

Defensive behavior and predation on *Placosoma glabellum* (Peters, 1870) (Squamata: Gymnophthalmidae)

Edelcio Muscat¹, Omar Machado Entiauspe-Neto² & Daniel Loebmann²

¹ Projeto Dacnis. Estrada do Rio Escuro, 4954, Ubatuba, 11680-000, São Paulo, Brazil. Email: edelciomuscat@terra.com.br

² Universidade Federal do Rio Grande, Instituto de Ciências Biológicas, Laboratório de Vertebrados. Avenida Itália, km 8, CEP: 96203-900, Vila Carreiros, Rio Grande, Rio Grande do Sul, Brazil.

Placosoma glabellum (Peters, 1870) occurs in the Atlantic Forest of Southeastern and Southern Brazil, from Rio de Janeiro to Santa Catarina, and is characterized by rounded posterior margins of the ventral scales, absence of keels or extremely short keels on the dorsals, four enlarged dorsal scales between the granular areas of the arm insertions and the anterior border of the tympanum with a reflexed ridge of granules (Uzzell Jr., 1959).

Behavioral ecology is poorly known in gymnophthalmid lizards. Regarding predatory records they have been reported as being consumed by colubrid snakes (Prudente *et al.*, 1998) and leptoactylid frogs (Couto & Menin, 2014). Thanatosis, also

called death-feigning, has been reported for different families of lizards, including Anelytropsidae (Torres-Cervantes *et al.*, 2004), Crotaphytidae (Gluesing 1983), Liolaemidae (Rocha 1993, Santos *et al.*, 2010), Scincidae (Langkilde *et al.*, 2003), and Tropiduridae (e.g. Galdino & Pereira 2002, Gomes *et al.*, 2004, Bertoluci *et al.*, 2006). In this work, we report a novel defensive behavior (thanatosis) for *P. glabellum* and a predation event involving *Siphlophis pulcher* (Raddi, 1820) in the Dacnis Nature Reserve, Municipality of Ubatuba, Atlantic Forest of Southeastern Brazil.

On 26 March 2016, at 09h30, a small specimen of *P. glabellum* was captured in the Dacnis Project (23° 27.772' S 45°



Figure 1. Regurgitated specimen of *P. glabellum*, preyed by *S. pulcher* (A-B); specimen of *P. glabellum* in thanatosis (C-D).

7.989' W, 36 m asl, WGS-84), Municipality of Ubatuba, state of São Paulo, Brazil. The individual was found inside a residence. Once it was captured, the specimen remained still, until the moment it was released back on the leaf litter, when it turned its venter up, closed its eyelids and maintained this posture for approximately 60 seconds. After we attempted to touch it again, the specimen fled under the substrate (Fig. 1).

In another occasion, in 13 January 2016, at 22h00, a juvenile *Siphophis pulcher* (TTL = 43 cm) was observed at 1.5 m above the ground, in a *Euterpe edulis* palm tree, in the Atlantic Forest near Ubatuba (23° 27.439'S 45° 8.781'W, 32 m asl, WGS-84), São Paulo, Brazil. After capture for measurement, the individual was released at its collection site, where it regurgitated a partially digested specimen of *Placosoma glabellum* (Fig. 2).

Prudente *et al.* (1998), reported a specimen of *Placosoma* sp. and another unidentified gymnophthalmid lizard in their analysis of stomach contents of *S. pulcher*. Our specimen represents the first predation of *S. pulcher* on *P. glabellum*.

ACKNOWLEDGEMENTS

We thank the Project Dacnis for support. Alex Mariano and Rafael Menegucci for their contributions in fieldwork.

REFERENCES

- BERTOLUCCI, J., CASSIMIRO, J. & RODRIGUES, M.T. 2006. Tropiciduridae (Tropicidurid Lizards). Death-feigning. *Herpetological Review*, 37(4):472-473.
- COUTO, A.P. & MENIN, M. 2014. Predation on the lizard *Alopoglossus angulatus* (Squamata: Gymnophthalmidae) by the Smoky Jungle Frog, *Leptodactylus pentadactylus* (Anura: Leptodactylidae) in Central Amazonia. *Herpetology Notes*, 7: 37-39.
- GALDINO, C.A.B. & PEREIRA, E.G. 2002. *Tropicidurus nanuzae* (NCN). Death feigning. *Herpetological Review*, 33(1):54.
- GLUESING, E.A. 1983. Collared lizard predation: the effects of conspicuous morphology and movement. *Copeia* 1983(3):835-837.
- GOMES, F.R., KOHLSDORF, T., NAVAS, C.A. 2004. Death-feigning in *Eurolophosaurus divaricatus*: temperature and habituation effects. *Amphibia-Reptilia*. 25(3):321-325.
- LANGKILDE, T., SCHWARZKOPF, L. & ALFORD, R. 2003. An ethogram for adult male rainbow skinks, *Carlia jarnoldae*. *Herpetol. J.* 13(3):141-148.
- ROCHA, C.F. 1993. The set of defense mechanisms in a tropical sand lizard (*Liolaemus lutzae*) of southeastern Brazil. *Ciência e Cultura*, SBPC 45:116-122.
- SANTOS, M.B., OLIVEIRA, M.C.L.M., VERRASTRO, L. & TOZETTI, A.M. 2010. Playing dead to stay alive: death feigning in *Liolaemus occipitalis* (Squamata: Liolaemidae). *Biota Neotropica*, 10(4): www.biotaneotropica.org.br/v10n4/en/abstract?short-communication+bn03110042010.
- TORRES-CERVANTES, R.J., HERNANDEZ-IBARRA, X. & RAMIREZ BAUTISTA, A. 2004. *Anelytropsis papillosus* (Mexican blind lizard). Death feigning and autotomy. *Herpetological Review*, 35(4):384.



Allobates aff. *brunneus*, Canaã dos Carajás, PA. Foto: Rodrigo Tinoco.