

NOTE ON *XIPHINEMA CLAVATUS* RENUBALA ET AL., 1991
AND *X. CHOETHCOLLA* RENUBALA ET AL., 1991 (NEMATODA : LONGIDORIDAE)

Michel LUC* and Pieter A. A. LOOF**

* *Muséum National d'Histoire Naturelle, Laboratoire de Biologie Parasitaire, Protistologie, Helminthologie, 61, rue Buffon, 75005 Paris, France*
and ** *Agricultural University, Nematology Department, P.O. Box 8123, 6700 ES Wageningen, The Netherlands.*

Accepted for publication 17 November 1992.

Key-words : Nematodes, *Xiphinema*.

In a recent article Renubala *et al.* (1991) described two new monodelphic *Xiphinema* species, *X. clavatus* Renubala, Gambhir & Dhanachand, 1991 and *X. choethcolla* Renubala, Gambhir & Dhanachand, 1991 both said to be close to *X. radicolica* Goodey, 1936. The authors gave also data on a population of this latter species. Specimens of these three species have all been collected in the vicinity of the same plant, sugar cane, and in the same Indian State, Manipur.

On a nomenclatural point of view *X. clavatum* (since *Xiphinema* is neuter in gender the termination of the specific name has to be modified accordingly) is preoccupied by *X. clavatum* Heyns, 1965; however a new name is not proposed because of synonymization (see below). Also the specific name *choethcolla* has to be modified into *chothecola* without change in the authorities (*colla* is a substantive plural meaning "necks" whereas *cola* is a substantive meaning "inhabitant of", that fits better with Chothe, the village from where the species is described).

Through courtesy of Dr. Ch. Dhanachand, we were able to examine paratype specimens of *X. clavatum* Renubala *et al.* (one female) and *X. chothecola* (two females).

For both the species, body posture, shape of anterior end and tail, structure of the genital tractus and metric data (see Table 1) fit perfectly into the range of the numerous data already reported for *X. radicolica* (Goodey, 1936; McLeod & Khair, 1971; Luc, 1981; Phukan & Sanwal, 1982; Luc *et al.*, 1986; Rahman *et al.*, 1986).

It should be remarked that :

– in the description of *X. clavatum* Renubala *et al.* the lip region was said to be slightly offset, whereas continuous in *X. chothecola*. In the two paratypes of the latter species it is also offset by a slight depression;

– authors neglected all descriptions of *X. radicolica* and compared the two new species only with the nine *X. radicolica* females they found themselves. Also the dimensions given for *X. brasiliense* in the same article show that many redescriptions were not taken into consideration;

– in the authors' description of *X. radicolica* pre-rectum length was given as 300-375 μm , which corresponds to about fifteen anal body diameters (ABW).

Table 1. Main measurements of type specimens of *Xiphinema renubalai* nom. nov. and *X. chothecola* Renubala *et al.*, 1991 compared with those of *X. radicolica* Goodey, 1936 (all measures in μm , except L, in mm).

	<i>X. renubalai</i>	<i>X. chothecola</i>	<i>X. radicolica</i> *
n	2	1	?
L	1.95, 2.34	1.89	1.60-3.16
a	44.3, 53.2	45.0	36-72
b	5.7, 6.9	5.3	3.8-8.5
Tail length	52, 56	61	44-65
c	37.5, 41.8	30.0	28-58
c'	2.0, 2.2	2.7	1.6-2.5
Odontostyle	108, 100	92	96-152
Odontophore	52, 66	61	48-84
Stylet	160, 166	153	160-223

* Data compiled from Goodey (1936), Loos (1949), McLeod & Khair (1971), Bajaj & Jairajpuri (1979), Khan (1982), Luc *et al.* (1986), Rahman *et al.* (1986).

However, in the diagnosis of *X. chothecola* pre-rectum length of *X. radicolica* was given as seven ABW;

– comparison with dimensions shows that the scales for author's Figures A, D, E and H are incorrect.

Consequently we consider *X. clavatum* Renubala, Gambhir & Dhanachand, 1991 and *X. chothecola* Renubala, Gambhir & Dhanachand, 1991 as junior synonyms of *X. radicolica* Goodey, 1936, a species several times reported from India, and in some cases on sugar cane (Bajaj & Jairajpuri, 1979; Khan, 1982; Phukan & Sanwal, 1982; Rahman *et al.*, 1986).

References

- BAJAJ, H. K. & JAIRAJPURI, M. S. (1979). A review of the genus *Xiphinema* Cobb, 1913 with descriptions of species from India. *Rec. zool. Surv. India*, 75 : 255-325.
- GOODEY, T. (1936). A new dorylaimid nematode, *Xiphinema radicolica* n. sp. *J. Helminth.*, 14 : 69-72.
- HEYNS, J. (1965). Four new species of the genus *Xiphinema* (Nematoda : Dorylaimoidea) from South Africa. *Nematologica*, 11 : 87-99.
- KHAN, E. (1982). *Inagrei* *gloriosus* gen. n., sp. n. and descriptions of three new species of *Xiphinema* Cobb, 1913 along

