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Figure 1.
The collected specimen of *Erythrolamprus macrosomus* at the locality of Chaquisacha, Cochabamba, Bolivia (MHNC-R 3144). (A) General view; (B) Lateral view of head; (C) Ventral view of body.

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Research Article

First formal evidence and distribution extension of *Erythrolamprus macrosomus* (Amaral, 1936) (Serpentes: Dipsadidae) in Bolivia

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Abstract.

Erythrolamprus macrosomus (Amaral, 1936) is a snake recently revalidated to the species level, with a known distribution in Argentina, Brazil and Paraguay. We discovered a single specimen in Bolivia from the Department of Cochabamba, that corroborates this species in the country and extends its distribution westward.

KEYWORDS: CARRASCO NATIONAL PARK, COCHABAMBA, HUMID MONTANE FOREST, NEW COUNTRY RECORD, RANGE EXTENSION, SNAKES, XENODONTINI.

Introduction

The genus *Erythrolamprus* Boie 1826 is one of the groups of snakes with the most diversity, currently 55 species are recognised from Central and South America (Wallach et al., 2014; Murphy et al., 2019; Entiauspe-Neto et al., 2021; Uetz et al., 2022), and inhabiting a wide range of environments from humid forests to xerophytic regions. In Bolivia, this genus is represented by 15 confirmed species: *E. aesculapii* (Linnaeus, 1758), *E. albertguentheri* (Peracca, 1897), *E. almadensis* (Wagler, 1824), *E. andinus* (Dixon, 1983), *E. breviceps* (Cope, 1860), *E. ceii* (Dixon, 1991),

E. dorsocorallinus (Esqueda, Natera, La Marca & Ilija-Fistar, 2007), *E. jaegeri* (Günther, 1858), *E. miliaris* (Linnaeus, 1758), *E. poecilogyrus* (Wied-Neuwied, 1825), *E. reginae* (Linnaeus, 1758), *E. sagittifer* (Jan, 1863), *E. taeniogaster* (Jan, 1863), *E. taeniurus* (Tschudi, 1845) and *E. typhlus* (Linnaeus, 1758) (Wallach et al., 2014; Ascenso et al., 2019; Nogueira et al., 2019; Reichle, 2019; Uetz et al., 2022). The biology and distribution of this group of snakes in Bolivia are poorly known.



Figure 2.
Habitat of *Erythrolamprus macrosomus* - near of
Chaquisacha, Cochabamba, Bolivia.

Results

Erythrolamprus macrosomus (Amaral, 1936) is a medium sized snake recently revalidated to the species level by Ascenso et al. (2019), distributed in the Atlantic Forest, Cerrado, Humid Chaco, and Yungas from Argentina, Brazil, and Paraguay (Cei, 1993; Giraudo, 2001; Cacciali et al., 2016; Ascenso et al., 2019; Burgos et al., 2020).

During a field trip on October 22, 2021 at 19:00 hours, a snake (Figure 1) was found dead and collected on an unpaved road (Figure 2) adjacent to a mature secondary mountain forest near Chaquisacha (17°23'58.06"S; 65°15'48.37"O, 1480 above sea level; Figure 3), Carrasco National Park, Cochabamba, Bolivia. The specimen was deposited in the herpetological collection of the Museo de Historia Natural Alcide d'Orbigny (MHNC-R 3144). The identity of the specimen was confirmed using the works of Amaral (1936), Dixon (1983), Giraudo (2001), and Ascenso et al., (2019) and exhibited characters that confirm its identity as a female *Erythrolamprus macrosomus*, with characters recorded as follows: (1) dorsal scale rows combination 17/17/15; (2) apical pit present but inconspicuous; (3) ventrals 140; (4) subcaudals 65; (5) coloration of the cephalic region olive-green head with an inverted chevron-shaped collar in the post parietal region; (6) upper edges of supralabials with the same color of the head; (7) cream-colored belly with rectangular black spots; (8) lateral black lines present in the last third of the body and up to the tail; (9) ventral surface of tail yellowish cream color; (10) body size 375 mm SVL; and (11) tail 125 mm.

