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A NEW SPECIES OF *LIOLAEMUS* (SAURIA:  
IGUANIDAE) FROM THE ANDEAN MOUNTAINS  
OF THE SOUTHERN MENDOZA VOLCANIC  
REGION OF ARGENTINA

By

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In the course of field research in South America, William E. Duellman and his associates obtained specimens of an undescribed iguanid lizard in the Paso El Choique area in southern Provincia de Mendoza, Argentina. A careful comparison of these lizards with other Argentine iguanids revealed that the new species is a member of the widespread, Andean-Patagonian genus *Liolaemus*; however, it is easily distinguished by a significant combination of several morphological characters from its congeners. In recognition of the discoverer of this new iguanid, it herewith is named after Dr. William E. Duellman, who has advanced so appreciably field and taxonomic studies on the herpetofauna of South America.

***Liolaemus duellmani*, new species**

Figure 1

*Holotype*.—The University of Kansas Museum of Natural History (KU) 161126, an adult male from Paso El Choique, 50 km SSW El Manzano, 2260 m, Provincia de Mendoza, Argentina (latitude 36°27' S; longitude 60°50' W), collected on 12 December 1974 by William E. Duellman and John E. Simmons.

*Paratopotypes*.—KU 161127–161128, adult and subadult male specimens collected with the holotype; Instituto Biología Animal,

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Universidad Nacional de Cuyo (IBA-UNC) 139, an adult female, collected on 22 November 1961 by José M. Cei and Virgilio G. Roig.

*Diagnosis.*—*Liolaemus duellmani* can be distinguished from other *Liolaemus* by the following combination of characters: 1) slender body; 2) short legs; 3) subimbricate, almost juxtaposed polygonal dorsal scales; 4) small, juxtaposed, conical lateral scales; 5) wide, smooth ventral scales; 6) dorsally keeled caudal scales; 7) presence of antehumeral and neck folds; and 8) strongly clawed digits.

*Description.*—Head length about one-fifth body length (Fig. 1 and Table 1). Well-developed antehumeral fold present; neck folds distinct. Snout bluntly pointed. Rostral scale large and wide, twice as wide as high; nasal not in contact with rostral, separated from it by two enlarged scales. Nostril equal in size to nasal scale, located posterolaterally at a point midway between eye and tip of snout. Ear opening elliptical, edged by small, regular-shaped scales becoming larger posteriorly.

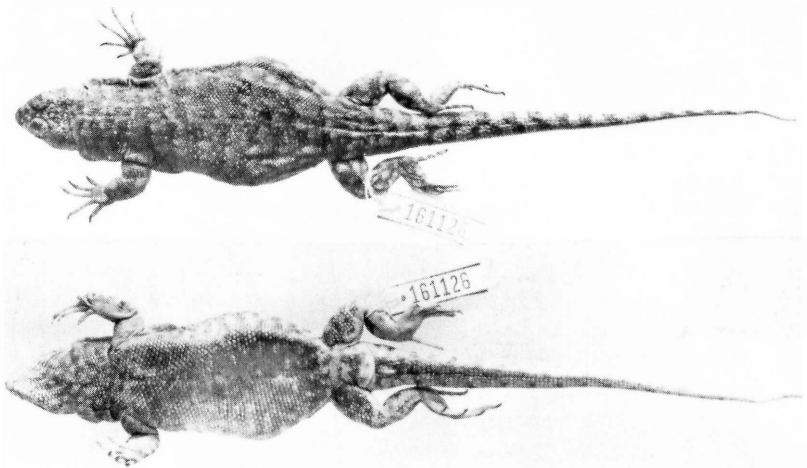


FIG. 1.—Dorsal (upper) and ventral (lower) views of holotype of *Liolaemus duellmani*, an adult male (KU 161126); total length, 170 mm.

