

## REPTILIA: SQUAMATA: PHRYNOSOMATIDAE

*Sceloporus ochoterenae*

## Catalogue of American Amphibians and Reptiles.

Flores Villela, O., H.M. Smith, E.A. Liner, and D. Chiszar. 2008. *Sceloporus ochoterenae*.

***Sceloporus ochoterenae* Smith**  
**Ochoterena's Spiny Lizard**

*Sceloporus scalaris*: Duméril, Bocourt, and Mocquard 1874:202 (nec Wiegmann) (part).

*Sceloporus gratiosus*: Ferrari-Perez 1886:193 (nec Yarrow).

*Sceloporus aeneus* var.: Ferrari-Perez 1886:193 (nec Wiegmann).

*Sceloporus graciosus*: Cope 1887:36 (part).

*Sceloporus variabilis*: Günther 1890:75 (part).

*Sceloporus ochoterenae* Smith 1934:269. Type-locality, "two miles north of Mazatlán (12 miles south of Chilpancingo), Guerrero, Mexico". Holotype, EHT /HMS 1075, Field Museum of Natural History (FMNH) 100052, male, collected 26 June 1932 by E.H. Taylor and H.M. Smith.

*Sceloporus aeneus*: Ahl 1934:184 (nec Wiegmann).

*Sceloporus ochoterenai*: Smith and Taylor 1950b: 133.

*Lysoptychus ochoterenae*: Larsen and Tanner 1975: 18.

*Sceloporus ochoterenaei*: Wiens 1993:294. *Lapsus*.

- **CONTENT.** No subspecies are currently recognized.

- **DEFINITION.** Maximum SVL ca. 55 mm.; about 10 paravertebral, transverse dark spots on each side of body, separated by a brownish vertebral line, and bordered by a dorsolateral light line, in females and young males; adult males may become nearly uniform tan above, and always have a weaker dorsal pattern than females; head scales more or less normal, except for absence of postrostrals; internasals and nasals contacting rostral; a single row of large supraoculars; dorsal scales 38–46, mean 42.4, keeled, mucronate, weakly denticulate; lateral scales similar in character to dorsals, half or one third as large; ventral scales smaller than laterals, smallest medially, smooth, notched except for preanals; femoral pores 10–16 on each side, the two series separated by 2–6 scales; preanals keeled in females; a pair of enlarged postanals in males. Oviparous.

- **DIAGNOSIS.** This species is one of the most distinctive of the genus, differing from all others by the combination of absence of postrostrals and postfemoral dermal pockets, and presence of 10–16 femoral pores on each side. The keeled preanals in females are very unusual, otherwise found only in the *siniferus* species group (to which *S. ochoterenae* was once assigned [Smith 1939] on this basis). The only other species with no postrostrals and no postfemoral dermal pocket is *S. jalapae*, its closest relative, with which it forms a separate *jalapae* species group (Thomas and Dixon 1976, Cole 1978, Wiens and Reeder



FIGURE 1. A female *S. ochoterenae* from Ixcateopan de Cuauhtemoc, Guerrero. Photograph by Luis Canseco Márquez.

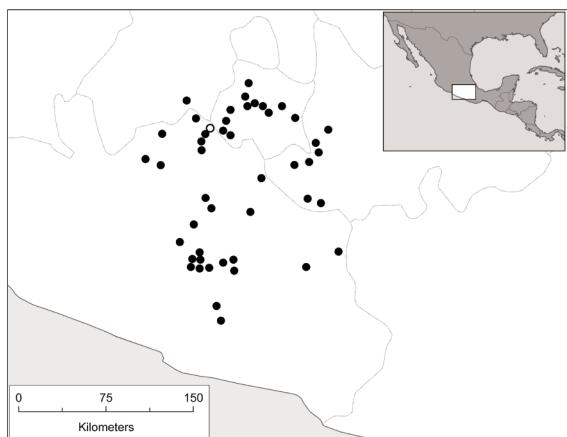
1997). *S. ochoterenae* differs from *S. jalapae* most conspicuously in number of femoral pores (10–16, vs 17–21) and number of dorsals, occiput to rear borders of thighs (38–46, vs 50–62). The only other species of the genus without postrostrals is *S. maculosus*, which has postfemoral dermal pockets and differs from the *jalapae* species group in numerous other respects.

