



## ***Ahamulina* n. gen. (Cestoda: Diphyllidea) from the polkadot catshark, *Scyliorhinus besnardi* (Carcharhiniformes: Scyliorhinidae), off Brazil**

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### **Abstract**

A new genus and species of diphyllidean, *Ahamulina catarina* n. gen. n. sp., is described from the polkadot catshark, *Scyliorhinus besnardi*, from Santa Catarina, Brazil. The new genus exhibits apical organ armature that is unique among diphyllideans in the arrangement and shape of the apical hooks as well as in the lack of lateral hooklets. The taxon also exhibits a bipartite cirrus sac. This is the seventh diphyllidean reported from a shark, and the third reported from a catshark suggesting that the dearth of cestode data for these particular sharks belies the true extent of diphyllidean diversity they host.

**Key Words:** new species; elasmobranch; Southwestern Atlantic; tapeworm; taxonomy

### **Introduction**

The order Diphyllidea currently includes a total of 45 valid species (see Tyler 2006; Kuchta & Caira 2010; Rodriguez *et al.* 2011; Ivanov & Caira 2012). Given that all species originally placed in *Macrobothridium* Khalil & Abdul-Salam, 1989 have now been transferred to *Echinobothrium* van Beneden, 1849 (see Tyler 2006; Kuchta & Caira 2010), the order currently houses only two genera. By far the majority of species are members of *Echinobothrium* (see Kuchta & Caira 2010) and 2 species belong to *Ditrachybothridium* Rees, 1959. Most diphyllideans parasitize batoids, however, 6 species have been reported from sharks. Three of these come from sharks of the family Triakidae: Robinson (1959) described *Echinobothrium coronatum* Robinson, 1959 from *Mustelus lenticulatus* Phillipps in New Zealand, Ivanov (1997) described *Echinobothrium notoguidoi* Ivanov, 1997 from *Mustelus schmitti* Springer in Argentina, and Ivanov and Lipshitz (2006) described *Echinobothrium diamanti* Ivanov & Lipshitz, 2006 from *Iago omanensis* (Norman) in the Gulf of Aqaba. *Echinobothrium scoliodoni* Sanaka, Vijaya Lakshmi & Hanumantha Rao, 1986, although currently considered a *species inquirenda* (see Tyler 2006; Kuchta & Caira 2010), was reported by Sanaka *et al.* (1986) from an orectolobiform shark in the Indian Ocean off India. The remaining 2 shark-hosted species, both members of *Ditrachybothridium*, parasitize catsharks (i.e., Scyliorhinidae). Rees (1959) described *Ditrachybothridium macrocephalum* Rees, 1959 from the shagreen ray, *Leucoraja fullonica* (L.) (type host by Tyler 2006), sand ray *Leucoraja circularis* (Couch), and also the small-spotted catshark, *Scyliorhinus canicula* (L.) from the Atlantic Ocean off Scotland. Tyler (2006) examined specimens identified as this species from the blackmouth catshark, *Galeus melastomus* Rafinesque, from the North Sea, and Bray and Olson (2004) found encysted larvae they attributed to *D. macrocephalum* in the Iceland catshark, *Apristurus laurussonii* (Koefoed) and *Rajella* cf. *bigelowi* (Stehmann), from the northeastern Atlantic Ocean. Similarly, Faliex *et al.* (2000) described *Ditrachybothridium piliformis* Faliex, Tyler & Euzet, 2000 from catsharks, taken near Vanuatu in the South Pacific Ocean, that were originally identified as *Galeus* sp. but have recently been formally described by Seret and Last (2008) as *Galeus priapus* Seret & Last (Euzet pers. com.). Although *D. macrocephalum* has also been reported from several species of skates (Tyler 2006), the lack of fully mature specimens led Faliex *et al.* (2000) to suggest that such batoids likely represent unsuitable hosts for this species.