

NOTE**RE-ENCOUNTER OF AN *HOMONOTA URUGUAYENSIS* SPECIMEN (VAZ-FERREIRA & SIERRA DE SORIANO, 1961) (SQUAMATA: PHYLLODACTYLIDAE) WITH TAIL BIFURCATION AND FIRST RECORD IN THE STATE OF RIO GRANDE DO SUL, BRAZIL****Arthur Diesel Abegg¹, Conrado Mario da Rosa¹, Leandro Malta Borges¹
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ABSTRACT

We notify the finding of a *Homonota uruguayensis* specimen with a forked tail after 49 years; the fourth record the species. It is the first report of this occurrence for this species in Brazil, being the northernmost record to date. The tail fork does not seem to significantly affect the basic behavioral actions of *H. uruguayensis*.

Keywords: *Homonota uruguayensis*, Rio Grande do Sul, tail bifurcation.

RESUMEN

Reencuentro de un espécimen de *Homonota uruguayensis* con bifurcación caudal y primer registro para el estado del Rio Grande do sul, Brasil. Notificamos el encuentro de un ejemplar de *Homonota uruguayensis* con bifurcación caudal después de 49 años. Es el cuarto registro para la especie. Es el primer reporte de esta anomalía en esta especie para Brasil, y consiste en el registro más al norte hasta la fecha. La bifurcación caudal no parece afectar significativamente las acciones básicas de comportamiento en *H. uruguayensis*.

Palabras clave: *Homonota uruguayensis*, Rio Grande do Sul, bifurcación caudal.

The Phyllodactylidae family comprises 10 genera and approximately 134 small lizard species that previously belonged to Gekkonidae, which range from North America to South America, Africa and the Middle-east (Gamble *et al.*, 2008; Uetz, 2014). The *Homonota uruguayensis* species is geographically distributed in open areas in the largest portion of the Uruguayan territory and in western Rio Grande do Sul, Brazil, in a hill region of the Serra Geral mountain range (Carreira *et al.*, 2005). The species inhabits only rocky outcrops from Pampa Biome. In Rio Grande do Sul, the area of occurrence is very low, being approximately