- with report on *X. radicolica* T. Goodey, 1936 and *X. elongatum* Schuurmans Stekhoven & Teunissen, 1938 (Nematoda: Longidoroidea) from India. *Indian J. Nematol.*, 11 (1981): 189-204.
- LOOS, C. A. (1949). Notes on free-living and plant-parasitic nematodes of Ceylon-5. *J. zool. Soc. India*, 1: 23-29.
- LUC, M. (1981). Observations on some *Xiphinema* species with the female anterior genital branch reduced or absent. *Revue Nématol.*, 4: 157-167.
- LUC, M., LOOF, P. A. A. & COOMANS, A. (1986). Description of *Xiphinema thorneanum* n. sp. and observations on some species of the genus (Nematoda: Longidoridae). *Revue Nématol.*, 9: 337-346.
- MCLEOD, R. W. & KHAIR, G. T. (1971). *Xiphinema australiae* n. sp., its host range, observations on *X. radicolica* Goodey, 1936 and *X. monohysterum* Brown, 1968 and a key to monodelphic *Xiphinema* spp. (Nematoda: Longidoridae). *Nematologica*, 17: 58-68.
- PHUKAN, P. N. & SANWAL, K. C. (1982). Taxonomic studies on six species of *Xiphinema* from Assam, *J. Res. Assam Agric. Univ.*, 3: 46-83.
- RAHMAN, M. F., BILGRAMI, A. L. & JAIRAJPURI, M. S. (1986). Studies on the variability in *Xiphinema radicolica* Goodey, 1936 and *Xiphinema brasiliense* Lordello, 1951. *Helminthologia*, 23: 179-188.
- RENUBALA, K., GAMBHIR, R. K. & DHANACHAND, Ch. (1991). Three known and two new species of *Xiphinema* (Dorylaimida) from Manipur state. *Curr. Nematol.*, 2: 55-58.

ON *DITYLENCHUS MALEKI* FORTUNER & MAGGENTI, 1987, (NEMATODA: ANGUINIDAE)

Pieter A. A. LOOF *, Renaud FORTUNER ** and Armand MAGGENTI ***

* Department of Nematology, Agricultural University, P.O. Box 8123, 6700 ES Wageningen, Netherlands;

** California Department of Food and Agriculture, P.O. Box 942871, Sacramento, CA 94271-0001, USA;

*** University of California, Department of Nematology, Davis, CA 95616, USA.

Accepted for publication 10 December 1992.

Key-words: *Ditylenchus*, taxonomy, homonymy.

Fortuner and Maggenti (1987), in their reappraisal of the family Anguinidae Nicoll, 1935 synonymized the genus *Nothotylenchus* Thorne, 1941 with *Ditylenchus* Filipjev, 1936. In the species list they renamed *Nothotylenchus major* Thorne & Malek, 1968 as *Ditylenchus maleki*, because of homonymy of the former name with *D. major* (Fuchs, 1915).

Actually this remaining is unnecessary. Fuchs' species was originally described under the generic name *Tylenchus* Bastian, 1865; in 1936 Filipjev transferred it to *Ditylenchus*. Thus the homonymy is secondary.

In 1961 Meyl transferred Fuchs' *Tylenchus major* to this new genus *Neoditylenchus*. Fortuner and Maggenti accepted this (using as generic name the senior synonym *Sychmotylenchus* Rühm, 1956). So in their system the two species (*major* Fuchs, 1915 and *major* Thorne & Malek, 1968) are no longer congeneric: the homonymy is historical. Art. 59 (d) of the Rules (ed. 1985) states:

“ Revival of secondary homonyms. - A species-group name rejected after 1960 on grounds of homonymy is to be reinstated by any one who believes that the two species-group taxa in question are not congeneric, unless it is invalid for some other reason. (i) If in such a case a new replacement name (*nomen novum*) had been proposed to replace the secondary homonym, it becomes a junior objective synonym of the latter. ”

This applies to the present case:

- the homonymy is secondary (even on both sides);

- the name *major* Thorne & Malek, 1968 was rejected in 1987, i.e. after 1960;

- Fortuner and Maggenti consider *major* Fuchs, 1915 and *major* Thorne & Malek, 1968 not congeneric.

Conclusion: *Ditylenchus major* (Thorne & Malek, 1968) Fortuner & Maggenti, 1987 is a valid name; *D. maleki* Fortuner & Maggenti, 1987 is an objective junior synonym of *D. major* (Thorne & Malek, 1968).

D. major (Thorne & Malek, 1968) was given as valid name, with *D. maleki* as synonym, by Ebsary (1991), but he did not give comments or arguments.

References

- EBSARY, B. A. (1991). *Catalog of the order Tylenchida (Nematoda)*. Research Branch Agriculture Canada, Publication 1869 B, 196 p.
- FILIPJEV, I. N. (1936). On the classification of the Tylenchinae. *Proc. helminth. Soc. Wash.*, 3: 80-82.
- FORTUNER, R. & MAGGENTI, A. R. (1987). A reappraisal of Tylenchina (Nematoda). 4. The family Anguinidae Nicoll, 1935 (1926). *Revue Nématol.*, 10: 163-176.
- FUCHS, A. G. (1915). Die Naturgeschichte der Nematoden und einiger anderen Parasiten. 1. Des *Ips typographus* L. 2. Des *Hyllobius abietis* L. *Zool. Jahrb. Syst.*, 38: 109-222.
- MEYL, A. H. (1961). Die freilebenden Erd- und Süßwasser-nematoden (Fadenwürmer). In: *Die Tierwelt Mitteleuropas*. Leipzig, Quelle & Meyer, 164 p.
- THORNE, G. & MALEK, R. B. (1968). Nematodes of the Northern Great Plains. Part I. Tylenchida. (Nematoda: Secernentea). *S. Dakota agric. Exp. Stat., Techn. Bull.*, 31, 1-111.