

NEW RECORD OF *CROTALUS PRICEI* (SQUAMATA: VIPERIDAE) FROM SINALOA, MEXICO

NUEVO REGISTRO DE *CROTALUS PRICEI* (SQUAMATA: VIPERIDAE) PARA SINALOA, MÉXICO.

EDGAR ALBERTO GAMEZ-DUARTE¹, JOSÉ DAVID JACOBO-GONZÁLEZ², HÉCTOR ALEXIS CASTRO-BASTIDAS³ & RAFAEL ALEJANDRO LARA-RESÉNDIZ^{4*}

¹Postgrado en Ciencias Biológicas, Facultad de Biología, Universidad Autónoma de Sinaloa, Culiacán 80013, Sinaloa, México.

²Reserva Ecológica del Mineral de Nuestra Señora Mundo Natural, Universidad Autónoma de Sinaloa, Cosalá 80780, Sinaloa, México.

³Postgrado en Ciencias Aplicadas al Aprovechamiento de los Recursos Naturales, Centro de Estudios “Justo Sierra” (CEJUS), Badiraguato 80600, Sinaloa, México.

⁴Instituto Tecnológico de Sonora, Cd. Obregón 85000, Sonora, México.

*Correspondence: rafas.lara@gmail.com

Received: 2022-11-01. Accepted: 2023-01-11. Published: 2023-02-08.

Editor: Carlos Alberto Hernández Jiménez, México.

Mexico. Sinaloa. Municipality of Badiraguato: 1.7 km north of the Santa Gertrudis town (25.6902° N, -107.0237° W; WGS 84, 2,407

m a.s.l.), August 15, 2020. The photograph of the individual of *Crotalus pricei* was verified by Iván Trinidad Ahumada Carrillo



Figura 1 (página anterior). (A y B) Primer registro de *Crotalus pricei* en Sinaloa, México (MZFC 59-60) y (C) hábitat donde se encontró al individuo. Fotografías tomadas por Gamez-Duarte Edgar A.

Figure 1 (previous page). (A and B) First record of *Crotalus pricei* in Sinaloa, Mexico (MZFC 59-60) and (C) habitat where the individual was found. Photographs by Gamez-Duarte Edgar A.

