

# *Tropidophis paucisquamis* (Müller in Schenkel, 1901) (Reptilia, Squamata, Tropidophiidae): notes on natural history and gap-filling record for lowland Atlantic Forest in Ubatuba, state of São Paulo, Brazil

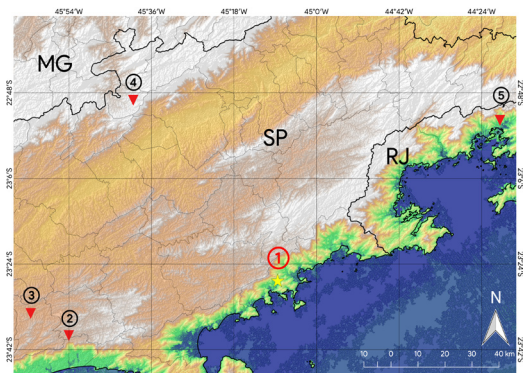
Rafael M. Tanaka<sup>1</sup>, Elsie Laura Rotenberg<sup>1</sup> and Edélcio Muscat<sup>1,\*</sup>

*Tropidophis* is a snake genus commonly known as “dwarf boa”. The distribution comprises the Caribbean and South America (Curcio et al., 2012). They have nocturnal habits, spending their daytime hidden under the leaf-litter or in bromeliads (Carvalho, 1951). This taxon is composed of small to medium-sized viviparous snakes (Carvalho, 1951). *Tropidophis* species feed mostly on small frogs (Antunes and Haddad, 2009) and have defensive mechanisms including coiling into a ball (Greene, 2000; Antunes and Haddad, 2009) and exuding blood (Greene, 2000; Torres et al., 2013; Iturriaga, 2014).

*Tropidophis paucisquamis* is endemic to Brazil, occurring in the states of Espírito Santo, Rio de Janeiro, São Paulo, and Paraná (Curcio et al., 2012; Capela et al., 2017); it is strongly associated with Serra do Mar and Serra da Mantiqueira mountain chains (Curcio et al., 2012). The species was diagnosed mainly by its dorsum background colour that varies from grey to tan with irregularly shaped body spots that vary from light to dark brown and cream coloured ventral background and dark brown ventral spots (Curcio et al., 2012). Enlarged vertebral scales were also observed in the individual in question, which is a key feature that distinguishes *T. paucisquamis* from all of its mainland congeners (Curcio et al., 2012). Due to its arboreal and nocturnal habits, *T. paucisquamis* is rare in herpetological surveys (Barbo et al., 2011). The majority of its occurrences are

associated with high elevation regions, with very few records in lowland areas (see Curcio et al., 2012).

In a routine nocturnal monitoring at the Projeto Dacnis private reserve, municipality of Ubatuba, state of São Paulo, we found an individual of *T. paucisquamis* lying on a leaf of Marantaceae plant, 30 centimetres high ( $-23.4573^{\circ}$ ,  $-45.1462^{\circ}$ ; WGS84) (Figures 1 and 2). The altitude was 32 meters (a.s.l.). There was a stream approximately 10 meters from the individual. The site was mainly composed of arboreal stratum. The specimen had approximately 25 centimetres of total length. We also observed body coiling behaviour when manipulated (Figure 1). The snake released some fetid



**Figure 2.** Records of *Tropidophis paucisquamis* in the following municipalities of São Paulo: (1) Ubatuba, 32m a.s.l. – present work (star), (2) Salesópolis, 850m a.s.l., (3) Biritiba-mirim, 780m a.s.l., and (4) Santo Antônio do Pinhal, 1070m a.s.l.; Rio de Janeiro: (5) Angra dos Reis, Floresta Ariró, ~65m a.s.l. MG = state of Minas Gerais; SP = state of São Paulo; RJ = state of Rio de Janeiro.

<sup>1</sup> Projeto Dacnis. Estrada do Rio Escuro 4754, Sertão das Cotias, CEP 11680-000, Ubatuba, SP – Brazil.

