

Range extension of the least gecko, *Sphaerodactylus glaucus* Cope, 1865 (Squamata: Sphaerodactylidae) in Oaxaca, Mexico

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ABSTRACT: An adult Collared Dwarf Gecko, *Sphaerodactylus glaucus*, was found in Parque Nacional Lagunas de Chacahua, Cerro Hermoso, municipality of San Pedro Tututepec, Oaxaca, Mexico, at an elevation of 72 m. This specimen represents a new municipality record and the westernmost distribution of the species on the Pacific Coast of Mexico.

The Collard Dwarf Gecko, *Sphaerodactylus glaucus* is found from Veracruz and Oaxaca, Mexico, through the Yucatan Peninsula and northern Guatemala to western Honduras (Taylor 1947; Smith and Taylor 1966; Harris and Kluge 1984; Köhler 2008). This species has been reported from several different vegetation types, including tropical wet forest, tropical moist forest, tropical dry forest, tropical very dry forest, and subtropical moist forest, at elevations ranging from sea level to 1000 m (Wilson and Johnson 2010). On 25 June 2009 at 08:45 am, an adult *S. glaucus* (Figure 1- verified by Aurelio Ramírez-Bautista) was found in Parque Nacional Lagunas de Chacahua, Cerro Hermoso (15°58'02" N, 97°32'51" W; 72 m elevation), municipality of San Pedro Tututepec, Oaxaca, Mexico. The gecko was found under logs in an ecotonal zone of tropical dry forest and mangrove. The individual has a cream color nuchal band bordered by black bands of similar width anteriorly and posteriorly, light spots at elbow and knee, two distinct spots at base of tail, lateral narrow light bands on back, and two distinct cream color spots at base of tail bordered by black spots anteriorly and posteriorly (Smith and Taylor 1966). This specimen of *S. glaucus* has smooth dorsal scales, versus keeled in *S. continentalis*, which is also found in Mexico (McCranie and Hedges 2012). This observation represents a new municipality record and the westernmost distribution of the species on the Pacific coast, with a range extension of ca. 153 km W from the nearest locality in Huatulco, Oaxaca (Figure 2) (Smith and Taylor 1966; Harris and Kluge 1984). Currently, *S. glaucus* is considered as Not Evaluated (NE) species by the IUCN (2012). However, more recently, Wilson *et al.* (2013) placed this species in the category of medium vulnerability to environmental degradation [environmental vulnerability

score (EVS): twelve] for Mexico, based on geographic distribution, ecological distribution, and degree of human persecution. Additionally, Mexican environmental protection laws rate *S. glaucus* as Subject to Special Protection (Pr) (NOM-059-2010; SEMARNAT 2010). A photographic voucher (Fotocolecta Herpetofauna Universidad del Mar [FCHU062]) of the specimen is deposited in the photographic collection of the Universidad del Mar campus Puerto Escondido. The specimen was captured, photographed, and released under permit number SGPA/DGVS/07772/08, issued by Subsecretaría de Gestión para la Protección Ambiental-Dirección General de Vida Silvestre.



FIGURE 1. Adult male *Sphaerodactylus glaucus* (FCHU062 photo voucher) from Cerro Hermoso, San Pedro Tututepec, Oaxaca, México. Photo by Jesús García-Grajáles.

