

## NOTES ON GEOGRAPHIC DISTRIBUTION

### Reptilia, Squamata, Liolaemidae, *Phymaturus verdugo*: Distribution extension, new provincial records, filling gaps, and geographic distribution map.

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Lizards of the *Phymaturus* genus are large, saxicolous, viviparous, and mainly vegetarian iguanids that inhabit rocky habitats of high Andes and Patagonian steppe regions. Two species groups are recognized: *palluma* and *patagonicus*. They are still poorly known, with several recently described species (Ceí and Videla 2003; Scolaro and Ceí 2003; Pincheira Donoso 2004; Lobo and Quinteros 2005a; 2005b) and several additional species are waiting for a formal description. A few years ago, Ceí and Videla (2003) described a new species of the *P. palluma* group (Figure 1) from a vague type-locality in southern Andes of the province of Mendoza, department of Malargüe ("rocky slopes along tributary streams of the Rio Grande Basin, in the Peteroa volcano area at about 1900 m", Ceí and Videla 2003). *Phymaturus verdugo* is easily identified by its characteristic black head, a brilliant yellow-green body and orange tail. Based on the habitat requirements of this species, we can deduce that the type-locality should be very close to Termas del Azufre thermal post, a few km SE from Peteroa volcano at the borders of Ruta Provincial 226. Recently, Abdala and Juárez (2007) cited a second locality SE of the type-locality.

During field trips carried out in southern Mendoza and Neuquén provinces we collected individuals that are morphologically similar to the species described as *P. verdugo*. Here we present new geographic distribution data for this species that extends significantly its known distribution.



**Figure 1.** An adult male of *Phymaturus verdugo* from southern Mendoza, Argentina.

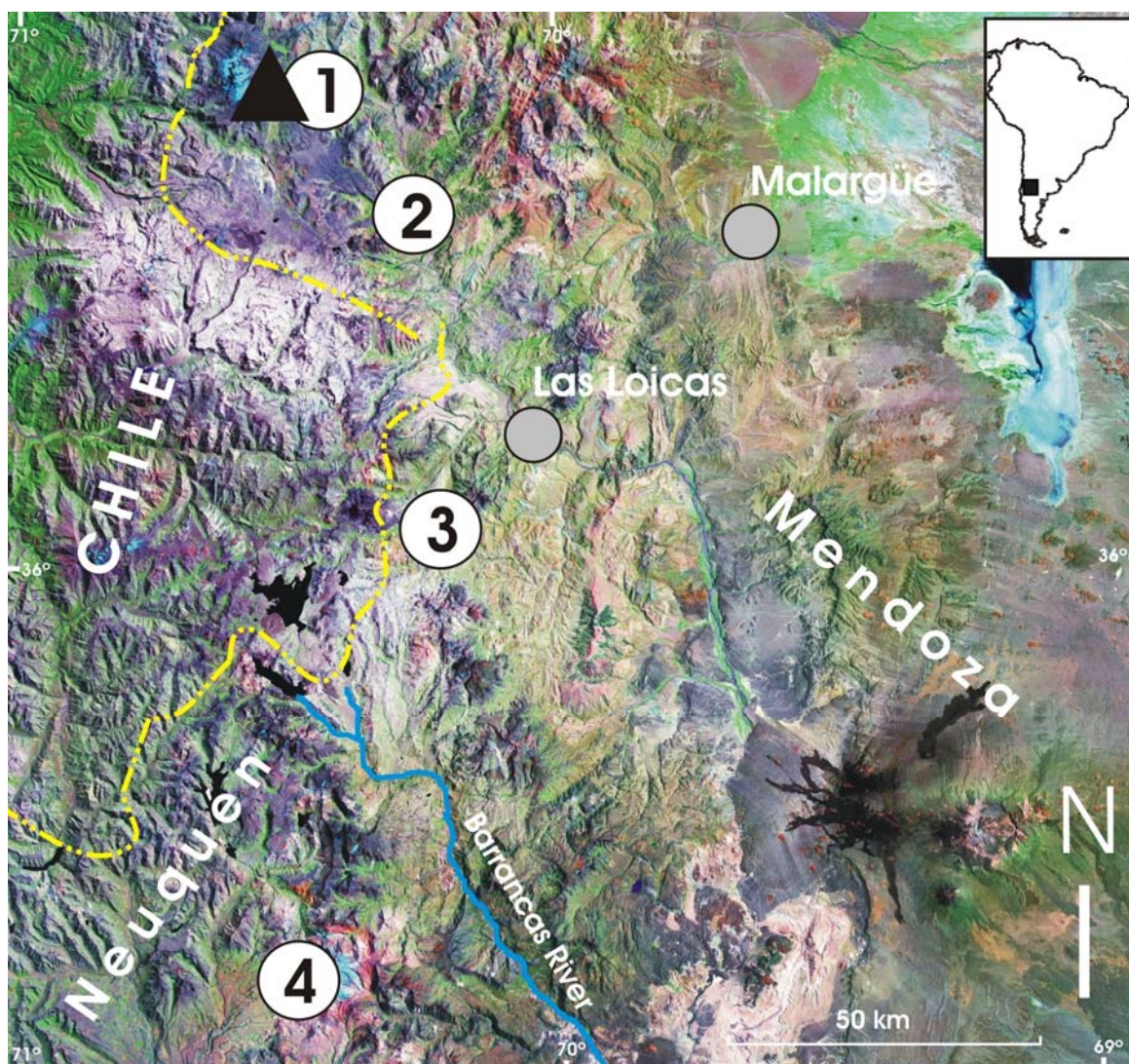
Lizards were collected by hand or noose, euthanased with pericardic injection of *Tiopental Sódico* (Abbot®), fixed with formalin 20 %, and transferred to 70 % ethanol after 3-4 days. Latitude, longitude, and elevation were determined with a Garmin GPS 12™ Global Position Device.

