



*Phrynosoma cornutum*, Chihuahua, Mexico. © P.P. van Dijk

## Checklist of the genus *Phrynosoma*

Species information extracted from  
Uetz, P., Freed, P., Aguilar, R., Reyes, F. & Hošek, J. (eds.) (2022)  
The Reptile Database,  
accessed 20 April 2023

The Reptile database is maintained by Peter Uetz (HTML pages + content)  
and Jirí Hošek (search engine) with help from many volunteers.  
(The URL of this page is <http://www.reptile-database.org>).

Copyright © 1995-2022 by Peter Uetz. All Rights Reserved.

This extract prepared by Peter Paul van Dijk on behalf of the CITES Animals  
Committee.

Reproduction for commercial purposes prohibited.



## Search results

### Search Parameters

- Higher taxa: Phrynosomatidae

### Search results

Species found: 171

- [Callisaurus draconoides](#) BLAINVILLE, 1835
- [Cophosaurus texanus](#) TROSCHER, 1852
- [Holbrookia approximans](#) BAIRD, 1859
- [Holbrookia elegans](#) BOCOURT, 1874
- [Holbrookia lacerata](#) COPE, 1880
- [Holbrookia maculata](#) GIRARD, 1851
- [Holbrookia propinqua](#) BAIRD & GIRARD, 1852
- [Holbrookia subcaudalis](#) AXTELL, 1956
- [Petrosaurus mearnsi](#) (STEJNEGER, 1894)
- [Petrosaurus repens](#) (VAN DENBURGH, 1895)
- [Petrosaurus slevini](#) (VAN DENBURGH, 1922)
- [Petrosaurus thalassinus](#) (COPE, 1863)
- [Phrynosoma asio](#) COPE, 1864
- [Phrynosoma bauri](#) MONTANUCCI, 2015
- [Phrynosoma blainvillii](#) GRAY, 1839
- [Phrynosoma braconnieri](#) BOCOURT, 1870
- [Phrynosoma brevirostris](#) GIRARD, 1858
- [Phrynosoma cerroense](#) STEJNEGER, 1893
- [Phrynosoma cornutum](#) (HARLAN, 1825)
- [Phrynosoma coronatum](#) (BLAINVILLE, 1835)
- [Phrynosoma diminutum](#) MONTANUCCI, 2015
- [Phrynosoma ditmarsii](#) STEJNEGER, 1906
- [Phrynosoma douglasii](#) (BELL, 1829)
- [Phrynosoma goodei](#) STEJNEGER, 1893
- [Phrynosoma hernandesi](#) GIRARD, 1858
- [Phrynosoma mcallii](#) (HALLOWELL, 1852)
- [Phrynosoma modestum](#) GIRARD, 1852
- [Phrynosoma orbiculare](#) (LINNAEUS, 1758)
- [Phrynosoma ornatissimum](#) GIRARD, 1858
- [Phrynosoma platyrhinos](#) GIRARD, 1852
- [Phrynosoma sherbrookei](#) NIETO-MONTES DE OCA, ARENAS-MORENO, BELTRÁN-SÁNCHEZ & LEACHÉ, 2014
- [Phrynosoma solare](#) GRAY, 1845
- [Phrynosoma taurus](#) BOCOURT, 1870
- [Sceloporus acanthinus](#) BOCOURT, 1873
- [Sceloporus adleri](#) SMITH & SAVITZKY, 1974
- [Sceloporus aeneus](#) WIEGMANN, 1828
- [Sceloporus albiventris](#) SMITH, 1939
- [Sceloporus anahuacus](#) LARA-GONGORA, 1983
- [Sceloporus angustus](#) (DICKERSON, 1919)
- [Sceloporus arenicolus](#) DEGENHARDT & JONES, 1972
- [Sceloporus asper](#) BOULENGER, 1897
- [Sceloporus aurantius](#) GRUMMER & BRYSON, 2014
- [Sceloporus aureolus](#) SMITH, 1942
- [Sceloporus becki](#) VAN DENBURGH, 1905
- [Sceloporus bicanthalis](#) SMITH, 1937

- [Sceloporus bimaculosus PHELAN & BRATTSTROM, 1955](#)
- [Sceloporus binocularis DUNN, 1936](#)
- [Sceloporus brownorum SMITH, WATKINS-COLWELL, LEMOS-ESPINAL & CHISZAR, 1997](#)
- [Sceloporus bulleri BOULENGER, 1895](#)
- [Sceloporus caeruleus SMITH, 1936](#)
- [Sceloporus carinatus SMITH, 1936](#)
- [Sceloporus cautus SMITH, 1938](#)
- [Sceloporus chaneji LINER & DIXON, 1992](#)
- [Sceloporus chrysostictus COPE, 1866](#)
- [Sceloporus clarkii BAIRD & GIRARD, 1852](#)
- [Sceloporus consobrinus BAIRD & GIRARD, 1854](#)
- [Sceloporus couchii BAIRD, 1859](#)
- [Sceloporus cowlesi LOWE & NORRIS, 1956](#)
- [Sceloporus cozumelae JONES, 1927](#)
- [Sceloporus cryptus SMITH & LYNCH, 1967](#)
- [Sceloporus cupreus BOCOURT, 1873](#)
- [Sceloporus cyanogenys COPE, 1885](#)
- [Sceloporus cyanostictus AXTELL & AXTELL, 1971](#)
- [Sceloporus dixoni BRYSON & GRUMMER, 2021](#)
- [Sceloporus druckercolini PEREZ-RAMOS & SALDANA DE LA RIVA, 2008](#)
- [Sceloporus dugesii BOCOURT, 1874](#)
- [Sceloporus edbelli SMITH, CHISZAR & LEMOS-ESPINAL, 2003](#)
- [Sceloporus edwardtaylori SMITH, 1936](#)
- [Sceloporus esperanzae MCCRANIE, 2018](#)
- [Sceloporus exsul DIXON, KETCHERSID & LIEB, 1972](#)
- [Sceloporus formosus WIEGMANN, 1834](#)
- [Sceloporus gadoviae BOULENGER, 1905](#)
- [Sceloporus gadsdeni CASTAÑEDA-GAYTÁN & DÍAZ-CÁRDENAS, 2017](#)
- [Sceloporus goldmani SMITH, 1937](#)
- [Sceloporus graciosus BAIRD & GIRARD, 1852](#)
- [Sceloporus grammicus WIEGMANN, 1828](#)
- [Sceloporus grandaevus \(DICKERSON, 1919\)](#)
- [Sceloporus halli DASMANN & SMITH, 1974](#)
- [Sceloporus hesperus BRYSON & GRUMMER, 2021](#)
- [Sceloporus heterolepis BOULENGER, 1895](#)
- [Sceloporus hondurensis MCCRANIE, 2018](#)
- [Sceloporus horridus WIEGMANN, 1834](#)
- [Sceloporus huichol FLORES-VILLELA, SMITH, CAMPILLO-GARCÍA, MARTÍNEZ-MÉNDEZ & CAMPBELL, 2022](#)
- [Sceloporus hunsakeri HALL & SMITH, 1979](#)
- [Sceloporus insignis WEBB, 1967](#)
- [Sceloporus internasalis SMITH & BUMZAHM, 1955](#)
- [Sceloporus jalapae GÜNTHER, 1890](#)
- [Sceloporus jarrovi COPE, 1875](#)
- [Sceloporus lemosespinali LARA-GÓNGORA, 2004](#)
- [Sceloporus licki VAN DENBURGH, 1895](#)
- [Sceloporus lineatulus DICKERSON, 1919](#)
- [Sceloporus lunae BOCOURT, 1873](#)
- [Sceloporus lundelli SMITH, 1939](#)
- [Sceloporus macdougalli SMITH & BUMZAHM, 1953](#)
- [Sceloporus maculosus SMITH, 1934](#)
- [Sceloporus madrensis OLSON, 1986](#)
- [Sceloporus magister HALLOWELL, 1854](#)
- [Sceloporus malachiticus COPE, 1864](#)
- [Sceloporus marmoratus HALLOWELL, 1852](#)
- [Sceloporus megalepidurus SMITH, 1934](#)
- [Sceloporus melanogaster COPE, 1885](#)
- [Sceloporus melanorhinus BOCOURT, 1876](#)
- [Sceloporus merriami STEJNEGER, 1904](#)
- [Sceloporus mikeprestoni SMITH & ALVAREZ, 1974](#)
- [Sceloporus minor COPE, 1885](#)
- [Sceloporus mucronatus COPE, 1885](#)
- [Sceloporus nelsoni COCHRAN, 1923](#)
- [Sceloporus oberon SMITH & BROWN, 1941](#)
- [Sceloporus occidentalis BAIRD & GIRARD, 1852](#)
- [Sceloporus ochoterenae SMITH, 1934](#)
- [Sceloporus olivaceus SMITH, 1934](#)

- [Sceloporus olloporus SMITH, 1937](#)
- [Sceloporus omiltemanus GÜNTHER, 1890](#)
- [Sceloporus orcutti STEJNEGER, 1893](#)
- [Sceloporus ornatus BAIRD, 1859](#)
- [Sceloporus palaciosi LARA-GONGORA, 1983](#)
- [Sceloporus parvus SMITH, 1934](#)
- [Sceloporus poinsettii BAIRD & GIRARD, 1852](#)
- [Sceloporus pyrocephalus COPE, 1864](#)
- [Sceloporus salvini GÜNTHER, 1890](#)
- [Sceloporus samcolemanni SMITH & HALL, 1974](#)
- [Sceloporus scalaris WIEGMANN, 1828](#)
- [Sceloporus schmidti JONES, 1927](#)
- [Sceloporus scitulus SMITH, 1942](#)
- [Sceloporus serrifer COPE, 1866](#)
- [Sceloporus shannonorum LANGEBARTEL, 1959](#)
- [Sceloporus siniferus COPE, 1870](#)
- [Sceloporus slevini SMITH, 1937](#)
- [Sceloporus smaragdinus BOCOURT, 1873](#)
- [Sceloporus smithi HARTWEG & OLIVER, 1937](#)
- [Sceloporus spinosus WIEGMANN, 1828](#)
- [Sceloporus squamosus BOCOURT, 1874](#)
- [Sceloporus stejnegeri SMITH, 1942](#)
- [Sceloporus subniger POGLAYEN & SMITH, 1958](#)
- [Sceloporus subpictus LYNCH & SMITH, 1965](#)
- [Sceloporus sugillatus SMITH, 1942](#)
- [Sceloporus taeniocnemis COPE, 1885](#)
- [Sceloporus tanneri SMITH & LARSEN, 1975](#)
- [Sceloporus teapensis GÜNTHER, 1890](#)
- [Sceloporus torquatus WIEGMANN, 1828](#)
- [Sceloporus tristichus COPE, 1875](#)
- [Sceloporus undulatus \(BOSC & DAUDIN, 1801\)](#)
- [Sceloporus unicanthalis SMITH, 1937](#)
- [Sceloporus uniformis PHELAN & BRATTSTROM, 1955](#)
- [Sceloporus utiformis COPE, 1864](#)
- [Sceloporus variabilis WIEGMANN, 1834](#)
- [Sceloporus virgatus SMITH, 1938](#)
- [Sceloporus woodi STEJNEGER, 1918](#)
- [Sceloporus zosteromus COPE, 1863](#)
- [Uma cowlesi HEIFETZ, 1941](#)
- [Uma exsul SCHMIDT & BOGERT, 1947](#)
- [Uma inornata COPE, 1895](#)
- [Uma notata BAIRD, 1858](#)
- [Uma paraphygas WILLIAMS, CHRAPLIWY & SMITH, 1959](#)
- [Uma scoparia COPE, 1894](#)
- [Uma thurmanae DERYCKE, GOTTSCHO, MULCAHY & DE QUEIROZ, 2020](#)
- [Urosaurus auriculatus \(COPE, 1871\)](#)
- [Urosaurus bicarinatus \(DUMÉRIL, 1856\)](#)
- [Urosaurus clarionensis \(TOWNSEND, 1890\)](#)
- [Urosaurus gadovi \(SCHMIDT, 1921\)](#)
- [Urosaurus graciosus HALLOWELL, 1854](#)
- [Urosaurus lahtelai RAU & LOOMIS, 1977](#)
- [Urosaurus nigricauda \(COPE, 1864\)](#)
- [Urosaurus ornatus \(BAIRD & GIRARD, 1852\)](#)
- [Uta encantadae GRISMER, 1994](#)
- [Uta lowei GRISMER, 1994](#)
- [Uta nolascensis VAN DENBURGH & SLEVIN, 1921](#)
- [Uta palmeri STEJNEGER, 1890](#)
- [Uta squamata DICKERSON, 1919](#)
- [Uta stansburiana BAIRD & GIRARD, 1852](#)
- [Uta tumidarostra GRISMER, 1994](#)

## Advanced search

Please use the following text boxes to conduct your search. To see a complete list of every species in the Reptile Database, leave the text boxes blank and click on 'Search'. To perform an exact match against the parameters you enter, check the boxes beside the fields.



## Search results

### Search Parameters

- Higher taxa: Phrynosomatidae
- Genus: Phrynosoma

### Search results

Species found: 21

- [Phrynosoma asio](#) COPE, 1864
- [Phrynosoma bauri](#) MONTANUCCI, 2015
- [Phrynosoma blainvillii](#) GRAY, 1839
- [Phrynosoma braconnieri](#) BOCOURT, 1870
- [Phrynosoma brevirostris](#) GIRARD, 1858
- [Phrynosoma cerroense](#) STEJNEGER, 1893
- [Phrynosoma cornutum](#) (HARLAN, 1825)
- [Phrynosoma coronatum](#) (BLAINVILLE, 1835)
- [Phrynosoma diminutum](#) MONTANUCCI, 2015
- [Phrynosoma ditmarsii](#) STEJNEGER, 1906
- [Phrynosoma douglasii](#) (BELL, 1829)
- [Phrynosoma goodei](#) STEJNEGER, 1893
- [Phrynosoma hernandesi](#) GIRARD, 1858
- [Phrynosoma mcallii](#) (HALLOWELL, 1852)
- [Phrynosoma modestum](#) GIRARD, 1852
- [Phrynosoma orbiculare](#) (LINNAEUS, 1758)
- [Phrynosoma ornatissimum](#) GIRARD, 1858
- [Phrynosoma platyrhinos](#) GIRARD, 1852
- [Phrynosoma sherbrookei](#) NIETO-MONTES DE OCA, ARENAS-MORENO, BELTRÁN-SÁNCHEZ & LEACHÉ, 2014
- [Phrynosoma solare](#) GRAY, 1845
- [Phrynosoma taurus](#) BOCOURT, 1870

### Advanced search

Please use the following text boxes to conduct your search. To see a complete list of every species in the Reptile Database, leave the text boxes blank and click on 'Search'. To perform an exact match against the parameters you enter, check the boxes beside the fields. More details in [search tips](#)

Advanced search		
Search category	Search input	Exact match
<b>Higher taxa</b> (e.g. Crocodylia, Sauria, Viperidae, lizard, snake):	<input type="text" value="Phrynosomatidae"/>	<input type="checkbox"/>
<b>Genus</b> (e.g. Chamaeleo, Oligodon):	<input type="text" value="Phrynosoma"/>	<input type="checkbox"/>
<b>Species epithet</b> (e.g. elegans, ornatus):	<input type="text"/>	<input type="checkbox"/>
<b>Subspecies</b> (e.g. Ablepharus bivittatus lindbergi):	<input type="text"/>	<input type="checkbox"/>
<b>Author</b> (e.g. Boulenger, Linnaeus):	<input type="text"/>	<input type="checkbox"/>
<b>Year</b> (e.g. 2006):	<input type="text"/>	<input type="checkbox"/>
<b>Common name or synonym</b> (e.g. Abronia, Amphibolurus):	<input type="text"/>	<input type="checkbox"/>
<b>Distribution</b> (e.g. Madagascar, Florida):	<input type="text"/>	<input type="checkbox"/>

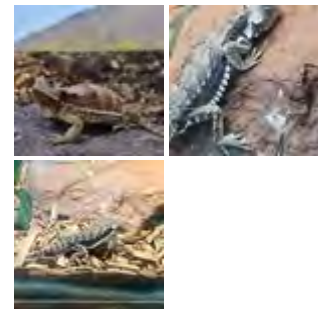


## *Phrynosoma asio* COPE, 1864



iNaturalist

Can you confirm these amateur observations of *Phrynosoma asio*?