- **DESCRIPTIONS.** Other descriptions are in Castro-Franco and Aranda-Escobar (1984), Hernández García (1989), Köhler and Heimes (2002), Saldaña de la Riva and Pérez Ramos (1987), and Smith (1934, 1939, 1984).

- **ILLUSTRATIONS.** A color photograph of a male and a female is in Köhler and Heimes (2002), and head scales are illustrated in a line drawing by Smith (1934, 1939).

- **DISTRIBUTION.** Observed in summer, autumn and winter in dry situations on the ground in rocky areas in deciduous and juniper forests at elevations from 520 to reputedly 2134 m northward from southeastern central Guerrero (Rincón/Cajones) to central Morelos (Cuernavaca region), westward into extreme southern Mexico State, eastward to western Puebla, and in Guerrero to near its northeastern border with Oaxaca at Alpoyeca (Guerrero range mapped by Saldaña de la Riva and Pérez Ramos, 1987). The species undoubtedly occurs in adjacent areas in the state of Oaxaca.

The material reported as *Sceloporus scalaris* by Gadow (1905) from Tierra Colorada, Guerrero, assigned to this species by Smith (1939), has incorrect locality data (Davis and Dixon 1961, Edmundo Pérez-Ramos, pers. comm.), but its identity as *Sceloporus ochoterenae* has been confirmed (Smith et al., 2000). Gadow's other records in Guerrero for *scalaris* (Chilpancingo, Río Balsas) are almost certainly correctly assigned to *ochoterenae*. The specimen from Coyoacán, Distrito Federal, reported by Smith (1939) has incorrect locality data. Olson et al. (1986) listed the species for Puente de Ixtla, Veracruz; the state was a *lapsus* for Morelos. Smith (1939) erroneously refer-



**MAP.** The circle indicates the type-locality, the dots other occurrence records.

red Cope's (1887) and Ferrari-Perez's (1886) records for [Ixtlan de] Matamoros to *S. jalapae*. Records for Oaxaca (Casas Andreu et al. 1997) pertain to *S. jalapae*.

- **FOSSIL RECORD.** None. The name was mentioned by Wellstead (1982) in connection with fossils of other species of the genus in Nebraska.

- **PERTINENT LITERATURE.** Anatomy (Larsen and Tanner 1974, 1975; Olson et al. 1986, 1987), behavior (Purdue and Carpenter 1972), bibliographies (Smith and Smith 1976, 1993), checklists, keys, and similar compendia (Aguilar Benítez 1990; Bell et al. 2003; Casas Andreu 1982; Casas Andreu et al. 2004; Castro Franco et al. 1986; Cochran 1961; Cuesta Terron 1932; Duellman 1965; Flores Villela 1993; Flores Villela et al. 1995; Frank and Ramus 1995; Hutchins et al. 2003; Liner 1994, 1996, 2007; Marx 1976; Smith 1936, 1987, 1991; Smith and Taylor 1950a,b; Smith et al. 1964; Sokolof 1988; Taylor 1944), conservation (Bojórquez-Tapia et al. 1995; García 2006), ecology and zoogeography (Camarillo and Aguilar 1992; Camarillo and Smith 1992; Castro Franco 2002; Castro Franco and Aranda Escobar 1984, 1985; Castro Franco and Bustos Zagal 1994, 2003; Davis and Dixon 1961; Davis and Smith 1953; Flores Villela 1993; Flores Villela and Gerez 1988, 1994; Flores-Villela and Hernández-García 2006; Flores Villela et al. 1991; García-Vazquez et al. 2006; Hernández García 1989; Köhler and Heimes 2002; Lemos-Espinal et al. 1997; Saldaña de la Riva and Pérez Ramos 1987; Sites et al. 1992; Smith 1934, 1939, 1984), karyology (Cole 1978), parasites (Peláez et al. 1948), phylogenetics and evolution (Flores-Villela et al. 2000; Harmon et al. 2003; Larsen and Tanner 1974, 1975; Schulte et al. 2003; Sites et al. 1992; Wiens 1993, 1998, 1999; Wiens and Reeder 1997; Wills 1977), reproduction (Davis and Dixon 1961; Fitch 1970; Guillette et al. 1980; Méndez-de la Cruz et al. 1998; Saldaña de la Riva and Pérez Ramos 1987; Smith et al. 2003).

