

Tortato, M.A. (2007). Contribuição ao conhecimento de *Phrynops hilarii* (Duméril & Bibron, 1835) (Testudines, Chelidae) em área de restinga no Estado de Santa Catarina, Sul do Brasil. *Biotemas* **20** (1), 119-122.

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ELAPHE OBSOLETA SPILODES (Grey Rat Snake): BODY-BENDING BEHAVIOUR. The behaviour of “body-bending” in arboreal snakes has recently been described as a cryptic defensive behaviour by Marques et al. (2006). This behaviour consists of a snake, usually (but not necessarily) with arboreal affinities, going to ground level, spreading out along the ground with its body contorted into many small bends. Marques et al. (2006) proposed that such behaviour was a behavioural camouflage, imitating fallen vines, to prevent detection by predators such as birds or mammals, while at the same time enabling the snake to sit and wait for prey or to thermoregulate. This behaviour was recorded in two arboreal Colubrid snakes in south-eastern Brazil: *Philodyas viridissimus* and *Spilotes pullatus*. This observation was only preliminary, with the occurrence of this behavioural trait in other snakes and other limbless vertebrates unknown. Records of other species displaying body-bending would therefore be useful in testing the ecological and evolutionary significance of this behaviour.

Here, I describe an incidence of body bending in the Grey Rat Snake, *Elaphe obsoleta spilodes*. This animal was encountered in Wakulla County, northwest Florida on the 21 July 2003. The animal was observed outside an infrequently used bunkhouse, adjacent to hardwood hammock swamp forest on the edge of the St. Marks National Wildlife Refuge. This region has fairly low levels

of urbanization compared to other regions of the world, though there was a busy highway not far from this site. The animal was approximately 1 m long and was observed on a substrate of stone slabs that were part of a small patio. Its body was stretched out straight with over 20 bends in its body (Fig. 1). It is not known if this animal was basking or waiting to ambush prey. Anthropogenic influence is assumed to be negligible as this animal was discovered immediately after arrival in a jeep, assuming bending the body is not a spontaneous reflex for this species on the approach of a predator. This species is distributed throughout the Carolinian forest zone of eastern north America (forming five sub-species, Conant & Collins, 1998), and is renowned for its arboreal affinities, particularly for preying upon birds and squirrels nesting in trees (Weatherhead et al., 2003, references therein). This does not rule out terrestrial foraging being the cause of this behaviour, with terrestrial voles (*Microtus* sp.) and mice (*Peromyscus* sp., *Zapus* sp.) recorded from faecal samples of snakes captured in the north of this species’ range in Ontario, Canada (Weatherhead et al., 2003). Fig. 1 shows that this animal was not in direct sunlight, though the thermoregulatory state of the animal at the time is uncertain. Future encounters with snakes or other limbless vertebrates displaying such behaviour should take the opportunity to measure: the body temperature of the animal; the ambient temperature; the temperature of the specific microhabitat; the presence of potential prey; the presence of potential predators and monitoring of the animal to observe any interactions with predators or prey. Further investigations could take place to see if *Elaphe obsoleta spilodes* displays this behaviour frequently, and if so, could be a model species to test hypotheses on the significance of body bending. This is feasible based on research on the ecophysiology of this species in the field in Ontario, using temperature-sensitive radio-transmitters (Blouin-Demers & Weatherhead, 2001).

Body bending is recorded in another member of the family Colubridae, with the ecological causes for this behaviour still uncertain. Deciphering the phylogenetic consistency of this behavioural trait will be important in the assessment of the ecological and evolutionary significance of this strategy.



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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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