[Add your own observation of \*Phrynosoma asio\*](#) »

Find more photos by Google images search: [Google](#)

Higher Taxa Phrynosomatidae, Phrynosomatinae, Phrynosomatini; Iguania, Sauria, Squamata (lizards)

Subspecies

Common Names  
 E: Giant Horned Lizard  
 G: Riesenkrötenchse  
 S: Camaleón de Grandes Cuernos

Synonym  
 Phrynosoma asio COPE 1864: 178  
 Batrachosoma asio — DUMERIL & BOCOURT 1870: 241  
 Batrachosoma asio — BOCOURT 1874  
 Phrynosoma spinimentum PETERS 1874: 742  
 Phrynosoma asio — GENTRY 1885: 144  
 Phrynosoma asio — BOULENGER 1885: 244  
 Phrynosoma asio — SMITH & TAYLOR 1950: 102  
 Phrynosoma asio — LINER 1994  
 Phrynosoma asio — KÖHLER 2000: 83  
 Phrynosoma asio — PIANKA & VITT 2003: 79  
 Phrynosoma asio — MATA-SILVA et al. 2015  
 Phrynosoma asio — KÖHLER 2021

Distribution

SE Mexico (Oaxaca, Guerrero, Michoacán, Colima, Chiapas, Morelos, Jalisco), Guatemala

Type locality: Colima, Colima.

Reproduction oviparous

Types Holotype: USNM 32217 (fide SMITH & TAYLOR 1950); USNM catalog says “probable syntype”.

Diagnosis	Diagnosis: A large species of the genus <i>Phrynosoma</i> (SVL to 124 mm) that is distinguished from all congeners by having the superciliary spines well developed, equaling, or nearly equaling, the occipital spines. It has the following combination of characters: (1) two widely spaced occipital spines; (2) two temporal spines, same length as occipital spines; (3) lateral abdominal fringe in one scale row; (4) ventral scales keeled; (5) 3-4 rows of enlarged scales on each side of gular area; (6) ventral surface of body with diffuse gray spots; (7) tail length at least half that of body; (8) oviparous (Baur & Köhler 2021).
Comment	Longevity: up to 12 or 13 years.

- Aguilar-López JL, Luría-Manzano R, Pineda E, Canseco-Márquez L 2021. Selva Zoque, Mexico: an important Mesoamerican tropical region for reptile species diversity and conservation. *ZooKeys* 1054: 127-153 - [get paper here](#)
- Alvarez DEL TORO, M. 1982. Los Reptiles de Chiapas. 3rd ed. México: Tuxtla Gutiérrez, 248 pp.
- Baur, B. 1979. Pflege und Zucht der Riesenkrötenechse, *Phrynosoma asio* (Reptilia: Sauria: Iguanidae). *Salamandra* 15 (1): 1-12 - [get paper here](#)
- Baur, B. & Köhler, G. 2021. Krötenechsen - Biologie, Pflege, Zucht. Frankfurt, Herpeton-Verlag
- Baur, B.E. 1986. Longevity of horned lizards of the genus *Phrynosoma*. *Bull. Maryland Herp. Soc.* 22 (3): 149-151 - [get paper here](#)
- Bocourt, M. E. 1873. In: A. Duméril, M. F. Bocourt, and F. Mocquard, (1870-1909), *Etudes sur les reptiles*, p. i-xiv; In *Recherches Zoologiques pour servir a l'Histoire de la Faune de l'Amérique Centrale et du Mexique*. Mission Scientifique au Mexique et dans l'Amérique Ce Imprimerie Impériale, Paris, Livr. 2-15, pp. 33-860. - [get paper here](#)
- Boulenger, G.A. 1885. Catalogue of the lizards in the British Museum (Natural History). Vol. 2, Second edition. London, xiii+497 pp. - [get paper here](#)
- Casas-Andreu, G., F.R. Méndez-De la Cruz and X. Aguilar-Miguel. 2004. Anfibios y Reptiles; pp. 375-390, in A.J.M. García-Mendoza, J. Ordoñez and M. Briones-Salas (ed.). *Biodiversidad de Oaxaca*. Instituto de Biología, UNAM-Fondo Oaxaqueño para la Conservación de la Naturaleza-World Wildlife Fund, México, D. F.
- Castro-Franco, R. & Guadalupe Bustos Zagal, M. 2004. Additional records and range extensions of reptiles from Morelos, México. *Herpetological Review* 35 (2): 196-197 - [get paper here](#)
- Cope, E.D. 1864. Contributions to the herpetology of tropical America. *Proc. Acad. Nat. Sci. Philadelphia* 16: 166-181. - [get paper here](#)
- Dost, W. 2005. Stichpunktartige Bemerkungen zu Pflege und zucht diverser Iguaniden. *Iguana Rundschreiben* 18 (1): 16-24
- Duméril, M. A.; M. F. Bocourt, and F. Mocquard 1870. *Etudes sur les reptiles*, p. i-xiv, 1-1012. In: *Recherches Zoologiques pour servir a l'Histoire de la Faune de l'Amérique Centrale et du Mexique*. Mission Scientifique au Mexique et dans l'Amérique Centrale, *Recherches zoologiques*. Imprimerie Imper., Paris (published in parts 1870-1909) - [get paper here](#)
- García, A. & Ceballos, G. 1994. *GUIA DE CAMPO DE LOS REPTILES Y ANFIBIOS DE LA COSTA DE JALISCO, MEXICO*. FUNDACION ECOLOGICA DE CUIXMALA, A.C. INSTITUTO DE BIOLOGIA, UNAM - [get paper here](#)
- García, Ernesto Raya and Luis Fernando Martínez García. 2013. Herpetoculture notes: *Phrynosoma asio* (giant horned lizard) drinking behavior. *Herpetological Review* 44 (3): 453 - [get paper here](#)
- García, Ernesto Raya. 2014. *Phrynosoma asio* (giant horned lizard) predation. *Herpetological Review* 45 (1): 131-132 - [get paper here](#)
- Gentry, A.F. 1885. A review of the genus *Phrynosoma*. *Proc. Acad. Nat. Sci. Philad. (ser. 3)* 37: 138-148 - [get paper here](#)
- Haase, K. 2014. Haltung und Nachzucht der Riesenkrötenechse (*Phrynosoma asio*) im Terrarium. *Reptilia (Münster)* 19 (107): 30-33
- Johnson, Jerry D.; Vicente Mata-Silva, Elí García Padilla, and Larry David Wilson 2015. The Herpetofauna of Chiapas, Mexico: composition, distribution, and conservation. *Mesoamerican Herpetology* 2 (3): 272-329. - [get paper here](#)
- Köhler, G. 2000. *Reptilien und Amphibien Mittelamerikas, Bd 1: Krokodile, Schildkröten, Echsen*. Herpeton Verlag, Offenbach, 158 pp.
- Lara-Reséndiz Rafael A., Arenas-Moreno Diego M., Beltrán-Sánchez Elizabeth, Gramajo Weendii, Verdugo-Molina Javier, Sherbrooke Wade C. et al. 2015. Selected body temperature of nine species of Mexican horned lizards (*Phrynosoma*). *Rev. Mex. Biodiv.* 86 (1): 275-278. - [get paper here](#)
- Lemos-Espinal JA, Smith GR 2020. A conservation checklist of the herpetofauna of Morelos, with comparisons with adjoining states. *ZooKeys* 941: 121-144 - [get paper here](#)
- Mata-Silva, Vicente, Jerry D. Johnson, Larry David Wilson and Elí García-Padilla. 2015. The herpetofauna of Oaxaca, Mexico: composition, physiographic distribution, and conservation status. *Mesoamerican Herpetology* 2 (1): 6-62 - [get paper here](#)
- McCoy, C. J.; Flores-Villela, O. A. 1985. Amphibians and reptiles of the Seese and Mocino expedition: a lost chapter in Mexican herpetology. *Annals of the Carnegie Museum* 54 (5): 189-193
- Meyers, J.J.; Herrel, A. & Nishikawa, K. 2006. Morphological correlates of ant eating in horned lizards (*Phrynosoma*). *Biological Journal of the Linnean Society* 89: 13-24 - [get paper here](#)
- Montanucci, Richard R. 1987. A phylogenetic study of the horned lizards, genus *Phrynosoma*, based on skeletal and external morphology. *Contributions in Science* (390): 1-36 + 1 plate
- Palacios-Aguilar, Ricardo & OSCAR FLORES-VILLELA 2018. An updated checklist of the herpetofauna from

- Guerrero, Mexico. Zootaxa 4422 (1): 1-24 - [get paper here](#)
- Pareja, M. G., et al. 2017. Phrynosoma asio (Giant Horned Lizard) Natural longevity. Herpetological Review 48 (2): 439-440 - [get paper here](#)
  - Pareja, Marcos García, Elizabeth Beltrán-Sánchez and Wade C. Sherbrooke. 2016. Phrynosoma asio (Giant Horned Lizard) Natural longevity (age). Herpetological Review 47 (1): 138-139 - [get paper here](#)
  - Peters, Wilhem Carl Hartwig 1874. Über neue Saurier (Spæriodactylus, Anolis, Phrynosoma, Tropidolepisma, Lygosoma, Ophioscincus) aus Centralamerica, Mexico und Australien. Monatsber. königl. Akad. Wiss. Berlin. 1873 (November): 738-747 - [get paper here](#)
  - Pianka, E.R. & Vitt, L.J. 2003. Lizards - Windows to the Evolution of Diversity. University of California Press, Berkeley, 347 pp. [review in Copeia 2004: 955] - [get paper here](#)
  - Presch, W. 1969. Evolutionary osteology and relationships of the horned lizard genus Phrynosoma (family Iguanidae). Copeia 1969 (2): 250-275 - [get paper here](#)
  - Raya-García, Ernesto. 2014. Phrynosoma asio (giant horned lizard) captive diet. Herpetological Review 45 (4): 635 - [get paper here](#)
  - Raya-García, Ernesto. 2014. Phrynosoma asio (giant horned lizard) crepuscular and nocturnal activity. Herpetological Review 45 (2): 330 - [get paper here](#)
  - Recchio, Ian, Marlowe Robertson-Billet, Chris Rodriguez and Jim Haigwood. 2014. Captive husbandry and reproduction of Phrynosoma asio (Squamata: Phrynosomatidae) at the Los Angeles Zoo and Botanical Gardens. Herpetological Review 45 (3): 450-454 - [get paper here](#)
  - Reeder, T.W. & Montanucci, R.R. 2001. Phylogenetic analysis of the horned lizards (Phrynomomatidae: Phrynosoma): evidence from mitochondrial DNA and morphology. Copeia 2001 (2): 309-323 - [get paper here](#)
  - Reeve, Wayne L. 1952. Taxonomy and distribution of the horned lizard genus Phrynosoma. Univ. Kansas Sci. Bull. 34 (14): 817-960 - [get paper here](#)
  - Schmidt, Karl P.; Shannon, Frederick A. 1947. Notes on amphibians and reptiles of Michoacan, Mexico. Zoological Series of Field Museum of Natural History 31 (9): 63-85
  - Sherbrooke, Wade C. 2003. Introduction to Horned Lizards of North America. University of California Press, Berkeley, 178 pp. - [get paper here](#)
  - Smith, Hobart M. 1944. Additions to the list of Mexican amphibians and reptiles in the Carnegie Museum. Annals of the Carnegie Museum 30: 87-92
  - Werning, H. 2014. Krötenechsen – eine (sehr gute) Laune der Natur. Reptilia (Münster) 19 (107): 16-23

## External links

- [IUCN Red List](#)
- [National Center for Biotechnology Information](#)
- <http://www.jsuntrup.homepage.t-online.de/reptil.html>
- [Google images](#)

## Is it interesting? Share with others:

As link to this species use URL address:

**<https://reptile-database.reptarium.cz/species?genus=Phrynosoma&species=asio>**

without field 'search\_param'. Field 'search\_param' is used for browsing search result.

[Please submit feedback about this entry to the curator](#)

*This database is maintained by Peter Uetz (database content) and Jakob Hallermann, Zoological Museum Hamburg (new species and updates).*

*Web pages and scripting Jiri Hosek*





## *Phrynosoma bauri* MONTANUCCI, 2015

iNaturalist



[Add your own observation of \*Phrynosoma bauri\*](#) »

We have no photos, try to find some by Google images search: [Google](#)

Higher Taxa Phrynosomatidae, Phrynosomatinae, Phrynosomatini; Iguania, Sauria, Squamata (lizards)

Subspecies

Common Names E: Baur's Short-horned Lizard

Synonym *Phrynosoma bauri* MONTANUCCI 2015  
*Phrynosoma douglassii* — GENTRY 1885: 140 (part)  
*Phrynosoma douglassii hernandesi* — COPE 1900: 413 (part)  
*Phrynosoma douglassii ornatissimum* — VAN DENBURGH 1922: 377(part)  
*Phrynosoma douglassii brevirostre* — SMITH 1946: 302 (part)  
*Phrynosoma douglassii ornatissimum* — SMITH 1946: 305 (part)  
*Phrynosoma douglassii brevirostre* — REEVE 1952: 913 (part)  
*Phrynosoma douglassii ornatissimum* — REEVE 1952: 927 (part)  
*Phrynosoma hernandesi* — ZAMUDIO et al. 1997: 302 (part)  
*Phrynosoma (Tapaja) hernandesi bauri* — DE QUEIROZ in CROTHER et al. 2017  
 USA (Colorado, Nebraska, SE Wyoming, NE New Mexico)

Distribution Type locality: 12.8 km north of Orchard, Morgan County, Colorado

Reproduction

Types Holotype: UCM 11356, adult male, collected from 12.8 km north of Orchard, Morgan County, Colorado, by V. Janzen on 10 May 1958 (Fig. 11).

Paratopotypes. UCM 11358–59, both males, collected by V. Janzen on 10 May 1958.

Diagnosis. *Phrynosoma bauri* sp. nov. can be distinguished from other members of the *P. douglassii* species complex by the following combination of adult characters: (1) snout short,  $44.3\% \pm 0.99$  (38.5–50%) of orbit to rostral scale distance; (2) rostrifrontal profile rounded or angular with a steep incline; (3) frontal rim usually elevated above the occipital shelf; (4) enlarged frontal rim scales  $2.84 \pm 0.23$  (1–4)/  $2.65 \pm 0.25$  (1–4); (5) temporal shelf moderately

short,  $16.8\% \pm 0.90$  (11.1–24.2%) in males,  $18.1\% \pm 0.82$  (12.9–23.0%) in females; (6) temporal shelf weakly to moderately convex; (7) cephalic horns moderately short, third temporal horn length  $13.7\% \pm 0.38$  (8.0–18.5%); (8) cephalic horns usually directed upward, ca.  $45^\circ$  to nearly vertical; (9) tympanum elliptic, moderately broad; (10) tympanum exposed; (11) tail moderately long,  $226\% \pm 6.20$  (169–279%) in males,  $199\% \pm 4.47$  (158–235%) in females; (12) dorsal spots small, wedge-shaped to slightly rounded; (13) light-colored borders of dorsal spots confined to posterior edges; (14) dorsolateral white spots present; (15) gular area with scattered melanistic spots and vermiculations (melanin-dispersed phase); (16) abdomen with large melanistic spots (melanin-dispersed phase); (17) interrupted melanistic subcaudal bands absent or present distally, barely entering ventral surface (melanin-dispersed phase).

Comparisons. *P. bauri* sp. nov. differs discretely from *P. brevirostris* in having conspicuous white, rounded, dorsolateral spots. It also differs discretely from *P. brevirostris* in having rows of large, melanistic spots on the abdomen during the melanin-dispersed phase. By contrast, the abdominal pattern in *P. brevirostris* consists of scattered gray flecks and patches, or a coalesced, but pale gray suffusion. In *P. bauri* sp. nov. the nuchal blotches have a well defined yellowish-white, yellow or orange-yellow line bordering the medial and posterior edges. In *P. brevirostris*, the nuchal blotches usually lack a light-colored border, but if present, it is white, poorly defined, and abbreviated. In *P. bauri* sp. nov. the frontal rim is typically well defined and elevated above the occipital shelf. In *P. brevirostris* the frontal rim is weakly defined and not elevated or only slightly elevated above the occipital shelf. *P. bauri* sp. nov. also has a significantly higher number of enlarged frontal rim scales, a longer temporal shelf, and a longer third temporal horn compared with *P. brevirostris*. The tail length (as a percentage of head length) does not differ significantly between male samples of the two taxa, but the tail is significantly longer in *P. bauri* sp. nov. females (Table 3). Comparisons with *P. diminutum* sp. nov. are discussed in the next account.

