

## Predation on *Leptodactylus spixii* (Anura: Leptodactylidae) by *Echinanthera undulata* (Squamata: Dipsadidae)

Rodrigo de Oliveira Lula Salles\* and Thiago Silva-Soares<sup>†</sup>

The genus *Echinanthera* Cope, 1894 occurs in South America (Di-Bernardo, 1992) and comprises six Brazilian species (Bérnails, 2010). According to Rocha et al. (2004) four of them are reported to occur within the state of Rio de Janeiro: *Echinanthera amoena* (Jan, 1863), *E. cephalostriata* Di-Bernardo, 1996, *E. melanostigma* (Wagler, 1824), and *E. undulata* (Wied-Neuwied, 1824). *Echinanthera undulata* is an inhabitant of the Atlantic Forest leaf-litter, occurring in southern and southeastern Brazil, from south-central Rio de Janeiro and southern Minas Gerais states to the northeast of the state of Santa Catarina (Di-Bernardo, 1992).

In spite of the scarce literature about *E. undulata* diet,

species of *Echinanthera* are known to prey upon several ectotherms, such as small lizards (Marques, Eterovic and Sazima, 2001; Pontes and Rocha, 2008), snakes (Balestrin and Di-Bernardo, 2005), and anurans, both adults and eggs (Marques, Eterovic and Sazima, 2001; Moura-Leite, et al., 2003; Pontes and Rocha, 2008).

Recently we examined one adult female *Echinanthera undulata* (MNRJ 1866; Figure 1) which is housed at the reptile collection of Museu Nacional, Universidade Federal do Rio de Janeiro (MNRJ). The specimen has a snout-vent length of 553.0 mm and jaw width 31.9 mm and was collected in the neighborhood of Cidade das Meninas, municipality of Duque de Caxias ( $22^{\circ}47'12.57''S$ ,  $43^{\circ}18'47.18''W$ ), state of Rio de Janeiro, Brazil. In its stomach we found one adult specimen of *Leptodactylus spixii* Heyer, 1983 (Figure 2; SVL 41.2 mm).

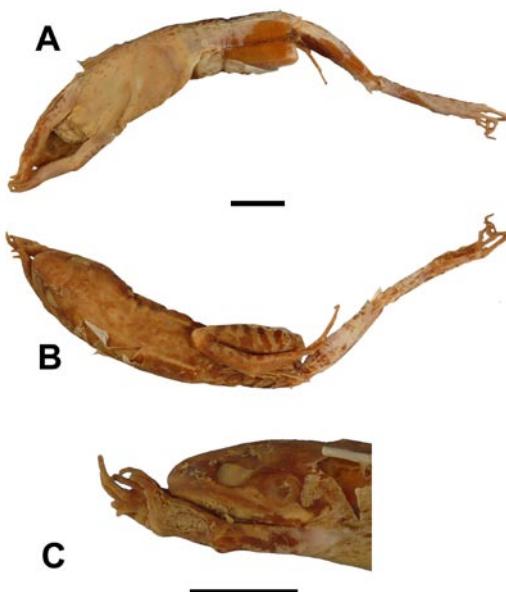
*Leptodactylus spixii* is a small terrestrial frog that inhabits the leaf-litter of the Atlantic Rainforest of southeastern and northeastern Brazil (Izecksohn and Carvalho-e-Silva, 2001). The species is included

1 Universidade Federal do Rio de Janeiro, Museu Nacional, Departamento de Vertebrados. Quinta da Boa Vista s/n. CEP 20940-040. Rio de Janeiro, RJ, Brazil  
e-mail: sallesbio@gmail.com

\* Corresponding author.



Figure 1. The examined specimen of *Echinanthera undulata* (MNRJ 1866). Dorsal view (A); Ventral view (B). Scale = 2 cm.



**Figure 1.** Adult specimen of *Leptodactylus spixi* found in the stomach of *E. undulata* (Both specimens on voucher MNRJ 1866). Ventral view (A); Dorsal view (B); Lateral view of the head (C). Scale = 1 cm.

within the *Leptodactylus fuscus* group, which currently comprises 29 species (Giaretta and Costa, 2007, Caramaschi, Feio and São-Pedro, 2008, Ponssa, 2008). *Leptodactylus spixi* was diagnosed by the presence of two longitudinal dorsal skinfolds and a blackish streak on the upper lip that highlights the white border of its lip (Izecksohn and Carvalho-e-Silva, 2001). This is the first record of predation on *Leptodactylus spixi* by *Echinanthera undulata*.

**Acknowledgements.** Special thank to Dr. Ronaldo Fernandes (MNRJ) for allowing us the access to the Reptile Collection of Museu Nacional, of the Universidade Federal do Rio de Janeiro. We grateful to Davor Vrcibradic for reviewing our manuscript; Conselho Nacional de Desenvolvimento Científico e Tecnológico (CNPq), Coordenação de Aperfeiçoamento de Pessoal de Nível Superior (CAPES), and Fundação de Amparo à Pesquisa do Estado do Rio de Janeiro (FAPERJ) provided financial support.

## References

- Balestrin, R.L., Di-Bernardo, M. (2005): Ophiophagy in the colubrid snake *Echinanthera occipitalis* (Jan, 1863) from southern Brazil. *Salamandra* **41**: 221-222.
- Bérnuls, R.S. (2010): Brazilian reptiles – List of species. Accessible at <http://www.sbherpetologia.org.br/>. Sociedade Brasileira de Herpetologia. Captured on 10 October 2010.
- Caramaschi, U., Feio, R.N., São-Pedro, V.A. (2008): A new species of *Leptodactylus* Fitzinger (Anura, Leptodactylidae) from Serra do Brigadeiro, State of Minas Gerais, Southeastern Brazil. *Zootaxa* **1861**: 44-54.
- Di-Bernardo, M. (1992): Revalidation of the genus *Echinanthera* Cope, 1894, and its conceptual amplification (Serpentes, Colubridae). *Comunic. Mus. Ciênc. Tecnol. PUCRS, Ser. Zool.* **5**: 225-256.
- Giaretta, A.A., Costa, H.M. (2007): A redescription of *Leptodactylus jolyi* Sazima and Bokermann (Anura, Leptodactylidae) and the recognition of a new closely related species. *Zootaxa* **1608**: 1-10.
- Marques, O.A.V., Eterovic, A., Sazima, I. (2001): Serpentes da Mata Atlântica. Guia ilustrado para a Serra do Mar. Holos Editora, Ribeirão Preto, Brasil, 184pp.
- Moura-Leite, J.C., Bérnuls, R.S., Morato, S.A.A., Langone, J.A. (2003): Diet. *Echinanthera cephalostriata* (NCN). *Herpetol. Rev.* **34**: 149.
- Pontes, J.A.L., Rocha, C.F.D. (2008): Serpentes da Serra do Mendanha, Rio de Janeiro, RJ, ecologia e conservação. Technical Books Editora Ltda, Rio de Janeiro, Brasil, 147pp.
- Ponssa, M.L. (2008): Cladistic analysis and osteological descriptions of the frog species in the *Leptodactylus fuscus* species group (Anura, Leptodactylidae). *J. Zool. Syst. Evol. Res.* **46**: 249-266.
- Rocha, C.F.D., Bergallo, H.G., Pombal Jr., J.P., Geise, L., Van Sluys, M., Fernandes, R., Caramaschi, U. (2004): Fauna de anfíbios, répteis e mamíferos do Estado do Rio de Janeiro, Sul do Brasil. Pub. Avul. Mus. Nac. **104**: 1-24.