61-63 μm for the odontophore of *X. brevicolle* which would leave 95-106 μm for the odontostyle.

Khan and Ahmad (1975) renamed *X. americanum* apud Carvalho (1955) *X. saopaulense* noting differences between this species and *X. brevicolle* in spear length and vulva position.

The spear length can be considered to be similar, as said earlier, and values for « V » are also very close, being 51-57 in *X. saopaulense* and 50-54 in *X. brevicolle*; both species have been described from the same localities. For all these reasons we consider *X. saopaulense* a junior synonym of *X. brevicolle*.

LITERATURE CITED

- CARVALHO J. C., 1955 - Plantas ornamentais parasitadas por espécies do gênero *Xiphinema*. *Rev. Inst. Ad. Lutz*, 15: 180-185.
- CARVALHO J. C., 1962 - Observacoes em torno de duas espécies de *Xiphinema*. *Arq. Inst. Biol.*, 25: 217-221.
- KHAN S. H. and AHMAD S., 1975 - Longidoridae (Thorne, 1935) n. rank. (Nematoda: Dorylaimina) with the description of *Xiphinema neoamericanum* n. sp. from India and proposal of a new name for *X. americanum* sensu Carvalho (1956) non Cobb, 1913. *Nematol. medit.*, 3: 23-28.
- KHAN S. H. and AHMAD S., 1977 - *Xiphinema inaequale* nom. nov. (syn.: *X. neoamericanum* Khan et Ahmad, 1975). *Nematol. medit.*, 5: 93.
- LORDELLO L. G. E. and DA COSTA C. P., 1961 - A new nematode parasite of coffee roots in Brazil. *Rev. Brasil. Biol.*, 21: 363-366.
- SAXENA P. K., CHHABRA H. K. and JOSHI R., 1973 - *Xiphinema neoamericanum* sp. n. (Nematoda: Longidoridae) from India. *Zool. Anz.*, 191: 130-132.

Accepted for publication on 1 December 1976.