

ZOOTAXA

3862

A revision of the Mexican *Anolis* (Reptilia, Squamata, Dactyloidae) from the Pacific versant west of the Isthmus de Tehuantepec in the states of Oaxaca, Guerrero, and Puebla, with the description of six new species

GUNTHER KÖHLER^{1,5}, RAÚL GÓMEZ TREJO PÉREZ², CLAUS BO P. PETERSEN^{1,3}
& FAUSTO R. MÉNDEZ DE LA CRUZ⁴

¹ Senckenberg Forschungsinstitut und Naturmuseum, Senckenberganlage 25, 60325 Frankfurt a.M., Germany

² Facultad de Estudios Superiores Iztacala, Universidad Nacional Autónoma de México (UNAM), Avenida de los Barrios 1, Los Reyes Iztacala, C.P. 54090, Estado de México, México

³ Zoological Museum, Natural History Museum of Denmark, University of Copenhagen, Universitetsparken 15, DK-2100 Copenhagen, Denmark

⁴ Instituto de Biología, Universidad Nacional Autónoma de México (UNAM), A.P. 70-153, C.P. 04510, México D.F. México

⁵ Correspondence: gkoehler@senckenberg.de



Magnolia Press
Auckland, New Zealand

GUNTHER KÖHLER, RAÚL GÓMEZ TREJO PÉREZ, CLAUS BO P. PETERSEN
& FAUSTO R. MÉNDEZ DE LA CRUZ

A revision of the Mexican *Anolis* (Reptilia, Squamata, Dactyloidae) from the Pacific versant west of the Isthmus de Tehuantepec in the states of Oaxaca, Guerrero, and Puebla, with the description of six new species

(*Zootaxa* 3862)

210 pp.; 30 cm.

19 Sept. 2014

ISBN 978-1-77557-485-9 (paperback)

ISBN 978-1-77557-486-6 (Online edition)

FIRST PUBLISHED IN 2014 BY

Magnolia Press

P.O. Box 41-383

Auckland 1346

New Zealand

e-mail: zootaxa@mapress.com

<http://www.mapress.com/zootaxa/>

© 2014 Magnolia Press

All rights reserved.

No part of this publication may be reproduced, stored, transmitted or disseminated, in any form, or by any means, without prior written permission from the publisher, to whom all requests to reproduce copyright material should be directed in writing.

This authorization does not extend to any other kind of copying, by any means, in any form, and for any purpose other than private research use.

ISSN 1175-5326 (Print edition)

ISSN 1175-5334 (Online edition)

Table of contents

Table of contents	3
Abstract	3
Resumen	4
Introduction	4
Materials and methods	4
The Environment	7
Results	12
The taxonomic status of <i>Anolis forbesi</i> Smith & Van Gelder 1955 and <i>Anolis microlepidotus</i> Davis 1954	12
<i>Anolis microlepidotus</i> Davis 1954	16
Taxonomy of the Mexican anoles related to <i>Anolis nebuloides</i> Bocourt 1873	24
<i>Anolis nietoi</i> sp. nov.	33
<i>Anolis stevepoei</i> sp. nov.	40
<i>Anolis zapotecorum</i> sp. nov.	48
<i>Anolis megapholidotus</i> Smith 1933	55
<i>Anolis nebuloides</i> Bocourt 1873	61
Taxonomy of the Mexican anoles related to <i>Anolis quercurum</i> Fitch 1978	67
<i>Anolis carlliebi</i> sp. nov.	70
<i>Anolis sacamecatensis</i> sp. nov.	77
<i>Anolis quercurum</i> Fitch 1978	85
Taxonomy of the Mexican anoles related to <i>Anolis boulengerianus</i> Thominot 1887	92
<i>Anolis immaculogularis</i> sp. nov.	96
<i>Anolis boulengerianus</i> Thominot 1887	103
<i>Anolis subocularis</i> Davis 1954	111
Taxonomy of the Mexican anoles related to <i>Anolis nebulosus</i> (Wiegmann 1834)	117
<i>Anolis nebulosus</i> (Wiegmann 1834)	117
Taxonomy of the Mexican anoles related to <i>Anolis liogaster</i> Boulenger 1905	126
<i>Anolis dunnii</i> Smith 1936	137
<i>Anolis taylori</i> Smith and Spieler 1945	144
<i>Anolis gadovii</i> Boulenger 1905	150
<i>Anolis liogaster</i> Boulenger 1905	158
<i>Anolis omiltemanus</i> Davis 1954	168
<i>Anolis peucephilus</i> Köhler, Gómez Trejo Pérez, Petersen & Méndez de la Cruz 2014	174
Taxonomy of the Mexican anoles related to <i>Anolis macrinii</i> Smith 1968	180
<i>Anolis macrinii</i> Smith 1968	181
Taxonomy of the Pacific versant Mexican anoles related to <i>Anolis sericeus</i> Hallowell 1856	190
<i>Anolis unilobatus</i> Köhler & Vesely 2010	190
Key to species of Mexican <i>Anolis</i> from the Pacific versant west of the Isthmus de Tehuantepec in the states of Oaxaca, Guerrero, and Puebla	198
Discussion	200
Acknowledgments	201
References	202

Abstract

We revise the species of anoles occurring along the Pacific versant of Mexico west of the Isthmus de Tehuantepec in the states of Oaxaca, Guerrero, and Puebla. Based on our analyses of morphological and molecular genetic data, we recognize 21 species, six of which we describe as new (i.e., *Anolis carlliebi* sp. nov., *A. immaculogularis* sp. nov., *A. nietoi* sp. nov., *A. sacamecatensis* sp. nov., *A. stevepoei* sp. nov., and *A. zapotecorum* sp. nov.). Furthermore, we synonymize *Anolis forbesi* Smith & Van Gelder 1955 with *Anolis microlepidotus* Davis 1954. Of the recognized species, six have smooth ventral scales (i.e., *Anolis dunnii*, *A. gadovii*, *A. liogaster*, *A. omiltemanus*, *A. peucephilus*, and *A. taylori*) and 14 have keeled ventral scales (i.e., *A. boulengerianus*, *A. carlliebi*, *A. immaculogularis*, *A. megapholidotus*, *A. microlepidotus*, *A. nebuloides*, *A. nebulosus*, *A. nietoi*, *A. quercurum*, *A. sacamecatensis*, *A. stevepoei*, *A. subocularis*, *A. unilobatus*, and *A. zapotecorum*). In one species, *A. macrinii*, the ventral scales vary from smooth to weakly keeled. For each species we provide color descriptions in life, color photographs in life, descriptions and illustration of hemipenis morphology (if available), description of external morphology, distribution maps based on the specimens examined, comments on the conservation status, and natural history notes. Finally, we provide a dichotomous key for the identification of the 21 species of anoles occurring along the Pacific versant of Mexico west of the Isthmus de Tehuantepec in the states of Oaxaca, Guerrero, and Puebla.

