



Figure 1. *Elaphe obsoleta spilodes* (Grey Rat Snake) displaying body-bending behaviour.

species and lineages of snake, and other terrestrial limbless vertebrates, is therefore necessary to measure this phylogenetic consistency. This observation was recorded whilst interning with the United States Fish and Wildlife Service at St Marks National Wildlife Refuge.

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REFERENCES

- Blouin-Demers, G. & Weatherhead, P.J. (2001). An experimental test of the link between foraging, habitat selection and thermoregulation in Black Rat Snakes *Elaphe obsoleta obsoleta*. *J. Anim. Ecol.* **70**, 1006-1013.
- Conant, R. & Collins, J.T. (1998). *A Field Guide to Reptiles and Amphibians. Eastern and Central North America*. Peterson Field Guides.
- Marques, O.A.V., Rodrigues, M.G. & Sazima, I (2006). Body bending: a cryptic defensive in arboreal snakes. *Herpetol. Bull.* **97**, 2-4.
- Weatherhead, P.J., Blouin-Demers, G. & Cavey, K.M. (2003). Seasonal and prey-size dietary patterns of Black Ratsnakes (*Elaphe obsoleta obsoleta*). *Amer. Midland Nat.* **150**, 275-281.

Submitted by: T. M. DOHERTY-BONE

4 Froghall Terrace, Old Aberdeen, Aberdeen, AB24 3JJ. tommy_dbone@yahoo.com

SCINAX ALTER (NCN): PREDATION. The Hylid *Scinax alter* (Lutz, 1973) is widely distributed on the Brazilian coastline, occurring in open areas from Bahia to Rio Grande do Sul, including Minas Gerais state (Silvano & Pimenta, 2001). It can be found calling on the vegetation near permanent, semi-permanent and temporary waterbodies (Izecksohn & Carvalho-e-Silva, 2001; Carvalho-e-Silva & Kwet, 2004). Although occurring in abundance along its distribution area, we are unaware of records of predation on *Scinax alter* (previous work reported this species as prey of invertebrates only [Marra et al., 2003]). On 1 February 2009, an adult female *Liophis miliaris* (550 mm snout-vent length [SVL]; 17-17-15 dorsal, 151 ventral and 56 subcaudal scales) was collected on a residential condominium located at Campos dos Goytacazes municipality, Rio de Janeiro state, Brazil (21° 47' 05" S, 41° 19' 12" W; elev. 13 m). The snake was killed by a local and consigned to one of us (CAFA) on 2 February 2009. By checking the stomach content, two anuran species were found: a juvenile *Leptodactylus ocellatus* (ca. 24 mm SVL: based on other specimens), mostly digested, with only the head, one leg and one arm intact; and an intact juvenile *Scinax alter* (19.5 mm SVL).

The water snake *Liophis miliaris* (Linnaeus, 1758) is a medium sized Xenodontine with a wide distribution, occurring from the Guianas to northeastern Argentina, being common in southeastern Brazil (Dixon, 1983; Dixon, 1989). This semiaquatic snake has diurnal and nocturnal activity (Sazima & Haddad, 1992), and inhabits moist areas, like swamps, lagoons, streams and even brackish water environments (Sazima & Haddad, 1992; Marques & Souza, 1997; Marques & Sazima, 2004). It is a generalist, actively foraging to find potential preys, like fish, amphibians and reptiles (Lema et al., 1983; Michaud & Dixon, 1989; Sazima & Haddad, 1992; Machado et al., 1998; Marques & Sazima, 2004; Bonfiglio & Lema, 2006; Braz et al., 2006; Lingnau & Di-Bernardo, 2006; Toledo et al., 2007), and also exhibits scavenger habits (Sazima & Strüssmann, 1990). Previous work reported *Leptodactylus ocellatus* (including its nests) as prey of *Liophis miliaris* (Lema et al., 1983; Michaud & Dixon, 1989; Lingnau & Di-Bernardo, 2006), but this note represents the

first case of predation on *Scinax alter*. Due to its habits, this anuran is an uncommon prey of *Liophis miliaris* and usually both species occur in syntopy. However, anurans are well cited as an important food resource for snake communities (Vitt, 1983; Vitt & Vangilder, 1983; Sazima & Haddad, 1992; Strüssmann & Sazima, 1993). The snake and the frogs are deposited in the herpetological collection of Museu de Zoologia João Moojen, Universidade Federal de Viçosa, at Viçosa municipality, Minas Gerais state, Brazil under the following register numbers: MZUFV 1680 (*Liophis miliaris*); MZUFV 9744 (*Scinax alter*) and MZUFV 9745 (*Leptodactylus ocellatus*). We thank Kátia Valevski Sales Fernandes for collecting the snake and Diego J. Santana for the assistance on frog identification.