*Phrynosoma bauri* sp. nov. is distinguished from *P. h. hernandesi* by a shorter snout, a rounded or angular and steeply inclined rostrifrontal profile, a shorter temporal shelf (except *P. h. ornatum*), and shorter temporal horns (except *P. h. ornatum*), that are directed upward to nearly vertical. It is further distinguished from *P. h. hernandesi* and *P. h. ornatum* by the presence of dorsolateral white spots, and from *P. h. ornatum* by having a more elevated frontal rim and a higher number of enlarged frontal rim scales. *P. bauri* sp. nov. can be distinguished from *P. o. ornatissimum* and *P. o. brachycercum* by a relatively longer tail, small, wedge-shaped to slightly rounded dorsal spots (except *P. o. brachycercum*), absence of a discrete yellow and/or white line along the medial border of each dorsal spot (except *P. o. brachycercum*), a gular pattern of spots and short vermiculations with or without gray suffusion and black spots on the abdomen (melanin-dispersed phase). *P. bauri* sp. nov. can be distinguished from *P. douglasii* by its longer temporal shelf that is weakly to moderately convex (rather than strongly convex or rounded), an elevated frontal rim, longer occipital and temporal horns, a somewhat broader elliptic and exposed tympanum. It is further distinguished from *P. douglasii* by the presence of dorsolateral white spots, a gular pattern of dark spots and/or vermiculations rather than a gray suffusion only, and black spots on the abdomen (melanin-dispersed phase).

Hybridization: *P. bauri* hybridizes with *P. hernandesi* (Montanucci 2015). Köhler 2021 synonymized *bauri* with *hernandesi*.

#### Comment

Distribution: see map in Montanucci 2015: 169.

#### Etymology

The subspecific epithet *bauri* is a Latin patronym in the genitive singular, honoring the late Bertrand E. Baur, a longtime friend and avid student of *Phrynosoma*. Baur died in November of 2013 due to injuries sustained in a car accident the previous year.

#### References

- Cope, E.D. 1900. The crocodylians, lizards and snakes of North America. Ann. Rep. U.S. Natl. Mus. 1898: 153-1270 - [get paper here](#)
- Gentry, A.F. 1885. A review of the genus *Phrynosoma*. Proc. Acad. Nat. Sci. Philad. (ser. 3) 37: 138-148 - [get paper here](#)
- MONTANUCCI, RICHARD R. 2015. A taxonomic revision of the *Phrynosoma douglasii* species complex (Squamata: Phrynosomatidae). Zootaxa 4015 (1): 001–177 - [get paper here](#)
- Reeve, Wayne L. 1952. Taxonomy and distribution of the horned lizard genus *Phrynosoma*. Univ. Kansas Sci. Bull. 34 (14): 817-960 - [get paper here](#)
- Smith, Hobart M. 1946. Handbook of Lizards: Lizards of the United States and of Canada. Comstock, Ithaca, NY, xxii + 557 pp.
- Van Denburgh, John 1922. The Reptiles of Western North America. Volume I. Lizards. Occ. Pap. Cal. Acad. Sci. (10): 1–612 - [get paper here](#)
- Zamudio, Kelly R., Jones, K. Bruce & Ward, Ryk H. 1997. Molecular systematics of Short-horned lizards: Biogeography and taxonomy of a widespread species complex. Systematic Biology 46 (2): 284-305 - [get paper here](#)

#### External links

- [Google images](#)

Is it interesting? Share with others:



## *Phrynosoma blainvillii* GRAY, 1839

### iNaturalist

Can you confirm these amateur observations of *Phrynosoma blainvillii*?



1 / 10



[Add your own observation of \*Phrynosoma blainvillii\*](#) »

Find more photos by Google images search: [Google](#)

Higher Taxa Phrynosomatidae, Phrynosomatinae, Phrynosomatini; Iguania, Sauria, Squamata (lizards)

Subspecies

Common Names  
E: San Diego Horned Lizard  
G: Blainvills Krötenechse  
S: Camaleón de Blainville

Synonym  
Phrynosoma blainvillii GRAY 1839: 96  
Phrynosoma blainvillii —VAN DENBURGH 1895: 118  
Phrynosoma blainvillei — COPE 1900  
Phrynosoma blainvillii blainvillii — GRINNELL & CAMP 1917: 164  
Phrynosoma blainvillii — VAN DENBURGH 1922  
Phrynosoma ochoterenai TERRON 1932: 109  
Phrynosoma coronatum blainvillii — BURT 1933  
Phrynosoma coronatum blainvillii — JENNINGS 1988  
Phrynosoma blainvillii — LEACHE & MCGUIRE 2006  
Phrynosoma blainvillii — LEACHÉ et al. 2009  
Phrynosoma (Anota) blainvillii — CROTHER et al. 2012  
Phrynosoma coronatum blainvillii — KÖHLER 2021

Distribution  
USA (California),  
Mexico (Baja California)

Reproduction  
oviparous  
Types  
Holotype: BMNH (juvenile)

Diagnosis  
Definition. A subspecies with three or more rows of enlarged gular scales on each side, a large postriental scale, five posteriorly- curved temporal spines, and large, smooth, rounded temporal scales (Jennings 1988).

Synonymy: Klauber 1936 placed *Phrynosoma ochoterenai* in the synonymy of *P. blainvillii frontale* (now = *P. coronatum frontale*).

Comment

Healthy *P. coronatum* and *P. cornutum* hybrids have been obtained by BAUR (1983). Brattstrom (1997) concluded that *P. coronatum* is a highly variable species and thus rejected subspecies. GRISMER & MELLINK (1994) placed *P. cerroense* in the synonymy of *P. coronatum*.

Group: Belongs to the Anota clade fide LEACHE & MCGUIRE 2006.

References

- Burt, Charles E. 1933. Some lizards from the Great Basin of the West and adjacent areas, with comments on the status of various forms. *American Midland Naturalist* 14: 228-250 - [get paper here](#)
- Cope, E.D. 1900. The crocodylians, lizards and snakes of North America. *Ann. Rep. U.S. Natl. Mus.* 1898: 153-1270 - [get paper here](#)
- Crother, B. I. (ed.) 2012. *Standard Common and Current Scientific Names for North American Amphibians, Turtles, Reptiles, and Crocodylians*, Seventh Edition. *Herpetological Circular* 39: 1-92
- Germano, D.J., and S.M. Hult. 2016. Unusual Mating Position by a Pair of Blainville's Horned Lizards (*Phrynosoma blainvillii*) in the San Joaquin Desert, California. *Western Wildlife* 3:27-28. - [get paper here](#)
- Gray, J. E. 1839. Reptiles. In: J. Richardson et al., *The Zoology of Captain Beechey's Voyage...* H.G. Bohn, London, 180 pp. (+ plates) - [get paper here](#)
- Grinnell, J. & CAMP, C.L. 1917. A distributional list of the amphibians and reptiles of California. *Univ. California Publ. Zool.* 17: 127-208
- Hult, S.M. 2015. Diet Analysis of a Population of *Phrynosoma blainvillii* From the San Joaquin Desert, California. *Western Wildlife* 2:46-47. - [get paper here](#)
- Hult, Susan M. and David J. Germano 2015. Habitat Use and Home Range of *Phrynosoma blainvillii* in the San Joaquin Desert of California. *Herp. Cons. Biol.* 10 (3) - [get paper here](#)
- Hult, Susan M. and David J. Germano 2015. Population Structure, Size, and Activity Patterns of *Phrynosoma blainvillii* in the San Joaquin Desert of California. *Herp. Cons. Biol.* 10 (3) - [get paper here](#)
- Jones, L.L. & Lovich, R.E. 2009. *Lizards of the American Southwest. A photographic field guide.* Rio Nuevo Publishers, Tucson, AZ, 568 pp. [review in *Reptilia* 86: 84] - [get paper here](#)
- Klauber, L. M. 1936. The Horned Toads of the coronatum Group. *Copeia*, Vol. 1936, No. 2 (Jul. 31, 1936), pp. 103-110 - [get paper here](#)
- Lara-Reséndiz Rafael A., Arenas-Moreno Diego M., Beltrán-Sánchez Elizabeth, Gramajo Weendii, Verdugo-Molina Javier, Sherbrooke Wade C. et al. 2015. Selected body temperature of nine species of Mexican horned lizards (*Phrynosoma*). *Rev. Mex. Biodiv.* 86 (1): 275-278. - [get paper here](#)
- Leaché, A. D., McElroy, M. T. and Trinh, A. 2018. A genomic evaluation of taxonomic trends through time in coast horned lizards (genus *Phrynosoma*). *Mol Ecol.* doi:10.1111/mec.14715 - [get paper here](#)
- Leaché, Adam D. and Jimmy A. McGuire 2006. Phylogenetic relationships of horned lizards (*Phrynosoma*) based on nuclear and mitochondrial data: Evidence for a misleading mitochondrial gene tree. *Molecular Phylogenetics and Evolution* 39 (3): 628-644 - [get paper here](#)
- Leaché, Adam D.; Michelle S. Koo, Carol L. Spencer, Theodore J. Papenfuss, Robert N. Fisher, and Jimmy A. McGuire 2009. Quantifying ecological, morphological, and genetic variation to delimit species in the coast horned lizard species complex (*Phrynosoma*). *PNAS* 2009 106:12418-12423 - [get paper here](#)
- Smith, Hobart M. 1939. An annotated list of the Mexican amphibians and reptiles in the Carnegie Museum. *Annals of the Carnegie Museum* 27: 311-320
- Stejneger, L.H. 1893. Annotated list of the reptiles and batrachians collected by the Death Valley Expedition in 1891, with descriptions of new species. *North American Fauna*, No. 7: 159-228 (+ 14 plates + 4 maps) - [get paper here](#)
- Terron 1932. *Anal. Inst. Biol.* 3: 109
- Thomson, Robert C.; Amber N. Wright & H. Bradley Shaffer 2016. *California Amphibian and Reptile Species of Special Concern.* University of California Press - [get paper here](#)
- Van Denburgh, John 1922. *The Reptiles of Western North America. Volume I. Lizards.* Occ. Pap. Cal. Acad. Sci. (10): 1-612 - [get paper here](#)
- Van Denburgh, J. 1895. A review of the herpetology of Lower California. Part I - Reptiles. *Proc. Cal. Acad. Sci.* (2) 5: 77-163 - [get paper here](#)
- Werning, H. 2014. Krötenechsen – eine (sehr gute) Laune der Natur. *Reptilia (Münster)* 19 (107): 16-23
- Werning, Heiko 2012. Die Reptilien und Amphibien des Südwestens. *Draco* 13 (50): 18-60 - [get paper here](#)

External links

- [IUCN Red List](#)
- [National Center for Biotechnology Information](#)
- [Google images](#)

Is it interesting? Share with others:



## *Phrynosoma braconnieri* BOCOURT, 1870



iNaturalist

Can you confirm these amateur observations of *Phrynosoma braconnieri*?



[Add your own observation of \*Phrynosoma braconnieri\*](#) »

We have no photos, try to find some by Google images search: [Google](#)

Higher Taxa Phrynosomatidae, Phrynosomatinae, Phrynosomatini; Iguania, Sauria, Squamata (lizards)

Subspecies

Short-tail Horned Lizard

Common Names

G: Kurzschwanz-Krötenechse

S: Camaleón de Cola-Corta

Synonym

*Phrynosoma braconnieri* BOCOURT 1870: 233

*Phrynosoma braconnieri* — GENTRY 1885: 147

*Phrynosoma braconnieri* — BOULENGER 1885: 248

*Phrynosoma braconnieri* — SMITH & TAYLOR 1950: 100

*Phrynosoma braconnieri* — LINER 1994

*Phrynosoma braconnieri* — LINER 2007

*Phrynosoma braconnieri* — CANSECO-MÁRQUEZ & GUTIÉRREZ-MAYÉN 2010

*Phrynosoma braconnieri* — KÖHLER 2021

Distribution

Mexico (extreme southern edge of the central Meican plateau; semiarid portions of Puebla and Oaxaca, Veracruz).

Type locality: Oaxaca

Reproduction ovoviviparous (Lambert & Wiens 2013).

Types

Syntypes: MNHN-RA 1919, MNHN-RA 1920, MNHN-RA 2095, MNHN-RA 2499 (4 specimens)

Diagnosis

Diagnosis: A small species of the genus *Phrynosoma* (SVL to 68 mm) that is distinguished from all congeners by having an extremely short tail (shorter than head) and the temporal spines about the same length as the occipital spines. It has the following combination of characters: (1) two moderately enlarged occipital spines, about the same length as largest temporal spines; (2) three moderately enlarged temporal spines; (3) lateral abdominal fringe in one

scale row; (4) ventral scales keeled; (5) small, granular, subequal or with a single marginal row of slightly enlarged scales on each side, separated from infralabials by one scale row; (6) ventral surface of body with dark spots; (7) tail length shorter than head; (8) ovoviviparous (Baur & Köhler 2021).

Comment Group: Belongs to the Brevicauda clade fide LEACHE & MCGUIRE 2006.

Etymology Named after Séraphin Braconnier (1812-1844), who worked in the Natural History Museum in Paris. See Bour & Brygoo 2013 for biographical details.

- Arias-Balderas, S. F., Hernández-Ríos, A. & Correa-Sánchez, F. 2012. Phrynosoma braconnieri (short-tailed horned lizard) predation. Herpetological Review 43: 335-336 - [get paper here](#)
- Baur, B. & Köhler, G. 2021. Krötenechsen - Biologie, Pflege, Zucht. Frankfurt, Herpeton-Verlag
- Bocourt, M. E. 1873. In: A. Duméril, M. F. Bocourt, and F. Mocquard, (1870-1909), Etudes sur les reptiles, p. i-xiv; In Recherches Zoologiques pour servir a l'Histoire de la Faune de l'Amérique Centrale et du Mexique. Mission Scientifique au Mexique et dans l'Amérique Ce Imprimerie Impériale, Paris, Livr. 2-15, pp. 33-860. - [get paper here](#)
- Boulenger, G.A. 1885. Catalogue of the lizards in the British Museum (Natural History). Vol. 2, Second edition. London, xiii+497 pp. - [get paper here](#)
- Bour, Roger & Édouard-Raoul Brygoo 2013. Séraphin Braconnier (1812-1884), le premier «garçon de laboratoire» de la chaire des Reptiles et Poissons du Muséum de Paris. Bull. Soc. Herp. France 148: 503-513
- 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 - [get paper here](#)
- Casas-Andreu, G., F.R. Méndez-De la Cruz and X. Aguilar-Miguel. 2004. Anfibios y Reptiles; pp. 375–390, in A.J.M. García-Mendoza, J. Ordoñez and M. Briones-Salas (ed.). Biodiversidad de Oaxaca. Instituto de Biología, UNAM-Fondo Oaxaqueño para la Conservación de la Naturaleza-World Wildlife Fund, México, D. F.
- Díaz-Marín, C A; Luría-Manzano, R & Gutiérrez-Mayén, G; 2019. Body temperature of Phrynosoma braconnieri (Squamata: Phrynosomatidae) from a xeric scrubland in Central Mexico. Herpetological Review 50 (2): 259-262 - [get paper here](#)
- Duméril, M. A.; M. F. Bocourt, and F. Mocquard 1870. Etudes sur les reptiles, p. i-xiv, 1-1012. In: Recherches Zoologiques pour servir a l'Histoire de la Faune de l'Amérique Centrale et du Mexique. Mission Scientifique au Mexique et dans l'Amérique Centrale, Recherches zoologiques. Imprimerie Imper., Paris (published in parts 1870-1909) - [get paper here](#)
- Gentry, A.F. 1885. A review of the genus Phrynosoma. Proc. Acad. Nat. Sci. Philad. (ser. 3) 37: 138-148 - [get paper here](#)
- Jiménez-Arcos, Víctor H., Eric Centenero-Alcala, Edmundo Perez-Ramos and Samuel A. Santa Cruz-Padilla. 2014. Geographic Distribution: Phrynosoma braconnieri (short-tailed horned lizard). Herpetological Review 45 (3): 463 - [get paper here](#)
- Lambert, Shea M. and John J. Wiens 2013. EVOLUTION OF VIVIPARITY: A PHYLOGENETIC TEST OF THE COLD-CLIMATE HYPOTHESIS IN PHRYNOSOMATID LIZARDS. Evolution 67 (9): 2614–2630 - [get paper here](#)
- Leaché, Adam D. and Jimmy A. McGuire 2006. Phylogenetic relationships of horned lizards (Phrynosoma) based on nuclear and mitochondrial data: Evidence for a misleading mitochondrial gene tree. Molecular Phylogenetics and Evolution 39 (3): 628-644 - [get paper here](#)
- Liner, Ernest A. 2007. A CHECKLIST OF THE AMPHIBIANS AND REPTILES OF MEXICO. Louisiana State University Occasional Papers of the Museum of Natural Science 80: 1-60 - [get paper here](#)
- Martín-Regalado, N.; M. C. Lavariega, R. M. Gómez-Ugalde & C. Rodríguez-Pérez 2016. Anfibios y reptiles de la sierra de Cuatro Venados, Oaxaca, México. Arxius de Miscel·lània Zoològica, 14 (2016): 217–232 - [get paper here](#)
- Mata-Silva, Vicente, Jerry D. Johnson, Larry David Wilson and Elí García-Padilla. 2015. The herpetofauna of Oaxaca, Mexico: composition, physiographic distribution, and conservation status. Mesoamerican Herpetology 2 (1): 6–62 - [get paper here](#)
- Meyers, J.J.; Herrel, A. & Nishikawa, K. 2006. Morphological correlates of ant eating in horned lizards (Phrynosoma). Biological Journal of the Linnean Society 89: 13–24 - [get paper here](#)
- Nieto-Montes de Oca, Adrián; Diego Arenas-Moreno, Elizabeth Beltrán-Sánchez, and Adam D. Leaché 2014. A New Species of Horned Lizard (Genus Phrynosoma) from Guerrero, México, with an Updated Multilocus Phylogeny. Herpetologica Jun 2014, Vol. 70, No. 2: 241-257. - [get paper here](#)
- Pavón-Vázquez, Carlos J. and Mariángel Arvizu-Meza. 2016. Phrynosoma braconnieri Duméril & Bocourt, 1870. Behavior. Mesoamerican Herpetology 3 (3): 727 - [get paper here](#)
- Presch, W. 1969. Evolutionary osteology and relationships of the horned lizard genus Phrynosoma (family Iguanidae). Copeia 1969 (2): 250-275 - [get paper here](#)
- Reeder, T.W. & Montanucci, R.R. 2001. Phylogenetic analysis of the horned lizards (Phrynosomatidae: Phrynosoma): evidence from mitochondrial DNA and morphology. Copeia 2001 (2): 309-323 - [get paper here](#)
- Sherbrooke, Wade C. 2003. Introduction to Horned Lizards of North America. University of California Press, Berkeley, 178 pp. - [get paper here](#)
- Smith, H.M. & Taylor, E.H. 1950. An annotated checklist and key to the reptiles of Mexico exclusive of the snakes. Bull. US Natl. Mus. 199: 1-253 - [get paper here](#)
- Smith, Hobart M. 1934. Notes on some lizards of the genus Phrynosoma from Mexico. Transactions of the Kansas Academy of Science 37: 287-297 - [get paper here](#)