Key words: Reptilia, *Anolis*, Mexico, phylogeny, taxonomy

References

- Ahl, E. (1934) Über eine Sammlung von Reptilien und Amphibien aus Mexico. *Zoologischer Anzeiger, Leipzig*, 106 (7/8), 184–186.
- Ahl, E. (1940) Über eine Sammlung von Reptilien aus El Salvador. *Sitzungsberichte der Gesellschaft Naturforschender Freunde Berlin*, 1940, 245–248.
- Alvarez del Toro, M. & Smith, H.M. (1956) Notulae herpetologicae Chiapasiae I. *Herpetologica*, 12 (1), 3–17.
- Anderson, J.D. & Lidicker, W.Z. (1963) A contribution of our knowledge of the herpetofauna of the Mexican state of Aguascalientes. *Herpetologica*, 19 (1), 40–51.
- Barbour, T. (1932) On a new *Anolis* from western Mexico. *Copeia*, 1932 (1), 11–12.
<http://dx.doi.org/10.2307/1437022>
- Barbour, T. (1934) The anoles. II. The mainland species from Mexico southward. *Bulletin of the Museum of Comparative Zoology at Harvard College*, 77, 121–155.
- Barbour, T. & Loveridge, A. (1929) Vertebrates from the Corn Islands. Reptiles and amphibians. *Bulletin Museum of Comparative Zoology*, 69, 138–146.
- Bellairs, A. (1969) *The Life of Reptiles*. 2 Vols. Weidenfeld and Nicholson, London, 590 pp.
- Beltrán, E. (1953) *Vida Silvestre y recursos naturales a lo largo de la carretera panamericana*. México, D. F. Instituto Mexicano de Recursos Naturales Renovables, A. C. 228 pp.
- Bocourt, M.F. (1873) Recherches zoologiques. 1. Section. Etudes sur les reptiles. In: Dumeril, M.A., Bocourt, M.F. & Mocquard, M. (Eds.), *Mission Scientifique au Mexique et dans l'Amérique Centrale. Livr. 3*. Paris, Imprimerie impériale, pp. 9–1012.
- Bogert, C.W. & Oliver, J.A. (1945) A preliminary analysis of the herpetofauna of Sonora. *Bulletin of the American Museum of Natural History*, 83, 297–426.
- Boulenger, G.A. (1885) *Catalogue of the Lizards in the British Museum (Natural History)*. 2nd Edition. Vol. II. Taylor and Francis, London, 497 pp.
- Boulenger, G.A. (1905) Descriptions of new reptiles discovered in Mexico by Dr. H. Gadow, F.R.S. *Proceedings of the Zoological Society of London*, 1905 (2), 245–247.
- Boyd, A., Ogle, M.E., Smith, G.R., Lemos-Espinal, J.A. & Dibble, C.J. (2007) *Anolis nebulosus* (Clouded Anole) Diet. *Herpetological Review*, 38, 75.
- Brandon-Jones, D., Duckworth, J.W., Jenkins, P.D., Rylands, A.B. & Sarmiento, E.E. (2007) The genitive of species-group scientific names formed from personal names. *Zootaxa*, 1541, 41–48.
- Brygoo, E.R. (1989) Les types d'Iguanides (Reptiles, Sauriens) du Muséum national d'Histoire naturelle Catalogue critique. *Bulletin Museum National d'Histoire Naturelle*, 4, Series 11, Section A, No. 3 (Supplement), 1–112.
- Bryson, R.W., Banda, J. & Lazcano, D. (2002) *Crotalus lepidus maculosus* (Durangan Rock Rattlesnake). Diet. *Herpetological Review*, 33 (2), 139–140.
- Burt, C.E. & Myers, G.S. (1942) Neotropical lizards in the collection of the Natural History Museum of Stanford University. *Stanford University Publications, University Series, Biological Sciences*, 8, 273–324.
- Buth, D.G., Murphy, R.W., Miyamoto, M.M. & Lieb, C.S. (1985) Creatine kinases of amphibians and reptiles: evolutionary and systematic aspects of gene expression. *Copeia*, 1985 (2), 279–284.
<http://dx.doi.org/10.2307/1444837>
- Canseco-Márquez, L. & Gutiérrez-Mayén, M.G. (2006) *Guía del campo de los anfibios y reptiles del Valle de Zapotitlán, Puebla*. Sociedad Herpetológica Mexicana, A. C. Escuela de Biología, BUAP, 78 pp.
- Canseco-Márquez, L., & Gutiérrez-Mayén, M.G. (2010) *Anfibios y reptiles del Valle de Tehuacán-Cuicatlán*. Comisión Nacional para el conocimiento y uso de la biodiversidad, México D.F., Mexico, 302 pp.
- Castañeda, M.d.R., de Queiroz, K. (2013) Phylogeny of the *Dactyloa* clade of *Anolis* lizards: New insights from combining morphological and molecular data. *Bulletin of the Museum of Comparative Zoology*, 160 (7), 345–398.
<http://dx.doi.org/10.3099/0027-4100-160.7.345>
- Castigilia, R., Annesi, F., Bezerra, A.M.R., García, A. & Flores-Villela, O. (2010) Cytotaxonomy and DNA taxonomy of lizards (Squamata, Sauria) from a tropical dry forest in the Chamela- Cuixmala Biosphere Reserve on the coast of Jalisco, Mexico. *Zootaxa*, 2508, 1–29.
- Chrapliwy, P.S. & Fugler, C.M. (1955) Amphibians and reptiles collected in Mexico in the summer of 1953. *Herpetologica*, 11 (2), 121–128.
- Cochran, D.M. (1961) Type specimens of reptiles and amphibians in the U.S. National Museum. *Bulletin of the United States National Museum*, 220, 1–291.
- Conant, R. (1969) A review of the water snakes of the genus *Natrix* in Mexico. *Bulletin of the American Museum of Natural History*, 142 (1), 1–140.
- Cope, E.D. (1866) Fourth contributions to the herpetology of tropical America. *Proceedings of the Academy of Natural Sciences of Philadelphia*, 18, 123–132.
- Cope, E.D. (1879) Eleventh contributions to the herpetology of tropical America. *Proceedings of the American Philosophical Society*, 18, 261–277.
- Cope, E.D. (1886) Part III. Reptiles and amphibians. In: Ferrari-Perez (Ed.), *Catalogue of Animals Collected by the*

