Communication

Brown-throated three-toed sloth (Bradypus variegatus Shinz, 1825) as a new host for Leiuris leptocephalus (Rud., 1819) Leuckard, 1850

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Sloths of the Bradypus genus (Bradypodidae) live in the tropical forests of Central and South America. Three species are found in Brazil: Bradypus torquatus Illiger, 1811; Bradypus tridactylus Linnaeus, 1758; and Bradypus variegatus Schinz, 1825. The literature shows scarce information about these species, currently listed in the Appendix II of CITES (UNEP-WCMC, 2007). In Brazil, few studies have been carried out on the helminth fauna of sloths of the genus Bradypus. Vicente et al. (1993) reported the occurrence of helminths in the species B. variegatus and B. tridactylus, which is the best known host.

This work reports the occurrence of Leiuris leptocephalus (Rud., 1819) Leuckard, 1850 in a specimen of B. variegatus found in the Northern coastal region of Ubatuba, São Paulo State, Brazil.

In October 2005, a female sloth of the species B. variegatus was sent to the Ubatuba Aquarium/Argonaut Institute for Coastal and Marine Conservation. The animal was found entangled with an electric wire and had received a 13,000-volt shock, and died soon after the beginning of the treatment. At necropsy, the gastrointestinal tract was removed and the esophagus, stomach, and small and large intestines were separately analyzed.

The helminths were collected, fixed in warm AFA solution, and cleared with phenol. Morphologic and morphometric analysis were performed with a computer system for image analyses (QWin Lite 3.1 - Leica). The samples were later deposited at the Helmint Collection of the Instituto de Biociências, at Universidade Estadual Paulista (CHIBB-UNESP), Botucatu, São Paulo State, Brazil. Only helminths of the Nematoda Class were found in the small intestine of the specimen, and were identified as L. leptocephalus.

Taxonomic summary
Family Spirocercidae Chitwood and Wehr, 1932
Leiuris leptocephalus (Rud., 1819) Leuckard, 1850
(Sin: Strongylus leptocephalus Rud. 1819; Spirorptera leptocephala Schneider, 1866; Spirocercella brasiliensis Twaite, 1928; Simondsia leptocephalus Lopez-Neyra, 1951)
Host: Bradypus variegatus Schinz, 1825
Locality and collection date: Bonete beach region, Ubatuba city- North coast of São Paulo State - Brasil, 23º32´19,40´´S; 45º11´06,57´´O. on October 25, 2005
Intensity of infection: one host with 23 parasite specimen
Site of infection: small intestine
Voucher specimens deposited: CHIBB nº 1671-1672
Measurements: (n= 7) The morphometric characteristics were:

Females (n= 3): body 32.1 mm (29.03-34.0) length and 0.616 mm (0.563-0.647) width; vestibule 0.143 mm (0.126-0.160) length; esophagus divided into anterior muscular, 0.401 mm (0.382-0.426) length and posterior glandular 4.13 mm (3.94-4.32) length; the distance from the cephalic papillae to anterior extremity 0.36 µm (0.34-0.40); the distance from the nerve ring to the anterior extremity 0.68 mm (0.65-0.71); the distance from the vulva to the anterior extremity was 13.31 mm (12.98-13.64); the distance from the anus to the posterior end 0.23 mm (0.22-0.25); eggs 0.044 mm (0.040-0.045) length and 0.024 µm (0.021-0.029) width.

Males (n= 4): body 17.21 mm (16.75-17.69) length and 0.384 mm (0.368-0.410) width; vestibule 0.010 mm (0.098-0.120) length; esophagus divided into anterior muscular, 0.33 mm (0.32-0.34) and posterior glandular 2.99 mm (2.88-3.23); the distance from the cephalic papillae to the anterior extremity 0.29 mm (0.27-0.30); the distance from the nerve ring to the anterior extremity 0.56 mm (0.54-0.59); the two unequal spicules 1.74 mm (1.67-1.79) length and 0.47 mm (0.43-0.52) length; gubernaculum 0.054 mm (0.051-0.056) length and cloaca 0.315 mm (0.307-0.324) length.

Records: little is known about the helminth fauna of hosts of the genus *Bradypus* and the few literature reports available refer generally to hosts of the species *B. tridactylus* (Molin, 1858) Sandgroud, 1938; *Dirofilaria incrassata* (Molin, 1858) Sandgroud, 1938; *Leiuris pereirai* Gomes & Vicente, 1970; *Paraleiuris locchi* Vaz & Pereira, 1929; *Paraleiuris vazi* Vicente & Gomes, 1971; *Physocophalus gracilis* (Rud., 1819); *Physocophalus leptocephalus* (Rud., 1819); and *L. leptocephalus* (Vicente et al. 1993; Vaz e Pereira, 1929).

The morphometric analysis of males revealed a smaller length and width than those reported in the literature for the species, whereas dimensions of the muscular esophagus, specula, and cloaca were larger than those usually reported. In females, total width and length, muscular esophagus, and eggs were smaller than those reported in the literature, and length of the glandular esophagus was larger. These results may reflect variations of the specimens collected and did not interfere with the identification of the species collected. The morphometric data add to the knowledge of the morphologic variability of the sloth parasite *L. leptocephalus*.

This report shows *B. variegatus* as a new host to *L. leptocephalus*, also representing the first time that parasites are found in this host in the Southeastern region of Brazil, contributing to the knowledge of the helminth fauna of Brazilian sloths.

Keywords: *Bradypus variegatus*, nematoda, *Leiuris leptocephalus*, sloth, Brazil

**REFERENCES**