## References

- Torres-Hernández, LA, Ramírez-Bautista A, Cruz-Elizalde R, Hernández-Salinas U, Berriozabal-Islas C, DeSantis DL, Johnson JD, Rocha A, García-Padilla E, Mata-Silva V, Fucsko LA, and Wilson LD. 2021. The herpetofauna of Veracruz, Mexico: composition, distribution, and conservation status. *Amphibian & Reptile Conservation* 15(2) [General Section]: 72–155 - [get paper here](#)
- Trujillo–Caballero, S. & J. A. González–Oreja 2018. Efficient vs. structured biodiversity inventories: reptiles in a Mexican dry scrubland as a case study. *Animal Biodiversity and Conservation* 41.2 (2018) 245 - [get paper here](#)
- Werning, H. 2014. Krötenechsen – eine (sehr gute) Laune der Natur. *Reptilia (Münster)* 19 (107): 16-23

External links

- [IUCN Red List](#)
- [National Center for Biotechnology Information](#)
- <http://uts.cc.utexas.edu/~varanus/phryno.html>
- [Google images](#)

#### Is it interesting? Share with others:

As link to this species use URL address:

**<https://reptile-database.reptarium.cz/species?genus=Phrynosoma&species=braconnieri>**

without field 'search\_param'. Field 'search\_param' is used for browsing search result.

[Please submit feedback about this entry to the curator](#)

*This database is maintained by Peter Uetz (database content) and Jakob Hallermann, Zoological Museum Hamburg (new species and updates).*

*Web pages and scripting Jiri Hosek*



## *Phrynosoma brevirostris* GIRARD, 1858

iNaturalist



[Add your own observation of \*Phrynosoma brevirostris\*](#) »

We have no photos, try to find some by Google images search: [Google](#)

Higher Taxa Phrynosomatidae, Phrynosomatinae, Phrynosomatini; Iguania, Sauria, Squamata (lizards)

Subspecies

Common Names E: Great Plains Short-horned Lizard

Synonym Phrynosoma (Tapaya) brevirostris GIRARD 1858: 397  
 Phrynosoma brevirostre — COPE 1867: 302  
 Phrynosoma douglassii — GENTRY 1885: 140 (part)  
 Phrynosoma douglassii hernandesi — COPE 1900: 413 (part)  
 Phrynosoma douglassii ornatissimum — VAN DENBURGH 1922: 377 (part)  
 Phrynosoma douglassii brevirostre — SMITH 1946: 302  
 Phrynosoma douglassii ornatissimum — SMITH 1946: 305 (part)  
 Phrynosoma douglassii brevirostre — REEVE 1952: 913  
 Phrynosoma douglassii hernandesi — REEVE 1952: 922 (part)  
 Phrynosoma douglassii ornatum — REEVE 1952: 930 (part)  
 Phrynosoma douglassii brevirostre — MASLIN 1964  
 Phrynosoma hernandesi — ZAMUDIO et al. 1997: 302 (part)  
 Phrynosoma douglassii brevirostre — CONANT & COLLINS 1991: 113  
 Phrynosoma brevirostris — MONTANUCCI 2015

Canada (S Alberta, S Saskatchewan),  
 USA (Wyoming, W North Dakota, W South Dakota, W Nebraska, Utah, Colorado)

Distribution Type locality: Restricted to 9.6 km E of Agate, Sioux County, Nebraska by Montanucci 2015. Reeve (1952:913) emended the name of the type locality (Pole Creek) in accordance with its current geographic name, Lodgepole Creek, and restricted the type locality to near Dix, Kimball County, Nebraska.

Reproduction ovoviviparous



Types	<p>Type: USNM 208; Lectotype: USNM 4592c (designated by Montanucci 2015: 28)</p> <p>Diagnosis. <i>Phrynosoma brevirostris</i> can be distinguished from other members of the <i>P. douglasii</i> species complex by the following combination of adult characters: (1) snout short, <math>42.9\% \pm 0.96</math> (34.9–50%) of orbit to rostral scale distance; (2) rostrifrontal profile more or less rounded or angular with a steep incline; (3) frontal rim not elevated, or only slightly elevated above the occipital shelf; (4) enlarged frontal rim scales <math>1.14 \pm 0.12</math> (1–2) / <math>1.14 \pm 0.12</math> (1–2); (5) temporal shelf short, <math>12.9\% \pm 0.67</math> (5.4–17.8%) in males, <math>16.4\% \pm 0.64</math> (9.5–25.4%) in females; (6) temporal shelf weakly to moderately convex; (7) cephalic horns short, third temporal horn length <math>10.3\% \pm 0.48</math> (6.6–16.7%); (8) cephalic horns slightly elevated to nearly vertical; (9) tympanum elliptic, narrow to moderately broad; (10) tympanum exposed; (11) tail moderately long, <math>220\% \pm 4.81</math> (176–276%) in males, <math>190\% \pm 3.48</math> (155–230%) in females; (12) dorsal spots small, wedge-shaped to slightly rounded; (13) light-colored borders of dorsal spots confined to posterior edges; (14) dorsolateral white spots absent; (15) gular area with scattered melanistic spots, with or without vermiculations and with or without gray suffusion (melanin-dispersed phase); (16) abdomen with scattered melanistic flecks and patches, no melanistic spots (melanin-dispersed phase); (17) melanistic subcaudal bands absent (melanin-dispersed phase) [Montanucci 2015].</p>
Diagnosis	<p>Comparisons. <i>Phrynosoma brevirostris</i> is distinguished from <i>P. h. hernandesi</i> by a rounded or angular and steeply inclined rostrifrontal profile, a frontal rim not elevated or only slightly elevated above the occipital shelf, fewer enlarged frontal rim scales, a shorter temporal shelf, and shorter occipital and temporal horns that are directed slightly upward to nearly vertical in the majority of specimens. It is further distinguished from <i>P. h. hernandesi</i> and some <i>P. h. ornatum</i> by the absence of large, melanistic spots on the abdomen and the absence of complete or interrupted melanistic subcaudal bands in the melanin-dispersed phase. <i>P. brevirostris</i> is distinguished from nominotypical <i>P. ornatissimum</i> by its frontal rim which is not elevated, or only slightly elevated above the occipital shelf, fewer enlarged frontal rim scales, a relatively longer tail, small wedge-shaped dorsal spots, absence of a discrete yellow and/or white line along the medial border of each dorsal spot (except <i>P. o. brachycercum</i>), and a gular pattern of scattered spots and short vermiculations with or without gray suffusion (melanin-dispersed phase). <i>P. brevirostris</i> can be distinguished from <i>P. douglasii</i> by its slightly longer occipital and temporal horns, a slightly longer temporal shelf that is nearly flat rather than convex and strongly rounded, a slightly broader elliptic and exposed tympanum. It is further distinguished from <i>P. douglasii</i> by a gular pattern of dark spots and/or vermiculations. Comparisons with <i>P. bauri</i> sp. nov. and <i>P. diminutum</i> sp. nov. are given in their respective accounts.</p> <p>In the Colorado Plateau region of Utah, where <i>P. brevirostris</i> may occur in proximity to <i>P. h. hernandesi</i>, the two taxa may be distinguished by the usual presence of red pigment on the temporal shelf and horns as well as red pigment above the lateral fringe scales of the latter species [Montanucci 2015].</p> <p>Synonymy: after Montanucci 2015. Köhler synonymized <i>brevirostris</i> with <i>P. hernandesi</i>.</p>
Comment	<p>Subspecies: The former subspecies <i>P. d. brevirostre</i>, <i>ornatissimum</i>, and <i>P. d. ornatum</i> have been synonymized with <i>P. hernandesi</i> by Zamudio et al. 1997 but <i>brevirostris</i> and <i>ornatissimum</i> were revalidated by Montanucci 2015.</p> <p>Group: Belongs to the Tapaja clade fide LEACHE &amp; MCGUIRE 2006.</p>
Etymology	<p>Distribution: see maps 1,2 in Montanucci 2015: 163 ff.</p> <p>The specific epithet <i>brevirostris</i> comes from the Latin adjective <i>brevis</i>, -e, meaning “short”, and a modified version of the second declension Latin neuter noun <i>rostrum</i>, meaning “snout”, in reference to the short or abbreviated snout of this species. Apparently, Girard’s (1858a) intent was to create a compound noun in apposition to the subgeneric name <i>Tapaya</i> (see Smith &amp; Reeve, 1951 for origin of the name), crafting his new name in third declension feminine gender since <i>Tapaya</i> is apparently feminine. Although Girard’s root word <i>rostris</i> does not exist in Latin, Cope (1866:302) modified Girard’s name to <i>brevirostre</i> as though it were an adjective needing to agree with the neuter gender of <i>Phrynosoma</i>. However, since nouns used in apposition to other nouns retain their own gender (only adjectives must agree in gender with the name of the genus), Cope’s alteration of the name was an unnecessary and incorrect subsequent spelling. Therefore, Montanucci 2015 retained Girard’s original spelling for the available name. See ICZN articles 31.2.1. and 34.2.1.</p>
References	<ul style="list-style-type: none"> <li>• Conant, R. &amp; Collins, J.T. 1991. A Field Guide to Reptiles and Amphibians of Eastern/Central North America, 3rd ed. Houghton Mifflin (Boston/New York), xx + 450 p.</li> <li>• Cope, E.D. 1867. On the REPTILIA and BATRACHIA of the Sonoran Province of the Nearctic Region. Proc. Acad. Nat. Sci. Philadelphia 18 [1866]: 300–314 - <a href="#">get paper here</a></li> <li>• Cope, E.D. 1900. The crocodylians, lizards and snakes of North America. Ann. Rep. U.S. Natl. Mus. 1898: 153–1270 - <a href="#">get paper here</a></li> <li>• Gentry, A.F. 1885. A review of the genus <i>Phrynosoma</i>. Proc. Acad. Nat. Sci. Philad. (ser. 3) 37: 138–148 - <a href="#">get paper here</a></li> <li>• Girard, Charles F. 1858. United States Exploring Expedition during the Years 1838, 1839, 1840, 1841, 1842, Under the command of Charles Wilkes, U.S.N. Vol. 20. Herpetology. C. Sherman &amp; Son, Philadelphia, xv, 492 pages [see note in Zhao and Adler 1993: 369] - <a href="#">get paper here</a></li> <li>• Maslin, T. Paul 1964. Amphibians and reptiles of the Boulder area. Natural History of the Boulder Area University of Colorado Leaflet (13): 75–80</li> <li>• MONTANUCCI, RICHARD R. 2015. A taxonomic revision of the <i>Phrynosoma douglasii</i> species complex (Squamata: Phrynosomatidae). Zootaxa 4015 (1): 001–177 - <a href="#">get paper here</a></li> </ul>

- Reeve, Wayne L. 1952. Taxonomy and distribution of the horned lizard genus *Phrynosoma*. Univ. Kansas Sci. Bull. 34 (14): 817-960 - [get paper here](#)
- Smith, Hobart M. 1946. Handbook of Lizards: Lizards of the United States and of Canada. Comstock, Ithaca, NY, xxii + 557 pp.
- Van Denburgh, John 1922. The Reptiles of Western North America. Volume I. Lizards. Occ. Pap. Cal. Acad. Sci. (10): 1-612 - [get paper here](#)
- Zamudio, Kelly R., Jones, K. Bruce & Ward, Ryk H. 1997. Molecular systematics of Short-horned lizards: Biogeography and taxonomy of a widespread species complex. Systematic Biology 46 (2): 284-305 - [get paper here](#)

External  
links

- [Google images](#)

#### Is it interesting? Share with others:

As link to this species use URL  
address:

**<https://reptile-database.reptarium.cz/species?genus=Phrynosoma&species=brevirostris>**

without field 'search\_param'. Field 'search\_param' is used for browsing search result.

[Please submit feedback about this entry to the curator](#)

*This database is maintained by Peter Uetz (database content) and Jakob Hallermann, Zoological Museum Hamburg (new species and updates).*

*Web pages and scripting Jiri Hosek*



## *Phrynosoma cerroense* STEJNEGER, 1893



### iNaturalist

Can you confirm these amateur observations of *Phrynosoma cerroense*?



1 / 3



[Add your own observation of \*Phrynosoma cerroense\*](#) »

Find more photos by Google images search: [Google](#)

Higher Taxa Phrynosomatidae, Phrynosomatinae, Phrynosomatini; Iguania, Sauria, Squamata (lizards)

Subspecies

E: Cedros Island Horned Lizard

Common G: Cedros-Krötenechse

Names E: Gulf Coast Horned Lizard [wigginsi]

S: Camaleón de Isla Cedros

*Phrynosoma cerroense* STEJNEGER 1893: 187

*Phrynosoma cerroense* — VAN DENBURGH 1895: 119

*Phrynosoma cerroense* — COPE 1900

*Phrynosoma jamesi* SCHMIDT 1922: 668

*Phrynosoma coronatum jamesi* — LINSDALE 1932: 349 (part.)

*Phrynosoma coronatum jamesi* — KLAUBER 1936: 13

*Phrynosoma coronatum jamesi* — KLAUBER 1936

*Phrynosoma cerroense* — KLAUBER 1936

*Phrynosoma coronatum jamesi* — REEVE 1952: 884 (part.)

Synonym

*Phrynosoma cerroense* — REEVE 1952

*Phrynosoma cerroense* — SMITH & TAYLOR 1950: 103

*Phrynosoma coronatum jamesi* — SMITH & TAYLOR 1950: 102

*Phrynosoma coronatum jamesi* — JENNINGS 1988: 428.2 (part.)

