

Highest record for the lizard *Phymaturus palluma* (Squamata: Liolaemidae) in Central Andes, Argentina

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The genus *Phymaturus* comprises 41 species (Lobo et al., 2013) of viviparous, saxicolous and herbivorous lizards that inhabit the Andes and Patagonia of Argentina and Chile (Cei, 1986; Scolaro et al., 2008). *Phymaturus* is separated into two groups based on morphological characters: the *patagonicus* group in the Patagonian steppe and the *palluma* group, at high altitudes in the Central Andes (Cei, 1993; Etheridge, 1995; Debandi et al., 2012). *Phymaturus palluma* Molina, 1782 is part of the *palluma* group and occurs from the South West of San Juan to the North and Central West of Mendoza province in Argentina. This endemic species lives in valleys surrounded by the highest peaks of the Central Andes, from 1400 to 2200 m asl, according to the assumption of several authors (Abdala, 2016; Lobo and Etheridge, 2013).

During the austral summer of 2015/2016, we conducted visual surveys in the Vacas Valley and Los Relinchos Valley within Aconcagua Provincial Park, Las Heras department in Mendoza province, Argentina. We registered the presence of *P. palluma* in two new localities: Casa de Piedra (32.6305°S, 69.8383°W, WGS84) in Vacas Valley at 3250 m above the sea level and Plaza Argentina Inferior (32.6389°S, 69.8956°W; WGS84) in Los Relinchos Valley at 3800 m above the sea level (Fig. 1). We found males and females basking

on rock promontories on 11 December 2015 and 11 March 2016. Individuals were photographed in their habitat (Fig. 2) and species identification was verified by Sonia Kretzschmar (Instituto de Herpetología, Fundación Miguel Lillo, Tucumán). The pictures were deposited in the collections of the Fundación Miguel Lillo, with the catalogue number FML 29343.

Our record extends the distributional range 40 km to the northwest respect to the nearest known locality (Fig. 1) and represents the uppermost distributional record for the species, extending its current range by about 1600 m of elevation. At these altitudes the dominant vegetation

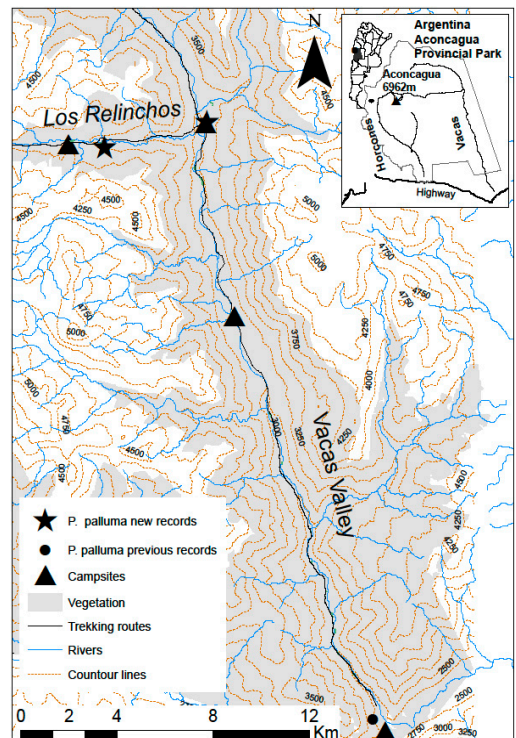


Figure 1. New geographic records of *Phymaturus palluma*.

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Figure 2. An adult male (left) and an adult female (right) of *Phymaturus palluma* in Plaza Argentina Inferior. Photos by Eduardo Chamorro.

is represented by *Adesmia echinus*, *A. subterranea*, *Senecio crithmoides* and *Poa holciformis*. This vegetation is characteristic for the limit between the nival and glacial stratum of the Altoandina phytogeographic province (Méndez *et al.*, 2006). Also at these latitudes, 3800 m asl matches with the upper limit of vegetation, and above this altitude only some isolated individuals of plants are found (Wingeroth, 1992). Moreover this area is near to the limit between tundra and polar climate (Köppen, 1948), and is covered by snow around seven and eight months per year (Departamento General de Irrigación, 2011; Massarelli, pers. comm.). Lizards that inhabit the area presumably need to hibernate more than eight months per year, having a short activity season, the shortest one known for the species. Future studies on physiology and ecology about this marginal population are necessary to understand how *P. palluma* lizards do to survive in this extreme environment.

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