

The Belgian nematofauna: species of the order Tylenchida

W. BERT, F. CLAERBOUT, R. VAN GANSBEKE & E. GERAERT

Introduction

As Belgium has a long "nematological tradition", the Belgian nematofauna has been relatively well studied. Within the terrestrial nematodes, the economically important plant parasitic nematodes belonging to the order Tylenchida have been profoundly examined. However, recently, greater attention was paid to the more natural habitats and non-conventional crops such as orchards (BERT & GERAERT 2000). In this and other studies, fourteen species were found that were not yet recorded for the Belgian fauna. As a result, the review of the nematofauna of Belgium (COOMANS 1989) could be updated. This review discussed the nematological history in Belgium and provided a species listing up to 1989. We have added the species belonging to the order Tylenchida that were not yet mentioned in this listing and species recorded after 1989. Furthermore this list is adapted to recent nomenclatural changes.

Results and discussion

A literature study in combination with our findings resulted in several amendments and adaptations of the nematofauna list of Belgium (COOMANS 1989): 6 out of 119 species were removed because of a synonymisation with another species of the nematofauna list, 16 species were synonymised and presented with the correct nomenclature and 27 species were added (table 1).

Within the new records for the Belgian nematofauna, *Hirschmanniella loofi* (fig. 1), proved to be a European Community quarantine organism (*Part A: harmful organisms whose introduction into, and spread within, all member states shall be banned; Section I: harmful organisms not known to occur in any part of the community and relevant for the entire community*). This species was however found in a semi-natural habitat (Bourgoyen-Ossemers, Ghent) close to a stand of *Phragmites australis*. Furthermore, this species was found to have a European distribution (Germany, The Netherlands & Poland) in more or less natural conditions. We suppose a

Table 1 — The species of the order Tylenchida, added to the Belgian nematofauna list.

1. *Amplimerlinius icarus* (Wallace & Greet, 1964) Siddiqi, 1976
2. *Basiria graminophila* Siddiqi, 1951
3. *Cephalenchus leptus* Siddiqi, 1963
4. *Coslenchus andrassyi* Brzeski, 1987
5. *Coslenchus polonicus* Brzeski, 1982
6. *Filenchus sandneri* (Wasilewska, 1965) Raski & Geraert, 1987
7. *Filenchus vulgaris* (Brzeski, 1963) Lownsbery & Lownsbery, 1985
8. *Gracilacus macrodorus* (Brzeski, 1963) Raski, 1976
9. *Gracilacus straeleni* (De Coninck, 1931) Raski, 1976
10. *Helicotylenchus canadensis* Waseem, 1961
11. *Helicotylenchus canadensis* Waseem, 1961
12. *Helicotylenchus exallus* Sher, 1966
13. *Helicotylenchus varicaudatus* Yuen, 1964
14. *Hemicycliophora triangulum* Loof, 1968
15. *Hirschmanniella gracilis* (de Man, 1880) Luc & Goodey, 1964
16. *Hirschmanniella loofi* Sher, 1968
17. *Malenchus acarayensis* Andrassy, 1968
18. *Meloidogyne chitwoodi* (Golden *et al.*, 1980) O' Bannon, Santo & Finley, 1980
19. *Meloidogyne duytsi* Karssen, Van Aelst & Van Der Putten, 1998
20. *Meloidogyne fallax* Karssen, 1996
21. *Meloidogyne maritima* (Jepson, 1987) Karssen, van Aelst & Cook, 1998
22. *Nagelus alpenensis* Doucet & Luc, 1981
23. *Paratylenchus similis* Khan, Prasad & Mathur, 1967
24. *Pratylenchus flakkensis* Seinhorst, 1968
25. *Tylenchus arcuatus* Siddiqi, 1963
26. *Tylenchus davainei* Bastian, 1865
27. *Tylenchus elegans* de Man, 1876

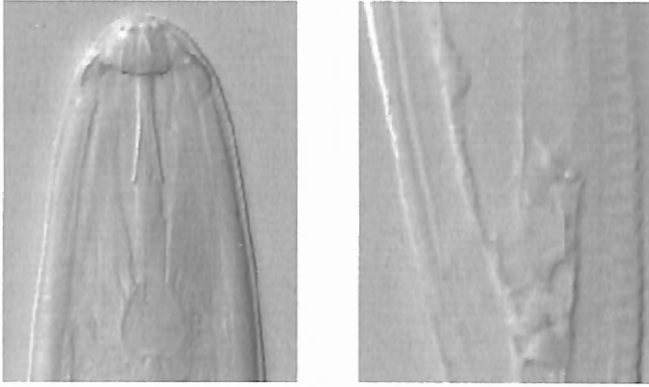


Fig. 1 — *Hirschmanniella loofi*: head and tail.

wide distribution of this species through Europe without manifest negative effects. Consequently this species can be removed from the European Community quarantine list.

References

BERT, W. & GERAERT, E., 2000. Nematode species of the order Tylenchida, new to the Belgian Nematofauna with additional morphological data. *Belg. J. Zool.*, 130: 47-57.

COOMANS, A., 1989. Overzicht van de vrijlevende nematofauna van België. Verhandelingen van het Symposium "Invertebraten van België", KBIN, Brussel, 25-26 nov. 1988: 43-56.

Wim BERT
Frederik CLAERBOUT
Ruben VAN GANSBEKE
Etienne GERAERT
Department of Biology
Ghent University
K.L. Ledeganckstraat 35
B-9000 Gent