- **REMARKS.** Specimens of this species were

known but mis-identified as *S. scalaris*, *S. graciosus*, *S. gratiosus* or *S. aeneus* from at least 1874 to 1934. Some were referred to *S. jalapae* as late as 1939. All of these species are of about the same size, and have somewhat similar patterns, but morphologically *ochoterenae* and *jalapae* are much different from the others.

The correct ending of this patronym, under the rules of the first (1926), second (1961) and third (1964) editions of the International Code of Zoological Nomenclature was *ochoterenai*, although the name was originally spelled *ochoterenae*. Therefore in Smith and Taylor (1950b) the supposedly correct spelling was introduced as *ochoterenai*. The former spelling would have been proper if the name were considered to be latinized, rather than modern, but the 1926 Code explicitly excluded considerations of latinization (the 1961 and 1964 Codes did not treat the subject). The spelling *ochoterenai* followed the unexceptional rule (1926, 1961) or recommendation (1964) distinguishing patronyms from matronyms of modern names. Not until the fourth (1999) edition of the Code appeared was it required under the Code to give an eponym an ending conformant with Latin grammar if the name were considered latinized (Art. 31.1.1). The 1999 Code explicitly states that its provisions supersede those of previous editions. Therefore the proper ending of this patronym depends on whether the name was originally considered latinized or not. It obviously was, and therefore the name under the 1999 Code should be spelled *ochoterenae*. This conclusion is not destabilizing, inasmuch as the *-ai* ending was used 17 times in the tallied literature, the *-ae* ending 21 times. The *-ae* ending has been used as recently as 2002, and the *-ai* ending as recently as 1995.

- **ETYMOLOGY.** The name honors Dr. Isaac Ochoterena, former Director of the Instituto de Biología of the Universidad Nacional Autónoma de México, in recognition of numerous courtesies extended to Taylor and Smith in their collecting trip of 1932.

- **ACKNOWLEDGMENTS.** We are much indebted to J. Simmons, E.N. Smith and G. Schneider for checking the identifications of certain specimens; to E. Pérez Ramos for help in plotting localities in Guerrero; and to the curators of AMNH, CU, FMNH, IPN, KU, LSUMZ, MCZ, MSB, MVZ, TCNC, TCWC, UCM, UIMNH, UMMZ, USNM and UTA for information on their holdings of this species (acronyms from Leviton et al. 1985).

## LITERATURE CITED

- Aguilar Benítez, S. 1990. Dimensiones Ecológicas del Estado de Morelos. DR Centro Reg. Invest. Multidisciplinarias, Univ. Nac. Auton. Mex, Cuernavaca, Morelos.  
 Ahl, E. 1934. Über eine Sammlung von Reptilien und Amphibien aus Mexiko. Zool. Anz. 106:184–186.  
 Bell, E.L., H.M. Smith, and D. Chiszar. 2003. An annotated list of the species-group names applied

