



Taxonomic revision of the type specimens of Ethiopian Nippostrongylineae (Nematoda) deposited at the Natural History Museum of London

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Abstract

We studied the original material of several species of Nippostrongylineae (Nematoda: Heligmonellidae) described by H. A. Baylis in muroid rodents from Nigeria: *Heligmonina praomyos* Baylis, 1928, *Heligmonina oenomyos* Baylis, 1928, *Heligmonina cricetomyos* Baylis, 1928, *Neoheligionella affinis* (Baylis, 1928), *Neoheligionella intermedia* (Baylis, 1928), *Neoheligionella gracilis* (Baylis, 1928), *Neoheligionella impudica* (Baylis, 1928), *Neoheligionella moennigi* (Baylis, 1928), and *Heligmonoides murina* Baylis, 1928. The comparison of the material examined to the original descriptions, revealed the presence of at least seven other species mixed among the type and voucher material. For the nominal species of Baylis lectotypes and paralectotypes are designated. Due to the poor condition of the material, the other species found were only identifiable to generic level. Most of them were coparasitic with Baylis' species. The following species associations were found: *Heligmonina praomyos* + *Neoheligionella moennigi*, *Heligmonina oenomyos* + *Neoheligionella* sp. 1, *Heligmonina cricetomyos* + *Neoheligionella moennigi*, *Heligmonina* sp. 2 + *Neoheligionella* sp. 4. Tables with the identification of the specimens studied are provided. New morphometrical data and illustrations on this material are also provided, particularly on the anterior part of the body and genital apparatus in the females. The occurrence of coparasitism as a frequent phenomenon among the Trichostrongylinea is highlighted.

Key words: Trichostrongylinea; Heligmonellidae; coparasitism; rodents; Nigeria

Introduction

In an article dating from 1928, H. A. Baylis described a number of nematode parasites of mammals, mainly of rodents from Nigeria. Most of these nematodes belong to the family Heligmonellidae and particularly to the subfamily Nippostrongylineae. In the aforesaid article, Baylis erected two new genera: *Heligmonina* Baylis, 1928 (five species) with *Heligmonina praomyos* Baylis, 1928, parasitic in *Praomys tullbergi* Thomas, as type species, and *Heligmonoides* Baylis, 1928 with the type and unique species *Heligmonoides murina* Baylis, 1928, parasitic in *Mus (Nannomys) musculoides* (Temminck) (*Leggada musculoides* in Baylis' description) (type-host) and in *Mus musculus* Linnaeus. He also described seven new species in the genus *Heligionella* Mönnig, 1927.

Durette-Desset (1971) redefined the genera *Heligionella* and *Heligionoides* and reclassified Baylis' species, transferring most of the species treated by Baylis as *Heligionella* to the new genus *Neoheligionella* Durette-Desset, 1971 (Table 1). The three genera are distinguished as follows: *Heligionella* is characterised by a hypertrophied left ridge (left ala). In *Neoheligionella* a carene is present or absent; when present, it is made up of two left ridges. In both genera the number of ridges is between 9–16. *Heligionoides* possesses a carene made up of at least four left ridges better developed than the remaining ridges and a total number of ridges between 17 and 30 (Durette-Desset *et al.* 2007a). The caudal bursa is strongly asymmetrical with a left lobe much better developed in *Heligionella*, it is subsymmetrical with the dorsal ray divided in its distal half in *Neoheligionella* and subsymmetrical or slightly asymmetrical with the dorsal ray divided in its proximal half in *Heligionoides*.