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Voucher specimens are in the collection Luciano Javier Avila Mariana Morando (LJAMM 5792-5, 5806-7, 6162-3, 6175-6, 7896-7905), housed in the Centro Nacional Patagónico-CONICET, Puerto Madryn (Chubut), Argentina.

Collection sites (Figure 2) were: province of Mendoza Province: department of Malargüe: (1) rim of the Provincial Road 226, 11.4 km SE Termas del Azufre ( $35^{\circ}17'50''$  S,  $70^{\circ}24'48''$  W, 2279 m); (2) Arroyo El Montañas, on the margins of the Provincial Road 226, 43 km SE

Termas del Azufre ( $35^{\circ}29'15''$  S,  $70^{\circ}14'51''$  W, 1856 m); (3) margins of the Provincial Road 145, 17.3 km E Paso Pehuenche, 23 km W Las Loicas ( $35^{\circ}57'30''$  S,  $70^{\circ}14'01''$  W, 1987 m); and (4) province of Neuquén, department of Chos Malal: Domuyo volcano, east slope along Chadileu stream ( $36^{\circ}40'48''$  S,  $70^{\circ}20'35''$  W, 2375 m). Localities 1 and 2 are intermediate between the type-locality of Cei and Videla (2003) and the new citation of Abdala and Juárez (2007); localities 3 and 4 are significant southern extensions.



**Figure 2.** Type-locality and new geographic records for *Phymaturus verdugo* in southern Patagonia, Argentina. Black triangle: type-locality. White circles with numbers: localities cited in the text; main towns and geographic landmarks are included.

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All collected lizards were basking during the day above big stones, accumulated on the road sides by human disturbance with bulldozers; with the exception of individuals from Domuyo volcano that were observed basking on old remnants of lava flows along the margins of Chadileu stream. The southernmost sample from Domuyo volcano represent an extension of 150 airline km south from the type-locality and the first record for this species in the province of Neuquén.

### Literature cited

- Abdala, C. and R. Juárez. 2007. *Phymaturus verdugo*. Geographic distribution. Herpetological Review 38(1): 101-102.
- Cei J. M. and F. Videla. 2003. A new *Phymaturus* species from volcanic cordilleran mountains of the south-western Mendoza province, Argentina (Liolaemidae, Iguania, Lacertilia, Reptilia). Bolletino Museo Regionale di Scienze Naturali (Torino) 20: 291-314.
- Pincheira Donoso, D. 2004. Una nueva especie del genero *Phymaturus* (Iguania, Tropicuridae, Liolaemidae) del centro-sur de Chile. Multequina 13: 57-70.
- Lobo, F. and S. Quinteros. 2005. Taxonomic studies of the genus *Phymaturus* (Iguania: Liolaemidae): Redescription of *Phymaturus patagonicus* Koslowsky, 1898, and revalidation and redescription of *Phymaturus spurcus* Barbour 1921. Journal of Herpetology 39(4): 13-20.
- Lobo, F. and S. Quinteros. 2005. A morphology-based phylogeny of *Phymaturus* (Iguania: Liolaemidae) with the description of four new species from Argentina. Papeis Avulsos de Zoologia 45(13): 143-177.
- Scolaro, J. A. and J. M. Cei. 2003. Una excepcional nueva especie de *Phymaturus* de la precordillera de Chubut, Argentina (Liolaemidae, Iguania, Lacertilia, Reptilia). Facena 19: 107-112.

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