- to the lizard genus *Sceloporus*. Acta Zool. Mex. (n.s.) 90:103–174.
- Bojórquez-Tapia, L.A., I. Azuara, E. Ezcurra, and O. Flores-Villela. 1995. Identifying conservation priorities in Mexico through geographic information systems and modeling. Ecol. Appl. 5:215–231.
- Camarillo-Rangel, J.L. and R. Aguilar C. 1992. Note-worthy distributional records for some Mexican amphibians and reptiles. Southwest. Herpetol. Soc. Newsl. 22(1):5–6.
- and H.M. Smith. 1992. A handlist of the amphibians and reptiles of the state of Mexico, Mexico, p. 39–41. In P.D. and J.L. Strimple (eds.), Contributions in Herpetology. Greater Cincinnati Herpetol. Soc., Cincinnati, Ohio.
- Casas-Andreu, G. 1982. Anfibios y reptiles de la costa suroeste del estado de Jalisco, con aspectos sobre su ecología y biogeografía. Doctoral Diss. UNAM, México, D.F.
- , X. Aguilar-Miguel and E.O. Pineda-Arredondo. 1997. Lista taxonómica de los vertebrados terrestres del estado de México. I. Anfibios y reptiles. Colección Ciencias y Técnicas, Univ. Autón. Méx-ico, Toluca (32):9–53.
- , F.R. Méndez-de la Cruz, and X. Aguilar-Miguel. 2004. Anfibios y Reptiles, p. 375–390. In A.J. García-Mendoza, M.d. Jesús Ordóñez, y M. Briones-Salas (eds.), Biodiversidad de Oaxaca. Inst. Biol. UNAM, Fond. Oax Conserv Nat. – WWF, México.
- Castro Franco, R. 2002. Historia natural de lagartijas del estado de Morelos, Mexico. Unpubl. Masters Thesis UNAM, Mexico.
- and E. Aranda Escobar. 1984. Estudio preliminar sobre la ecología de los reptiles del Estado de Morelos. Unpubl. Bachelor's Diss., Escuela de Ciencias Biológicas, Universidad Autónoma del Estado de Morelos, Cuernavaca.
- and –. 1985. Distribución ecológica de las lagartijas en el estado de Morelos. Mem. 8th Congr. Nac. Zool., Saltillo, Coahuila, México:897–908.
- and M.G. Bustos Zagal. 1994. List of reptiles of Morelos, Mexico, and their distribution in relation to vegetation types. Southwest. Nat. 39:171–175.
- and –. 2003. Lagartijas de Morelos, México: distribución, habitat y conservación. Acta Zool. Mex. (n.s.) 88:123–142.
- , G. García Muñoz, R. Lara López, and G. Bustos Zagal. 1986. La herpetología de Morelos: ecología e importancia económica. Resúmenes Primera Reunión Nat. Herpetol.:19.
- Cochran, D.M. 1961. Type specimens of reptiles and amphibians in the U.S. National Museum. Bull. U.S. Natl. Mus. (220):xv + 291 p.
- Cole, C.J. 1978. Karyotypes and systematics of the lizards in the *variabilis*, *jalapae*, and *scalaris* species groups of the genus *Sceloporus*. Amer. Mus. Novitates (2653):1–13.
- Cope, E.D. 1887. Catalogue of batrachians and reptiles of Central America and Mexico. Bull. U.S. Natl. Mus. (32):1–98.
- Cuesta Terrón, C. 1932. Los camaleones mexicanos. An. Inst. Biol. Univ. Mexico 3:95–121.
- Davis, W.B. and J.R. Dixon. 1961. Reptiles (exclusive of snakes) from the Chilpancingo region, Mexico. Proc. Biol. Soc. Washington 74:37–56.
- and H.M. Smith. 1953. Lizards and turtles of the Mexican state of Morelos. Herpetologica 9:100–108.
- Duellman, W.E. 1965. A biogeographic account of the herpetofauna of Michoacán, Mexico. Univ. Kansas Publ. Mus. Nat. Hist. 15:627–709.
- Duméril, A.H.A., M-F. Bocourt, and F. Mocquard. 1870–1909. Étude sur les Reptiles. Mission Scientifique au Mexique et dans l'Amérique Centrale. Recherches Zoologiques. Troisième Partie – 1re Section. Impr. Nat., Paris.
- Ferrari-Pérez, F. 1886. Catalogue of animals collected by the Geographical and Exploring Commission of the Republic of Mexico. Proc. U.S. Natl. Mus. 9:125–199.
- Fitch, H.S. 1970. Reproductive cycles in lizards and snakes. Univ. Kansas Publ. Mus. Nat. Hist. 52: 1–247.
- Flores Villela, O.A. 1993. Herpetofauna Mexicana: annotated list of the species of amphibians and reptiles of Mexico, recent taxonomic changes, and new species. Carnegie Mus. Nat. Hist. Spec. Publ. (17):iv + 73 p.
- and P. Gérez. 1988. Conservación en México: síntesis sobre vertebrados terrestres, vegetación y el uso del suelo. Inst. Nac. Investigaciones Recursos Nat., Xalapa, México.
- and –. 1994. Biodiversidad y conservación en México: vertebrados, vegetación y uso del suelo. Univ. Nac. Autón. México - UBIPRO, México, D.F.
- and E. Hernández García. 2006. Herpetofauna de la Sierra de Taxco, Guerrero-Estado de México, p. 266–282. In A. Ramírez-Bautista, L. Canseco-Márquez, and F. Mendoza-Quijano (eds.), Inventarios herpetofaunísticos de México: avances en el conocimiento de su biodiversidad. Publ. Soc. Herpetol. Mex. (3).
- , –, and A. Nieto-Montes de Oca. 1991. Catálogo de anfibios y reptiles del Museo de Zoología, Facultad de Ciencias, Universidad Nacional Autónoma de México. Ser. Catálogos Mus. Zool. "Alfonso L. Herrera" (3):xii + 222 p.
- , K.M. Kjer, M. Benabib, and J.W. Sites, Jr. 2000. Multiple data sets, congruence, and hypothesis testing for the phylogeny of basal groups of the lizard genus *Sceloporus* (Squamata, Phrynosomatidae). Syst. Biol. 49:713–739.
- , F. Mendoza Quijano, and G. Gonzalez Porter (compl.). 1995. Recopilacion de claves para la determinacion de anfibios y reptiles de Mexico. Publ. esp. Mus. Zool. (10):iv + 285 p.
- Frank, N. and E. Ramus. 1995. A Complete Guide to Scientific and Common Names of Reptiles and Amphibians of the World. NG Publ., Inc., Pottsville, Pennsylvania.
- Gadow, H.F. 1905. The distribution of Mexican amphibians and reptiles. Proc. Zool. Soc. Lond. 1905: 191–245.
- García, A. 2006. Using ecological niche modelling to identify diversity hotspots for the herpetofauna of

