Research Note

First record of *Paratrophurus hungaricus* Andrassy, 1973 (Tylenchida, Telotylenchidae) from Slovakia

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Summary

In soil of floodplain forests along the Danube and Moravia Rivers a rare nematode species *Paratrophurus hungaricus* Andrassy, 1973 was recorded for the first time from the territory of Slovakia. Presented here are some notes on morphology and ecology of the species observed.

Key words: *Paratrophurus hungaricus*; morphology; ecology; floodplain forest; Slovakia

During the investigation of nematode communities of floodplain forests in Slovakia a rare nematode species *Paratrophurus hungaricus* Andrassy, 1973 was recorded. The nematodes were recovered from soil samples by the sieving and decanting technique using a sieve of 80 µm with final extraction by a Baermann funnel. The nematodes were heat-killed, fixed in FAA, transferred to dehydrate glycerine and mounted permanently on microscope slides. Slides with nematode species are deposited in a nematode collection at the Parasitological Institute of SAS, Košice, Slovak Republic.

Paratrophurus hungaricus Andrassy, 1973
(Fig. 1 A – C)

Measurements and a short morphological description

Females (5): L = 0.71 – 0.85 mm, a = 29.4 – 38.6, b = 5.3 – 6.1, c = 20.1 – 21.2, c' = 2.4 – 2.5, V = 55.0 – 59.6 %.

Males: Not found.

Body straight, or slightly dorsally curved. Cuticle finely annulated, annules about 1 µm wide. Head narrowed, not separated from the body, gentle, with gentle stylet of the length of 14.0 – 16.0 µm with rounded knobs. Excretory pore 99 – 104 µm from anterior end. The medial bulb oval, situated in 52 – 54 % of the length of oesophagus, basal bulb not expressive, about 25µm long and 13µm wide.

Ovaries didelphic, oposite, anterior gonad 160 – 185 µm, posterior 220 – 224 µm long. Length of vagina the same length, or longer than a half of body diameter. Tail 35 – 42 µm long, cylindrical, slightly clavate, with broadly rounded smooth terminus, with hyaline portion 24 – 31 % of tail length.

Fig. 1. *Paratrophurus hungaricus*, Female: A - Anterior region; B - Vulval region; C - Tail.

Morphometrics of Slovak specimens are similar to those of original descriptions of Andrassy (1973) from Hungary and those from Poland given by Brzeski (1998). In Slovakia, beside *P. hungaricus*, in wet soil of river banks and floodplain forests the species *Paratrophurus bursifer* (Loof, 1960) Siddiqi, 1971 was observed (Sturhan & Lišková, 2004), from which *P. hungaricus* differs mainly by shorter stylet and feature of female tail without characteristic bursa.

Notes to ecology

In Hungary the species was reported from rhizosphere of maize (Andrassy, 1973), in Poland it was observed in soil with meadow (Brzeski, 1998). Beside Poland and Hungary after Andrassy (2007) the species is known also from Tajikistan. In Slovakia, the species was observed in Podunajská rovina plane along the Danube River at the locality of Gabčíkovo and in Borská rovina along the Morava River at the localities of Brodské and Gajary, in soil of floodplain forests with *Alnus*, *Fraxinus*, *Populus*, *Quercus* and *Salix* spp., undergrowth mostly with *Rubus fruticosus*, *R. idaeus* and *Urtica dioica*. Localities are characteristic mostly by heavy, clay, loamy - clay, or light sandy soils with soil types Fluvisol derived from aluvial sediments of different origin with the pH ranging from 4.5 to 6.9.

The current information about the occurrence of *P. hungaricus* in special ecosystem of floodplain forests in Slovakia enriched ecological knowledge on this species, as well as knowledge about its larger geographical distribution in Central Europe.

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