

## On the type locality of *Atractus paraguayensis* Werner, 1924 (Serpentes: Dipsadidae)

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### ABSTRACT

*Atractus paraguayensis* is a medium-sized snake distributed in northern Argentina, south-eastern Brazil and central and south of Paraguay. There is no precise locality of the type locality of this species, however this subject has been discussed in several works. In this contribution, we performed a historical investigation to restrict the type locality of *A. paraguayensis* to the locality Bernal Cué, which also affect to the type locality of other snakes described from Paraguay.

Key Words: Dipsadidae; Paraguay; South America.

*Atractus paraguayensis* is a medium-sized snake distributed in northern Argentina, south-eastern Brazil and central and south of Paraguay (Passos *et al.*, 2010, Cacciali *et al.*, 2016). The species was described by Werner (1924) based on a single specimen (NMW 23443) from Paraguay, and as the author itself recognized the lack of more precise locality data (page 29), which was a common fact for taxonomic descriptions in the early 20<sup>th</sup> century. The only reference related to the origin of the specimen provided in the original description is “Heimat: Paraguay (leg. Wieninger)” [Translation: “Homeland: Paraguay (legated by Wieninger)”. *Atractus paraguayensis* was considered a subspecies of *Atractus reticulatus* by Amaral (1930) and revalidated latter by Fernandes (1996) mainly by differences in pholidosis and coloration. In a posterior work Vanzolini (2000) proposed again the synonymy of *A. paraguayensis* with *A. reticulatus* without any justification and suggested that the locality where Wieninger collected the holotype of *A. paraguayensis* was near the city of Asunción, capital of Paraguay. Nevertheless there is no actual evidence that the specimen came from that locality. In this contribution, we performed a historical investigation to restrict the type locality of *A. paraguayensis*.

In this brief historical account, it is worth to mention that Asunción was (and still is) the principal harbour for the country during 1800 and beginnings of 1900 when several expeditions took place along the Paraguay River, which divides the country in two,

using “Asunción” as a reference locality (Cacciali *et al.*, 2016: Table 1). For many expeditions the local people helped collecting specimens in Paraguay, as stated by Page (1859), in his expedition’s journal. The expedition of George Wieninger (referred as the collector of the holotype of *A. paraguayensis*) took place around 1903 (Cacciali *et al.*, 2016), and two papers were published: Steindachner (1903) and Werner (1924). In both papers the authors reported and described specimens collected within this expedition.

Steindachner (1903) described *Epicrates wieningeri*, currently a synonym of *Eunectes notaeus* Cope, 1862, and *Leptognathus intermedia*, now a synonym of *Sibynomorphus ventrimaculatus* Boulenger, 1885 also from Paraguay, indicating as collector/donor Mr. Wieninger, and according to Werner (1924), the specimen used for the description, was legated by “Wieninger”. Based on historical references, Herr Georg Wieninger (1859–1925) was an important farmer (Blauensteiner, 1937) and he founded an agricultural and chemical experimental station in Austria to improve animal and plant production (True and Crosby 1902). We found information that in the beginning of the 1890, Wieninger bought a property with coffee plantations in Bernal Cué, San Bernardino, and his local manager in Paraguay, Carlos Frischeisen, sent him numerous of preserved specimens (Plass, 2015).

Since the description of *Atractus paraguayensis*, we only found specimens of this species in

Cordillera Department, precisely in two localities. One in the city of San Bernardino (Cabral and Weiler, 2014), and in the city of Altos (catalog number IIBP-H 3501, Colección Herpetológica del Instituto de Investigación Biológica del Paraguay). In Altos we reported a few specimens of this species, and seems to be very common there (Hugo del Castillo, pers. com.), although the species in Paraguay is distributed also in the Department of San Pedro and Ñeembucú (Cacciali *et al.*, 2016). As we can see, all the specimens described by Steindachner (1903) from Wieninger's collection are from the city of Altos, Cordillera Department.

Here we provide precise locality about the type locality of *Atractus paraguayensis*, being the locality Bernal Cué (25°16'19.16"S; 57°15'24.83"W); the place is located between the cities of San Bernardino and Altos, in the district of Altos. Probably, Werner was mistaken when he wrote the article or was a label mistaken, often common in those years, from the material sent by Carlos Frischeisen. This change also affects the type locality of *Lygophis meridionalis* (Schenkel, 1901), because Cacciali and Wüest (2009) reported that the type locality is Cerrito, in the department of Presidente Hayes, when the locality corresponds to Bernal Cué; the same to *Paroxyrhopus reticulatus* Schenkel, 1901, currently *Xenopholis undulatus* (Jensen, 1900) and *Philodryas ternetzii* Schenkel, 1901, currently *Philodryas mattogrossensis* Koslowsky, 1898.

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