



A new lizard of the *Phymaturus* genus (Squamata: Liolaemidae) from Sierra Grande, northeastern Patagonia, Argentina

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Abstract

A new species of lizard of the saxicolous and viviparous genus *Phymaturus* from Patagonia is described. The new species is a member of the *Phymaturus patagonicus* species group distributed on volcanic plateaus, mountains or rocky outcrops of southern Argentina. *Phymaturus yachanana* **sp. nov.** differs from the other members of the *patagonicus* group by a dorsal pattern of small and medium-sized white spots on a brown background, the number of scales around the midbody, genetic differences in mitochondrial and nuclear markers, and allopatric geographic distribution in an isolated group of hills. As other species of the group, the new species is viviparous and herbivorous.

Key words: Argentina, Iguanidae *sensu lato*, Liolaemini, *patagonicus* group, *Phymaturus yachanana* **sp. nov.**, Río Negro

Resumen

Se describe una nueva especie de lagartija saxicolosa y vivípara del género *Phymaturus*. La especie nueva es miembro del grupo de especies *Phymaturus patagonicus* distribuido solamente en mesetas y montañas volcánicas del sur de Argentina. *Phymaturus yachanana* **sp. nov.** difiere de los otros miembros del grupo *patagonicus* por su patrón dorsal único de pequeñas y medianas manchas blancas sobre un fondo marrón, el número de escamas alrededor del cuerpo, diferencias genéticas en marcadores mitocondriales y nucleares, y por su distribución geográfica alopatrica en un conjunto aislado de colinas. Como otras especies del grupo, la nueva especie es vivípara y herbívora.

Palabras claves: Argentina, Iguanidae *sensu lato*, Liolaemini, grupo *patagonicus*; *Phymaturus yachanana* **sp. nov.**, Río Negro

Introduction

A remarkable component of the northern Patagonian herpetofauna is the *Phymaturus* genus, a saxicolous clade of lizards morphologically characterized by having a flat body and a spiny tail. Members of this genus are typical inhabitants of rocky regions of the Andes and Patagonian environments and all known species are viviparous and almost strictly herbivorous (Ceí 1986, 1993; Lobo *et al.* 2010; Núñez *et al.* 2010; Lobo *et al.* 2012; Morando *et al.* 2013). Two main species groups of *Phymaturus* can be identified: the *palluma* and the *patagonicus* (Etheridge 1995; Lobo *et al.* 2012; Morando *et al.* 2013). Within the *patagonicus* clade, several species have been described in the last decade, mainly from volcanic plateaus of central Patagonia, along the Chubut and Río Negro provinces of Argentina. Morando *et al.* (2013) defined some molecular-based groups within this clade, and the species tree recovered three of them, *indistinctus*, *payunia*, and *spurcus*, with strong support, while the *somuncurensis* and *calcogaster* groups only had moderate support. Geographically, all populations of the *payunia* group are distributed north of the Limay River, and all populations of the *indistinctus* group, are south of the Chubut River. All

they may be conspecific (Morando et al., op. cit). The smallest uncorrected genetic distance between the new species described here and others geographically and phylogenetically closely related of the *patagonicus* group are: *P. yachanana* vs *P. calcogaster* = 2.2%, *P. yachanana* vs *P. patagonicus* = 7.4%, *P. yachanana* vs *P. tenebrosus* = 2.86%, which are above the average threshold for closely related species of this genus.

