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GENERIC STATUS OF THE TEIID LIZARD GONIOPTYCHUS BIGOLOR WERNER

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In the collection of the University of Michigan Museum of Zoology is a single specimen of the teiid lizard described by Werner (1916) as Gonioptychus bicolor. This specimen is the second to be recorded. Since it provides additional information about the characters of the species and indicates that a change in the present generic assignment is required, a detailed description of the specimen (UMMZ 89418 from Bogotá, Colombia; Hno. Nicéforo María, collector) is given below (figures in parentheses pertain to Werner's specimen).

Rostral large, in broad contact with single frontonasal; no prefrontals; parietals equal in length to interparietal, and each of the three larger than frontoparietal; no enlarged occipital scales; a single unpaired scale posterior to interparietal; four supraoculars, separated from upper palpebrals by a complete row of superciliary scales; first superciliary longest, laterally placed, and with no expanded dorsal part; naris in suture between two scales; loreal in contact both with frontonasal and, narrowly, with second upper labial; seven upper labials, the third very long; lower palpebrals separated from upper labials by a row of small scales; a transparent disc in lower eyelid, divided by vertical grooves into two or three sections; head scales without longitudinal striations; four lower labials; a mental; a single unpaired chin shield followed by three paired chin shields; third pair separated on mid-line by several small pregulars (Ruibal, 1952, p. 478); behind these and third pair of chin shields a single complete row of pregulars; five rows of gulars including collar; one gular in fourth row slightly enlarged, but no double longitudinal row of large gulars; gulars rectangular, smooth, and subimbricate; nine (eight) collar scales.

Ventral scales rectangular, smooth, in 10 (10) longitudinal and 18 (19) transverse rows, not including two rows of preanals; scales on dorsal

surface of neck rectangular, smooth, and less than twice as long as broad; a pair of nuchals twice as wide as long separated from each other by a single small scale, and from interparietal by a row of small scales; scales on dorsal surface of body rectangular, some as much as four times as long as broad, most of them weakly keeled; 30 (32) dorsal scales between interparietal and base of tail; dorsal scales in distinct transverse rows, not in longitudinal or diagonal ones; scales of flanks similar to dorsals but a little shorter, the transverse rows being separated by a single series of very small granules; about five rows of lateral scales near mid-body separated from ventral scales by an indistinct agranular groove; 37 (40) scales around middle of body; scales on tail like dorsals above, like ventrals below.

Scales on upper surface of forelimb large, smooth, and subimbricate; those of lower surface granular; ventral surface of forefoot with three transversely enlarged, lightly pigmented scales in a single row along inner margin, between base of first digit and carpus; these scales much larger than unpigmented granules covering rest of palm; 9–10 lamellae under fourth digit. Scales on hind limb smooth; those of anterior surface of thigh very large, those of shank less so; other scales granular; subdigital lamellae at base of third and fourth digit divided, the inner portion forming a tubercle; 15 lamellae under fourth digit. Limbs weak, overlapping when adpressed by less than one dorsal scale length; 11–12 femoral pores; no preanal pores.

Except on anterior forked portion, tongue covered by parallel folds running from mid-line to lateral margins; no scalelike papillae on surface of tongue.

Color above, dark brown; a very faint dorsolateral light line on shoulder and at base of tail; venter immaculate, yellowish brown. The specimen is a male, 32 mm. in snout-vent length; 65 mm. in total length, the tail tip regenerated.

In considering the generic status of bicolor, two characters are critical. The species has a plicate tongue, without scalelike papillae; it also lacks prefrontals. In the description, Werner stated that his species was close to Alopoglossus and Ptychoglossus, and particularly to the latter. These are the only other teiid genera known to have plicate tongues. Both of these genera have prefrontals. Since bicolor lacks prefrontals, Werner erected the monotypic genus Gonioptychus for it.

In the absence of prefrontals, bicolor resembles members of the genus Proctoporus, and it was, therefore, referred to that genus by Burt and Burt (1931). These authors discounted the importance of the tongue structure, because another teild, Pantodactylus schrei-

bersi, has both plicae and papillae, a condition originally reported by Peracca (1894) and confirmed by them. Later, Ruibal (1952) called attention to the fact that most teiids with scalelike papillae on the anterior surface of the tongue may have plicae on the posterior bifurcation. I have recently examined more than half of the 15 or so presently recognized species of Proctoporus; none of them except bicolor had plicae on the anterior as well as the posterior surface of the tongue. Consequently, I consider that bicolor is much closer to Alopoglossus and Ptychoglossus than to Proctoporus.

The following characters of *Ptychoglossus* were used by Ruibal to distinguish it from *Alopoglossus*: dorsal scales parallel-sided, forming very distinct transverse rows; gular scales rectangular and subimbricate; ventral scales rectangular, the posterior border definitely truncate; scales on forelimbs not keeled. In all of these characters, *bicolor* agrees with *Ptychoglossus*, but it differs from the presently recognized species of *Ptychoglossus* in lacking prefrontals, in not having the lateral and ventral scales separated by granules at mid-body, and in having the dorsal scales rectangular rather than hexagonal, particularly on the posterior half of the body.

I do not think that the complete absence of prefrontals in bicolor is sufficient reason for retaining a separate genus for it, because in some individuals of Ptychoglossus festae and P. kugleri the prefrontals are separated from each other by contact between the frontal and frontonasal, and consequently reduced in size. I believe, in view of the similarities of bicolor to species of Ptychoglossus, that it should be placed in that genus and be known as Ptychoglossus bicolor, new combination, and that the generic name Gonioptychus should be referred to the synonymy of Ptychoglossus. Determination of the actual relationship of bicolor within the genus Ptychoglossus must await a revisionary study of that genus.

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LITERATURE CITED

BURT, CHARLES E., and MAY DANHEIM BURT

1931 South American Lizards in the Collection of the American Museum of Natural History. Bull. Amer. Mus. Nat. Hist., 61, 7: 227-395.

PERACCA, M. G.

1894 Descrizione di una nuova specie del genere *Pantodactylus*. Boll. Mus. Zool. Univ. Torino, 9, 176: 1–4.

RUIBAL, RODOLFO

1952 Revisionary Studies of Some South American Teiidae. Bull. Mus. Comp. Zool. Harvard Coll., 106, 11: 477-529.

WERNER, F.

1916 Bemerkungen über einige niedere Wirbeltiere der Anden von Kolumbien mit Beschreibungen neuer Arten. Zool. Anz., 47, 10 & 11: 301–310.

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