*Phrynosoma cerroense* — LINER 1994

*Phrynosoma wigginsi* MONTANUCCI 2004

*Phrynosoma cerroense* — LINER 2007

*Phrynosoma cerroense* — LEACHÉ et al. 2009

*Phrynosoma wigginsi* — JONES & LOVICH 2009

*Phrynosoma wigginsi* — WILSON et al. 2013

*Phrynosoma wigginsi* — JOHNSON et al. 2017

*Phrynosoma coronatum cerroense* — KÖHLER 2021  
Mexico (Cerros Island)

Distribution Type locality: Cerros Island, Pacific Coast of Baja California [= Cedros Island]

Reproduction wigginsii: Mexico (Baja California Sur); Type locality: Cuesta Coyote, Bahía Concepción, Baja California Sur, Mexico.  
oviparous

Types Holotype: USNM 11977  
Holotype: CAS-SUR 11377 [wigginsii]

Diagnosis. Amoderate-sized (maximum snout-vent length about 85 mm) *Phrynosoma* of the *coronatum* group with a black-spotted, smooth-scaled venter, two rows of pointed lateral fringe scales (the lower one greatly reduced) on each side of the body, and three rows of enlarged gular scales on each side of the throat. The dorsal coloration is steel-gray with three pairs of equally-spaced, irregular, dark blotches. There are two occipital spines three times longer than the basal width and not in contact at the base, and four temporal spines on each side of the head (with the 4th from the rear greatly reduced or absent). Chinshields number four per side and a moderately developed postriacal scale is present. The rympanum is evident externally. There are no dark stripes on the face (Jennings 1988).

Definition (*jamesii*). A subspecies with three or more rows of enlarged gular scales on each side, a moderately developed postriacal scale, four (usually) enlarged, laterally or anteriorly projecting temporal spines on each side of the head (the fourth from the rear is reduced leaving a gap in continuity), and the subriacal scale slightly above the row of chinshields (Jennings 1988).

Comment Synonymy: partly following MONTANUCCI 2004 who included *Phrynosoma coronatum jamesii* in the synonymy of *P. wigginsii*. GRISMER & MELLINK (1994) placed *P. cerroense* in the synonymy of *P. coronatum*. The description of *P. wigginsii* is a bit vague and the “species” is closely related to *P. coronatum*. There is some doubt that this is a valid species (Wiens et al. 2013). Leaché & Linkem 2015 consider *wigginsii* as a synonym of *cerroense*, which is followed here. Köhler 2021 synonymized *jamesii* with *cerroense*.

Group: Belongs to the *Anota* clade fide LEACHE & MCGUIRE 2006.

NCBI taxon ID: 372476 [wigginsii]  
Named after the type locality.

Etymology *P. wigginsii* was named after Ira L. Wiggins, in recognition of his important contributions to the knowledge of the flora of the Sonoran Desert.

- References
- Cope, E.D. 1900. The crocodylians, lizards and snakes of North America. Ann. Rep. U.S. Natl. Mus. 1898: 153-1270 - [get paper here](#)
  - Grismer, L. Lee; Mellink, Eric 1994. The addition of *Sceloporus occidentalis* to the herpetofauna of Isla de Cedros, Baja California, México and its historical and taxonomic implications. Journal of Herpetology 28 (1): 120-126 - [get paper here](#)
  - Jennings, M. R. 1988. *Phrynosoma coronatum* (Blainville): Coast horned lizard. Catalogue of American Amphibians and Reptiles (428: 1-5. - [get paper here](#)
  - Jennings, M. R. 1988. *Phrynosoma cerroense* (Stejneger): Cedros Island horned lizard. Catalogue of American Amphibians and Reptiles (427: 1-2 - [get paper here](#)
  - Johnson, J. D., L. D. Wilson, V. Mata-Silva, E. García-Padilla, and D. L. DeSantis. 2017. The endemic herpetofauna of Mexico: organisms of global significance in severe peril. Mesoamerican Herpetology 4(3): 544-620 - [get paper here](#)
  - Jones, L.L. & Lovich, R.E. 2009. Lizards of the American Southwest. A photographic field guide. Rio Nuevo Publishers, Tucson, AZ, 568 pp. [review in Reptilia 86: 84] - [get paper here](#)
  - Klauber, L. M. 1936. The Horned Toads of the *coronatum* Group. Copeia, Vol. 1936, No. 2 (Jul. 31, 1936), pp. 103-110 - [get paper here](#)
  - Leaché, A. D., McElroy, M. T. and Trinh, A. 2018. A genomic evaluation of taxonomic trends through time in coast horned lizards (genus *Phrynosoma*). Mol Ecol. doi:10.1111/mec.14715 - [get paper here](#)
  - Leaché, Adam D. and Charles W. Linkem 2015. Phylogenomics of Horned Lizards (Genus: *Phrynosoma*) Using Targeted Sequence Capture Data. Copeia 2015 (3): 586-594 - [get paper here](#)
  - Leaché, Adam D. and Jimmy A. McGuire 2006. Phylogenetic relationships of horned lizards (*Phrynosoma*) based on nuclear and mitochondrial data: Evidence for a misleading mitochondrial gene tree. Molecular Phylogenetics and Evolution 39 (3): 628-644 - [get paper here](#)
  - Leaché, Adam D.; Michelle S. Koo, Carol L. Spencer, Theodore J. Papenfuss, Robert N. Fisher, and Jimmy A. McGuire 2009. Quantifying ecological, morphological, and genetic variation to delimit species in the coast horned lizard species complex (*Phrynosoma*). PNAS 2009 106:12418-12423 - [get paper here](#)
  - Liner, Ernest A. 2007. A CHECKLIST OF THE AMPHIBIANS AND REPTILES OF MEXICO. Louisiana State University Occasional Papers of the Museum of Natural Science 80: 1-60 - [get paper here](#)
  - Linsdale, J.M. 1932. Amphibians and reptiles from lower California. Univ. California Publ. Zool. 38 (6): 345-386
  - Montanucci, R.R. 2004. Geographic variation in *Phrynosoma coronatum* (Lacertilia, Phrynosomatidae): further evidence for a peninsular archipelago. Herpetologica 60 (1): 117-139 - [get paper here](#)

- Presch, W. 1969. Evolutionary osteology and relationships of the horned lizard genus *Phrynosoma* (family Iguanidae). *Copeia* 1969 (2): 250-275 - [get paper here](#)
- Reeve, Wayne L. 1952. Taxonomy and distribution of the horned lizard genus *Phrynosoma*. *Univ. Kansas Sci. Bull.* 34 (14): 817-960 - [get paper here](#)
- Stejneger, L.H. 1893. Annotated list of the reptiles and batrachians collected by the Death Valley Expedition in 1891, with descriptions of new species. *North American Fauna*, No. 7: 159-228 (+ 14 plates + 4 maps) - [get paper here](#)
- Van Denburgh, J. 1895. A review of the herpetology of Lower California. Part I - Reptiles. *Proc. Cal. Acad. Sci.* (2) 5: 77-163 - [get paper here](#)
- Wiens, John J.; Kenneth H. Kozak, and Natalia Silva 2013. DIVERSITY AND NICHE EVOLUTION ALONG ARIDITY GRADIENTS IN NORTH AMERICAN LIZARDS (PHRYNOSOMATIDAE). *Evolution*, 67: 1715–1728. doi: 10.1111/evo.12053 - [get paper here](#)
- Wilson, Larry David; Vicente Mata-Silva, Jerry D. Johnson 2013. A conservation reassessment of the reptiles of Mexico based on the EVS measure. *Amphibian & Reptile Conservation* 7 (1): 1–47 - [get paper here](#)

External links

- [National Center for Biotechnology Information](#)
- <http://uts.cc.utexas.edu/~varanus/phryno.html>
- [Google images](#)

#### Is it interesting? Share with others:

As link to this species use URL address:

**<https://reptile-database.reptarium.cz/species?genus=Phrynosoma&species=cerroense>**

without field 'search\_param'. Field 'search\_param' is used for browsing search result.

[Please submit feedback about this entry to the curator](#)

*This database is maintained by Peter Uetz (database content) and Jakob Hallermann, Zoological Museum Hamburg (new species and updates).*

*Web pages and scripting Jiri Hosek*

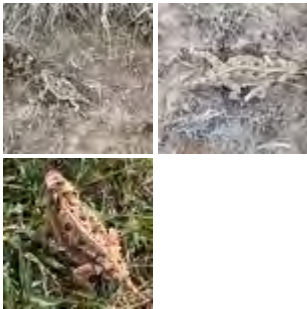


# Phrynosoma cornutum (HARLAN, 1825)



iNaturalist

Can you confirm these amateur observations of *Phrynosoma cornutum*?



[Add your own observation of Phrynosoma cornutum »](#)

Find more photos by Google images search: [Google](#)

Higher Taxa Phrynosomatidae, Phrynosomatinae, Phrynosomatini; Iguania, Sauria, Squamata (lizards)  
 Subspecies

Common Names  
 E: Texas Horned Lizard  
 G: Texas-Krötenechse  
 S: Camaleón Común

Synonym  
 Agama cornuta HARLAN 1825: 299  
 Lacerta cornuta — CUVIER 1819: 37 (fide GENTRY 1885)  
 Tapaya cornuta — CUVIER 1829: 37  
 Phrynosoma cornutum — GRAY in GRIFFITH 1831: 9  
 Phrynosoma bufonium WIEGMANN 1828: 367  
 Phrynosoma harlanii WIEGMANN 1834: 54  
 Phrynosoma Harlanii — DUMÉRIL & BIBRON 1837: 314  
 Tropidogaster cornutus — FITZINGER 1843: 79 (fide GENTRY 1885)  
 Phrynosoma Harlani — NEILL 1846: 99  
 Phrynosoma planiceps HALLOWELL 1852: 178  
 Phrynosoma Harlesii — BRÜHL 1886 (in error)  
 Phrynosoma cornutum planiceps — BOULENGER 1885: 246  
 Phrynosoma brevicornis E.G. BOULENGER 1916  
 Phrynosoma cornutum — SMITH & TAYLOR 1950: 99  
 Phrynosoma cornutum — STEBBINS 1985: 139  
 Phrynosoma cornutum — CONANT & COLLINS 1991: 112  
 Phrynosoma cornutum — LINER 1994

	Phrynosoma cornutum — LINER 2007 Phrynosoma cornutum cornutum — KÖHLER 2021 Phrynosoma cornutum bufonium — KÖHLER 2021
Distribution	USA (SE Colorado, Kansas, New Mexico, SE Arizona, Texas, NW Louisiana, Oklahoma, North Carolina, introduced to Alabama and Florida), Mexico (Chihuahua, Coahuila, Durango, Nuevo Leon, Aguascalientes, San Luis Potosí, Sonora, Tamaulipas), Canada (British Columbia [fide BOULENGER 1887])
Reproduction	Type locality: Great Plains east of the Rocky Mountains. Restricted to Fort Riley, Geary County, Kansas. oviparous
Types	Holotype: unknown fide SMITH & TAYLOR 1950 Holotype: ANSP 8641, USNM 143 [planiceps]
Diagnosis	Diagnosis. A single pair of occipital spines, a single row of enlarged gular scales, two complete rows of lateral abdominal fringe scales, keeled non-mucronate ventral scales, enlarged modified dorsal scales with 4 distinct keels, and the absence of a postrictal scale distinguish <i>Phrynosoma cornutum</i> from all congeners (Price 1990).
	Definition (detailed description): Price 1990 Synonymy after SMITH & TAYLOR 1950. <i>Phrynosoma brevicornis</i> is a mutilated (or abnormal) variant of <i>Phrynosoma cornutum</i> fide Burt 1932.
Comment	Hybridization: Healthy <i>P. coronatum</i> and <i>P. cornutum</i> hybrids have been obtained by BAUR (1983).  Population structure: Finger et al. 2022 identified 5 major phylogeographic populations but refrain from taxonomic conclusions given that they detected some gene flow between them.
Etymology	Diet: primarily ants The name <i>cornutum</i> (Latin, “horned”) refers to the distinctive spinose architecture of the head.
References	<ul style="list-style-type: none"> <li>• Aguilar-Morales, Cecilia and Thomas R. Van Devender 2018. Horned Lizards (<i>Phrynosoma</i>) of Sonora, Mexico: Distribution and Ecology. <i>Sonoran Herpetologist</i> 31 (3): 40-50 - <a href="#">get paper here</a></li> <li>• Arenas-Monroy, J.C., U. O. García-Vázquez, R. A. Carbajal-Márquez and A. Cardona-Arceo. 2014. A new state record for Aguascalientes, México: <i>Phrynosoma cornutum</i> (Squamata: Phrynosomatidae), the Texas horned Lizard. <i>Herpetology Notes</i> 7: 551-553 - <a href="#">get paper here</a></li> <li>• Ballinger, R.E. 1974. Reproduction of the Texas Horned Lizard, <i>Phrynosoma cornutum</i> <i>Herpetologica</i> 30 (4): 321-327. - <a href="#">get paper here</a></li> <li>• Barber, Diane M. 2013. <i>Phrynosoma cornutum</i> (Texas horned lizard) predation. <i>Herpetological Review</i> 44 (2): 326 - <a href="#">get paper here</a></li> <li>• BARRETT, LISA P.; KELSEY L. ANTHONY, SAMUEL J. ELIADES, CAMERON D. SILER, BRAD LOCK &amp; REBECCA J. SNYDER. 2022. Personality assessment of headstart Texas horned lizards (<i>Phrynosoma cornutum</i>) in human care prior to release. <i>Applied Animal Behaviour Science</i> 254: 105690. - <a href="#">get paper here</a></li> <li>• Bartlett, R. D. &amp; Bartlett, P. 1999. <i>A Field Guide to Texas Reptiles and Amphibians</i>. Gulf Publishing Co., Houston, Texas, 331 pp.</li> <li>• Bauer A.M. and Russell A.P 2017. Carl Bernhard Brühl and the <i>Herpetological Contributions of his Zootomie aller Thierklassen</i>. <i>Bibliotheca Herpetologica</i> 13 (1-2): 4-34 - <a href="#">get paper here</a></li> <li>• Baur, B. 1984. Krötenechsen-Bastarde (<i>Phrynosoma</i>) (Sauria: Iguanidae). <i>Salamandra</i> 20 (2-3): 70-87 - <a href="#">get paper here</a></li> <li>• Baur, B.E. 1986. Longevity of horned lizards of the genus <i>Phrynosoma</i>. <i>Bull. Maryland Herp. Soc.</i> 22 (3): 149-151 - <a href="#">get paper here</a></li> <li>• Beck, P. &amp; W. Bridges 1955. Acclimatization of the Lizard <i>Phrynosoma cornutum</i> on the French Riviera <i>Copeia</i> 1955 (3): 257. - <a href="#">get paper here</a></li> <li>• Bogosian, Victor; Eric C. Hellgren, and Raymond W. Moody 2012. Assemblages of Amphibians, Reptiles, and Mammals on an Urban Military Base in Oklahoma. <i>Southwestern Naturalist</i> 57 (3): 277-284. - <a href="#">get paper here</a></li> <li>• Boulenger, G.A. 1885. <i>Catalogue of the lizards in the British Museum (Natural History)</i>. Vol. 2, Second edition. London, xiii+497 pp. - <a href="#">get paper here</a></li> <li>• Boulenger, G.A. 1887. On the affinity of the north-American lizard fauna. <i>Ann. Mag. Nat. Hist.</i> (5) 20: 345-346 - <a href="#">get paper here</a></li> <li>• Brudz, Victoria, Rachel Granberg and Robin M. Verble-Pearson. 2014. <i>Phrynosoma cornutum</i> (Texas horned lizard) male-male interactions. <i>Herpetological Review</i> 45 (3): 503-504 - <a href="#">get paper here</a></li> <li>• Brühl, C.B. 1874. <i>Zootomie aller Thierklassen für Lernende, nach Autopsien, skizzirt</i>. Bd. 1-4. Alfred Hölder, Wien: Bd. 1, 86 pp.; Bd. 2, 90 pp.; Bd. 3, 114 pp.; Bd. 4, 152 pp. (published in parts from 1874 to 1888, see Bauer &amp; Russell 2017 for details) - <a href="#">get paper here</a></li> <li>• Burt, Charles E. 1932. The status of the horned lizard <i>Phrynosoma brevicornis</i>, described from Texas by E. G. Boulenger (1916). <i>Proceedings of the Biological Society of Washington</i>. 45: 73-74</li> <li>• Burt, Charles E. 1935. Further records of the ecology and distribution of amphibians and reptiles in the middle west. <i>American Midland Naturalist</i> 16 (3): 311-336 - <a href="#">get paper here</a></li> <li>• Carbajal-Márquez, Rubén A. and Gustavo E. Quintero-Díaz 2016. The Herpetofauna of Aguascalientes, México. <i>Revista Mexicana de Herpetología</i> 2(1):</li> </ul>