- Pacific lowlands and adjacent interior valleys of Mexico. *Biol. Conserv.* 130:25–46.
- García-Vazquez, U.O., L. Canseco-Márquez, J.L. Aguilar-López, C.A. Hernández-Jiménez, J. Macea-Cruz, M.G. Gutiérrez-Mayén, and E.Y. Melgarejo-Velez. 2006. Análisis la distribución de la herpetofauna en la región Mixteca de Puebla, México, p. 152–169. In A. Ramírez-Bautista, L. Canseco-Márquez, and F. Mendoza-Quijano (eds.), *Inventarios herpetofaunísticos de México: avances en el conocimiento de su biodiversidad*. Publ. Soc. Herpetol. Mex. (3).
- Guillette, L.J., Jr., R.E. Jones, K.T. Fitzgerald, and H.M. Smith. 1980. Evolution of viviparity in the lizard genus *Sceloporus*. *Herpetologica* 36:201–215.
- Günther, A.C.L.G. 1890. *Biología Centrali-Americana. Reptilia and Batrachia*. R.H. Porter, and Dulau and Co., London.
- Hernández García, E. 1989. *Herpetofauna de la Sierra de Taxco*, Gro. Prof. Diss., Biologist, Univ. Nac. Aut. México, Cd. Universitaria, D.F., México.
- Harmon, L.J., J.A. Schulte, II, A. Larson, and J.B. Losos. 2003. Tempo and mode of evolutionary radiation in iguanian lizards. *Science* 301:961–964.
- Hutchins, M., J.B. Murphy, and N. Schlager (eds.). 2003. *Grzimek's Animal Life Encyclopedia*. 2nd ed. Vol.7. Reptiles. Gale Group, Inc., Farmington Hills, Michigan.
- Köhler, G. and P. Heimes. 2002. *Stachelleguane: Lebensweise.Pflege.Zucht*. Herpeton, Offenbach, Germany.
- Larsen, K.R. and W.W. Tanner. 1974. Numeric analysis of the lizard genus *Sceloporus* with special reference to cranial osteology. *Great Basin Nat.* 34: 1–41.
- and -. 1975. Evolution of sceloporine lizards (Iguanidae). *Great Basin Nat.* 35:1–20.
- Lemos-Espinal, J.A., G.R. Smith, and R.E. Ballinger. 1997. Thermal ecology of the lizard, *Sceloporus gadoviae*, in a tropical scrub forest. *J. Arid Environ.* 35:311–319.
- Leviton, A.E., R.H. Gibbs, Jr., E. Heal, and C.E. Dawson. 1985. Standards in herpetology and ichthyology: Part I. Standard symbolic codes for institutional resource collections in herpetology and ichthyology. *Copeia* 1985:802–821.
- Liner, E.A. 1994. Scientific and common names for the amphibians and reptiles of Mexico in English and Spanish. *Nombres científicos y comunes en Inglés y Español de los anfibios y reptiles de México*. SSAR Herpetol. Circ. (23):v + 113 p.
- 1996. Mexico bound IX. The Herper. Louisiana Gulf Coast Herpetol. Soc. 3(4):7–12.
  - 2007. A checklist of the amphibians and reptiles of Mexico. *Occ. Pap. Mus. Nat. Sci. Louisiana St. Univ.* (80):1–60.
- Marx, H. 1976. Supplementary catalogue of type specimens of reptiles and amphibians in Field Museum of Natural History. *Fieldiana Zool.* 69:33–94.
- Méndez-de la Cruz, F.R., M. Villagrán-Santa Cruz, and R.M. Andrews. 1998. Evolution of viviparity in the lizard genus *Sceloporus*. *Herpetologica* 54: 521–532.
