Variation, Distribution, and Taxonomic Status of the Xantusiid Lizard Lepidophyma tarascae

UBALDO GUZMAN-VILLA OSCAR FLORES-VILLELA WALTER SCHMIDT-BALLARDO Museo de Zoología, Facultad de Ciencias Universidad Autonoma Nacional de México

A.P. 70-399, México D.F. 04510, México

and ROBERT L. BEZY

Amphibians and Reptiles, Natural History Museum of Los Angeles County Los Angeles, California 90007, USA

Lepidophyma tarascae was described by Bezy et al. (1982) on the basis of three specimens from "near Mexiquillo. Aquila District, Michoacán, México." This locality is on the coast of Michoacán, ca. 16 km (by Hwy 200) WNW Caleta de Campos at 18°08'N, 102°56'W, but was listed inadvertently as 18°08'N, 103°56'W in the original description. Our observations indicate that the vegetation near Mexiquillo consists of degraded "Bosque Tropical Caducifolio" (Rzedowski 1978), whereas Alvarez and Diaz-Pardo (1983:143) list the type specimens as having been collected in "encinar." Moreover, field work conducted by the authors in the vicinity of Mexiquillo has failed to produce additional specimens of the species. A special effort was made to search rocky habitats similar to that mentioned in the original description. As members of the genus can be extraordinarily difficult to collect, additional work is necessary to establish definitively whether L. tarascae actually occurs at Mexiquillo, or whether the designated type locality may have been in error.

Recent field work, however, has established the presence of *Lepidophyma tarascae* in the northern sector of the Sierra de Coalcomán. A specimen (MZFC 8603) was collected in a cave (Cueva de la Virgen) on the canyon of the Rio Chilitos (18°52'N and 102°50'W) in the municipality of Aguililla, Michoacán. This is ca. 65 km N of the designated type locality and places the species near the Balsas Basin. The Coalcomán locality lies at 1225 m elevation in a transition zone between tropical deciduous forest and oak woodland, conforming closer with the vegetation reported by Alvarez and Diaz-Pardo (1983:143) for the type series.

The specimen from the Sierra de Coalcomán differs somewhat in morphology from the type series of Lepidophyma tarascae. It has slightly fewer total femoral pores (14 vs. 16-18) and gulars (40 vs. 41-43) and more dorsal scales (159 vs. 145-150). It shares with the type series the presence (on each side of the neck) of an uninterrupted longitudinal row of enlarged tubercles extending from the posteroventral margin of the tympanum to above the gular fold (Fig. 3 in Bezy et al. 1982), a feature that was utilized by Bezy and Camarillo (1995) to identify L. tarascae in their key to the xantusiids of Mexico. However, in the Coalcomán specimen this post-tympanic row of tubercles is not as distinct, i.e., it is less clearly separated from the scattered enlarged tubercles of the upper nuchal area than it is in the type series, approaching the condition observed in some L. smithii from Chiapas (e.g., MVZ 191448-49). The Coalcomán specimen lacks another distinctive feature found in the type series of L. tarascae. It has three dorsal interwhorls separating the enlarged caudal whorls throughout the length of the tail, whereas in the type series there are two in most of the proximal caudal segments (but three distally).

As is often the case with Lepidophyma. species decisions must

contend with limited sample sizes, discordant morphological variation, and geographically disjunct populations (Bezy 1984). Although the Coalcomán specimen differs somewhat from the other three known specimens of *L. tarascae* we provisionally assign it to that species. The four specimens thus assigned to *L. tarascae* have fewer total femoral pores (14–18) than all other members of the genus except *L. dontomasi*, *L. occulor*, and *L. smithii*. From these *L. tarascae* differs most markedly from *L. dontomasi* in having strongly enlarged lateral tubercle rows. In some morphological features the Coalcomán specimen bridges the morphological gap between *L. tarascae* and *L. smithii*. However, we retain *L. tarascae* as a separate species as all four known specimens differ from *L. smithii* (302 specimens examined) and *L. occulor* (11 examined) in having fewer than 162 dorsal scales and fewer than 44 gulars.

Acknowledgments.—We thank H. W. Greene (MVZ) for making specimens available for study, Francisco Vargas Santa Maria for assistance with the field work, and Kathryn Bolles, Lee Fitzgerald, and an anonymous reviewer for critical review of a previous version of the manuscript. OFV was supported by a Grant of Dirección General de Asuntos del Personal Academico, DGAPA, UNAM (IN-203493) and National Science Foundation grant DEB91-19091.

LITERATURE CITED

- ALVAREZ, T., AND E. DIAZ-PARDO. 1983. Estudio de una colección herpetofaunística de la costa de Michoacán. México. An. Esc. Nac. Cienc. Biol., Mex. 27:129-147.
- BEZY, R. L. 1984. Systematics of xantusiid lizards of the genus Lepidophyma in northeastern Mexico. Contrib. Sci. 349:1-16.
- AND J. L. CAMARILLO R. 1995. Key to the species of the Xantusiidae in Mexico. In O. Flores V., F. Mendoza Q., and G. Gonzalez P. (eds.), Recopilación de Claves para la Determinación de Anfibios y Repuiles de México, pp. 186–188. Publ. Esp. Mus. Zool. UNAM 10:1–285.
- . R. G. WEBB, AND T. ALVAREZ. 1982. A new species of the genus Lepidophyma (Sauria: Xantusiidae) from Michoacán, México. Herpetologica 38:361-366.
- RZEDOWSKI, J. 1978. Vegetación de México. Ed. Limosa, México. 432 pp.



Hyla cinerea (Green Treefrog). Illustration by Michael G. Frick.