\* Corresponding author. E-mail: edelciomuscat@terra.com.br



**Figure 1.** (A) *Tropidophis paucisquamis* found on a leaf of Marantaceae. (B) Same individual exhibiting defensive behaviour. Note the body coiling and hiding of the head in (B). Specimen with approximately 25 centimetres of total length.

smell, probably caused by cloacal discharge prior our handling, corroborating the findings by Antunes and Haddad (2009).

We plot on a map (Figure 2) the known distribution of *T. paucisquamis* for the region around the reserve based on the data given by Carvalho (1951) and Curcio *et al.* (2012). Our record fills a gap between the municipalities of Santo André, Salesópolis, and Santo Antônio do Pinhal in the state of São Paulo, and the municipality of Angra dos Reis in the state of Rio de Janeiro (Figure 2).

According to Curcio *et al.* (2012), the currently known altitudinal range of *T. paucisquamis* varies from 500 to 1261 m. In this sense, our record is a relatively great increase for the known altitudinal range of this species (now: 32–1261 m a.s.l.). Nonetheless, Carvalho (1951) recorded the species in a locality called Floresta, Ariró, municipality of Angra dos Reis, state of Rio de Janeiro. Although this locality mostly comprises lowlands, Carvalho (1951) did not provide coordinates or altitude data. Therefore, the present record is the first one that precisely establishes lowlands for the range of *T. paucisquamis*.

**Acknowledgements.** We would like to thank Alex Mariano for his always helpful support in the field, Dr. Giuseppe Porto, Curator of the Instituto Butantan Herpetological Collection, Dr. Paulo Passos, Curator of the Museu Nacional Reptile Collection, for providing us with voucher numbers and additional data. Our gratitude also goes to Dr. Ivan Sazima and Dr. Otávio Marques, who helped us with the species identification, and Lucas Maure, whose help was very valuable during the map elaboration.

## References

- Antunes, A.P., Haddad, C.F.B. (2009): *Tropidophis paucisquamis* (Brazilian Dwarf Boa). Diet and caudal luring. *Herpetological Review* **40**(1):104.
- Barbo, R.V., Marques O.A.V., Sawaya, R.J. (2011): Diversity, Natural History, and Distribution of Snakes in the Municipality of São Paulo. *South American Journal of Herpetology* **6**(3): 135–160.
- Capela, D.J.V., Morato S.A.A., Moura-leite J.C., Prado F., Borges G. O., Camilo L.H.A. (2017): *Tropidophis paucisquamis* (Müller *in* Schenkel, 1901) (Serpentes, Tropidophiidae): first record from Paraná state and Southern Brazil. *Check List* **13**(6): 917–920.
- Carvalho, A.L. (1951): Observações sobre *Tropidophis paucisquamis* (Müller, 1901). *Revista Brasileira de Biologia* **11**: 239–248.
- Curcio, F.F., Nunes, P.M.S., Argolo, A.J.S., Skuk G., Rodrigues, M.T. (2012): Taxonomy of the South American dwarf boas of the genus *Tropidophis* bibron, 1840, with the description of two new species from the Atlantic Forest (Serpentes: Tropidophiidae). *Herpetological Monographs* **26**(1): 80–121.
- Greene, H.W. (2000): *Snakes: The Evolution of Mystery in Nature*. University of California Press, Berkeley.
- Iturriaga, M. (2014): Autohemorrhaging behavior in the Cuban Dwarf Boa *Tropidophis melanurus* Schlegel, 1837 (Serpentes: Tropidophiidae). *Herpetology Notes* **7**: 339–341
- Torres J., Torres, O.J., Marrero, R. (2013): Autohemorrhage in *Tropidophis xanthogaster* (Serpentes: Tropidophiidae) from Guanahacabibes, Cuba. *Herpetology Notes* **6**: 579–581.