- Olson, R.E., B. Marx, and R. Rome. 1986. Descriptive dentition morphology of lizards of Middle and North America, I: Scincidae, Teiidae, and Helodermatidae. *Bull. Maryland Herpetol. Soc.* 22:97–124
- , -, and -. 1987. Descriptive dentition morphology of lizards of Middle and North America II: Iguanidae. *Bull. Maryland Herpetol. Soc.* 23:12–34.
- Pelaez, D., R. Pérez Reyes, and A. Barrera. 1948. Estudios sobre hematozoarios I. *Plasmodium mexicanum* Thompson y Huff, 1944, en sus huéspedes naturales. *An. Esc. nac. Cienc. Biol.* 5: 197–215.
- Purdue, J.R. and C.C. Carpenter. 1972. A comparative study of the display motion in the iguanid genera *Sceloporus*, *Uta*, and *Urosaurus*. *Herpetologica* 28:137–141.
- Saldaña de la Riva, L. and E. Pérez Ramos. 1987. *Herpetofauna del Estado de Guerrero*, México. Tesis Prof. Biol. UNAM, Mexico, D.F.
- Schulte, J.A., II, J.P. Valladares, and A. Larson. 2003. Phylogenetic relationships within Iguanidae inferred using molecular and morphological data and a phylogenetic taxonomy of iguanian lizards. *Herpetologica* 59:399–419.
- Sites, J.W., Jr., J.W. Archie, C.J. Cole, and O. Flores Villela. 1992. A review of phylogenetic hypotheses for lizards of the genus *Sceloporus* (Phrynosomatidae): implications for ecological and evolutionary studies. *Bull. Amer. Mus. Nat. Hist.* (213): 1–110.
- Smith, G.R., J.A. Lemos-Espinal, and R.E. Ballinger. 2003. Body size, sexual dimorphism, and clutch size in two populations of the lizard *Sceloporus ochoteraeae*. *Southwest. Nat.* 48:123–126.
- Smith, H.M. 1934. Descriptions of new lizards of genus *Sceloporus* from Mexico and southern United States. *Trans. Kansas Acad. Sci.* 37:263–285.
- 1936. Descriptions of new species of lizards of the genus *Sceloporus* from Mexico. *Proc. Biol. Soc. Washington* 49:87–96.
  - 1939. The Mexican and Central American lizards of the genus *Sceloporus*. *Zool. Ser. Field Mus. Nat. Hist.* (26): 1–397.
  - 1984. Notes on the enigmatic *Barisia imbricata* of the British Museum, and on its collection of reptiles from Amula, Guerrero, Mexico. *Bull. Maryland Herpetol. Soc.* 20:152–158.
  - 1987. Current nomenclature for the names and material cited in Günther's *Reptilia* and *Batrachia* volume of the *Biología Centrali-Americana*, p. XXIII–LI. In A.C.L.G. Günther. 1885–1902. *Biología Centrali-Americana*. SSAR Facs. Reprints Herpetol., Ithaca, New York.
  - 1991. The status of the southern Mexican lizard *Sceloporus carinatus*. *Bull. Maryland Herpetol. Soc.* 27:195–200.
  - , D.A. Langebartel, and K.L. Williams. 1964. Herpetological type-specimens in the University of Illinois Museum of Natural History. *Illinois Biol. Monogr.* (32):1–80.
  - , C. McCarthy, and D. Chiszar. 2000. Some enigmatic identifications in Boulenger's 1897 *Scelo-*