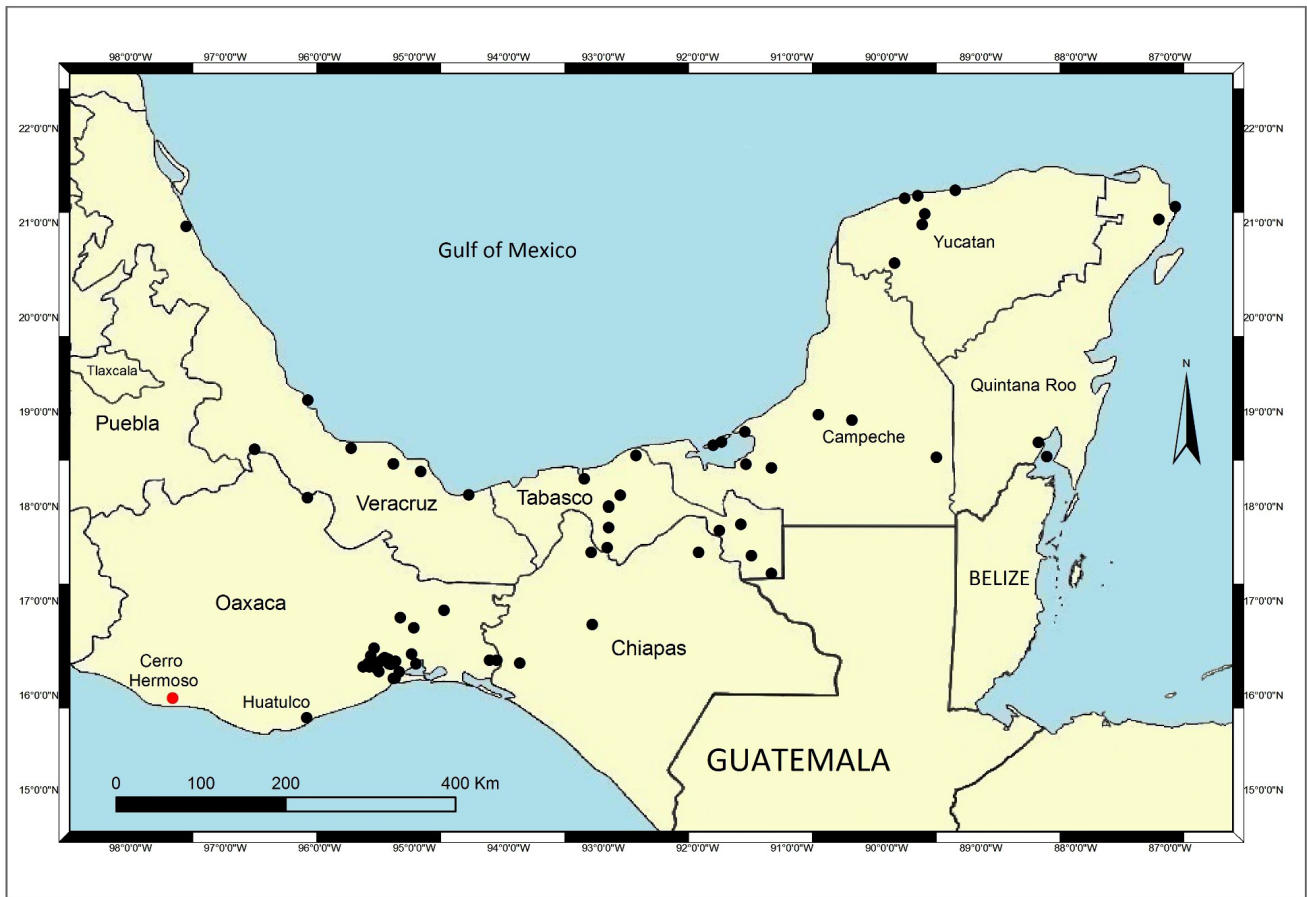


FIGURE 2. Map displaying collecting localities (dots) for *Sphaerodactylus glaucus* reported in Mexico (Smith and Taylor 1966; Harris and Kluge 1984). The red dot represents the locality of the individual reported herein.

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LITERATURE CITED

- Harris D.M., and A.G. Kluge. 1984. The *Sphaerodactylus* (Sauria: Gekkonidae) of Middle America. *Occasional Papers of the Museum of Zoology, University of Michigan* 706: 1–57.
- IUCN. 2012. IUCN Red List Categories and Criteria: Version 3.1. Accessible at http://www.iucnredlist.org/documents/redlist_cats_crit_en.pdf. Captured on 11 April 2013.
- Köhler, G. 2008. *Reptiles of Central America*. Offenbach: Herpeton Verlag Elke Köhler. 400 pp.
- McCrane, J.R. and S.B. Hedges. 2012. Two new species of geckos from Honduras and resurrection of *Sphaerodactylus continentalis* Werner from the synonymy of *Sphaerodactylus millepunctatus* Hallowell (Reptilia, Squamata, Gekkonoidea, Sphaerodactylidae). *Zootaxa* 3492: 65–76.
- SEMARNAT (Secretaría del Medio Ambiente y Recursos Naturales). 2010. *Norma Oficial Mexicana NOM-059-ECOL-2010*. Protección ambiental-especies nativas de México de flora y fauna silvestres. Categorías de Riesgo y especificaciones para su inclusión, exclusión o cambio-

Lista de Especies en Riesgo. Diario Oficial de la Federación (Segunda sección: 30 de diciembre). 78 pp.

- Smith, H.M. and E.H. Taylor. 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: Erick Lundberg, 610 pp.
- Taylor, E.H. 1947. A review of the Mexican forms of the lizard genus *Sphaerodactylus*. *University of Kansas Science Bulletin* 31: 299–309.
- Wilson, L.D. and J.D. Johnson. 2010. Distributional patterns of the herpetofauna of Mesoamerica, a biodiversity hotspot; pp.31–235, in: L.D. Wilson, J.H. Townsend and J.D. Johnson (ed.). *Conservation of Mesoamerican Amphibians and Reptiles*. Eagle Mountain: Eagle Mountain Publishing, LC.
- Wilson, L.D., V. Mata-Silva and J.D. Johnson. 2013. A reassessment of the conservation status of the reptiles of Mexico based on the environmental vulnerability measure. *Amphibian and Reptile Conservation* 7: 1–47.

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