- Conant, R. & Collins, J.T. 1991. A Field Guide to Reptiles and Amphibians of Eastern/Central North America, 3rd ed. Houghton Mifflin (Boston/New York), xx + 450 p.
- Cooper Jr, William E. and Wade C. Sherbrooke 2018. Crypsis and Flight Initiation Distance in Horned Lizards. *Sonoran Herpetologist* 31 (3): 51-55 - [get paper here](#)
- Cooper, W.E., Jr. & W.C. Sherbrooke 2009. Prey Chemical Discrimination by Tongue Flicking Is Absent in the Texas Horned Lizard, *Phrynosoma cornutum* *Journal of Herpetology* 43 (4): 688-692. - [get paper here](#)
- Cooper, William E. and Wade C. Sherbrooke. 2010. Initiation of escape behavior by the Texas horned lizard (*Phrynosoma cornutum*). *Herpetologica* 66 (1): 23-30 - [get paper here](#)
- Cope, E.D. 1900. The crocodylians, lizards and snakes of North America. *Ann. Rep. U.S. Natl. Mus.* 1898: 153-1270 - [get paper here](#)
- Crother, B. I. (ed.) 2012. Standard Common and Current Scientific Names for North American Amphibians, Turtles, Reptiles, and Crocodylians, Seventh Edition. *Herpetological Circular* 39: 1-92
- Cuvier, G. J. L. N. F. D. 1829. *Le Règne Animal Distribué, d'après son Organisation, pur servir de base à l'Histoire naturelle des Animaux et d'introduction à l'Anatomie Comparée. Nouvelle Edition [second edition]. Vol. 2. Les Reptiles.* Déterville, Paris, i-xvi, 1-406 - [get paper here](#)
- Daniel F. Hughes, Walter E. Meshaka, Carl S. Lieb & Joseph H. K. Pechmann 2019. Latitudinal Variation in Life History Reveals a Reproductive Advantage in the Texas Horned Lizard (*Phrynosoma cornutum*). *Copeia* Nov 2019 Vol. 107, No. 4: 736-747 - [get paper here](#)
- Davis DR, LaDuc TJ 2018. Amphibians and reptiles of C. E. Miller Ranch and the Sierra Vieja, Chihuahuan Desert, Texas, USA. *ZooKeys* 735: 97-130 - [get paper here](#)
- de Grijps, P. 1899. Notes on the faculty of changing colour in reptiles. *Ann. Mag. Nat. Hist.* (7) 3: 396-402 - [get paper here](#)
- Degenhardt, William G.; C. W. Painter, and A. H. Price 1996. Amphibians and reptiles of New Mexico. Univ. New Mexico Press, 431 pp.
- Dixon, James R. 2000. Amphibians and reptiles of Texas, second edition. Texas A&M University Press, 421 pp.
- Duméril, A. M. C. and G. Bibron. 1837. *Erpétologie Générale ou Histoire Naturelle Complete des Reptiles.* Vol. 4. *Libr. Encyclopédique Roret, Paris*, 570 pp. - [get paper here](#)
- Duran M 2021. An annotated checklist of the amphibians and reptiles of North Padre Island, Texas, USA, with comparisons to adjacent barrier island and mainland herpetofauna. *ZooKeys* 1073: 119-175 - [get paper here](#)
- Edwards, C.L. 1896. Notes on the biology of *Phrynosoma cornutum* Harlan. *Zool. Anz.* 19: 108-111 - [get paper here](#)
- Eifler, Douglas A.; Maria A. Eifler, and Tracey K. Brown 2012. Habitat Selection by Foraging Texas Horned Lizards, *Phrynosoma cornutum*. *Southwestern Naturalist* Mar 2012, Vol. 57, No. 1: 39-43. - [get paper here](#)
- ELIADES, SAMUEL J.; KATHERINE M. STROH, CAMERON D. SILER, RAYMOND W. MOODY, REBECCA J. SNYDER, LISA P. BARRETT & BRAD LOCK. 2022. PHRYNOSOMA CORNUTUM (Texas Horned Lizard). BEHAVIOR. *Herpetological Review* 53(1): 134-135.
- Endriss, Debora A.; Eric C. Hellgren, Stanley F. Fox, and Raymond W. Moody 2007. DEMOGRAPHY OF AN URBAN POPULATION OF THE TEXAS HORNED LIZARD (*PHRYNOSOMA CORNUTUM*) IN CENTRAL OKLAHOMA. *Herpetologica* 63 (3): 320-331 - [get paper here](#)
- Fabian, B. F 2014. Überlegungen zur Ernährung von Krötenechsen. *Reptilia (Münster)* 19 (107): 24-29
- Fair, W.S. & S.E. Henke 1999. Movements, Home Ranges, and Survival of Texas Horned Lizards (*Phrynosoma cornutum*) *Journal of Herpetology* 33 (4): 517-525. - [get paper here](#)
- Finger, Nicholas; Keaka Farleigh, Jason T Bracken, Adam D Leaché, Olivier François, Ziheng Yang, Tomas Flouri, Tristan Charran, Tereza Jezkova, Dean A Williams, Christopher Blair 2022. Genome-Scale Data Reveal Deep Lineage Divergence and a Complex Demographic History in the Texas Horned Lizard (*Phrynosoma cornutum*) throughout the Southwestern and Central United States. *Genome Biology and Evolution*, Volume 14, Issue 1, January 2022, evab260, - [get paper here](#)
- Fitzinger, L. 1843. *Systema Reptilium, fasciculus primus, Amblyglossae.* Braumüller et Seidel, Wien: 106 pp. - [get paper here](#)
- Frierson, L.S., Jr. 1927. *Phrynosoma cornutum* (Harlan) in Louisiana *Copeia* 165: 114. - [get paper here](#)
- Gatica-Colima, Ana, Antonio Robles-Hernandez, Luis Armando Rivera-Hernandez and Alvaro Torres-Duran. 2016. *Phrynosoma cornutum* (Texas Horned Lizard) Mortality. *Herpetological Review* 47 (2): 301 - [get paper here](#)
- Gibbons, Whit; Judy Greene, and Tony Mills 2009. *LIZARDS AND CROCODYLIANS OF THE SOUTHEAST.* University of Georgia Press, 240 pp.
- Gloyd, Howard K. 1937. A herpetological consideration of faunal areas in Southern Arizona. *Bulletin of the Chicago Academy of Sciences* 5 (5): 77-136 - [get paper here](#)
- Gray, J. E. 1831. A synopsis of the species of Class Reptilia. In: Griffith, E & E. Pidgeon: *The animal kingdom arranged in conformity with its organisation by the Baron Cuvier with additional descriptions of all the species hitherto named, and of many before noticed* [V Whittaker, Treacher and Co., London: 481 + 110 pp. [1830]
- Guyer, Craig; Mark A. Bailey, and Robert H. Mount 2018. *Lizards and snakes of Alabama.* University of Alabama Press, 397 pp. - [get paper here](#)
- Hallowell, E. 1852. Descriptions of new species of reptiles inhabiting North America. *Proc. Acad. Nat. Sci. Philadelphia* 6: 177-182 - [get paper here](#)
- Haney, Jared W., Joseph A. Veech, Ivan Castro-Arellano & Sarah R. Fritts. 2022. Museum and Citizen-Science Data Indicate Contraction in the Range of Texas Horned Lizards (*Phrynosoma cornutum*). *Herpetologica*



- 78(2): 102–109. - [get paper here](#)
- Harlan, R. 1825. Description of a new species of Agama. J. Acad. Nat. Sci. Philadelphia 4: 296-305 - [get paper here](#)
  - Hernandez T, Herr MW, Stevens S, Cork K, Medina-Nava C, Vialpando CJ, Warfel T, Fields N, Brodie C, Graham SP 2019. New distribution records for amphibians and reptiles in eastern Chihuahua, Mexico. Check List 15(1): 79-86 - [get paper here](#)
  - HUERTA, J. O., AND S. E. HENKE 2020. Phrynosoma cornutum (Texas Horned Lizard). Cover. Herpetological Review 51: 130-131.
  - Huerta, Javier O.; Delanie E. Slifka, Scott E. Henke 2021. Field observation of Texas Horned Lizard, Phrynosoma cornutum (Harlan, 1825), blood-squirting behaviour elicited by a passing vehicle. Herpetology Notes 14: 383-384
  - Jameson, David H.; Flury, Alvin G. 1949. The reptiles and amphibians of the Sierra Vieja Range of southwestern Texas. Texas Journal of Science 1 (2): 54-77 - [get paper here](#)
  - Jensen, John B. 1994. Phrynosoma cornutum (Texas horned lizard). USA: Florida. Herpetological Review 25 (4): 165 - [get paper here](#)
  - Jones, L.L. & Lovich, R.E. 2009. Lizards of the American Southwest. A photographic field guide. Rio Nuevo Publishers, Tucson, AZ, 568 pp. [review in Reptilia 86: 84] - [get paper here](#)
  - Kemmer, Jacob A. and Andrew C. Kasner. 2015. Geographic Distribution: Phrynosoma cornutum (Texas horned lizard). Herpetological Review 46 (2): 217-218 - [get paper here](#)
  - Kour, E.L. & V.H. Hutchison 1970. Critical thermal Tolerances and Heating and Cooling Rates of Lizards from Diverse Habitats Copeia 1970 (2): 219-229. - [get paper here](#)
  - Lara-Reséndiz Rafael A., Arenas-Moreno Diego M., Beltrán-Sánchez Elizabeth, Gramajo Weendii, Verdugo-Molina Javier, Sherbrooke Wade C. et al. 2015. Selected body temperature of nine species of Mexican horned lizards (Phrynosoma). Rev. Mex. Biodiv. 86 (1): 275-278. - [get paper here](#)
  - Lara-Resendiz, Rafael A., Hector Gadsden and Fausto R. Mendez-de la Cruz. 2013. Phrynosoma cornutum (Texas horned lizard) nocturnal activity. Herpetological Review 44 (2): 326-327 - [get paper here](#)
  - Lazcano D, Nevárez-de los Reyes M, García-Padilla E, Johnson JD, Mata-Silva V, DeSantis DL, Wilson LD. 2019. The herpetofauna of Coahuila, Mexico: composition, distribution, and conservation status. Amphibian & Reptile Conservation 13(2) [General Section]: 31–94 (e189) - [get paper here](#)
  - Lazcano, D. E. Bailón-Cuellar, G. Ruiz-Ayma, R. Mercado-Hernández, B. Navarro-Velázquez, L. D. Wilson, G. L. Powell, and A. P. Russell. 2017. Texas Horned Lizards (Phrynosoma cornutum) as prey in Swainson's Hawk (Buteo swainsoni) nest sites at La Reserva de la Biosfera de Janos, Chihuahua, Mexico. Mesoamerican Herpetology 4(4): 886–900 - [get paper here](#)
  - Lazcano, David, Ramiro David Jacobo Galvan, Cristina Garcia de la Peña and Gamaliel Castañeda G. 2006. Phrynosoma cornutum Mortality. Herpetological Review 37 (1): 91 - [get paper here](#)
  - Lemos-Espinal JA, Smith GR, Gadsden-Esparza H, Valdez-Lares R, Woolrich-Piña GA 2018. Amphibians and reptiles of the state of Durango, Mexico, with comparisons with adjoining states. ZooKeys 748: 65-87 - [get paper here](#)
  - Lemos-Espinal JA, Smith GR, Rorabaugh JC 2019. A conservation checklist of the amphibians and reptiles of Sonora, Mexico, with updated species lists. ZooKeys 829: 131-160 - [get paper here](#)
  - Lemos-Espinal JA, Smith GR, Woolrich-Piña GA 2018. Amphibians and reptiles of the state of San Luis Potosí, Mexico, with comparisons with adjoining states. ZooKeys 753: 83-106 - [get paper here](#)
  - Lemos-Espinal, J.A. & Smith, H.M. 2007. Amphibians and reptiles of the state of Coahuila, Mexico. Universidad Nacional Autonoma de Mexico, 550 pp.
  - Lemos-Espinal, J.A. & Smith, H.M. 2007. Amphibians and reptiles of the state of Chihuahua, Mexico. Universidad Nacional Autonoma de Mexico, 613 pp.
  - Lemos-Espinal, Julio A. and James R. Dixon 2013. Amphibians and Reptiles of San Luis Potosí. Eagle Mountain Publishing, xii + 300 pp.
  - Lemos-Espinal, Julio A., David Chiszar, and Hobart M. Smith 2004. Selected Records of 2003 Lizards from Chihuahua and Sonora, Mexico. Bull. Chicago Herp. Soc. 39 (9): 164-168 - [get paper here](#)
  - Liner, Ernest A. 2007. A CHECKLIST OF THE AMPHIBIANS AND REPTILES OF MEXICO. Louisiana State University Occasional Papers of the Museum of Natural Science 80: 1-60 - [get paper here](#)
  - Liner, Ernest A.; Montanucci, Richard R.; González-Alonso, Arturo; Mendoza Quijano, Fernando 1993. An additional contribution to the herpetology of Northern Coahuila, Mexico. Bol. Soc. Herpetol. Mex. 5 (1): 9-11 - [get paper here](#)
  - Lutterschmidt, William I. 2013. REPTILES IN RESEARCH: INVESTIGATIONS OF ECOLOGY, PHYSIOLOGY, AND BEHAVIOR FROM DESERT TO SEA. Nova Science, New York, 527 pp. - [get paper here](#)
  - Martin, Plul S. 1958. A biogeography of reptiles and amphibians in the Gomez Farias Region, Tamaulipas, Mexico. Miscellaneous publications, Museum of Zoology, University of Michigan (101): 1-102 + 7 plates - [get paper here](#)
  - Meshaka Jr., Walter E. 2011. A RUNAWAY TRAIN IN THE MAKING: THE EXOTIC AMPHIBIANS, REPTILES, TURTLES, AND CROCODILIANS OF FLORIDA. Herp. Cons. Biol. 6 (Monograph 1): 1-101 - [get paper here](#)
  - Meyers, J.J.; Herrel, A. & Nishikawa, K. 2006. Morphological correlates of ant eating in horned lizards (Phrynosoma). Biological Journal of the Linnean Society 89: 13–24 - [get paper here](#)
  - Middendorf, G.A., III & W.C. Sherbrooke 1992. Canid elicitation of blood-squirting in a horned lizard (Phrynosoma cornutum) Copeia 1992 (2): 519-527. - [get paper here](#)

