

REMARKS ON TAXONOMIC STATUS AND SPECIFIC CHARACTERS OF *LIOLAEMUS MARMORATUS* (BURMEISTER).

Leiosaurus marmoratus was described by Burmeister (1861) from the desert flats of western Argentina, in the neighborhood of Alpaquinchi and Anapa, Catamarca. The holotype, a young specimen in the Zoological Museum of Halle a.d.S., Germany, is at present badly decomposed and unavailable. Its careful redescription by Müller (1928) provides supplementary information about diagnostic characters of the species. According to Müller this form must be placed in the genus *Phrynosaura* proposed by Werner (1907). It differs from *Phrynosaura reichei* Werner and *Phrynosaura weneri* Müller by a number of characters in scalation, proportion of limbs and coloration. All these taxa were referred to *Ctenoblepharis* by Donoso Barros (1971) but the diversity of this genus has been discussed elsewhere (Cei, 1979b). A comparison of recently obtained samples of *Liolaemus anomalus* Koslowsky with the holotype of *Phrynosaura weneri* Müller has revealed their synonymy. As far as known no additional specimens of *Phrynosaura marmoratus* have been reported since Müller's redescription. Moreover additional research is needed to clarify the exact nature of morphological differences and/or affinities between Burmeister's species and

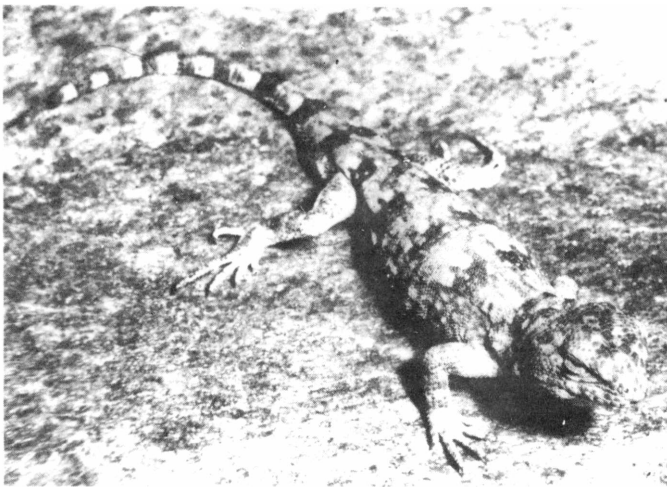


FIGURE 1. *Liolaemus marmoratus* (Burmeister) Male specimen from Aimogasta, La Rioja, western Argentina (slightly reduced).

anomalus Koslowsky (= *Phrynosaura weneri*). During my recent field research in the vicinity of the type-locality of *marmoratus* in the dry regions of La Rioja and southern Catamarca, several specimens of this very poorly known and secretive form were found (Fig. 1). They agree closely with the redescription provided by Müller and have been compared with the just reported neotype and neoparatypes of *Liolaemus anomalus* (Cei, 1979a). Both species are strongly similar and reveal a spectrum of morphological characteristics apparently adaptive to life in arid environments. In agreement with the arrangement proposed else-

where (Cei, 1979b), *Ctenoblepharis marmoratus* must also be assigned to the genus *Liolaemus*, forming a probable natural group with *anomalus*. A summarized comparative description of *Liolaemus marmoratus* (Burmeister) follows, noting significant differences between *marmoratus* and *anomalus*.

The head of *Liolaemus marmoratus* is about one fourth of the body length and slightly wider than long (less than one fourth and longer than wide in *anomalus*). Cephalic lepidosis is similar in both forms but the upper head scales are only slightly rugose or smooth in *marmoratus*. The snout

is very blunt; the distance between the anterior border of eye and tip of snout equal to diameter of eye in *marmoratus* (longer than diameter of eye in *anomalus*). The distance between nostril and tip of snout is longer than one half the distance between nostril and anterior border of eye in *marmoratus* (one half in *anomalus*). No canthal ridge is evident; 8–10 transverse scale rows of closely imbricate, distally raised scales are distinct in the posterior gular region of the males of *anomalus* (lacking in *marmoratus*). Both forms are alike in number and shape of smooth, subimbricate dorsal and ventral scales, limb scalation, subdigital lamellae, preanal pores and tail length. No caudal autotomy and no distinct dimorphism is evident. The axilla-groin distance is shorter in *marmoratus*. The fourth finger of adpressed forelimb exceeds tip of snout in *marmoratus* (does not reach or barely reaches tip of snout in *anomalus*). The fourth toe of adpressed hind limb reaches between axilla and tympanum in *marmoratus* (does not reach or barely reaches axilla in *anomalus*). The snout-vent length in millimeters in 16 adult male and female specimens of *anomalus* 54–80 (mean 65.50); 57–67 (mean 60.50) in six adult male and female *marmoratus*. The species also differ in color patterns. The dorsal ground is ochre, reddish or grayish, marked by diffuse, yellow-bordered, dark transverse bands in *marmoratus* (reddish gray irregularly scattered with blue scales, with diffuse dark transverse blotches and large antehumeral black spot in *anomalus*). Dark reticulations are present on the throat, but the ventral surface is immaculate white in *marmoratus* (speckled with minute melanophores and with brick-red faint spots on the sides of males, in *anomalus*). The tail is distinctly dark-banded in *marmoratus*, scattered with irregular brown blotches in *anomalus*.

Liolaemus marmoratus is a very secretive, deserticolous tropidurine iguanid, living in occasional shelters under ground and foraging preferentially late in the afternoon. In behavior it is not so aggressive and swift as *anomalus*. In a former paper (Ceï, 1979a) samples of dark-striped, non-aggressive lizards from northern La Rioja were tentatively referred to as a geographical variation of *Liolaemus anomalus*. They are easily allocated at present in *Liolaemus marmoratus* on the basis of morphological and behavioral characters. In spite of their probable marginal parapatry the geographic ranges of the two species apparently do not overlap. *Liolaemus anomalus* was found in sandy areas of San Juan and Mendoza provinces, although its presence in neighbouring areas of La Rioja and La Pampa provinces has been reported (Koslowky, 1895; Gallardo, 1966). *Liolaemus marmoratus* is known in the southern Catamarca and La Rioja deserts. Crepuscular and secretive habits of these uncommon lizards explain their previous unavailability and former taxonomic uncertainty.

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