- Geographical and Exploring Commission of the Republic of Mexico. *Proceedings of the United States National Museum*, 9, pp. 125–199.
- Cope, E.D. (1887) Catalogue of batrachians and reptiles of Central America and Mexico. *Bulletin of the United States National Museum*, 32, 1–98.
- Cope, E.D. (1896) The geographical distribution of Batrachia and Reptilia in North America. III The eastern subregion. *The American Naturalist*, 30 (360), 1003–1026.
<http://dx.doi.org/10.1086/276515>
- Cope, E.D. (1900) The crocodilians, lizards, and snakes of North America. *Report of the United States National Museum*, 1898, 153–1270.
- Crossin, R.S., Soule, O.H., Webb, R.G. & Baker, R.H. (1973) Biotic relationships in the Canon Del Rio Mezquital, Durango, Mexico. *The Southwestern Naturalist*, 18 (2), 187–200.
<http://dx.doi.org/10.2307/3670419>
- Davis, W.B. (1954) Three new anoles from Mexico. *Herpetologica*, 10 (1), 1–6.
- Davis, W.B. & Dixon, J.R. (1961) Reptiles (exclusive of snakes) from the Chilpancingo region, Mexico. *Proceedings of the Biological Society of Washington*, 74, 37–56.
- Davis, W.B. & Smith, H.M. (1953) Lizards and turtles of the Mexican State of Morelos. *Herpetologica*, 9 (2), 100–108.
- de Queiroz, K. (2007) Species concepts and species delimitation. *Systematic Biology*, 56 (6), 879–886.
- Dixon, J.R. & Webb, R.G. (1966) A new *Syrrhopus* from Mexico (Amphibia: Leptodactylidae). *Contributions in Science, Los Angeles County Museum*, 102, 1–5.
- Drake, J.J. (1958) The brush mouse *Peromyscus boylii* in southern Durango. *Publications of the Michigan State Museum, Biological Series*, 1 (3), 99–132.
- Duellman, W.E. (1954) The amphibians and reptiles of *Jorullo* Volcano, Michoacán, Mexico. *Occasional Papers of the Museum of Zoology University of Michigan*, 560, 1–24.
- Duellman, W.E. (1956) *The frogs of the hylid genus Phrynohyas* Fitzinger, 1843. *Miscellaneous Publications, Museum of Zoology, University of Michigan*, 96, 1–47.
- Duellman, W.E. (1958a) Comments on the type locality and geographical distribution of *Urosaurus gadowi*. *Copeia*, 1958 (1), 48–49.
- Duellman, W.E. (1958b) A preliminary analysis of the herpetofauna of Colima, Mexico. *Occasional Papers of the Museum of Zoology University of Michigan*, 589, 1–22.
- Duellman, W.E. (1961) The amphibians and reptiles of Michoacán, México. *University of Kansas Publications, Museum of Natural History*, 15 (1), 1–148.
- Duellman, W.E. (1965) A biogeographic account of the herpetofauna of Michoacán, México. *University of Kansas Publications, Museum of Natural History*, 15 (14), 627–709.
- Duellman, W.E. & Duellman, A.S. (1959) Variation, distribution and ecology of the Iguanid lizard *Enyaliosaurus clarki* of Michoacán, México. *Occasional Papers of the Museum of Zoology University of Michigan*, 598, 1–10.
- Dugès, A.A.D. (1869) Catálogo de animales vertebrados observados en la república Mexicana. *Naturaleza*, 1, 137–145.
- Dugès, A.A.D. (1878) *Programa de un curso de zoología*. Guanajuato, Justo Palencia, 256 pp.
- Dugès, A.A.D. (1889) Un punto curioso de geografía zoológica. *Naturaleza*, Series 2, 1, 209–211.
- Dugès, A.A.D. (1896) Reptiles y batracios de los E.U. Mexicanos. *La Naturaleza*, 2, 479–485.
- Eberhard, W.G., Rodriguez, R.L. & Polihronakis, M. (2009) Pitfalls in understanding the functional significance of genital allometry. *Journal of Evolutionary Biology*, 22 (3), 435–445.
<http://dx.doi.org/10.1111/j.1420-9101.2008.01654.x>
- Etheridge, R. (1959) *The Relationships of the Anoles (Reptilia: Sauria: Iguanidae). An Interpretation Based on Skeletal Morphology*. Ph.D. Dissertation, University of Michigan, Ann Arbor, Michigan, 236 pp.
- Etheridge, R. (1965) The abdominal skeleton of lizards in the family Iguanidae. *Herpetologica*, 21 (3), 161–168.
- Fitch, H.S. (1970) Reproductive cycles in lizards and snakes. *Miscellaneous publications, University of Kansas, Museum of Natural History*, 52, 1–247.
- Fitch, H.S. (1976) Sexual size differences in the mainland anoles. *Occasional Papers of the Museum of Natural History, The University of Kansas*, 50, 1–21.
- Fitch, H.S. (1978) Two new anoles (Reptilia: Iguanidae) from Oaxaca with comments on other Mexican species. *Contributions in Biology and Geology Milwaukee Public Museum*, 20, 1–15.
- Fitch, H.S., Echelle, A.F. & Echelle, A.A. (1976) Field observations on rare or little known mainland anoles. *University of Kansas Science Bulletin*, 51, 91–128.
- Fitch, H.S. & Henderson, R.W. (1973) A new anole (Reptilia: Iguanidae) from southern Veracruz, Mexico. *Journal of Herpetology*, 7 (2), 125–128.
<http://dx.doi.org/10.2307/1563209>
- Fitch, H.S. & Henderson, R.W. (1976) A field study of the rock anoles (Reptilia, Lacertilia, Iguanidae) of southern Mexico. *Journal of Herpetology*, 10 (4), 303–311.
<http://dx.doi.org/10.2307/1563067>
- Fitch, H.S. & Hillis, D.M. (1984) The *Anolis* dewlap: Interspecific variability and morphological associations with habitat. *Copeia*, 1984 (2), 315–323.

<http://dx.doi.org/10.2307/1445187>

- Flores-Villela, O. (1993) *Herpetofauna Mexicana*. Carnegie Museum of Natural History, Pittsburgh, 73 pp.
- Flores-Villela, O. & Canseco-Márquez, L. (2007) Riqueza de la herpetofauna. In: Luna, I.I., Morrone, J.J. & Espinosa, D. (Ed.), *Biodiversidad de la Faja Volcánica Transmexicana*. UNAM, México, D. F., pp. 407–420.
- Flores-Villela, O., Canseco-Márquez, L. & Ochoa-Ochoa, L.M. (2010) Geographic distribution and conservation of the herpetofauna of northern Mexico. In: Wilson, L.D., Townsend, J.H. & Johnson, J.D., (Eds.), *Conservation of Mesoamerican Amphibians and Reptiles*. Eagle Mountain Press, Eagle Mountain, Utah, pp. 303–321.
- Flores-Villela, O. & Gerez, P. (1994) *Biodiversidad y conservación en México: vertebrados, vegetación y uso del suelo*. Segunda Edicion. Conision Nacional para el Conocimiento y uso de la Biodiversidad y Universidad Nacional Autonoma de Mexico, México, D. F., 439 pp.
- Flores-Villela, O. & Hernandez-García, E. (1989) New state records from northern Guerrero, Mexico. *Herpetological Review*, 20 (1), 15–16.
- Flores-Villela, O. & Hernandez-García, E. (2006) Herpetofauna de la Sierra de Taxco, Guerrero-estado de Mexico. In: Ramírez-Bautista, A., Canseco-Márquez, L. & Mendoza-Quijano, F. (Eds.), *Inventarios Herpetofaunísticos de Mexico: Avances en el Conocimiento de su Biodiversidad*. Publicaciones de la Sociedad Herpetologica Mexicana, No. 3, pp. 266–288.
- Flores-Villela, O. & Muñoz-Alonso, A. (1990) *Anolis omiltemanus* Davis. Abaniquillo Amarillo. *Catalogue of American Amphibians and Reptiles*, 490, 1–2.
- Flores-Villela, O., Muñoz-Alonso, A. (1993) 13. Anfibios y reptiles. In: Luna, I. & Llorente, J. (Eds.), *Historia natural del Parque Ecológico Estatal Omiltemi, Chilpancingo, Guerrero, Mexico*. CONABIO-UNAM Ediciones Tecnico Científicas, Mexico D.F., pp. 411–442.
- Fosdick, M.K. (1968) Distributional records from a collection of reptiles from western and central Mexico. *Herpeton*, 3 (1), 1–3.
- Fläschendräger, A. & Wijffels, L.C.M. (2009) *Anolis. Im Biotop und Terrarium*. Natur und Tier - Verlag, Münster, 319 pp.
- Frost, D.W. & Kluge, A.G. (1994) A consideration of epistemology in systematic biology, with special reference to species. *Cladistics*, 10 (3), 259–294.
<http://dx.doi.org/10.1111/j.1096-0031.1994.tb00178.x>
- Fugler, C.M. & Dixon, J.R. (1961) Notes on the herpetofauna of the El Dorado area of Sinaloa, Mexico. *Publications of the Michigan State Museum, Biological Series*, 2 (1), 1–21.
- Gadow, H.F. (1905) The distribution of Mexican amphibians and reptiles. *Proceedings of the Zoological Society of London*, 75, 191–245.
- Gadow, H.F. (1910) The effect of altitude upon the distribution of Mexican amphibians and reptiles. *Zoologische Jahrbücher*, 29, 689–714.
- Gadow, H.F. (1930) *Jorullo. The History of the Volcano of Jorullo and the Reclamation of the Devastated Districts by Animals and Plants*. University Press, Cambridge, 100 pp.
- García, A. (2008) The use of habitat and time by lizards in a tropical deciduous forest in western Mexico. *Studies on Neotropical Fauna and Environment*, 43 (2), 107–115.
<http://dx.doi.org/10.1080/01650520701735282>
- Gehlbach, F.R. & Colette, B.B. (1957) A Contribution to the herpetofauna of the highlands of Oaxaca and Puebla, Mexico. *Herpetologica*, 13 (3), 227–231.
- Gienger, C.M., Beck, D.D., Sabari, N.C. & Stumbaugh, D.L. (2002) Dry season habitat use by lizards in a tropical deciduous forest of western Mexico. *Journal of Herpetology*, 36 (3), 487–490.
<http://dx.doi.org/10.2307/1566194>
- Gorman, G.C., Lieb, C.S. & Harwood, R.H. (1984) The relationships of *Anolis gadovi*: Albumin immunological evidence. *Caribbean Journal of Science*, 20 (3–4), 145–152.
- Grant, C. & Smith, H.M. (1960) Herpetozoa from Jalisco, Mexico. *Herpetologica*, 16 (1), 39–43.
- Greene, H.W. (1972) *Mexican Reptiles in the Senckenberg Museum*. Carnegie Museum of Natural History, Pittsburg, Pennsylvania, 15 pp.
- Guibé, J. (1954) *Catalogue des types de lézards du Muséum National d'Histoire Naturelle*. Imprimerie Nationale, Paris, 119 pp.
- Günther, A.C.L.G. (1859) Description of a new species of *Anolis* from Central America. *Proceedings of the Zoological Society London*, 27, 421–422.
- Günther, A.C.L.G. (1885–1902) *Biologia Centrali-Americana. Reptilia and Batrachia*. Porter, London, 326 pp.
- Hallowell, E. (1856) Notes on the reptiles in the collection of the Academy of Natural Sciences of Philadelphia. *Proceedings of the Academy of Natural Sciences of Philadelphia*, 8, 221–238.
- Hardy, L.M. & McDiarmid, R.W. (1969) The amphibians and reptiles of Sinaloa, Mexico. *University of Kansas Publications, Museum of Natural History*, 18 (3), 39–252.
- Hartweg, N. & Oliver, J.A. (1940) A contribution to the herpetology of the Isthmus of Tehuantepec. IV. *Miscellaneous Publications, Museum of Zoology, University of Michigan*, 47, 1–31.
- Herrera, A.L. (1899) *Sinonimia vulgar y científica de los principales vertebrados mexicanos*. Oficina Tipográfica de la Secretaría de Fomento, México, 31 pp.
- Herrera, A.L. (1904) Catálogo de la colección de reptiles y batracios del Museo Nacional. Segunda edición Museo Nacional,