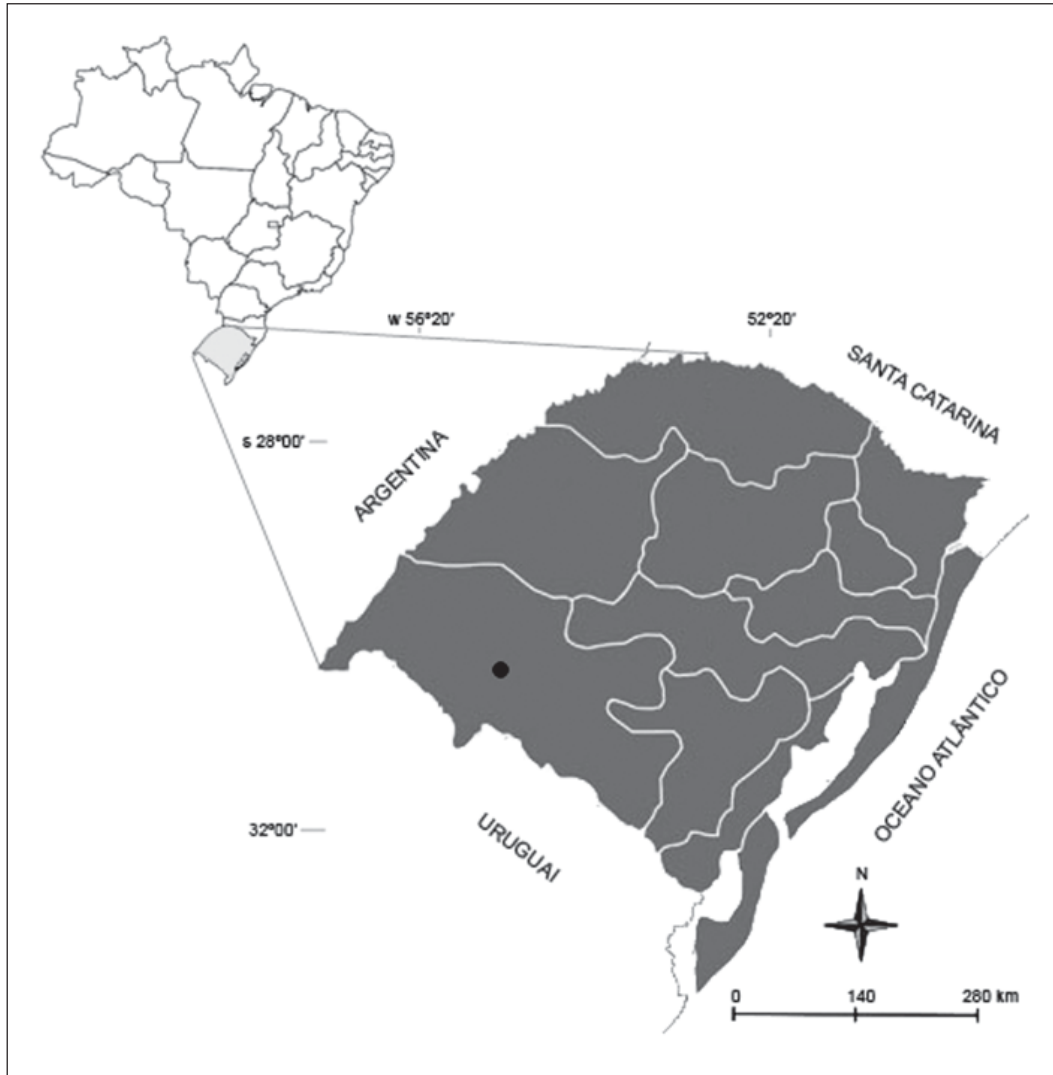


Fig.1. Map of the state of Rio Grande do Sul, divided by fisiographic regions. In highlight, the point of sight of the *H. uruguayensis* specimen with tail bifurcation (black circle).

14.600Km². In areas occupied by *H. uruguayensis* is possible the observation of very large populations, therefore, is a common species locally. However, the analysis of the general framework for conservation of the species in the state, *H. uruguayensis* is categorized as



Fig. 2. *H. uruguayensis* specimen exhibiting a bifurcate tail, in the city of Rosário do Sul, western region of the state of Rio Grande do Sul.

Near Threatened (NT) (Bencke *et al.*, 2013). This status was defined by the constant changes in the areas of occurrence of the species due to monoculture and cattle, added to the restricted occupation, high habitat specificity and the possible genetic isolation of populations (Felappi, 2012; Bencke *et al.*, 2013).

The “geko de las piedras”, *H. uruguayensis*, can reach up to 50 mm of snout-vent length, it has oviparous reproduction with community attitudes; diurnal and nocturnal activities, it lives under rocks and feeds off arthropods, mainly Araneae, Hymenoptera and Coleoptera (Achaval & Olmos, 1997; Carreira *et al.*, 2005). In contact with natural predators or human observers the *H. uruguayensis* can engage in defensive behavior, flee and search for shelter, make use of vocalizations (Carreira & Maneyro, 2013) and also –with relative frequency– make undulating movements with the tail, which can easily detach itself from the body. The

caudal autotomy seems to be the main defense of this gecko species; in some populations, the rate of specimens with such appendix regenerated can be greater than 90% (Vaz-Ferreira & Sierra-de-Soriano, 1965).

In July 20th, 2014, in the city of Rosário do Sul (30°21'15.9"S 55°12'11.5"W), western region of Rio Grande do Sul (Fig. 1), we observed a *H. uruguayensis* specimen with the posterior part of its tail forked (Fig. 2). The specimen was probably resting, hiding under rocks and moved quickly when the rocks were rolled. The specimen was captured, photographed and released where it was found. Length and weight measures were not taken, but the specimen was clearly an adult. Although the tail plays an important role in lizards' locomotion balancing the body during movement (Ballinger, 1973), according our superficial observation, the specimen showed no nutritional weakness or locomotor impairment, seeming well fed and moving with speed between the rocks, the same way normal tailed specimens do.

The forked tail in lizards is the result of an incomplete autotomy with the formation of a supernumerary tail in the exposed region (Lema, 1962). This condition is presently well known, with reports even in neotropical lizards (Passos *et al.*, 2014). Vrcibradic & Niemeyer (2013), after analysing more than 320 specimens of two different species (*Mabuya frenata* and *Mabuya macrorhyncha*) found that the rate of forked tails does not exceed 2% in both species, which this could suggesting a rare condition for wild lizards. This caudal regeneration anomaly seems very uncommon in the *H. uruguayensis* species, with only three literary records in almost 50 years, which do not specify the locations of such records, but were most likely reported in Uruguay (Vaz-Ferreira & Sierra-de-Soriano, 1965). In the same hill region of Rosário do Sul, along two years of field works, more than 1,000 specimens of this species were observed, and this was the only record of a bifurcate tail. This record is the first to present a forked tail in Rio Grande do Sul and is the northernmost forked tail occurrence in this species known in its geographical range.

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