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

FERNANDO P. L. MARQUES¹, KIRSTEN JENSEN² & JANINE N. CAIRA³
¹Departamento de Zoologia – IB, Universidade de São Paulo, Cidade Universitária, 05508–090 São Paulo-SP, Brazil. E-mail: fernando@ib.usp.br
²Department of Ecology and Evolutionary Biology and the Biodiversity Institute, University of Kansas, 1200 Sunnyside Ave., Lawrence, Kansas 66045, USA. E-mail: jensen@ku.edu
³Department of Ecology and Evolutionary Biology, University of Connecticut, Unit 3043, 75 N. Eagleville Rd., Storrs, Connecticut 06269–3043, USA. E-mail: janine.caira@uconn.edu

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.) from 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 laurussomii (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.