RESEARCH NOTE

Presence of Mermithid Larvae (Nematoda, Mermithidae) in *Limax flavus* and *Sarasinula marginata* (Mollusca, Gastropoda) in Brazil

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According to GO Poinar (1976 *J Parasitol* 62: 843-844) mermithid nematodes are monoxenous parasites, with a preparasitic (infective) juvenile which emerges from the egg and actively penetrates the body cavity of an invertebrate host (insects, molluscs, crustaceans, arachnids, and others). After a period of development within the host, the nematode emerges in the environment, when it molts to the adult stage. Free living adults mate, and females deposit eggs in the environment.

Mermithid nematodes, parasitic in molluscs, have not been recorded from South America. DS Dundee (1977 *J Parasitol 63:* 590), reported finding mermithids in *Veronicella ameghini* (Gambetta, 1923) introduced in the US from Brazil: "Since the molluscs were introduced - probably from Brazil - the mermithids might also be introduced".

For the past five years, I have examined molluscs searching for larvae of *Angiostrongylus costaricensis* Morera and Céspedes, 1971, and, incidentally, have found large mermithid larvae (Fig.) in the body cavity of some of them.

The molluscs were collected near the dwellings of people reportedly suffering from abdominal angiostrongyliasis in two disjunct areas: Locality 1 - Uberlândia, State of Minas Gerais (18°56'S, 48°18'W), in the autumn and the spring of 1993 and 1994; and Locality 2 - Inhomirin, State of Rio de Janeiro (22°35'S, 43°10'W) in late winter and spring of 1994.

When the slugs *Sarasinula marginata* (Semper, 1885) and *Limax flavus* (L.) were eviscerated

Side view of *Sarasinula marginata* dorsally opened, showing mermithid larva emerging from the body cavity.

to be processed and examined for larvae of *A. costaricensis*, larvae of mermithid nematodes were found within their body cavity. The prevalence of the mermithid larvae was as follows: 0.37% (2 among 542) in *S. marginata* and 12.5% (3 among 24) in *L. flavus* from Uberlândia; and 52.2% (12 among 23) from Inhomirim. All specimens of *L. flavus* harbouring the mermithid larvae were very young, whereas all the specimens of *S. marginata* were adults.

The mermithid nematodes collected were 8.9 to 26.9 cm long (30 specimens measured), and were filling much of the dorsal portion of the body cavity, usually the anterior half of the body. The finding of two or more larvae in the same slug was common, and in these cases the posterior portion of the slug's body was packed with worms.

Mermithid larvae were also found outside, around or even emerging from the head region of the molluscs, as has been reported by Dundee (*loc. cit.*) in *Veronicella ameghini*.

Voucher specimens were deposited in the Helminthological Collection of the Instituto Oswaldo Cruz, Nº 32.977.

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