- México D.F., 65 pp.
- Herrera-Flores, J.A. (2011) Redescripción, morfología, posición filogenética y análisis de la distribución potencial de *Anolis forbesi* (Squamata: Polychrotidae [sic]). Unpublished Master Thesis, Instituto de Ecología, Universidad Autónoma de México, México, D.F., pp. 62.
- Holman, J.A. (1964) New and interesting amphibians and reptiles from Guerrero and Oaxaca, Mexico. *Herpetologica*, 20 (1), 48–54.
- Huelsenbeck, J.P. & Ronquist, F. (2001) MRBAYES: Bayesian inference of phylogenetic trees. *Bioinformatics*, 17 (8), 754–755.
<http://dx.doi.org/10.1093/bioinformatics/17.8.754>
- IUCN (2012) IUCN Red List of Threatened Species. Version 2012.2. Available from: <http://www.iucnredlist.org> (accessed 11 January 2013)
- Ivanova, N.V., De Waard, J. & Hebert, P.D.N. (2006) An inexpensive, automation-friendly protocol for recovering high-quality DNA. *Molecular Ecology Notes*, 6 (4), 998–1002.
<http://dx.doi.org/10.1111/j.1471-8286.2006.01428.x>
- Jan, G. (1857) *Cenni sul Museo Civicio di Milano ed indice sistematico dei rettili ed anfibi esposti nel medesimo*. L. di Giacomo Priola, Milano, 61 pp.
<http://dx.doi.org/10.5962/bhl.title.4698>
- Jenssen, T.A. (1968) Mate selection in *Anolis nebulosus* (Iguanidae, Sauria) from Nayarit, Mexico. (Abstract). *Bulletin of the Ecological Society of America*, 49 (4), 183.
- Jenssen, T.A. (1969) Aspects of the thermal ecology of *Anolis nebulosus* (Sauria, Iguanidae) from Nayarit, Mexico. (Abstract). *Journal of Herpetology*, 3 (3/4), 196.
- Jenssen, T.A. (1970a) The ethoecology of *Anolis nebulosus* (Sauria, Iguanidae). *Journal of Herpetology*, 4 (1/2), 1–38.
<http://dx.doi.org/10.2307/1562700>
- Jenssen, T.A. (1970b) Female response to filmed displays of *Anolis nebulosus* (Sauria, Iguanidae). *Animal Behavior*, 18, 640–647.
[http://dx.doi.org/10.1016/0003-3472\(70\)90007-2](http://dx.doi.org/10.1016/0003-3472(70)90007-2)
- Jenssen, T.A. (1971) Display analysis of *Anolis nebulosus* (Sauria, Iguanidae). *Copeia*, 1971 (2), 197–209.
<http://dx.doi.org/10.2307/1442819>
- Johnson, J.D., Mata-Silva, V. & Ramírez-Bautista, A. (2010) Geographic distribution and conservation of the herpetofauna of southeastern Mexico. In: Wilson, L.D., Townsend, J.H. & Johnson, J.D., (Eds.), *Conservation of Mesoamerican Amphibians and Reptiles*. Eagle Mountain Press, Eagle Mountain, Utah, pp. 324–369.
- Köhler, G. (2008) *Reptiles of Central America*. Second edition. Herpeton, Offenbach, 400 pp.
- Köhler, G. (2010) A revision of the Central American species related to *Anolis pentaprion* with the resurrection of *A. beckeri* and the description of a new species (Squamata: Polychrotidae). *Zootaxa*, 2354, 1–18.
- Köhler, G. (2011) Taxonomic status of *Anolis baccatus* Bocourt 1873 (Reptilia, Squamata, Polychrotidae). *Zootaxa*, 3015, 61–65.
- Köhler, G. (2012a) Taxonomic status of two enigmatic Mexican anoles: *Anolis cumingii* Peters 1863 and *Anolis guentherii* Bocourt 1873 (Reptilia, Squamata, Dactyloidae). *Zootaxa*, 3551, 82–88.
- Köhler, G. (2012b) *Color Catalogue for Field Biologists*. Herpeton, Offenbach, 49 pp.
- Köhler, G. (2014) Characters of external morphology used in *Anolis* taxonomy – Definition of terms, advice on usage, and illustrated examples. *Zootaxa*, 3774 (3), 201–257.
<http://dx.doi.org/10.11646/zootaxa.3774.3.1>
- Köhler, G., Batista, A., Vesely, M., Ponce, M., Carrizo, A. & Lotzkat, S. (2012) Evidence for the recognition of two species of *Anolis* formerly referred to as *A. tropidogaster* (Squamata: Dactyloidae). *Zootaxa*, 3348, 1–23.
- Köhler, G., Dehling, M. & Köhler, J. (2010) Cryptic species and hybridization in the *Anolis polylepis* complex, with the description of a new species from the Osa Peninsula, Costa Rica (Squamata: Polychrotidae). *Zootaxa*, 2718, 23–38.
- Köhler, G., Gómez-Trejo-Pérez, R., García-Pareja, M., Petersen, C.B.P. & Méndez de la Cruz, F. (2013a) Notes on *Anolis omiltemanus* Davis, 1954 (Reptilia: Squamata: Dactyloidae). *Herpetology Notes*, 6, 401–412.
- Köhler, G., Gómez-Trejo-Pérez, R., García-Pareja, M., Petersen, C.B.P. & Méndez de la Cruz, F. (2013b) A contribution to the knowledge of *Anolis macrinii* Smith, 1968 (Reptilia: Squamata: Dactyloidae). *Breviora*, 537, 1–14.
<http://dx.doi.org/10.3099/mcz9.1>
- Köhler, G., Gómez-Trejo-Pérez, R., Petersen, C.B.P. & Méndez de la Cruz, F. (2014) A new species of pine anole from the Sierra Madre del Sur in Oaxaca, Mexico (Reptilia, Dactyloidae: *Anolis*). *Zootaxa*, 3753 (5), 453–468.
- Köhler, G. & Vesely, M. (2003) A comparison of *Norops petersii* (Bocourt) and Central American *N. biporcatus* (Wiegmann), with notes on the holotype of *D. [actyloa] biporcata* Wiegmann (Reptilia, Squamata: Polychrotidae) *Senckenbergiana Biologica*, 82 (1/2), 223–233.
- Köhler, G. & Vesely, M. (2010) A revision of the *Anolis sericeus* complex with the resurrection of *A. wellbornae* and the description of a new species (Squamata: Polychrotidae) *Herpetologica*, 66 (2), 207–228.
<http://dx.doi.org/10.1655/07-074r1.1>
- Köhler, J., Hahn, M. & Köhler, G. (2012) Divergent evolution of hemipenial morphology in two cryptic species of mainland anoles related to *Anolis polylepis*. *Salamandra*, 48 (1), 1–11.

