Predation of the lizard *Phyllopezus pollicaris* (Squamata, Phyllodactylidae) by the snake *Dryophylax phoenix* (Squamata, Dipsadidae)

José L. Vilanova-Júnior[1,2*], Francis L. S. Caldas[1,2], Arthur O. Cruz2; Gabriela S. Tupy[1,3]; Renato G. Faria[1,2]

1 Departamento de Biologia, Laboratório de Répteis e Anfíbios, Universidade Federal de Sergipe, 49100-000 São Cristovão, SE, Brazil.
2 Programa de Pós-Graduação em Ecologia e Conservação, Universidade Federal de Sergipe, 49100-000 São Cristóvão, SE, Brazil.
3 Programa de Pós-Graduação em Meio Ambiente e Desenvolvimento, Universidade Federal de Sergipe, 49100-000 São Cristóvão, SE, Brazil.

**Corresponding author: jlvilanovajunior@hotmail.com*
DOI: 10.5281/zenodo.10204902

Considering the importance of trophic ecology as one of the main axes of the niche, a better understanding of feeding habits is fundamental to clarifying questions related to the influence of ecological and historical factors on this trait in species and, more broadly, communities (Pianka, 1973). However, a recurrent problem concerning snakes is the general lack of data on the autoecology of these animals (Navega-Gonçalves & Porto, 2016).

The genus *Dryophylax* was revalidated from *Thamnodynastes* and currently comprises 15 species of snakes widely distributed throughout South America, of which 6 occur in Brazil (Trevine et al., 2022; Guedes et al., 2023). *Dryophylax* belongs to Thachymenini, which includes small to medium-sized viviparous snakes, rear-fanged, and with vertically elliptical pupils (Coelho et al., 2013; Trevine et al., 2022). *Dryophylax phoenix* (Franco et al., 2017) is a species of open formations widely distributed in the Caatinga ecoregion of northeaastern Brazil, and also occurs in the Cerrado ecoregion (Franco et al., 2017).

Phyllopezus pollicaris (Spix, 1825) is a Phyllodactylid lizard characterized

by predominantly nocturnal and saxicolous habits, and a diet composed of arthropods (Recoder et al., 2012; Gonçalves-Sousa et al., 2019). The species is currently under taxonomic revision, and recent molecular analyses have indicated cryptic diversity under the name *P. pollicaris* (Gamble et al., 2012; Cacciali et al., 2018). This species complex has a wide geographical distribution, occurring along the diagonal of open and dry vegetation of South America and can be found in varied environments such as the Chaco, Cerrado, Caatinga, and portions of the Atlantic Forest (Werneck et al., 2012).

Our study documents the predation of *P. pollicaris* by *D. phoenix*. The event was recorded on September 05, 2018, at 18:10h during a field course of the Graduate Program in Ecology and Conservation from the Federal University of Sergipe, in the surroundings of the headquarters of the Monumento Natural Grota do Angico (MONGA) (09°39′56″ S, 37°41′08″ W), Poço Redondo, Sergipe, Brazil.

An adult female *D. phoenix* measuring 346.83 mm snout-vent length (SVL), 76.46 mm tail length (TL) and 25.4 g weight was observed and photographed on the ground beside the MONGA laboratory, near a clump of *Encholirium spectabile* (Bromeliaceae). The snake was preying an adult *P. pollicaris* (10.9 g, 73.87 mm SVL, and 93.04 TL); lizard mass was 42.91% of the snake mass, and its total length was 48.4% of the snake SVL. The exact instant of capture was not recorded; at the moment of sighting, the snake bit the left side of the lizard's body, and then wrapped around it, beginning the constriction (Fig. 1).

Approximately five minutes after the initial observation, the snake released its prey, probably because of our movements, and tried to escape. A few minutes after the release, the *P. pollicaris* died, probably due to envenomation by the *D. phoenix*. Subsequently, the animals were collected (collection permit #14452-6 issued by SISBIO - Sistema de Autorização e Informação em Biodiversidade), the snake was euthanized with 2% lidocaine, and both were fixed in 10% formalin and preserved in 70% alcohol. The specimens were deposited in the Coleção Herpetológica da Universidade Federal de Sergipe: CHUFS C4841 (*P. pollicaris*) and CHUFS C4842 (*D. phoenix*).

We identified the snake as *D. phoenix* by the presence of 19 dorsal rows of smooth scales at midbody, 40–66 subcaudals (48 in CHUFS C4842), and its immaculate gular region (Fig. 2A-C) (Coelho et al. 2013; Franco, et al. 2017). The lizard was identified as *P. pollicaris* by its less evident dorsal spots, interrupted by a clear longitudinal middorsal line; larger snout tubercles (8–15),

and the presence of acicular scales that form an edge of spines that protect the ear (Fig. 2B-D) (Rodrigues, 1986). Although *D. phoenix* was described less than 10 years ago, some dietary information is already available, with reports of the consumption of frogs (Pergentino and Ribeiro, 2017) and lizards (Almeida *et al.*, 2023; Uchôa *et al.*, 2023), as well as cannibalism (Morais *et al.*, 2020). This is the first report of a gecko (*P. pollicaris*) in the diet of this snake species.