- Moeller, B.A., E.C. Hellgren, D.C. Ruthven III, R.T. Kazmaier & D.R. Synatzske 2005. Temporal Differences in Activity Patterns of Male and Female Texas Horned Lizards (*Phrynosoma cornutum*) in Southern Texas *Journal of Herpetology* 39 (2): 336-339. - [get paper here](#)
- Montgomery, C.E., S.P. Mackessy & J.C. Moore 2003. Body Size Variation in the Texas Horned Lizard, *Phrynosoma cornutum*, from Central Mexico to Colorado *Journal of Herpetology* 37 (3): 550-553. - [get paper here](#)
- Montgomery, Chad; Childers, Theresa; Manzer, Jerry D.; Bergman, Enoch; Sifert, James; Hill, Ben; Mackessy, Stephen P. 1998. Geographic Distribution. *Phrynosoma cornutum*. *Herpetological Review* 29 (2): 110 - [get paper here](#)
- Mook, J., Burchette, M., Degregorio, B., Bobosian, V., III, Schaubert, E. & Moody, R.W. 2017. *Phrynosoma cornutum* (Texas Horned Lizard). *Herpetological Review* 48 (3): 655-656. - [get paper here](#)
- Mook, Jennie, Schaubert, Eric, Vesey, Miranda, Moody, Raymond W. and Nolan, Donna 2017. *Phrynosoma cornutum* (Texas Horned Lizard) Behavior. *Herpetological Review* 48 (1): 197-198 - [get paper here](#)
- Munger, J.C. 1986. Rate of Death Due to Predation for Two Species of Horned Lizard, *Phrynosoma cornutum* and *P. modestum* *Copeia* 1986 (3): 820-824. - [get paper here](#)
- Neill, Patrick 1846. Notes on *Phrynosoma Harlani*, *Wieg. Ann. Mag. nat. Hist.* (1) 17: 99-100 - [get paper here](#)
- Nevárez-de-los-Reyes, Manuel, David Lazcano, Elí García-Padilla, Vicente Mata-Silva, Jerry D. Johnson and Larry David Wilson. 2016. The Herpetofauna of Nuevo León, Mexico: Composition, Distribution, and Conservation. *Mesoamerican Herpetology* 3 (3): 558-638 - [get paper here](#)
- Palmer, W.M. & Braswell, A.L. 1995. *Reptiles of North Carolina*. Univ. North Carolina Press
- Parker, W.S. 1973. Notes on reproduction of some lizards from Arizona, New Mexico, Texas, and Utah *Herpetologica* 29 (3): 258-264. - [get paper here](#)
- Presch, W. 1969. Evolutionary osteology and relationships of the horned lizard genus *Phrynosoma* (family Iguanidae). *Copeia* 1969 (2): 250-275 - [get paper here](#)
- Price, A. H. 1990. *Phrynosoma cornutum* (Harlan): Texas Horned Lizard. *Catalogue of American Amphibians and Reptiles* 469: 1-7 - [get paper here](#)
- Prieto, A.A., Jr. & W.G. Whitford 1971. Physiological Responses to Temperature in the Horned Lizards, *Phrynosoma cornutum* and *Phrynosoma douglassii* *Copeia* 1971 (3): 498-504. - [get paper here](#)
- Ramakrishnan, Shantini; Alexander J. Wolf, Eric C. Hellgren, Raymond W. Moody, and Victor Bogosian III 2018. Diet Selection by a Lizard Ant-Specialist in an Urban System Bereft of Preferred Prey. *Journal of Herpetology* 52 (1): 79-85 - [get paper here](#)
- Reeder, T.W. & Montanucci, R.R. 2001. Phylogenetic analysis of the horned lizards (Phrynommatidae: *Phrynosoma*): evidence from mitochondrial DNA and morphology. *Copeia* 2001 (2): 309-323 - [get paper here](#)
- Sattler, Paul W.; Ries, J. Scott 1995. Intraspecific genetic variation among four populations of the Texas horned lizard, *Phrynosoma cornutum*. *Journal of Herpetology* 29 (1): 137-141 - [get paper here](#)
- Schmidt, Justin O. S 2019. Predator-Prey Battle of Ecological Icons: Horned Lizards (*Phrynosoma* spp.) and Harvester Ants (*Pogonomyrmex* spp.). *Copeia* 107 (3): 404-410 - [get paper here](#)
- Schmidt, K.P., and D. Owens. 1944. *Amphibians and reptiles of northern Coahuila, Mexico*. Field Museum of Natural History, Zoological Series. Chicago. 29: 97-115. - [get paper here](#)
- Sherbrooke, W. C. 2004. Integumental water movement and rate of water ingestion during rain harvesting in the Texas horned lizard, *Phrynosoma cornutum*. *Amphibia-Reptilia* 25 (1): 29-39 - [get paper here](#)
- Sherbrooke, W. C., Mitchell, A., Sweet, K., Searles, L. & Braastad, D. 2012. Negative oral responses of a non-carnid mammalian predator (bobcat, *Lynx rufus*; Felidae) to ocular-sinus blood-squirting of Texas and regal horned lizards, *Phrynosoma cornutum* and *Phrynosoma solare*. *Herpetological Review* 43: 386-391 - [get paper here](#)
- Sherbrooke, W.C. 1990. Rain-harvesting in the Lizard, *Phrynosoma cornutum*: Behavior and Integumental Morphology *Journal of Herpetology* 24 (3): 302-308. - [get paper here](#)
- Sherbrooke, W.C. & G.A. Middendorf, III. 2004. Responses of kit foxes (*Vulpes macrotis*) to antipredator blood-squirting and blood of Texas horned lizards (*Phrynosoma cornutum*) *Copeia* 2004 (3): 652-658. - [get paper here](#)
- Sherbrooke, Wade C. 2003. *Introduction to Horned Lizards of North America*. University of California Press, Berkeley, 178 pp. - [get paper here](#)
- Sherbrooke, Wade C. 2017. Antipredator Nest Guarding by Female Horned Lizards (*Phrynosoma*): Iguanian Parental Care. *Herpetologica* Dec 2017, Vol. 73, No. 4: 331-337. - [get paper here](#)
- SHERBROOKE, WADE C. 2022. PHRYNOSOMA CORNUTUM (Texas Horned Lizard). PREDATOR ATTACK SURVIVAL. *Herpetological Review* 53(1): 135-136.
- Smith, H. M., & Burger, W.L. 1950. Herpetological results of the University of Illinois field expedition, Spring 1949. III. Sauria. *Transactions of the Kansas Academy of Science* 53 (2): 165-175 - [get paper here](#)
- Smith, H.M. 1935. Miscellaneous notes on Mexican lizards. *Univ. Kansas Sci. Bull.* 22: 119-156 - [get paper here](#)
- Smith, H.M. & Taylor, E.H. 1950. An annotated checklist and key to the reptiles of Mexico exclusive of the snakes. *Bull. US Natl. Mus.* 199: 1-253 - [get paper here](#)
- Smith, Hobart M. 1934. Notes on some lizards of the genus *Phrynosoma* from Mexico. *Transactions of the Kansas Academy of Science* 37: 287-297 - [get paper here](#)
- Smith, Hobart M.; Leonard, Arthur B. 1934. Distributional records of reptiles and amphibians in Oklahoma. *American Midland Naturalist* 15: 190-196 - [get paper here](#)
- Stebbins, R.C. 1985. *A Field Guide to Western Reptiles and Amphibians*, 2nd ed. Houghton Mifflin, Boston
- STROH, KATHERINE M.; SAMUEL J. ELIADES, MADELYN R. KIRSCH & RAYMOND W. MOODY. 2022.

- PHRYNOSOMA CORNUTUM (Texas Horned Lizard). PREDATION. *Herpetological Review* 53(3): 499–500.
- Swann, D.E., K.E. Bonine, and R.A. Repp. 2007. The Longhorn: Texas Horned Lizard (*Phrynosoma cornutum*). *Herpetofauna of the 100 Mile Circle. Sonoran Herpetologist* 20 (8):80-81. - [get paper here](#)
  - Tanner, W.W. 1987. Lizards and turtles of Western Chihuahua. *Great Basin Naturalist*. 47: 383-421 - [get paper here](#)
  - Taylor, Edward H. 1952. Third contribution of the herpetology of the Mexican state of San Luis Potosí. *Univ. Kansas Sci. Bull.* 34 (13): 793-815 - [get paper here](#)
  - Taylor-Young, M. 2011. *The Guide to Colorado Reptiles and Amphibians*. Fulcrum Publishing, Golden, Colorado, 169 pp.
  - Terán-Juárez, Sergio A., Elí García Padilla, Vicente Mata-Silva, Jerry D. Johnson and Larry David Wilson. 2016. The herpetofauna of Tamaulipas, Mexico: composition, distribution, and conservation status. *Mesoamerican Herpetology* 3 (1): 43–113 - [get paper here](#)
  - Thibodeau, M., et al. 2017. *Phrynosoma cornutum* (Texas Horned Lizard) Prey. *Herpetological Review* 48 (2): 440 - [get paper here](#)
  - Valdez-Lares, R.; R. Muñoz-Martínez; E.Gadsden; G. Aguirre-León; G. Castañeda-Gaytán; R. Gonzalez-Trápaga 2013. Checklist of amphibians and reptiles of the state of Durango, México. *Check List* 9 (4):714-724 - [get paper here](#)
  - Veech, Joseph A. & Tempest Cave 2021. Using Road Surveys and N-Mixture Models to Estimate the Abundance of a Cryptic Lizard Species. *Journal of Herpetology* 55 (1): 46-54 - [get paper here](#)
  - Vitt, L.J. 1977. Observations on clutch and egg size and evidence for multiple clutches in some lizards of southwestern United States [with data for many species] *Herpetologica* 33 (3): 333-338. - [get paper here](#)
  - Werning, H. 2014. Krötenechsen – eine (sehr gute) Laune der Natur. *Reptilia (Münster)* 19 (107): 16-23
  - Werning, H. 2015. Jurassic World im Wohnzimmer. Mini-Dinos für das Terrarium. *Reptilia (Münster)* 20 (114): 26-37 - [get paper here](#)
  - Werning, Heiko 2012. Die Reptilien und Amphibien des Südwestens. *Draco* 13 (50): 18-60 - [get paper here](#)
  - Whitford, W.B. & W.G. Whitford 1973. Combat in the Horned Lizard, *Phrynosoma cornutum* *Herpetologica* 29 (2): 191-192. - [get paper here](#)
  - Wiegmann, A.F.A. 1828. Beiträge zur Amphibienkunde. *Isis von Oken* 21 (4): 364-383 - [get paper here](#)
  - Wiegmann, A.F.A. 1834. *Herpetologia Mexicana, seu descriptio amphibiorum novae hispaniae, quae itineribus comitis de Sack, Ferdinandi Deppe et Chr. Guil. Schiede im Museum Zoologicum Berolinense Pervenerunt. Pars prima, saurorum species*. Berlin, Lüderitz, iv + 54 pp. - [get paper here](#)
  - Wilgers, D.J.; Horne, E.A.; Sandercock, B.K. & Volkmann, A.W. 2006. Effects of rangeland management on community dynamics of the herpetofauna of the Tall-grass Prairie [Flint Hills, Kansas/Oklahoma]. *Herpetologica* 62 (4): 378-388 - [get paper here](#)
  - Winton, W.M. 1916. Habits and Behavior of the Texas Horned Lizard, *Phrynosoma cornutum*, Harlan. I. *Copeia* 36: 81-84. - [get paper here](#)
  - Winton, W.M. 1917. Habits and Behavior of the Texas Horned Lizard, *Phrynosoma cornutum*, Harlan. II. *Copeia* 39: 7-8. - [get paper here](#)
  - Wolf, Alexander J., Jennie Mook, Miranda Vesey, Raymond W. Moody and Donna Nolan 2015. *Phrynosoma cornutum* (Texas horned lizard) habitat. *Herpetological Review* 46 (4): 633-634. - [get paper here](#)
  - Wolf, Alexander J.; Eric C. Hellgren, Victor Bogosian, and Raymond W. Moody 2013. Effects of Habitat Disturbance on Texas Horned Lizards: An Urban Case Study. *Herpetologica* 69 (3): 265-281. - [get paper here](#)
  - Yancy, Franklin D.; Roberts, Kristie Jo 1996. Geographic Distribution. *Phrynosoma cornutum*. *Herpetological Review* 27 (4): 211 - [get paper here](#)

## External links

- [IUCN Red List](#)
- [National Center for Biotechnology Information](#)
- <http://gto.ncsa.uiuc.edu/pingleto/herps/lizards.html>
- <http://www.zo.utexas.edu/research/txherps/lizards/>
- <http://www.nrel.colostate.edu/PROGRAMS/HUMAN/SCOP/photos/amphrep.html>
- <https://www.utep.edu/leb/chklist/herps/herps.htm>
- [Google images](#)

## Is it interesting? Share with others:

As link to this species use URL address:

<https://reptile-database.reptarium.cz/species?genus=Phrynosoma&species=cornutum>

without field 'search\_param'. Field 'search\_param' is used for browsing search result.



## *Phrynosoma coronatum* (BLAINVILLE, 1835)



iNaturalist

Can you confirm these amateur observations of *Phrynosoma coronatum*?



[Add your own observation of \*Phrynosoma coronatum\*](#) »

Find more photos by Google images search: [Google](#)

Higher Taxa	Phrynosomatidae, Phrynosomatinae, Phrynosomatini; Iguania, Sauria, Squamata (lizards)
Subspecies	Phrynosoma coronatum coronatum (BLAINVILLE 1835) Phrynosoma coronatum frontale VAN DENBURGH 1894
Common Names	E: Coast Horned Lizard blainvillii: San Diego Horned Lizard frontale: California Horned Lizard G: Kronen-Krötenechse S: Camaleón del Litoral
Synonym	Agama (Phrynosoma) coronata BLAINVILLE 1835: 284 Phrynosoma coronatum — DUMÉRIL & BIBRON 1837: 318 Batrachosoma coronatum — FITZINGER 1843: 79 Phrynosoma coronatum — GENTRY 1885: 143 Phrynosoma coronatum — BOULENGER 1885: 243 Phrynosoma coronatum — VAN DENBURGH 1922 Phrynosoma coronatum coronatum — LINDSDALE 1932 Phrynosoma coronatum coronatum — SMITH & TAYLOR 1950: 102 Phrynosoma coronatum — STEBBINS 1985: 139 Phrynosoma coronatum — LINER 1994 Phrynosoma coronatum — LINER 2007 Phrynosoma coronatum — KÖHLER 2021
	Phrynosoma coronatum frontale VAN DENBURGH 1894

*Phrynosoma frontalis* VAN DENBURGH 1894: 296  
*Phrynosoma blainvillii frontale* — VAN DENBURGH 1897: 95  
*Phrynosoma schmidti* BARBOUR 1921: 113  
*Phrynosoma nelsoni* SCHMIDT 1922: 666  
*Phrynosoma coronatum frontale* — LINDSDALE 1932: 368  
*Phrynosoma blainvillii frontale* — KLAUBER 1936  
*Phrynosoma coronatum frontale* — SMITH & TAYLOR 1950: 102  
*Phrynosoma coronatum frontale* — JENNINGS 1988  
*Phrynosoma coronatum schmidti* — JENNINGS 1988  
*Phrynosoma coronatum frontale* — KÖHLER 2021  
 USA (California), Mexico (Baja California), elevation 0-2348m

Distribution	<p>Type locality: “California”. Restricted to Cape San Lucas, Baja California by SMITH &amp; TAYLOR 1950.</p> <p><i>frontale</i>: USA (California); Type locality: Bear Valley, San Benito County, Calif.</p>
Reproduction	<p><i>jamesi</i>: Mexico (Baja California); Type locality: Shore of San Bartolome Bay, Baja California.</p> <p>oviparous</p>
Types	<p>Lectotype: MNHN-RA 1921, also given as MCZ 5954          Holotype: USNM 64450 [<i>jamesi</i>]          Holotype: CAS-SUR 93 (Stanford Univ Mus.), male [<i>frontale</i>]          Holotype: MCZ 15142 [<i>schmidti</i>]          Holotype: USNM 37585 [<i>Phrynosoma nelsoni</i>]</p> <p>Definition. <i>Phrynosoma coronatum</i> is a large (65-105 mm SVL), oviparous homed lizard with a dusky-spotted, smooth-scaled venter, two prominent rows of pointed lateral fringe scales (the lower row may be reduced), and 3-4 rows of enlarged gular scales on each side. The dorsal coloration is gray, tan, reddish-brown, or whitish; usually resembling the prevailing soil color. There are two occipital spines, each 3-4 times longer than its basal width, not in contact at the base, and 4-5 temporal spines on each side of the head. The tympanum is visible, and there are no dark stripes on the face (Jennings 1988).</p>
Diagnosis	<p>Dehition (<i>frontale</i>). A subspecies with three or more rows of enlarged gular scales on each side, a large, spine-like postrictal scale, five closely set, posteriorly-curved, temporal spines gradually increasing in size posteriorly, and small, often pointed, rugose frontal scales (Jennings 1988).</p> <p>Definition (<i>schmidti</i>). A subspecies with three rows of enlarged gular scales on each side, a medium-sized postrictal scale, five laterally-projecting temporal spines (the posterior three greatly enlarged) on each side of the head, small, pointed, rugose frontal scales without dark pigment, and the substrictal scale distinctly above the row of chinshields (Jennings 1988).</p> <p>Hybridization: Healthy <i>P. coronatum</i> and <i>P. cornutum</i> hybrids have been obtained by BAUR (1983).</p> <p>Synonymy: mostly after KLAUBER 1936, SMITH &amp; TAYLOR 1950. GRISMER &amp; MELLINK (1994) placed <i>P. cerroense</i> in the synonymy of <i>P. coronatum</i>. Köhler 2021 synonymized <i>Phrynosoma coronatum jamesi</i> with <i>Phrynosoma (coronatum) cerroense</i>.</p>
Comment	<p>Subspecies: Brattstrom (1997) concluded that <i>P. coronatum</i> is a highly variable species and thus rejected subspecies. <i>Phrynosoma coronatum blainvillii</i> GRAY 1839 has been elevated to full species status. Grismer 2002 did not use the subspecific name “<i>Phrynosoma coronatum schmidti</i>” but rather referred to the “Schmidti pattern class of <i>Phrynosoma coronatum</i>”. GRISMER &amp; MELLINK (1994) also considered <i>P. coronatum</i> as a monotypic species and did not recognize <i>frontale</i> as a valid subspecies.</p> <p>Group: Belongs to the Anota clade fide LEACHE &amp; MCGUIRE 2006.</p>
References	<ul style="list-style-type: none"> <li>• Banta, Benjamin H. 1962. A notable range extension for the California horned lizard. <i>Wasmann Journal of Biology</i> 20 (1): 137-138 - <a href="#">get paper here</a></li> <li>• Barbour, T. 1921. A new <i>Phrynosoma</i> from Cerros Island. <i>Proc. New England Zool. Club</i> 7: 113-115 - <a href="#">get paper here</a></li> <li>• Baur, B. 1984. Krötenechsen-Bastarde (<i>Phrynosoma</i>) (Sauria: Iguanidae). <i>Salamandra</i> 20 (2-3): 70-87 - <a href="#">get paper here</a></li> <li>• Baur, B.E. 1986. Longevity of horned lizards of the genus <i>Phrynosoma</i>. <i>Bull. Maryland Herp. Soc.</i> 22 (3): 149-151 - <a href="#">get paper here</a></li> <li>• Blainville, Henri Marie Ducrotay de 1835. Description de quelques espèces de reptiles de la Californie précédée de l'analyse d'un système général d'erpétologie et d'amphibiologie. <i>Nouv. Ann. Mus. Hist. Nat. Paris</i> 4: 233-296 - <a href="#">get paper here</a></li> <li>• Bostic, D. L. 1971. Herpetofauna of the Pacific Coast of north central Baja California, Mexico, with a description of a new subspecies of <i>Phyllodactylus xanti</i>. <i>Transactions of the San Diego Society of Natural History</i>, 16:237—263 - <a href="#">get paper here</a></li> <li>• Boulenger, G.A. 1885. Catalogue of the lizards in the British Museum (Natural History). Vol. 2, Second edition.</li> </ul>