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APPENDIX I

- Phymaturus yachanana* sp. nov. (7):** ARGENTINA: RÍO NEGRO: San Antonio Department: hills to 1.74 km South of the Sierra Grande town, east of the National Road 3 (41°37', 65°20', 270 m): MLP.S 2636 (Holotype). Rocky cliffs of Sierra Grande mountain, behind the Sierra Grande town (41°36'S, 65°22'W, 429 m): LJAMM 8203–8204 (Paratypes). Rocky cliffs on the west slope of Sierra Grande mountain, behind the old village, Sierra Grande town (41°36'S, 65°23'S, 387 m): LJAMM-CNP 8205, 14366–14368 (paratypes).
- Phymaturus agilis* (16):** ARGENTINA: RÍO NEGRO: Ñorquinco Department: Provincial Road 6, 17.4 km NE Ojos de Agua, 28 km SW Ingeniero Jacobacci, (41°26'S, 69°46'W, 1014 m): LJAMM-CNP 3634–3636. Provincial Road 6, Km 24, Yuquiche place, Ingeniero Jacobacci: JAS-DC 1039, 1044, 1045, 1046, 1053, 1065, 1087, 1089, 1090, 1119, 1644. Provincial Road 6, Ingeniero Jacobacci, km 5, road to Ojo de Agua: JAS-DC 1092–1093.
- Phymaturus ceii* (22):** ARGENTINA: RÍO NEGRO: 25 de Mayo Department: Provincial Road 8, 17 km S Antonio del Cuy (40°17'S, 68°27'W): LJAMM-CNP 1628–1630, 1713, and MCN 908, MCN 910–913, MCN 916, MCN 918. Provincial Road 6, 8.4 km S Colan Conue (40°44'S, 69°09'W, 1145 m): LJAMM-CNP 6804–6808. El Cuy Department: Provincial Road 6, 45.4 km SW crossroad Provincial Road 8 (40°17'S, 68°55'W, 1117 m): LJAMM-CNP 6803, 6820–6822, 6845–6846.
- Phymaturus excelsus* (15):** ARGENTINA: RÍO NEGRO: Ñorquinco Department: Provincial Road 6, 1 km NW Ojo de Agua (41°32'S, 69°51'W, 1141 m): LJAMM-CNP 2136–2137, 2266, 2355–6, 2652–2654. Provincial Road 6, 2.2 km NE Ojos de Agua, (41°32'S, 69°51'W, 1105 m): LJAMM-CNP 3534–3535, 3622–3626.
- Phymaturus spectabilis* (22):** ARGENTINA: RÍO NEGRO: Ñorquinco Department: Provincial Road 6, 17.4 km NE Ojos de Agua, 28 km SW Ingeniero Jacobacci, (41°26'S, 69°46'W, 1014 m): LJAMM-CNP 3600–3621.
- Phymaturus spurcus* (15):** ARGENTINA: RÍO NEGRO: 25 de Mayo Department: National Road 23, hill near Ranch Huanuluan, 25.1 km W Ingeniero Jacobacci (41°21'S, 69°48'W, 942 m): LJAMM-CNP 3586, 3629–3630. Huanuluan ranch: JAS-DC 821–823, 825–831. Huanuluan: MCZ 14791 (type), 14914–15 (paratypes).
- Phymaturus somuncurensis* (7):** ARGENTINA: RÍO NEGRO: 9 de Julio Department: 65.6 km police station El Rincon, near Corona Hill, between Corona Grande Hill and Corona Chico Hill (41°23'S, 66°57'W, 1425 m): LJAMM-CNP 6826–6832.
- Phymaturus tenebrosus* (13):** ARGENTINA: RÍO NEGRO: Pilcaniyeu Department: National Road 40, 2.7 km S San Pedro Ranch (40°52'S, 70°34'W, 1096 m): LJAMM-CNP 5426, BYU 47978. National Road 40, Cerro Alto (40°46'S, 70°34'W, 1203 m): LJAMM-CNP 8661. Cerro Alto: JAS-DC 1103, 1247. 20 km Cerro Alto: JAS-DC 811, 824, 832–836, 1250.
- Phymaturus etheridgei* (13):** ARGENTINA: RÍO NEGRO: 25 de Mayo Department: Provincial Road 76, 57 km S Ingeniero Jacobacci (41°45'S, 69°21'W, 1162 m): LJAMM-CNP 3590–3592, 3642–3645, 3681, 3688–3689, 5897, 6548–6549.
- Phymaturus manuelae* (3):** ARGENTINA: RÍO NEGRO: Pilcaniyeu Department: National Road 23, 4.8 km SE Comallo (41°02'S, 70°12'W, 808 m): LJAMM-CNP 5447–5448, 5589.
- Phymaturus patagonicus* (24):** ARGENTINA: CHUBUT: Gaiman Department: Ruta Nacional 25, 40 km WSW Dolavon (43°27'S, 66°07'W, 125 m): LJAMM-CNP 3205–3209, 3219, 15151–15167. Hills next to the road to Boca Toma, 16.2 km S junction Ruta Nacional 25, road gate to 28 de Julio (43°27'S, 65°55'W, 33 m): LJAMM-CNP 14219.
- Phymaturus calcogaster* (30):** ARGENTINA: CHUBUT: Telsen Department: Ruta Provincial 8, Quele Cura-Sierra Colorada (42°11'S, 66°22'W, 525 m): LJAMM-CNP 3278, 6550–6553, 8138–8140, 8142–8144, 8146, BYU 48818. Junction to Laguna De Vaca, 16.2 km Ruta Provincial 4, on lagoon shore (42°30'S, 67°21'W, 660 m): LJAMM-CNP 6855–6857, 8125–8132. Quele Cura (42°11'S, 66°22'W, 525 m): JAS-DC 665–667, 1094–1096.