- Larkin, M.A., Blackshields, G., Brown, N.P., Chenna, R., McGettigan, P.A., McWilliam, H., Valentin, F., Wallace, I.M., Wilm, A., Lopez, R., Thompson, J.D., Gibson, T.J. & Higgins, D.G. (2007) ClustalW and ClustalX version 2.0. *Bioinformatics*, 23 (21), 2947–2948.
<http://dx.doi.org/10.1093/bioinformatics/btm404>
- Lavín-Murcio, P.A. & Lazcano, D. (2010) Geographic distribution and conservation of the herpetofauna of northern Mexico. In: Wilson, L.D., Townsend, J.H. & Johnson, J.D., (Eds.), *Conservation of Mesoamerican Amphibians and Reptiles*. Eagle Mountain Press, Eagle Mountain, Utah, pp. 275–301.
- Lee, J.C. (1980) Variation and systematics of the *Anolis sericeus* complex (Sauria: Iguanidae). *Copeia*, 1980 (2), 310–320.
<http://dx.doi.org/10.2307/1444008>
- Lemos-Espinal, J.A. & Smith, H.M. (2009) *Claves para los anfibios y reptiles de Sonora, Chihuahua y Coahuila, México. Keys to the amphibians and reptiles of Sonora, Chihuahua and Coahuila, Mexico*. Universidad Nacional Autónoma de México, México, D.F., 348 pp.
- Lewis, H.L. & Johnson, M.L. (1955) Observations of the herpetofauna of the Mexican state of Nayarit. *Herpetologica*, 11 (3), 177–181.
- Lewis, H.L. & Johnson, M.L. (1956) Notes on a herpetological collection from Sinaloa, Mexico. *Herpetologica*, 12 (4), 277–280.
- Lichtenstein, H. (1856) *Nomenclator Reptilium et Amphibiorum Musei Zoologici Berolinensis: Namenverzeichnis der in der zoologischen Sammlung der Königlichen Universität zu Berlin aufgestellten Arten von Reptilien und Amphibien nach ihren Ordnungen, Familien und Gattungen*. Buchdruckerei der Königlichen Akademie der Wissenschaften, Berlin, 48 pp.
- Lieb, C.S. (1981) *Biochemical and Karyological Systematics of the Mexican Lizards of the Anolis gadovi and A. nebulosus Species Groups (Reptilia: Iguanidae)*. Unpublished Ph.D. Dissertation, University of California, Los Angeles, 308 pp.
- Lieb, C.S. (1995) Preliminary key to the anole lizards of México. In: Flores-Villela, O.A., Mendoza Quijano, F. & González Porter, G. (Eds.), *Recopilación de Claves para la Determinación de Anfibios y Reptiles de México*. Publicaciones Especiales del Museo de Zoología, Universidad Nacional Autónoma de México, pp. 146–157.
- Lieb, C.S. (2001) Anole lizards of Mexico: A taxonomic overview. In: Johnson, J.D., Webb, R.G. & Flores-Villela, O.A. (Eds.), *Mesoamerican Herpetology: Systematics, Zoogeography, and Conservation*. Centennial Museum, University of Texas at El Paso, El Paso, Texas, pp. 53–64.
- Liner, E.A. (1994) *Scientific and common names for the amphibians and reptiles of Mexico in English and Spanish*. *Herpetological Circular*, 23, 1–113.
- Liner, E.A. (2000) *Type Descriptions and Type Publications of Hobart M. Smith, 1933 through June 1999*. Smithsonian Herpetological Information Service, No. 127, 25 pp.
- Liner, E.A. (2007) A checklist of the amphibians and reptiles of México. *Occasional Papers of the Museum of Natural Science, Louisiana State University*, 80, 1–60.
- Liner, E.A. & Dundee, H.A. (1969) Notes on reptiles and amphibians from southern Guerrero and Oaxaca, Mexico. *The Southwestern Naturalist*, 14 (1), 129–134.
<http://dx.doi.org/10.2307/3669258>
- Lister, B.C. & García-Aguayo, A. (1992) Seasonality, predation and the behaviour of a tropical mainland anole. *Journal of Animal Ecology*, 61, 717–733.
<http://dx.doi.org/10.2307/5626>
- Losos, J.B. (2009) *Lizards in an Evolutionary Tree: Ecology and Adaptive Radiation of Anoles*. University of California Press, Berkeley and Los Angeles, California, 507 pp.
- Lynch, J.D. & Smith, H.M. (1966) New or unusual amphibians and reptiles from Oaxaca, Mexico. *Transactions of the Kansas Academy of Science*, 69 (1), 58–75.
<http://dx.doi.org/10.2307/3627636>
- Malkin, B. (1958) Cora ethnozoology, herpetological knowledge; a bio-ecological and cross cultural approach. *Anthropological Quarterly*, 31, 73–90.
<http://dx.doi.org/10.2307/3316825>
- Martín del Campo y Sánchez, R. (1942) Relación de algunos peces, anfibios y reptiles de Mazatlán, Sin. *Anales del Instituto de Biología, Universidad Nacional Autónoma de México*, 12 (2), 759–761.
- Martínez-Salazar, E.A. (2006) A new rhabdiasid species from *Norops megapholidotus* (Sauria: Polychrotidae) from Mexico. *Journal of Parasitology*, 92 (6), 1325–1329.
<http://dx.doi.org/10.1645/ge-872r1.1>
- Marx, H. (1958) Catalogue of type specimens of reptiles and amphibians in Chicago Natural History Museum. *Fieldiana, Zoology*, 36 (4), 409–496.
<http://dx.doi.org/10.5962/bhl.title.3034>
- Mayén-Peña, E. & Salgado-Maldonado, G. (1998) Helminths of four lizards from Nayarit, México: *Anolis nebulosus* (Polychrotidae), *Ctenosaura pectinata* (Iguanidae), *Phyllodactylus lanei* (Gekkonidae), and *Sceloporus nelsoni* (Phrynosomatidae).
- McCrane, J.R. & Wilson, L.D. (1990) Annotated bibliography to the herpetofauna of the pine-oak woodlands of the Sierra Madre Occidental, Mexico. *Smithsonian Herpetological Information Service*, 84, 1–18.
<http://dx.doi.org/10.5479/si.23317515.84.1>

