

Helminths of *Leptodactylus vastus* (Anura: Leptodactylidae) in an area of Caatinga, Brazil

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Amphibians are key to parasite life cycles, since they may be intermediate, definitive, or paratenic hosts for various nematode species (González & Hamann, 2010). Here, we report the species compositions of endoparasites in the respiratory, body cavity, and digestive tracts of *Leptodactylus vastus* in an area of Caatinga vegetation in Jardim, Ceará, northeastern Brazil.

Six specimens of *L. vastus*, of which four males (mean SVL = 12.53 ± 11.06 cm) and two females (mean SVL = 12.55 ± 12.04 cm) were collected in sítio Gravatá (-7.585427 S and -39.30323 W, elevation 867 m, Datum SAD-69), in Jardim, Ceará, Brazil, in November 2011. A voucher specimen was deposited in the Herpetological Collection of the Universidade Regional do Cariri (URCA-H 1309). Parasites were preserved in 70% alcohol and subsequently mounted on temporary slides using Hoyer's medium, and identified with an optical microscope. Slides were deposited in the Parasitological Collection of the Universidade Regional do Cariri (URCA-P 382-385).

Of the six frogs examined, five were infected by at least one nematode species. A total of 226 specimens of

nematodes were found in the digestive tracts, 12 in body cavity, and 68 in the respiratory tracts. Two species of nematodes were identified: *Rhabdias fuelleborni* in lungs and *Falcaustra mascula* in large intestine and one of the genera *Ochoterenella* found in body cavity. The total prevalence of *F. mascula* was 50% (3/6), and its infection intensity was 75.3 ± 59.9; *R. fuelleborni* had a total prevalence of 66.6% (4/6), and an average infection intensity of 17 ± 5.65.

Rhabdias fuelleborni occurs in Brazil, Uruguay, and Paraguay and found in two anuran families: Bufonidae and Leptodactylidae (Fahel, 1952). Approximately 94 species are known worldwide (Kuzmin & Tkach, 2012). *Rhabdias* species has life cycle with free-living stage and a hermaphroditic stage that paritises the respiratory tracts of reptiles and less frequent amphibians. These nematodes juveniles enter host body cavities via skin (Baker, 1979) or orally (Chu, 1936) and probably establish themselves as adults in the lungs.

Falcaustra mascula occurs in Brazil and Paraguay in anurans of the families Bufonidae and Leptodactylidae (Luque et al., 2005). There are currently 68 nominal species of *Falcaustra* that occur in the digestive tracts of fish, amphibians and reptiles (Burse et al., 2000). Species of *Falcaustra* are distinguished on the basis of the number and arrangement of caudal papillae and the length of spicules of males, the presence or absence of a pseudosucker, and geographical distribution (Burse & Goldberg, 2001). Little is known about the transmission of the *Falcaustra* (Anderson, 2000). Probably, these nematodes using various invertebrates as intermediate hosts. Many species bufonids and leptodactulids have generalist diet certainly end up preying hosts and infecting.

This study presents the second record of *R. fuelleborni* and *F. mascula* infecting *L. vastus* in Northeastern Brazil, while *Ochoterenella* sp. is reported for the first time in *L. vastus*.

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