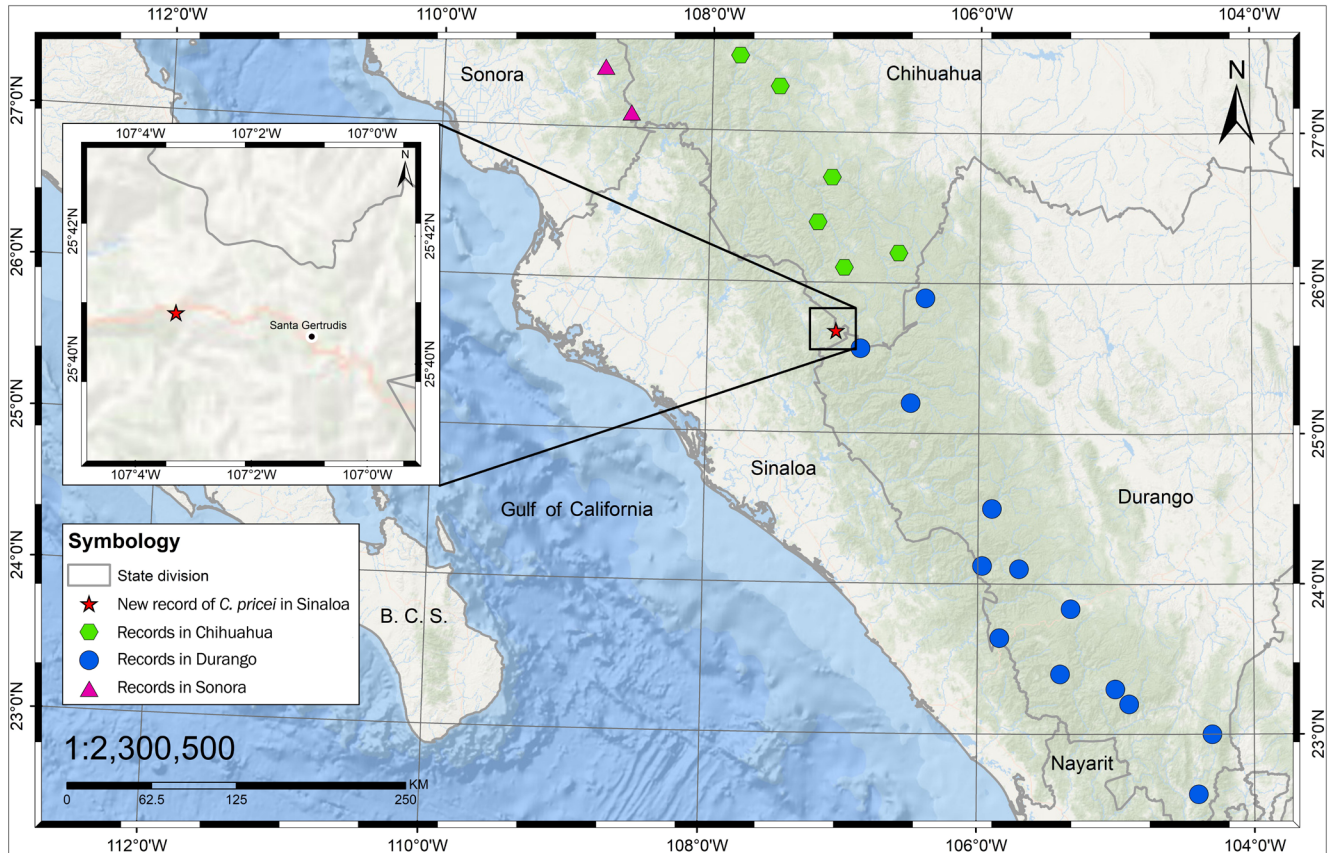


Figura 2. Nuevo registro de *Crotalus pricei* en Sinaloa y localidades conocidas más cercanas en Sonora, Chihuahua y Durango.

Figure 2. New record of *Crotalus pricei* in Sinaloa and nearest know localities in Sonora, Chihuahua, and Durango.

and was deposited at the Museo de Zoología "Alfonso L. Herrera", Universidad Nacional Autónoma de México (photo voucher: MZFC 59-60; Fig. 1A and B). The individual was found at approximately 15:30 h, between the cracks of a rock (Fig. 1B) on a path surrounded by pine-oak forest (Fig. 1C). We presume the individual (ca. total length 200–250 mm) to be a juvenile (Campbell & Lamar, 2004; maximum total length 660 mm), of undetermined sex.

Crotalus pricei Van Denburgh, 1895 is a small rattlesnake and its distribution ranges from southern Arizona in the United States through the Sierra Madre Occidental in the Mexican states of Sonora, Chihuahua, Durango (Campbell & Lamar, 2004), Zacatecas (Lara-Galván et al., 2020), Nayarit (Woolrich-

Piña et al., 2016), and Jalisco (Cruz-Sáenz et al., 2017); the Trans-Mexican Volcanic Belt in Aguascalientes (Vázquez-Díaz & Quintero-Díaz, 2005); and the Sierra Madre Oriental (Coahuila, Nuevo León, Tamaulipas) as the southern limit in San Luis Potosí (Lemos-Espinal et al., 2018; Prival & Schroff, 2012). *Crotalus pricei* is most frequently encountered between 1800 and 3200 m and reaches its maximal population densities at higher elevations (Prival & Schroff, 2012). It is found in rocky habitats in woodlands, extensive limestone outcroppings, open grassy meadows, scrub oaks, and pine-oak forests (Campbell & Lamar, 2004). Two isolated subspecies are recognized, one in the Sierra Madre Oriental (*C. p. miquihuanus*) and the other in the Sierra Madre Occidental (*C. p. pricei*) (Campbell & Lamar, 2004; Lemos-Espinal et al., 2015).