Temporal scales smooth, irregularly shaped and convex. Scales of frontal, parietal, and occipital regions large and slightly convex. Interparietal scale small, nearly triangular, and bordered laterally by a pair of large, irregularly shaped parietal scales meeting posterior to interparietal. Largest supraoculars smaller than scales of interorbital region. Subocular scale enlarged, undivided, separated from supralabials by single row of slightly rugose, pointed scales. Supralabials 10; infralabials 7. Mental trapezoidal. Eyelids slightly fringed. Pterygoid teeth present. Scales of lateral neck granulated,

rounded, and smaller than subimbricate dorsal neck scales. Scales across gular region between tympana 48–50. Vertebral scale row absent. Dorsal scales heterogeneous, small, polygonal but almost rounded, faintly keeled or smooth, faintly subimbricate, and almost juxtaposed. Granular scales present between large scales. Scales on sides smaller, rather conical, and juxtaposed. Ventral scales larger than dorsal scales, wide and smooth, and decreasing in size in gular region. Upper caudal scales large, square, and distinctly keeled. Ventral caudal scales subtriangular and smooth. Scales around middle of body 86–90.

Scales of dorsal surface of forelimb large, imbricate, and slightly keeled; ventral forelimb scales granular and smooth. Dorsal thigh scales large, imbricate, and smooth; ventral thigh scales small and nearly granular. Dorsal tibia scales heterogeneous, subimbricate, and juxtaposed; ventral tibia scales large, imbricate, and smooth. Four indistinct secretory pores present anterior to vent.

Subdigital lamellae of fourth finger 18, faintly keeled. Subdigital lamellae of fourth toe 20–21, tricarinate. Claws of all digits sharp, black, and 3–4 mm long.

Hind limb rather short and stout; when adpressed, fourth toe not reaching axilla. When forelimb adpressed, fourth finger reaching middle of body.

Coloration: Dorsum pale gray becoming reddish tan laterally, with dark brown transverse markings enclosing bluish white flecks. Dorsum of tail pinkish tan with dark brown bars. Throat pale gray mottled with black. In smaller individual, belly colored like throat; in others, belly black. Ventral surfaces of forearm and hand, femoral region, and foot bright yellow. Iris reddish brown. Tongue pink. Lining of throat gray. Coloration of preserved female like males except darker.

*Distribution.*—This species is known only from the type locality.

*Remarks.*—*Liolaemus duellmani* is found in a xeric, montane

TABLE 1.—Measurements (mm) of *Liolaemus duellmani*.

CHARACTER	Holotype		Paratopotypes	
	KU 161126, ♂	KU 161127, ♂	KU 161128, ♂	IBA-UNC 139, ♀
Total Length	170.0	— <sup>a</sup>	— <sup>a</sup>	— <sup>b</sup>
Snout-vent Length	80.0	83.0	60.0	82.0
Head Length	18.5	20.0	20.0	19.2
Head Width	14.6	15.5	12.0	14.6
Forelimb Length	24.5	25.0	21.0	28.0
Hind limb Length	40.5	42.0 <sup>c</sup>	32.5 <sup>c</sup>	42.0 <sup>c</sup>
Axilla-groin Length	42.0	42.0	31.0	42.0

<sup>a</sup> Tail short, regenerated.

<sup>b</sup> Tail broken.

<sup>c</sup> When adpressed, hind limb reaches axilla.

habitat characterized by basaltic outcrops, rocky slopes and sandy soil. Vegetation consists of clumps of plants—bunch grass, cacti, *Ephedra*, and spiny legumes.

The female contained two mature eggs, each 21 mm in diameter. The size and number of eggs suggest that this species may be oviparous.