ACKNOWLEDGMENTS

We thank the Federal University of Sergipe and Graduate Program in Ecology and Conservation for their support and logistics. We thank Capes (Coordenação de Aperfeiçoamento de Pessoal de Nível Superior) for the MSc and/or Dr stipends to AOC, GST and JLV-J. We thank CNPq (Conselho Nacional de Desenvolvimento Científico e Tecnológico) for the post-doctoral financial support (nº 150827/2018-0 and nº 150063/2022-9).

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Editor: Henrique C. Costa

Legends of Tables and Figures

Table 1. Morphometry (mm) and mass (g) of *D. phoenix* and *P. pollicaris* from the Monumento Natural Grota do Angico, Poço Redondo, Sergipe, Brazil. SVL = Snout-vent length, TL = Tail length, TW = Tail width, HW = Head width, OW = Ocular width, NW = Nasal width, OND = Ocular-nasal distance, HL = Head length, SLD = Snout-labial distance, VSD = Ventral-sinfsal distance, BW = Body width, BH = Body height, HH = Head height, FLL = Forelimb length and HLL = Hind limb length.

	SVL	**HL**	**HW**	**OW**	**NW**	**OND**	**VSD**	**SLD**	**TL**	**TW**	**Mass (g)**
D. phoenix	346.83	18.77	9.93	4.99	3.22	4.31	12.29	13.23	76.46	5.3	25.4
	SVL	**BW**	**BH**	**HL**	**HH**	**HW**	**FLL**	**HLL**	**TL**		**Mass (g)**
P. pollicaris	73.87	14.10	7.61	20.00	5.97	13.02	12.16	18.77	9.04		10.9



Figure 1. *Dryophylax phoenix* preying on the lizard *Phyllopezus pollicaris* on 05 September 2018 in Monumento Natural Grota do Angico, Poço Redondo, Sergipe, Brazil.

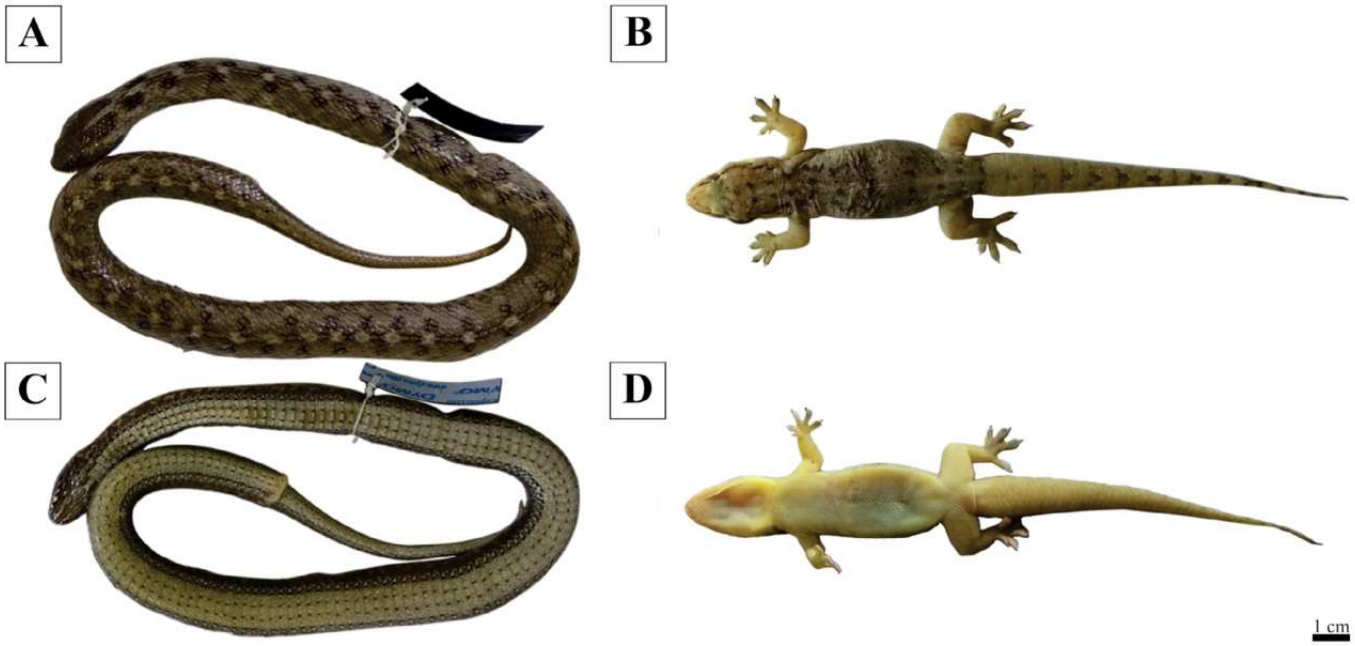

Figure 2. Dorsal (A, B) and ventral (C, D) views of collected specimens of *Dryophylax phoenix* and *Phyllopezus pollicaris*.