



Two new nematode species of the genus *Cosmocephalus* Molin, 1858 (Spirurida: Acuariidae), with an amended generic diagnosis and an identification key to *Cosmocephalus* spp.

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Abstract

Cosmocephalus podicipis n. sp. is described from *Podiceps cristatus* from the vicinity of Ramsar, Iran (type host and type locality) and from *Podiceps nigricollis* from the Bulgarian Black Sea coast. *Cosmocephalus pelecani* n. sp. is described from *Pelecanus conspicillatus* from Mansfield, Victoria, Australia. Comparative materials of three other species of *Cosmocephalus* were examined and described. These are *C. obvelatus* (based on specimens from *Larus argentatus* from Bulgaria), *C. jaenschi* (based on a paratype from *Phalacrocorax carbo* from Australia) and *C. capellae* (based on a male nematode from *Tringa totanus* from Bulgaria, a new geographical record). *Cosmocephalus faridi* from *Pelecanus onocrotalus* from Egypt, which has been considered by previous authors as a synonym of *C. obvelatus*, is validated. Results of SEM observations are presented for *C. podicipis* and *C. obvelatus*. In all the species examined, the presence of a single ventral ridge was recorded in males anterior to the caudal bursa. The generic diagnosis is amended to include more comprehensive information on the morphology of the studied species. Currently, the genus *Cosmocephalus* includes 7 species. *Cosmocephalus imperialis* is recognised as a *species inquirenda*. *Cosmocephalus argentinensis* is proposed as a junior synonym of *C. obvelatus*. An identification key to the species of *Cosmocephalus* is presented.

Key words: taxonomy, morphology, *Cosmocephalus podicipis* n. sp., *C. pelecani* n. sp., *C. obvelatus*, *C. capellae*, *C. jaenschi*, *C. faridi*

Introduction

The genus *Cosmocephalus* Molin, 1858 was erected (as monotypic) for *C. diesingi* Molin, 1858. During the next 150 years, thirteen nominal species have been placed in this genus (Molin, 1858, 1859, 1860; Seurat 1919; Yorke & Maplestone 1926; Morishita 1930; Khalil 1931; Yamaguti 1935; Johnston & Mawson 1941, 1952; Rao 1951; Rodrigues & Vicente 1963, cited after Bowie 1981; Boero & Led 1970), all parasitic in the oesophagus or stomach of aquatic birds. Anderson & Wong (1981) redescribed *C. obvelatus* (Creplin, 1825) and believed that it as well as *C. imperialis* Morishita, 1930, *C. capellae* Yamaguti, 1935 and *C. jaenschi* Johnston & Mawson, 1941 were the only valid species. They did not mention *C. argentinensis* Boero & Led, 1970; the latter was recently considered as *species inquirenda* (Diaz *et al.* 2001). Studies on nematode parasites from *Podiceps cristatus* (L.) in Iran and *Podiceps nigricollis* Brehm in Bulgaria revealed the occurrence of an undescribed species of *Cosmocephalus*. In the course of the examination of comparative material, we found another new species parasitic in Australian pelicans. Furthermore, the morphological study of three known species of the same genus provided new data on them and allowed the preparation of more detailed descriptions than those available in the literature.

The aim of the present article is to describe two new species of the genus *Cosmocephalus*. In addition, we