- porus* monograph (Reptilia: Sauria). Bull. Maryland Herpetol. Soc. 36:124–132.
- and R.B. Smith. 1976. Synopsis of the Herpetofauna of Mexico. Source Analysis and Index for Mexican Reptiles. Vol. III. John Johnson, North Bennington, Vermont.
  - and –. 1993. Synopsis of the Herpetofauna of Mexico. Vol. VII. Bibliographic Addendum IV and Index, Bibliographic Addenda II-IV. Univ. Press of Colorado, Niwot, Colorado.
  - and E.H. Taylor. 1950a. Type localities of Mexican reptiles and amphibians. Univ. Kansas Sci. Bull. 33:313–380.
  - and –. 1950b. An annotated checklist and key to the reptiles of Mexico exclusive of the snakes. Bull. U. S. Natl. Mus. (199):v + 253 p.
  - Sokolov, V.E. (ed.). 1988. Dictionary of Animal Names in Five Languages. Amphibians and Reptiles. Russky Yazyk Publ., Moscow.
  - Taylor, E.H. 1944. Present location of certain herpetological and other types specimens. Univ. Kansas Sci. Bull. 30:117–187.
  - Thomas, R.A. and J.R. Dixon. 1976. A re-evaluation of the *Sceloporus scalaris* group (Sauria: Iguanidae). Southwest. Nat. 20:523–536.
  - Wellstead, C.F. 1982. Lizards from the Lower Valentine Formation (Miocene) of northern Nebraska. J. Herpetol. 16:364–375.
  - Wiens, J.J. 1993. Phylogenetic relationships of phrynosomatid lizards and monophyly of the *Sceloporus* group. Copeia 1993:287–299.
  - . 1998. Testing phylogenetic methods with tree congruence: phylogenetic analysis of polymorphic morphological characters in phrynosomatid lizards. Syst. Biol. 47:427–444.
  - . 1999. Phylogenetic evidence for multiple losses of a sexually selected character in phrynosomatid lizards. Proc. R. Soc. Lond. B 266:1529–1535.
  - and T.W. Reeder. 1997. Phylogeny of the spiny lizards (*Sceloporus*) based on molecular and morphological evidence. Herpetol. Monogr. (11):1–101.
  - Wills, F.H. 1977. Distribution, geographic variation and natural history of *Sceloporus parvus* Smith (Sauria: Iguanidae). M.S. Thesis, Texas A&M University, College Station.

---

Society for the Study of Amphibians and Reptiles.

---

**Oscar Flores-Villela**, Museo de Zoología, Facultad de Ciencias, UNAM, A.P. 70–399, México, D.F. 04510 México (ofv@hp.fciencias.unam.mx); **Hobart M. Smith**, Department of EPO Biology, University of Colorado, Boulder, CO 80309–0334 (hsmith@spot.colorado.edu); **Ernest A. Liner**, 310 Malibou Boulevard, Houma, LA 70364–2598 (eliner@mobiletel.com); **David Chiszar**, Department of Psychology, University of Colorado, Boulder, CO 80309–0345 (chiszar@clipr.colorado.edu).

Primary editor for this account, Andrew H. Price.

Published 30 April 2008 and Copyright © 2008 by the