

## Bothriocephalidean tapeworms (Cestoda) of freshwater fish in Africa, including erection of *Kirstenella* n. gen. and description of *Tetracampus martinae* n. sp.

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### Abstract

A survey of bothriocephalidean tapeworms (Cestoda) parasitizing African freshwater fish is provided. Based on critical evaluation of type specimens and extensive, newly collected material, only the following seven species, instead of 19 taxa listed in the literature, are considered to be valid and their redescriptions are provided: *Bothriocephalus acheilognathi* Yamaguti, 1934 (with 3 synonyms from Africa); *Bothriocephalus claviceps* (Goeze, 1782) (marginally in Africa); *Ichthybothrium ichthybori* Khalil, 1971; *Kirstenella gordoni* (Woodland, 1937) n. comb. (1 synonym); *Polyonchobothrium polypteri* (Leydig, 1853) (4 synonyms); and *Tetracampus ciliotheca* Wedl, 1861 (4 synonyms). In addition, *Tetracampus martinae* Kuchta n. sp. is proposed for tapeworms from the catfish *Bagrus meridionalis* from Lake Malawi. The new species differs from *T. ciliotheca* in a much larger body (19 cm versus 3 cm), dorsoventrally flattened strobila and numerous (39 versus 25–35) and longer apical hooks (up to 98 µm versus less than 50 µm). *Kirstenella* Kuchta n. gen. is proposed to accommodate *Senga gordoni* Woodland, 1937 as its type species. The new genus is distinguished from other genera of the Bothriocephalidae by the presence of an apical disc armed with two lateral semicircles of large hooks, cortical vitelline follicles and large-sized cirrus-sac. All but one valid species were recollected. Bothriocephalidean cestodes are widely distributed throughout Africa, but only two species, *B. acheilognathi* and *T. ciliotheca*, occur in other continents. All but one species (*B. acheilognathi*) exhibit narrow host specificity, being limited either to one host species (*K. gordoni* in *Heterobranchus bidorsalis* and *T. martinae* in *Bagrus meridionalis*) or one host genus (*I. ichthybori* in *Ichthyborus* spp., *P. polypteri* in *Polypterus* spp. and *T. ciliotheca* in *Clarias* spp.). Molecular data based on partial sequences of the large subunit rDNA (lsrDNA) show monophyletic position of all African taxa analysed (*B. acheilognathi*, *I. ichthybori*, *K. gordoni*, *P. polypteri* and *T. ciliotheca*).

**Key words:** Taxonomic revision, morphology, redescriptions, new genus, new species, phylogeny, identification key, zoogeography, host specificity