

Kuchta R., Vlčková R., Poddubnaya L., Gustinelli A., Dzika E., Scholz T. 2007: Invalidity of three Palaearctic species of *Triaenophorus* tapeworms (Cestoda: Pseudophyllidea): evidence from morphometric analysis of scolex hooks. *Folia Parasitologica* 54: 34–42.

Abstract

A comparative study of the scolex hook morphology of five species of tapeworms of the genus *Triaenophorus* Rudolphi, 1793 (Cestoda: Pseudophyllidea), parasites of pikes (*Esox lucius* L. and *E. reichertii* Dybowski) in the Palaearctic Region, was carried out. Measurements of scolex hooks of 81 plerocercoids and 492 adults from different hosts and regions were compared using basic statistics and forward stepwise linear discriminant analysis. The shape of the scolex and that of tridental hooks were found to be suitable only for differentiation of the taxa with a similar shape of hooks, i.e. *Triaenophorus nodulosus* (Pallas, 1781) from *T. amurensis* Kuperman, 1968, and *T. crassus* Forel, 1868 from *T. meridionalis* Kuperman, 1968 and *T. orientalis* Kuperman, 1968, respectively. In contrast, discriminant analysis did not enable reliable separation of specimens of individual taxa of these two morphological groups due to high intraspecific variability and overlaps between species. This was reflected in low classification efficiencies (average 83%) of all species of the *T. crassus* group, whereas all *T. amurensis* specimens were misidentified as *T. nodulosus*. The new data also considerably enlarge (up to twofold) the size range of the species described by Kuperman in 1968, which invalidates suitability of the most important discriminant characteristic, the width of the basal plate, for delimitation of *Triaenophorus* species. Based on the present data, all Kuperman's taxa are considered to represent only distinct geographical populations of *T. nodulosus* and *T. crassus*. As a result, *T. amurensis* is synonymized with *T. nodulosus*, whereas *T. orientalis* is considered to be a synonym of *T. crassus*. Previous synonymisation of *T. meridionalis* with *T. crassus*, first proposed by Dubinina (1987), is also accepted.