#### DISCUSSION

*Liolaemus duellmani* cannot be regarded as a member of any presently recognized group of Andean-Patagonian *Liolaemus*. It differs from the psammophilous and burrowing forms of the *fitzingeri* complex by the lack of femoral patches, reduced number of preanal pores, and the number and shape of dorsal scales. Furthermore, the dorsal scales are distinctly imbricate and keeled in the *fitzingeri* species-group. Likewise, *L. duellmani* is distinct from the other species of Patagonian lizards belong to the *kingi-archeforus*, *megallanicus*, and *bibroni-gracilis* species groups. These groups are characterized by imbricate, keeled, and mucronate dorsal scales, and obviously different color patterns (Cei 1973, 1975a, 1975b). *Liolaemus duellmani* cannot be allocated to any presently recognized species-group of Chilean *Liolaemus* (Donoso Barros 1966; Peters and Donoso Barros 1970), nor referred to *L. fitzgeraldi* (Boulenger 1899), *L. robertmertensi* (Hellmich 1964), or *L. dorbigny* (Koslowsky 1898). It differs from the latter three species in characteristics of its dorsal and ventral scales, and coloration. The species also can be distinguished from *L. elongatus*, *L. austromendocinus*, and *L. buergeri*, all of which live in the same region, on the bases of their imbricate, mucronate and keeled dorsal scales, larger tails, and distinctively different dorsal colorations (Cei 1974).

Although *Liolaemus kriegi* and *L. ceii* (Müller and Hellmich 1939; Donoso Barros 1971) are similar to *L. duellmani* in having heterogeneous lepidosis and granular scales between the larger scales of the dorsum, both species have many more scales at midbody (97–115), a dark pileus, extremely fat base of the tail, slightly keeled dorsal scales, nasal scale in contact with rostral, and the fourth toe with more subdigital lamellae (28–30).

*Liolaemus ruibali*, which inhabits the Uspallata mountains in the north of Mendoza Province (Donoso Barros 1961), seems the most closely related to *L. duellmani*. Its scales are heterogeneous, subimbricate, and almost smooth. The nasal is not in contact with the rostral, and it shares the same number of supralabials, infralabials and subdigital lamellae with *L. duellmani*. *Liolaemus ruibali* differs from *L. duellmani* by its smaller size, shorter tail, and fewer scales at midbody (63–80). The lateral scales are less heterogeneous, and the color pattern is distinct.

There seem to be some convergent morphological features between *L. duellmani* and northern Andean *Liolaemus* groups such as the *signifer* and *multiformis* groups, as well as with lizards of the genus *Ctenoblepharis*.<sup>2</sup> These groups share with *L. duellmani* granular scales between the large scales, the heterogeneous lepidosis, and the nearly juxtaposed dorsal scales.

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#### RESUMEN

Se describe una nueva especie argentina de iguánido tropidurino, *Liolaemus duellmani*, de las regiones rocosas volcánicas de la Cordillera Andina, en el Sur de la Provincia de Mendoza, Paso El Choique, a 2000–2400 m de altura. La nueva forma, que se diferencia netamente de todas las especies conocidas del género, es larga hasta 170 mm, y se caracteriza por la lepidosis heteronota, las escamas dorsales casi lisas, imbricadas y casi yuxtapuestas, las escamas ventrales mucho más grandes que las dorsales, un número relativamente alto de escamas alrededor del cuerpo (85–90) y una coloración de bandas transversales oscuras, escotadas posteriormente, sobre un fondo grisáceo rojizo, jaspeadas de puntos blancos azulados. La forma que más se le aproxima es *Liolaemus ruibali* de los Andes de Uspallata, Mendoza, la que todavía difiere de *L. duellmani* por ser mucho más pequeña, por tener cola más corta y un número inferior de escamas alrededor del cuerpo, escamas laterales más uniformes y un patrón de coloración muy diferente. Se ponen en evidencia algunas convergencias morfológicas entre la nueva forma y las especies del género *Ctenoblepharis*.

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<sup>2</sup>In spite of Donoso Barros' statement (1971) to the contrary, the presence or absence of pterygoid teeth is not a significant character state to differentiate the genera *Liolaemus* and *Ctenoblepharis* (Camp 1923).

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