- McCrane, J.R. & Wilson, L.D. (2001) The herpetofauna of the Mexican state of Aguascalientes. *Courier Forschungsinstitut Senckenberg*, 230, 1–57.
- McDiarmid, R.W. (1963) A collection of reptiles and amphibians from the highland faunal assemblage of Western Mexico. *Contributions in Science, Los Angeles County Museum*, 68, 3–15.
- Meyer, J.R. & Wilson, L.D. (1971) Taxonomic studies and notes on some Honduran amphibians and reptiles. *Bulletin of the Southern California Academy of Sciences*, 70 (3), 106–114.
- Michels, J.P. & Bauer, A.M. (2005 “2004“) Some corrections to the scientific names of amphibians and reptiles. *Bonner Zoologische Beiträge*, 52, 83–94.
- Mocquard, M.F. (1899) Reptiles et batraciens recueillis au Mexique par M. Léon Diguet en 1896 et 1897. *Bulletin de la Société Philomathique de Paris*, (9) 1, 154–169.
- Mosauer, W. (1936) The re-discovery of *Anolis gadovii*. *Herpetologica*, 1 (2), 61–63.
- Müller, F. (1884) Dritter Nachtrag zum Katalog der herpetologischen Samlung des Basler Museums. *Verhandlung der Naturforschenden Gesellschaft in Basel*, 7, 274–299.
- Müller, M.J. (1996) *Handbuch ausgewählter Klimastationen der Erde*. 5. Ergänzte und verbesserte Auflage. Forschungsstelle Bodenerosion der Universität Trier, Trier, 440 pp.
- Muñoz-Alonso (1988) *Estudio herpetofaunístico del Parque Ecológico Estatal de Omiltemi, Mpio. de Chilpancingo, Guerrero*. Bachelor thesis, Facultad de Ciencias, Universidad Nacional Autónoma de México, México, D.F., 111 pp.
- Muñoz-Alonso, A. & Flores-Villela, O. (1990) *Anolis liogaster* Boulenger. Abaniquillo Rojo. *Catalogue of American Amphibians and Reptiles*, 489, 1–2.
- Murphy, J.C. (1971) Territorial behavior in amphibians and reptiles. *Bulletin of the Chicago Herpetological Society*, 6 (1), 13–18.
- Myers, C.W. (1971) Central American lizards related to *Anolis pentaprion*: two new species from the Cordillera de Talamanca. *American Museum Novitates*, 2471, 1–40.
- Nicholson, K.E. (2002) Phylogenetic analysis and a test of the current infrageneric classification of *Norops* (beta *Anolis*). *Herpetological Monographs*, 16, 93–120.
[http://dx.doi.org/10.1655/0733-1347\(2002\)016\[0093:paaato\]2.0.co;2](http://dx.doi.org/10.1655/0733-1347(2002)016[0093:paaato]2.0.co;2)
- Nicholson, K.E., Crother, B.I., Guyer, C. & Savage, J.M. (2012) It is time for a new classification of anoles (Squamata: Dactyloidae). *Zootaxa*, 3477, 1–108.
- Nieto Montes de Oca, A., Köhler, G. & Feria-Ortiz, M. (2014) *Anolis boulengerianus* Thominot 1887, a senior synonym of *Anolis isthmicus* Fitch 1978 (Squamata: Dactyloidae). *Zootaxa*, 3794 (1), 125–133.
<http://dx.doi.org/10.11646/zootaxa.3794.1.5>
- Nieto Montes de Oca, A., Poe, S., Scarpetta, S., Gray, L. & Lieb, C.S. (2013) Synonyms for some species of Mexican anoles (Squamata: Dactyloidae). *Zootaxa*, 3637 (4), 484–492.
<http://dx.doi.org/10.11646/zootaxa.3637.4.8>
- Oliver, J.A. (1937) Notes on a collection of amphibians and reptiles from the state of Colima, Mexico. *Occasional Papers of the Museum of Zoology University of Michigan*, 360, 1–28.
- O’Shaughnessy, A.W.E. (1875) List and revision of the species of Anolidae in the British Museum collection, with descriptions of new species. *Annals and Magazine of Natural History*, 15 (88), 270–281.
<http://dx.doi.org/10.1080/00222937508681075>
- Pérez-Ramos, E., Saldaña de la Riva, L. & Uribe-Peña, Z. (2000) A checklist of the reptiles and amphibians of Guerrero, México. *Anales del Instituto de Biología Universidad Nacional Autónoma de México, Serie Zoología*, 71, 21–40.
- Peters, J.A. (1954) The amphibians and reptiles of the coast and coastal sierra of Michoacán, Mexico. *Occasional Papers of the Museum of Zoology University of Michigan*, 554, 1–37.
- Peters, J.A. (1960) Notes on the faunistics of southwestern and coastal Michoacán with lists of Reptilia and Amphibia collected in 1950 and 1951. In: Brand, D.D. (Ed.), *Coalcomán and Motines del Oro: An Ex-Distrito of Michoacan, Mexico*. The Institute of Latin American Studies, The University of Kansas, pp. 318–333.
- Peterson, A.T., Canseco Márquez, L., Jiménez, J.L.C., Escalona-Segura, G., Flores-Villela, O., García-López, J., Hernández-Baños, B., Ruiz, C.A.J., León-Paniagua, L., Amaro, S.M., Navarro-Sigüenza, A.G., Sánchez-Cordero, V. & Willard, D.E. (2004) A preliminary biological survey of Cerro Piedra Larga, Oaxaca, Mexico: Birds, mammals, reptiles, amphibians, and plants. *Anales del Instituto de Biología, Universidad Nacional Autónoma de México, Serie Zoología*, 75 (2), 439–466.
- Phillips, C.A. (2003) *Herpetological Type-Specimens in the University of Illinois Museum of Natural History: An Update to the Primary Types*. University of Illinois Museum of Natural History, Illinois, 17 pp.
<http://dx.doi.org/10.5962/bhl.title.50204>
- Pianka, E.R. & Smith, H.M. (1959) Distributional records for certain Mexican and Guatemalan reptiles. *Herpetologica*, 15 (3), 119–120.
- Poe, S. (2004) Phylogeny of anoles. *Herpetological Monographs*, 18, 37–89.
[http://dx.doi.org/10.1655/0733-1347\(2004\)018\[0037:poa\]2.0.co;2](http://dx.doi.org/10.1655/0733-1347(2004)018[0037:poa]2.0.co;2)
- Poe, S. (2013) 1986 Redux: New genera of anoles (Squamata: Dactyloidae) are unwarranted. *Zootaxa*, 3626 (2), 295–299.
<http://dx.doi.org/10.11646/zootaxa.3626.2.7>
- Poe, S. (submitted) The travels of Thomas Barbour on the ship Utowana in 1931 and the taxonomic status of *Anolis utowanae*. *Breviora*.

