

RESEARCH NOTE

**THE SYSTEMATIC STATUS OF *PHILOMETRA ABDOMINALIS* NYBELIN, 1928
(NEMATODA: PHILOMETRIDAE) [= A JUNIOR SYNONYM OF *P. OVATA*
(ZEDER, 1803)]**

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Abstract. Examination of the original literature concerning species of *Philometra* (Philometridae, Dracunculoidea) parasitic in the abdominal cavity of European cyprinids revealed that *P. abdominalis* Nybelin, 1928 is a junior synonym of *P. ovata* (Zeder, 1803), a parasite of cyprinids of the genera *Gobio*, *Phoxinus* and *Leuciscus*. The valid name of the species parasitizing cyprinids of the genera *Abramis*, *Rutilus* and *Vimba*, mostly reported erroneously as *P. ovata*, is *P. cyprinirutili* (Creplin, 1825) comb. n.

Zeder (1803) was the first to give a very brief description of female nematodes from the gudgeon, *Gobio gobio* (L.), which he named *Filaria ovata*: “Filar. capite attenuato, ovato; cauda rotunda. Habitat in hepate Cyprion. Gobion. L. 3–4” pollic. longa”. Although he did not mention the locality, it is highly probable that his nematodes were collected in Germany. Apparently, he considered his species to be identical with the nematodes previously mentioned by Goeze (1782) as *Gordius* and by Schrank (1788) as *Filaria gobionis*. Rudolphi (1819) reported this species as *Filaria ovata* Zed. from the abdominal cavity of *G. gobio*, mentioning that in the Catalogue of Entozoa of the Vienna Museum it is listed from the abdominal cavity of *G. gobio* and from the liver of the European minnow, *Phoxinus phoxinus* (L.). This species was correctly reported also by Creplin (1825) and Dujardin (1845).

However, during the 19th and the beginning of 20th century, the philometrids from the abdominal cavity of various species of European cyprinids were, in most cases, erroneously identified as *Filaria sanguinea* or *Ichthyonema sanguineum* (= *Philometroides sanguineus*), a species originally described by Rudolphi (1819) from the caudal fin of the Prussian carp, *Carassius gibelio* (Bloch) (see, e.g., Diesing 1851, Linstow 1874, Šrámek 1901, Frič 1908). Only Creplin (1825) designated the female specimens from the abdominal cavity of *Rutilus rutilus* (L.) as *Filaria cyprini rutili* and gave their brief description; this name remains valid and usable and cannot be considered a nomen oblitum, because it is mentioned by Molnár in 1967 (see the International Code of Zoological Nomenclature – ICZN). Creplin (1825) found these nematodes in roach coinfecting with *Ligula intestinalis* (Linnaeus, 1758) plerocercoids in October and November.

Nybelin (1928), while redescribing Rudolphi's *Filaria* (reported as *Philometra*) *sanguinea* (= *Philometroides sanguineus*), established a new species, *Philometra abdominalis*, but failed to give its detailed description and the differential diagnosis. Only later he (Nybelin 1931) designated as its type the female specimens originating from the abdominal cavity of *Gobio gobio* collected by Linstow in Germany and deposited

in the Natural History Museum in Berlin; he distinguished the females of *P. abdominalis* from those of *P. ovata* only on the basis of their body colour and dimensions (body red-coloured, about 40–60 mm long in the former vs. body yellow-white, about 125 mm long in the latter). However, the body colour of gravid females of all *Philometra* spp. parasitic in the abdominal cavity of European cyprinids is usually red, sometimes pink, and rarely even white in the same species (e.g., Moravec 1977) and their body length is much the same (Moravec 1994). Therefore, as pointed out by Molnár (1967), these features have no value for the distinction between *P. abdominalis* and *P. ovata*. In fact, due to morphological uniformity, the females of philometrids parasitic in the abdominal cavity of European cyprinids are specifically indistinguishable.

However, the discovery of conspecific males of these nematodes (Molnár 1966, 1967, 1969) showed that altogether three *Philometra* spp. have gravid females parasitic in the abdominal cavity of cyprinids in Europe, which can be distinguished only on the basis of the male morphology.

Although the systematic status of *Philometra kotlani* (Molnár, 1969), a specific parasite of the asp, *Aspius aspius* (L.), is clear, there is a problem with the names of the other two species, of which the gravid females of one occur in *Gobio gobio*, *Phoxinus phoxinus* and *Leuciscus* spp., whereas those of the second one are parasitic in cyprinids mainly of the genera *Abramis*, *Rutilus* and *Vimba* (see Molnár 1966, 1967, Moravec 1994). Molnár (1967) solved the situation by designating the former as *Philometra abdominalis* Nybelin, 1928 and the latter as *Philometra ovata* (Zeder, 1803). This was followed by all subsequent authors.

However, considering a high degree of host specificity of these nematodes, it is clear that *P. abdominalis* is a junior synonym of *P. ovata*. Both species were originally described from the same host species (*G. gobio*) in Germany and there are no morphological differences by which they can be distinguished. Therefore, considering the ICZN, Molnár (1967) made a mistake by using the name *P. abdominalis* for another species. Consequently, the valid name of the philometrid species from *Abramis*, *Rutilus* and *Vimba*, hitherto erroneously reported as *P. ovata* (e.g., Molnár 1967, Bauer 1987, Moravec 1994), is *Philometra cyprinirutili* (Creplin, 1825) comb. n.; its junior synonym is *Philometra abramidis* Osmanov, 1964. The valid name of the philometrid species from *Gobio*, *Phoxinus* and *Leuciscus* is *Philometra ovata* (Zeder, 1803) Costa, 1845; its junior synonym is *Philometra abdominalis* Nybelin, 1928.

The author wishes to thank David I. Gibson, The Natural History Museum, London for providing data from some old, hardly accessible helminthological monographs. This study was supported by grant no. 524/03/0061 from the Grant Agency of the Czech Republic and by the research project of the Institute of Parasitology, ASCR (no. AV0Z6022909).

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Received 3 November 2003

Accepted 15 December 2003