REFERENCES

- Bonfiglio, F. & Lema, T. (2006). Ofiofagia em *Liophis miliaris* (Serpentes, Colubridae). *Biociências* **14** (2), 221-222.
- Braz, H.B.P. Lopes, P.H. Rocha, M.M.T. & Furtado, M.F.D. (2006). *Liophis miliaris* (Common water snake): Cannibalism. *Herp. Bull.* **97**, 36-37.
- Carvalho-e-Silva, S.P. & Kwet, A. (2004). *Scinax alter*. 2008 IUCN Red List of Threatened Species. <www.iucnredlist.org/details/55926>. (Accessed: 30 March 2009).
- Dixon, J.R. (1983). Taxonomic status of the south American Snakes *Liophis miliaris*, *L. amazonicus*, *L. chrysostomus*, *L. mossoroensis* and *L. purpurans* (Colubridae: Serpentes). *Copeia* **1983** (3), 791-802.
- Dixon, J.R. (1989). A key and checklist to the Neotropical snake genus *Liophis* with country lists and maps. *S. Herpetol. Inf. Serv.* **79**, 1-40.
- Izeckson, E. & Carvalho-e-Silva, S.P. (2001). *Anfibios do Município do Rio de Janeiro*. Rio de Janeiro: UFRJ, 148 pp.
- Lema, T. Araújo, M. L. & Azevedo, A. C. P. (1983). Contribuição ao conhecimento da alimentação e do modo alimentar de serpentes do Brasil. *Mus. Ci. Porto Alegre* **26**, 41-121.
- Lingau, R. & Di-Bernardo, M. (2006). Predation on foam nests of two Leptodactylid frogs by *Solenopsis* sp. (Hymenoptera, Formicidae) and *Liophis miliaris* (Serpentes, Colubridae). *Biociências* **14** (2), 223-224.
- Machado, R.A. Bernarde, P.S. & Morato, A.A. (1998). *Liophis miliaris* (Common Water Snake). *Prey. Herpetol. Rev.* **29** (1), 45.
- Marra, R.V. Hatano, F.H., Boquimpani-Freitas, L. Marques, R.V. Van Sluys, M. & Rocha, C.F.D. (2003). *Scinax altera* (NCN). Predation. *Herpetol. Rev.* **34** (1), 55.
- Marques, O.A.V. & Souza, V.C. (1997). Notas sobre a atividade alimentar de *Liophis miliaris* no ambiente marinho (Serpentes, Colubridae). *Rev. Bras. Biol.* **53** (4), 645-648.
- Marques, O.A.V. & Sazima, I. (2004). História natural dos répteis da estação ecológica Juréia-Itatins. In: *Estação Ecológica Juréia-Itatins: Ambiente Físico, Flora e Fauna*. pp. 257-277.
- Marques, O.A.V. & Duleba, W. (Eds.), *Holos*.
- Michaud, E. J. & Dixon, J. R. (1989). Prey items of 20 species of the neotropical Colubrid snake genus *Liophis*. *Herpetol. Rev.* **20** (2), 39-41.
- Sazima, I. & Strüssmann, C. (1990). Necrofagia em serpentes brasileiras: exemplos e previsões. *Rev. Bras. Biol.* **50** (2), 463-468.
- Sazima, I. & Haddad, C.F.B. (1992). Répteis da Serra do Japi: notas sobre história natural. In: *História Natural da Serra do Japi. Ecologia e preservação de Sudeste do Brasil*. pp. 212-237.
- Morellato, L.P.C. (Ed.), UNICAMP.
- Silvano, D.L. & Pimenta, B.V.S. (2001). Geog. dist. *Scinax alterus*. *Herpetol. Rev.* **32** (4), 272.
- Strüssmann, C. & Sazima, I. (1993). The snake assemblage of the pantanal at Poconé, western Brazil. *Stud. Neo. Fauna and Env.* **28**, 157-168.
- Toledo, L.F. Ribeiro, R.S. & Haddad, C.F.B. (2007). Anurans as prey: an exploratory analysis and size relationships between predators and their prey. *J. Zool.* **271**, 170-177.

CAIO ANTÔNIO FIGUEIREDO DE ANDRADE¹
and HENRIQUE CALDEIRA COSTA²

¹ *Lab. Ciências Ambientais, Universid. Estadual do Norte Fluminense Darcy Ribeiro, Ave. Alberto Lamego 2000, CEP 28013-602, Campos dos Goytacazes, RJ, Brazil.* caio.herpeto@gmail.com.

² *Mus. Zoologia João Moojen, Universid. Federal de Viçosa, Vila Giannetti 32, CEP 36570-000, Viçosa, MG, Brazil.*