Previously, the distribution of *E. macrosomus* in South America comprised only Argentina, Brazil, and Paraguay (Cei, 1993; Cacciali et al., 2016; Ascenso et al., 2019; Nogueira et al., 2019; Entiauspe-Neto et al., 2021; Uetz et al., 2022). Dixon (1983: 137) cited one specimen from Bolivia (Chamblaya, BMNH 1902.5.29.96) as an intermediate between *E. reginae macrosomus* and *E. r. semilineatus*. This last subspecies was synonymized with *E. reginae reginae* by Ascenso et al., (2019). Leynaud & Bucher (1999) and Giraudo (2001) restricted the distribution of the populations of *E. macrosomus* to Bolivia in the Chaco region through the Departments of Santa Cruz, Sucre, and Tarija, however without citing any new evidence for this species occurrence in Bolivia. With this information, and the new specimen reported here, we confirm the presence of the species in Bolivia in the montane humid forest for the Department of Cochabamba (Figure 2).

Erythrolamprus macrosomus has been cited as a species present in Bolivia, however, to date, no

specimen from Bolivia has been deposited in any herpetological collection. This report extends its distribution 601 km westwards (Figure 3) from the nearest record from Río Pescado, Salta Province, Argentina (Arzamendia, 2016, Burgos et al., 2020). This record also confirms that the species inhabits the humid forests (Yungas) of Bolivia. This type of forests is of great importance since it acts as a 'green corridor's allowing the dispersion of this species towards the southernmost habitats of South America. Its occurrence is now confirmed in the Yungas, Atlantic Forest, flooded gallery forests, and in the wetlands of the Chaco Province in Argentina and Paraguay (Arzamendia, 2016, Cacciali et al., 2016; Nogueira et al., 2019).

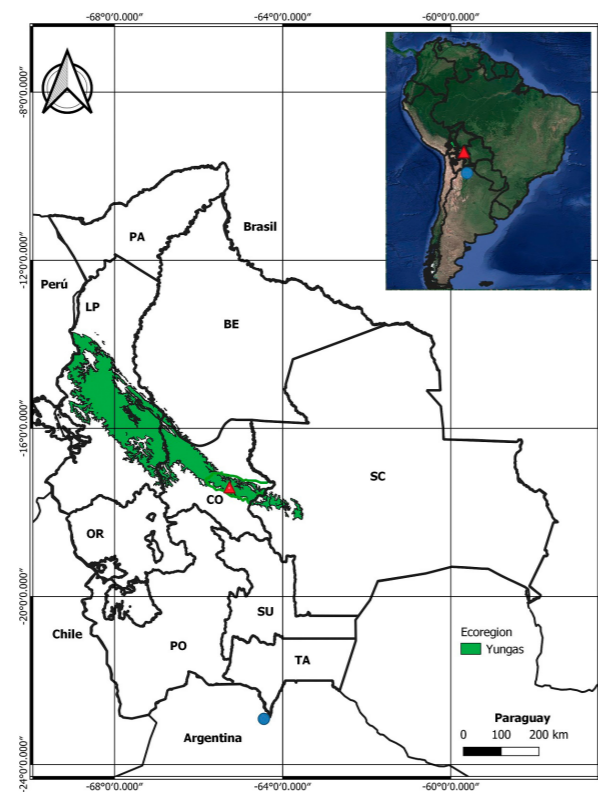


Figure 3. Distribution map of *Erythrolamprus macrosomus* in Bolivia. Red triangle: new record; blue circle: nearest record to Bolivia (Arzamendia, 2016). The Yungas ecoregion according to Ibish & Mérida (2003).

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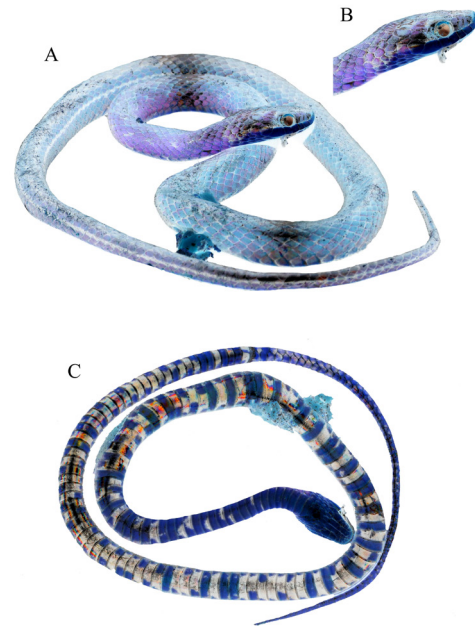
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Front cover image

The collected specimen of *Erythrolamprus macrosomus* at the locality of
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