Here we document the first verified record of *C. pricei* in Sinaloa (Fig. 2). This new record increases the species of reptiles present in Sinaloa to a total of 122 (Lara-Reséndiz & Jacobo-González, 2022; Lemos-Espinal & Smith, 2020). The nearest previous records are in Guadalupe y Calvo, Chihuahua (45 km NNE; Lemos-Espinal et al., 2015) and Los Frailes, Tamazula, Durango (12 km SE; GBIF, 2022). Finally, this new state record indicates that more studies and citizen science projects are needed and for a detailed analysis of the distribution of Sinaloa's herpetofauna (Castro-Bastidas & Serrano-Serrano, 2022; Lara-Reséndiz & Jacobo-González, 2022; Lemos-Espinal & Smith, 2020; Loc-Barragán et al., 2020).

Acknowledgements.- We thank the Álvarez family and Juan Isidro Carrillo Ángulo for their logistical support during fieldwork in the “Golden Triangle” región in Sinaloa. RALR thanks the support of the Conacyt-ITSON repatriation program (2022-2023; 165066). Finally, we thank two anonymous reviewers for their suggestions and comments.

CITED LITERATURE

- Campbell, J.A., & W.W. Lamar. 2004. The venomous reptiles of the Western Hemisphere, vol. 2. Comstock, Ithaca, New York.
- Castro-Bastidas, H.A. & J.M. Serrano-Serrano. 2022. La plataforma naturalista como herramienta de ciencia ciudadana para documentar la diversidad de anfibios en el estado de Sinaloa, México. *Revista Latinoamericana de Herpetología* 5:156-178.
- Cruz-Sáenz, D., F.J. Muñoz-Nolasco, V. Mata-Silva, J.D. Johnson, E. García-Padilla & L.D. Wilson. 2017. The herpetofauna of Jalisco, Mexico: composition, distribution, and conservation status. *Mesoamerican Herpetology* 4:23-118.
- GBIF. 2022. Global Biodiversity Information Facility. *Crotalus pricei*. Occurrence Download. <https://doi.org/10.15468/dl.m5xveh> [Accessed 20 December 2022].
- Lara-Galván, J.L., J.F. Martínez-Montoya, J.J. Sigala-Rodríguez, C.E. Esparza-Estrada, O.C. Rosas-Rosas, L. Ávila-Herrera & A.M. Barbosa. 2020. Rattlesnake (*Crotalus* spp.) distribution and diversity in Zacatecas, Mexico. *ZooKeys* 1005:103-132.
- Lara-Reséndiz, R.A. & J.D. Jacobo-González. 2022. Nuevos registros de la serpiente *Enuliolus oligostichus* en Sinaloa y comentarios sobre su distribución. *Revista Latinoamericana de Herpetología* 5:101-104.
- Lemos-Espinal, J.A., H.M. Smith, J.R. Dixon & A. Cruz. 2015. Anfibios y Reptiles de Sonora, Chihuahua y Coahuila, México. CONABIO, México.
- Lemos-Espinal, J.A, G.R. Smith & G.A. Woolrich-Piña. 2018. Amphibians and reptiles of the state of San Luis Potosí, Mexico, with comparisons with adjoining states. *ZooKeys* 753:83-106.
- Lemos-Espinal, J.A & G.R. Smith. 2020. A checklist of the amphibians and reptiles of Sinaloa, Mexico with a conservation status summary and comparisons with neighboring states. *ZooKeys* 931:85-114.
- Loc-Barragán, J.A., H. Franz-Chávez, A.J. Grunwald & C.I. Grünwald. 2020. Geographic distribution. *Eleutherodactylus pallidus*. *Herpetological Review* 51:532.
- Prival, D.B. & M.J. Schroff. 2012. A 13-year study of a northern population of twin-spotted rattlesnakes (*Crotalus pricei*): Growth, reproduction, survival, and conservation. *Herpetological Monographs* 26:1-18.
- Vázquez-Díaz, J. & G.E. Quintero-Díaz. 2005. Anfibios y Reptiles de Aguascalientes. CIEMA. CONABIO. México.
- Woolrich-Piña, G.A, P. Ponce-Campos, J. Loc-Barragán, J.P. Ramírez-Silva, V. Mata-Silva, J.D. Johnson, E. García-Padilla & L.D. Wilson. 2016. The herpetofauna of Nayarit, Mexico: composition, distribution, and conservation status. *Mesoamerican Herpetology* 3:376-448.