- Posada, D. (2008) jModelTest: phylogenetic model averaging. *Molecular Biology and Evolution*, 25 (7), 1253–1256.
<http://dx.doi.org/10.1093/molbev/msn083>
- Purdue, J.R. & Carpenter, C.C. (1972) A comparative study of the body movements of displaying males of the lizard genus *Sceloporus* (Iguanidae). *Behaviour*, 41 (1/2), 68–81.
<http://dx.doi.org/10.1163/156853972x00202>
- Ramírez-Bautista, A. (2003) Some reproductive characteristics of a tropical arid lizard assemblage from Zapotitlán Salinas, Puebla, Mexico. *Herpetological Review*, 34 (4), 328–331.
- Ramírez-Bautista, A. & Benabib, M. (2001) Perch height of the arboreal lizard *Anolis nebulosus* (Sauria: Polychrotidae) from a tropical dry forest of México: Effect of the reproductive season. *Copeia*, 2001 (1), 187–193.
[http://dx.doi.org/10.1643/0045-8511\(2001\)001\[0187:photal\]2.0.co;2](http://dx.doi.org/10.1643/0045-8511(2001)001[0187:photal]2.0.co;2)
- Ramírez-Bautista, A., Oliver-Lopez, L. & Mata-Silva, V. (2002a) *Anolis quercorum* (Gray Anole). General Ecology. *Herpetological Review*, 33, 203–204
- Ramírez-Bautista, A. & Pardo-De La Rose, D. (2002) Reproductive cycle and characteristics of the widely-foraging lizard, *Cnemidophorus communis*, from Jalisco, Mexico. *The Southwestern Naturalist*, 47 (2), 205–214.
<http://dx.doi.org/10.2307/3672908>
- Ramírez-Bautista, A., Mata-Silva, V. & Oliver-Lopez, L. (2002b) Reproductive data for *Anolis quercorum*, a little-known anole from Zapotitlán de las Salinas, Puebla, México. *Herpetological Review*, 33, 269–271.
- Ruthven, A.G. (1933) Description of a new *Anolis* from Yucatan. *Occasional Papers of the Museum of Zoology, University of Michigan*, 257, 1–2.
- Sabaj Pérez, M.H. (Ed.) (2012) Standard symbolic codes for institutional resource collections in herpetology and ichthyology: an Online Reference. Version 3.0 (23 February 2012). Available from: <http://www.asih.org/> (accessed 18 April 2013)
- Saldaña de la Riva, L. & Pérez-Ramos, E. (1987) *Herpetofauna del estado de Guerrero*, México. Bachelor thesis, Facultad de Ciencias, Universidad Nacional Autónoma de México, México, D.F., 389 pp.
- Sánchez-Luna, M., González-Hernandez, A.J., Cabrera-Guzmán, E. & Reynoso, V.H. (2009) *Anolis nebulosus* (Clouded Anole) Geographic Distribution. *Herpetological Review*, 38, 75.
- Santamaría, F. & Flores-Villela, O. (2006) Estudio herpetofaunístico en el Playón de Mexiquillo y areas adyacentes en la costa sur del estado de Michoacán, México. In: Ramírez-Bautista, A., Canseco-Márquez, L. & Mendoza-Quijano, F. (Eds.), *Inventarios Herpetofaunísticos de México: Avances en el Conocimiento de su Biodiversidad*. Publicaciones de la Sociedad Herpetológica Mexicana, No. 3, pp. 110–139.
- Savage, J.M. & Guyer, C. (1989) *Infrageneric* classification and species composition of the anole genera, *Anolis*, *Ctenonotus*, *Dactyloa*, *Norops*, and *Semiurus* (Sauria: Iguanidae). *Amphibia-Reptilia*, 10 (2), 105–116.
<http://dx.doi.org/10.1163/156853889x00142>
- Schmidt, K.P. & Shannon, F.A. (1947) Notes on amphibians and reptiles of Michoacan, Mexico. *Fieldiana, Zoology*, 31 (9), 63–85.
<http://dx.doi.org/10.5962/bhl.title.2779>
- Shelford, V.E. (1963) *The Ecology of North America*. University of Illinois Press, Urbana, Illinois, 610 pp.
- Siliceo-Cantero, H.H. & García, A. (2013) *Anolis nebulosus* (clouded anole). Predation. *Herpetological Review*, 44 (1), 137.
- Slevin, J.R. (1926) Expedition to the Revillagigedo Islands, Mexico, in 1925, III. Notes on a collection of reptiles and amphibians from the Tres Marias and Revillagigedo Islands, and west coast of mexico, with description of a new species of *Tantilla*. *Proceedings of the California Academy of Science, Sereis 4*, 15 (3), 195–207.
- Smith, H.M. (1933) Notes on some Mexican lizards of the genus *Anolis*, with the description of a new species, *A. megapholidotus*. *Transactions of the Kansas Academy of Science*, 36, 315–320.
<http://dx.doi.org/10.2307/3625373>
- Smith, H.M. (1936) A new *Anolis* from Mexico. *Copeia*, 1936 (1), 9.
<http://dx.doi.org/10.2307/1436366>
- Smith, H.M. (1939) Notes on Mexican reptiles and amphibians. *Zoological Series of Field Museum of Natural History*, 24 (4), 15–35.
- Smith, H.M. (1941) Collecting Mexican reptiles and amphibians. *Explorations and Field-Work of the Smithsonian Institution in 1940*, 3631, 35–38.
- Smith, H.M. (1943) Notes on reptiles from Mexico. *Copeia*, 1943 (4), 250.
<http://dx.doi.org/10.2307/1438140>
- Smith, H.M. (1944) Comentario herpetológico. *Anales del Instituto de Biología, Universidad de México*, 14 (1), 341–344. [“1943”]
- Smith, H.M. (1968) Two new lizards, one new, of the genus *Anolis* from Mexico. *Journal of Herpetology*, 2 (3/4), 143–146.
<http://dx.doi.org/10.2307/1563114>
- Smith, H.M. (1969) The first herpetology of Mexico. *Herpetology*, 3 (1), 1–16.
- Smith, H.M. (1972) A new satellite of the *Anolis gadovii* species swarm (Reptilia: Sauria) in Mexico. *Journal of Herpetology*, 6 (3/4), 179–181.
<http://dx.doi.org/10.2307/1562768>
- Smith, H.M. & van Gelder, R.G. (1955) New and noteworthy amphibians and reptiles from Sinaloa and Puebla, Mexico. *Herpetologica*, 11 (2), 145–149.

- Smith, H.M. & Grant, C. (1958) Noteworthy herptiles from Jalisco. *Herpetologica*, 14 (1), 18–23.
- Smith, H.M. & Kerster, H.W. (1955) New and noteworthy Mexican lizards of the genus *Anolis*. *Herpetologica*, 11 (3), 193–201.
- Smith, H.M., Langebartel, D.A. & Williams, K.L. (1964) Herpetological type-specimens in the University of Illinois Museum of Natural History. *Illinois Biological Monographs*, 32, 1–80.
- Smith, H.M. & Laufe, L.E. (1945) Mexican Amphibians and Reptiles in the Texas Cooperative Wildlife Collections. *Transactions of the Kansas Academy of Science*, 48 (3), 325–354.
<http://dx.doi.org/10.2307/3625203>
- Smith, H.M. & Mittleman, M.B. (1943) Notes on the Manfield Museum's Mexican reptiles collected by Wilkinson. *Transactions of the Kansas Academy of Science*, 46, 243–249.
<http://dx.doi.org/10.2307/3624959>
- Smith, H.M. & Savitzky, A.H. (1972) Explosive sympatric radiation of lizard species of the genus *Anolis* in Mexico. *Journal of the Colorado-Wyoming Academy of Science*, 7 (3), 112.
- Smith, H.M., Sinelnik, G., Fawcett, J.D. & Jones, R.E. (1972) A survey of the chronology of ovulation in anoline lizard genera. *Transactions of the Kansas Academy of Science*, 75 (2), 107–120.
<http://dx.doi.org/10.2307/3627160>
- Smith, H.M. & Smith, R.B. (1941) Collecting Mexican reptiles and amphibians. Explorations and Field Work of the Smithsonian Institution, 1940, 35–38.
- Smith, H.M. & Smith, R.B. (1973) *Synopsis of the Herpetofauna of Mexico. Vol. II. Analysis of the Literature Exclusive of the Mexican Axolotl*. Eric Lundberg, Augusta, West Virginia, 367 pp.
- Smith, H.M. & Smith, R.B. (1975) The herpetological names of Herrera, 1899, and their status. *Transactions of the Kansas Academy of Science*, 78 (1/2), 85–87.
<http://dx.doi.org/10.2307/3627227>
- Smith, H.M. & Smith, R.B. (1976) *Synopsis of the Herpetofauna of Mexico. Vol. III. Source analysis and index for Mexican Reptiles*. John Johnson, North Bennington, Vermont, 997 pp.
- Smith, H.M. & Spieler, R.A. (1945) A new anole from Mexico. *Copeia*, 1945 (3), 165–168.
<http://dx.doi.org/10.2307/1438281>
- Smith, H.M. & Taylor, E.H. (1950a) An annotated checklist and key to the reptiles of Mexico exclusive of the snakes. *Bulletin of the United States National Museum*, 199, 1–253.
- Smith, H.M. & Taylor, E.H. (1950b) Type localities of Mexican reptiles and amphibians. *Kansas University Science Bulletin*, 33 (8), 313–380.
- Smith, H.M. & Taylor, E.H. (1966) *Herpetology of Mexico. Annotated Checklists and Keys to the Amphibians and Reptiles. A Reprint of Bulletins 187, 194 and 199 of the U.S. National Museum with a list of Subsequent Taxonomic Innovations*. Ashton, Maryland, Erick Lundberg, 610 pp.
- Stejneger, L.H. (1899) Reptiles of the Tres Marias and Isabel islands. *North American Fauna*, 14, 63–71.
<http://dx.doi.org/10.3996/nafa.14.0004>
- Stuart, L.C. (1948) The amphibians and reptiles of Alta Verapaz, Guatemala. *Miscellaneous Publications Museum of Zoology University of Michigan*, 69, 1–109.
- Stuart, L.C. (1955) A brief review of the Guatemalan lizards of the genus *Anolis*. *Miscellaneous Publications Museum of Zoology University of Michigan*, 91, 1–31.
- Stuart, L.C. (1963) A checklist of the herpetofauna of Guatemala. *Miscellaneous Publications Museum of Zoology University of Michigan*, 122, 1–150.
- Tamura, K., Peterson, D., Peterson, N., Stecher, G., Nei, M. & Kumar, S. (2011) MEGA5: Molecular Evolutionary Genetics Analysis using Maximum Likelihood, Evolutionary Distance, and Maximum Parsimony methods. *Molecular Biology and Evolution*, 28 (10), 2731–2739.
<http://dx.doi.org/10.1093/molbev/msr121>
- Tanner, W.W. (1987) Lizards and turtles of western Chihuahua. *Great Basin Naturalist*, 47 (3), 383–421.
- Tanner, W.W. & Robinson, W.G. (1959) A collection of herptiles from Urique, Chihuahua. *Great Basin Naturalist*, 19 (4), 75–82.
- Taylor, E.H. (1936) Notes on the herpetological fauna of the Mexican state of Sonora. *University of Kansas Science Bulletin*, 24 (20), 505–537.
- Taylor, E.H. (1944) Present location of certain herpetological and other type specimens. *University of Kansas Science Bulletin*, 30 (11), 177–187.
- Taylor, E.H. (1969) Wiegmann and the herpetology of Mexico. In: Adler, K. (Ed.), *Herpetologia Mexicana by A. F. A. Wiegmann*. Facsimile Reprints in Herpetology, No. 23, Society for the Study of Amphibians and Reptiles, Notre Dame, Indiana, pp. 3–6.
- Thominot, A. (1887) Description de trois espèces nouvelles d'*Anolis* et d'un amphisbaenien. *Bulletin de la Société Philomathique de Paris*, Series 7, 11, 182–190.
- Troschel, H. (1874) Bericht über die Leistungen in der Herpetologie während des Jahres 1873. *Archiv für Naturgeschichte*, 40, 146–170.
- Urbina-Cardona, J.N. & Flores-Villela, O. (2010) Ecological-niche modeling and prioritization of conservation-area networks

- for Mexican herpetofauna. *Conservation Biology*, 24 (84), 1031–1041.
<http://dx.doi.org/10.1111/j.1523-1739.2009.01432.x>
- Van Denburgh, J. (1897) Reptiles from Sonora, Sinaloa and Jalisco, Mexico, with a description of a new species of *Sceloporus*. *Proceedings of the Academy of Natural Science of Philadelphia*, 49, 460–464.
- Van Denburgh, J. & Slevin J.R. (1914) Reptiles and amphibians of the islands of the west coast of North America. *Proceedings of the California Academy of Science*, Series 4, 4, 129–152.
- Webb, R.G. & Baker, R.H. (1962) Terrestrial vertebrates of the Pueblo Nuevo area of southwestern Durango, Mexico. *American Midland Naturalist*, 68 (2), pp. 325–333.
<http://dx.doi.org/10.2307/2422738>
- Webb, R.G. & Baker, R.H. (1969) Vertebrados terrestres del suroeste de Oaxaca. *Anales del Instituto de Biología, Universidad de México, Serie Zoología*, 40, 139–152.
- Werler, J.E. & Smith, H.M. (1952) Notes on a collection of reptiles and amphibians from Mexico, 1951–1952. *Texas Journal of Science*, 4 (4), 551–573.
- Wiegmann, A.F.A. (1834) *Herpetologia Mexicana, seu descriptio amphibiorum novae hispaniae, quae itineribus comitis de Sack, Ferdinandi Deppe et Chr. Guil. Schiede in Museum Zoologicum Berolinense Pervenerunt. Pars prima, saurorum species*. Berlin, Lüderitz, 54 pp.
- Williams, E.E. (1983) Ecomorphs, faunas, island size, and diverse end points in island radiations of *Anolis*. In: Huey, R.B., Pianka, E.R. & Shoener, T.W. (Eds.), *Lizard Ecology: Studies of a Model Organism*. Harvard University Press, Cambridge, pp. 326–370.
- Wilson, L.D. & Johnson, J.D. (2010) Distributional patterns of the herpetofauna of Mesoamerica, a biodiversity hotspot. In: Wilson, L.D., Townsend, J.H. & Johnson, J.D., (Eds.), *Conservation of Mesoamerican Amphibians and Reptiles*. Eagle Mountain Press, Eagle Mountain, Utah, pp. 30–235.
- Wilson, L.D. & Johnson, J.D. & Mata-Silva, V. (2013) A conservation reassessment of the reptiles of Mexico based on the EVS measure. *Amphibian & Reptile Conservation*, 7 (1), 1–47.
- Wilson, L.D., Townsend, J.H. (2010) The herpetofauna of Mesoamerica: biodiversity significance, conservation status, and future challenges. In: Wilson, L.D., Townsend, J.H. & Johnson, J.D., (Eds.), *Conservation of Mesoamerican Amphibians and Reptiles*. Eagle Mountain Press, Eagle Mountain, Utah, pp. 761–812.
- Zweifel, R.G. (1959) The provenance of reptiles and amphibians collected in western Mexico by J. J. Major. *American Museum Novitates*, 1949, 1–9.
- Zweifel, R.G. (1960) Results of the Puritan-American Museum of Natural History expedition to western Mexico. 9. Herpetology of the Tres Marías Islands. *Bulletin of the American Museum of Natural History*, 119 (2), 77–128.
- Zweifel, R.G. & Norris, K.S. (1955) Contribution to the herpetology of Sonora, Mexico: Descriptions of new subspecies of snakes (*Micruroides euryxanthus* and *Lampropeltis getulus*) and miscellaneous collecting notes. *American Midland Naturalist*, 54 (1), 230–249.
<http://dx.doi.org/10.2307/2422190>