- London, xiii+497 pp. - [get paper here](#)
- Brattstrom, Bayard H. 1997. Status of the subspecies of the Coast Horned Lizard, *Phrynosoma coronatus*. *Journal of Herpetology* 31 (3): 434-436 - [get paper here](#)
  - Brattstrom, Bayard H. 2013. Distribution of the Coast Horned Lizard, *Phrynosoma coronatum*, in Southern California. *Bulletin, Southern California Academy of Sciences* 112(3):206-216; doi: <http://dx.doi.org/10.3160/0038-3872-112.3.206> - [get paper here](#)
  - Cope, E.D. 1900. The crocodylians, lizards and snakes of North America. *Ann. Rep. U.S. Natl. Mus.* 1898: 153-1270 - [get paper here](#)
  - Duméril, A. M. C. and G. Bibron. 1837. *Erpétologie Générale ou Histoire Naturelle Complete des Reptiles*. Vol. 4. Libr. Encyclopédique Roret, Paris, 570 pp. - [get paper here](#)
  - Fitzinger, L. 1843. *Systema Reptilium, fasciculus primus, Amblyglossae*. Braumüller et Seidel, Wien: 106 pp. - [get paper here](#)
  - Gentry, A.F. 1885. A review of the genus *Phrynosoma*. *Proc. Acad. Nat. Sci. Philad.* (ser. 3) 37: 138-148 - [get paper here](#)
  - Gray, J. E. 1839. *Reptiles*. In: J. Richardson et al., *The Zoology of Captain Beechey`s Voyage...* H.G. Bohn, London, 180 pp. (+ plates) - [get paper here](#)
  - Grinnell, J. & CAMP, C.L. 1917. A distributional list of the amphibians and reptiles of California. *Univ. California Publ. Zool.* 17: 127-208
  - Grismer, L. Lee; Mellink, Eric 1994. The addition of *Sceloporus occidentalis* to the herpetofauna of Isla de Cedros, Baja California, México and its historical and taxonomic implications. *Journal of Herpetology* 28 (1): 120-126 - [get paper here](#)
  - Jennings, M. R. 1988. *Phrynosoma coronatum* (Blainville): Coast horned lizard. *Catalogue of American Amphibians and Reptiles* ( 428: 1-5. - [get paper here](#)
  - Jennings, M.R. 1987. Impact of the Curio Trade for San Diego Horned Lizards (*Phrynosoma coronatum blainvillii*) in the Los Angeles Basin, California: 1885-1930 *Journal of Herpetology* 21 (4): 356-358. - [get paper here](#)
  - Jones, L.L. & Lovich, R.E. 2009. *Lizards of the American Southwest. A photographic field guide*. Rio Nuevo Publishers, Tucson, AZ, 568 pp. [review in *Reptilia* 86: 84] - [get paper here](#)
  - Klauber, L. M. 1936. The Horned Toads of the coronatum Group. *Copeia*, Vol. 1936, No. 2 (Jul. 31, 1936), pp. 103-110 - [get paper here](#)
  - Leaché, A. D., McElroy, M. T. and Trinh, A. 2018. A genomic evaluation of taxonomic trends through time in coast horned lizards (genus *Phrynosoma*). *Mol Ecol.* doi:10.1111/mec.14715 - [get paper here](#)
  - Leaché, Adam D. and Jimmy A. McGuire 2006. Phylogenetic relationships of horned lizards (*Phrynosoma*) based on nuclear and mitochondrial data: Evidence for a misleading mitochondrial gene tree. *Molecular Phylogenetics and Evolution* 39 (3): 628-644 - [get paper here](#)
  - Leaché, Adam D.; Michelle S. Koo, Carol L. Spencer, Theodore J. Papenfuss, Robert N. Fisher, and Jimmy A. McGuire 2009. Quantifying ecological, morphological, and genetic variation to delimit species in the coast horned lizard species complex (*Phrynosoma*). *PNAS* 2009 106:12418-12423 - [get paper here](#)
  - Leviton, Alan E.; Banta, Benjamin H. 1964. Midwinter reconnaissance of the herpetofauna of the Cape Region of Baja California, Mexico. *Proc. Cal. Acad. Sci.* 30 (7): 127-156 - [get paper here](#)
  - Liner, Ernest A. 2007. A CHECKLIST OF THE AMPHIBIANS AND REPTILES OF MEXICO. *Louisiana State University Occasional Papers of the Museum of Natural Science* 80: 1-60 - [get paper here](#)
  - Linsdale, J.M. 1932. Amphibians and reptiles from lower California. *Univ. California Publ. Zool.* 38 (6): 345-386
  - Meyers, J.J.; Herrel, A. & Nishikawa, K. 2006. Morphological correlates of ant eating in horned lizards (*Phrynosoma*). *Biological Journal of the Linnean Society* 89: 13-24 - [get paper here](#)
  - Montanucci, R.R. 2004. Geographic variation in *Phrynosoma coronatum* (Lacertilia, Phrynosomatidae): further evidence for a peninsular archipelago. *Herpetologica* 60 (1): 117-139 - [get paper here](#)
  - Presch, W. 1969. Evolutionary osteology and relationships of the horned lizard genus *Phrynosoma* (family Iguanidae). *Copeia* 1969 (2): 250-275 - [get paper here](#)
  - Reeder, T.W. & Montanucci, R.R. 2001. Phylogenetic analysis of the horned lizards (Phrynosomatidae: *Phrynosoma*): evidence from mitochondrial DNA and morphology. *Copeia* 2001 (2): 309-323 - [get paper here](#)
  - Reeve, Wayne L. 1952. Taxonomy and distribution of the horned lizard genus *Phrynosoma*. *Univ. Kansas Sci. Bull.* 34 (14): 817-960 - [get paper here](#)
  - Rochester, Carlton J.; Cheryl S. Brehme, Denise R. Clark, Drew C. Stokes, Stacie A. Hathaway, and Robert N. Fisher 2010. Reptile and Amphibian Responses to Large-Scale Wildfires in Southern California. *Journal of Herpetology* 44 (3): 333-351 - [get paper here](#)
  - Schmidt, Karl Patterson 1922. The Amphibians and Reptiles of Lower California and the Neighboring Islands. *Bull. Amer. Mus. Nat. Hist.* 46 (11): 607-707 - [get paper here](#)
  - Shaw, C.E. 1963. An Albino San Diego Horned Lizard (*Phrynosoma coronatum blainvillei*) *Copeia* 1963 (1): 154. - [get paper here](#)
  - Sherbrooke, Wade C. 2003. *Introduction to Horned Lizards of North America*. University of California Press, Berkeley, 178 pp. - [get paper here](#)
  - Stebbins, R.C. 1948. Nasal structure in lizards with reference to olfaction and conditioning of the inspired air. *American J Anatomy* 83 (2): 183-221 - [get paper here](#)
  - Stebbins, R.C. 1985. *A Field Guide to Western Reptiles and Amphibians*, 2nd ed. Houghton Mifflin, Boston
  - Terron 1932. *Anal. Inst. Biol.* 3: 109

- Tevis, lloyd, Jr. 1944. Herpetological notes from lower California. Copeia 1944 (1): 6-18 - [get paper here](#)
- Tinkham, E.R. 1951. On the recognition of two Lower California horned lizards. Herpetologica 7: 169-172 - [get paper here](#)
- Van Denburgh, John 1922. The Reptiles of Western North America. Volume I. Lizards. Occ. Pap. Cal. Acad. Sci. (10): 1-612 - [get paper here](#)
- Van Denburgh, J. 1894. Descriptions of three new lizards from California and ower California, with a note on Phrynosoma blainvillii. Proc. Cal. Acad. Sci. (Ser. 2), 4: 296-301 - [get paper here](#)
- Van Denburgh, J. 1895. A review of the herpetology of Lower California. Part I - Reptiles. Proc. Cal. Acad. Sci. (2) 5: 77-163 - [get paper here](#)
- Van DENBURGH, J. 1897. The reptiles of the Pacific coast and Great Basin. An account of the species known to inhabit California, and Oregon, Washington, Idaho and Nevada. Occ. Pap. Cal. Acad. Sci. (5): 1-236 - [get paper here](#)

- External links
- [IUCN Red List](#)
  - [National Center for Biotechnology Information](#)
  - <http://www.wildherps.com/species/P.coronatum.html>
  - [Google images](#)

#### Is it interesting? Share with others:

As link to this species use URL address:

**<https://reptile-database.reptarium.cz/species?genus=Phrynosoma&species=coronatum>**

without field 'search\_param'. Field 'search\_param' is used for browsing search result.

[Please submit feedback about this entry to the curator](#)

*This database is maintained by Peter Uetz (database content) and Jakob Hallermann, Zoological Museum Hamburg (new species and updates).*

*Web pages and scripting Jiri Hosek*



## *Phrynosoma diminutum* MONTANUCCI, 2015

iNaturalist



[Add your own observation of \*Phrynosoma diminutum\* »](#)

We have no photos, try to find some by Google images search: [Google](#)

Higher Taxa Phrynosomatidae, Phrynosomatinae, Phrynosomatini; Iguania, Sauria, Squamata (lizards)

Subspecies

Common

Names E: San Luis Valley Short-horned Lizard

Synonym *Phrynosoma diminutum* MONTANUCCI 2015  
*Phrynosoma douglassii* — GENTRY 1885: 140 (part)  
*Phrynosoma douglassii hernandesi* — COPE 1900: 413 (part)  
*Phrynosoma douglassii ornatissimum* — VAN DENBURGH 1922: 377(part)  
*Phrynosoma douglassii ornatissimum* — SMITH 1946: 305 (part)  
*Phrynosoma douglassii ornatissimum* — REEVE 1952: 927 (part)  
*Phrynosoma hernandesi* — ZAMUDIO et al. 1997: 302 (part)  
 USA (Colorado, probably N New Mexico)

Distribution

Type locality: Medano Road, just outside Medano Ranch, Alamosa County, Colorado.

Reproduction

Types Holotype: UCM 61895, adult female, collected from Medano Road, just outside The Nature Conservancy's Medano Ranch, 2,308 m., Alamosa County, Colorado, by A. Schneider and A. Mitchell on 4 August 2006 (Fig. 14). Paratypes. LSUM 13834–37, 13839–40, MEL 1013, 1015, 1016, MVZ 27042, UCM 3894, 3898, 48465–66, 51268, 61896, UMMZ 62242, 62244, 62247–52, 62255–58, 62261–64, USNM 8558, 44888, 44890. See Appendix I for locality data.

Diagnosis

Diagnosis. *Phrynosoma diminutum* sp. nov. can be distinguished from other members of the *P. douglasii* species complex by the following combination of adult characters: (1) snout short,  $45\% \pm 1.87$  (38.8–50%) of orbit to rostral scale distance; (2) rostrofrontal profile rounded or angular with a steep incline; (3) frontal rim not elevated, or only slightly elevated above the occipital shelf; (4) enlarged frontal rim scales  $1.63 \pm 0.23$  (0–3) /  $1.60 \pm 0.22$  (0–3); (5) temporal shelf short,  $10.1\% \pm 0.95$  (7.1–13.0%) in males,  $11.7\% \pm 0.99$  (6.2–15.8%) in females; (6) temporal shelf weakly to strongly convex; (7) cephalic horns short, third temporal horn length  $10.4\% \pm 0.57$  (6.7–13.5%); (8) cephalic



horns slightly elevated to nearly vertical; (9) tympanum elliptic, moderately broad; (10) tympanum exposed; (11) tail moderately short,  $215\% \pm 11.04$  (180–239%) in males,  $179\% \pm 4.94$  (159–209%) in females; (12) dorsal spots small, wedge-shaped to slightly rounded; (13) light-colored borders of dorsal spots confined to posterior edges; (14) dorsolateral white spots absent, but white dots, flecks, and vermiculations may be present; (15) gular area with scattered melanistic spots and/or vermiculations (melanin-dispersed phase); (16) abdomen with large melanistic spots or extensive dark suffusion (melanin-dispersed phase); (17) melanistic subcaudal bands absent or interrupted bands present distally (melanin-dispersed phase).

Comparisons. *P. diminutum* sp. nov. differs discretely from *P. brevirostris* in having irregular rows of large, melanistic spots or extensive dark suffusion on the abdomen and widely interrupted subcaudal bands (as paired spots) during the melanin-dispersed phase. *P. diminutum* sp. nov. is further differentiated from *P. brevirostris* and from *P. bauri* sp. nov. in having a shorter, more convex temporal shelf and a relatively short tail. In *P. diminutum* sp. nov. and *P. brevirostris* the frontal rim is not elevated or only slightly elevated above the occipital shelf, but in *P. bauri* sp. nov. the frontal rim is usually well defined and elevated above the occipital shelf. *P. diminutum* sp. nov. also has a significantly lower number of enlarged frontal rim scales and a shorter third temporal horn than *P. bauri* sp. nov. (Table 3). *P. diminutum* sp. nov. differs further from *P. bauri* sp. nov. in lacking conspicuous white, rounded dorsolateral spots, although it may have small, white dots, vermiculations and flecks.

*P. diminutum* sp. nov. is characterized by small adult size (Hahn, 1968; Hammerson, 1999). Hammerson (1999:222) calculated a mean snout-vent length of 43 mm for males and 54 mm for females, with a maximum of 51 mm and 66 mm for males and females respectively. His comparisons with samples from northeastern, southeastern, and western Colorado revealed that all exceeded the size of the San Luis Valley specimens. The greatest size disparity was found between San Luis Valley samples and those from western and southwestern Colorado, and this is likely explained by the inclusion of *P. hernandesi*.

The males of *P. diminutum* sp. nov. and *P. brevirostris* are similar in mean snout-vent length although males of *P. brevirostris* exceed males of the former by 12 mm in maximum size. Males of both taxa are smaller than males of *P. bauri* sp. nov. Snout-vent length comparisons among females reveal that females of *P. diminutum* sp. nov. average smaller snout-vent length than females of *P. brevirostris*, and the latter are smaller than *P. bauri* sp. nov. (Table 5). *P. diminutum* sp. nov. is distinguished from *P. h. hernandesi* and *P. h. ornatum* by a smaller adult size, a rounded or angular and steeply inclined rostrofrontal profile, a frontal rim not elevated or only slightly elevated above the occipital shelf (except *P. h. ornatum*), a shorter temporal shelf, and shorter occipital and temporal horns. *P. diminutum* sp. nov. can be distinguished from *P. o. ornatissimum* and *P. o. brachycercum* by its smaller adult size, a frontal rim not elevated or only slightly elevated above the occipital shelf, a shorter temporal shelf, shorter occipital and temporal horns, a relatively longer tail, small wedge-shaped or rounded dorsal spots, absence of a discrete white and/or yellow line along the medial border of each dorsal spot (except *P. o. brachycercum*), and a gular pattern of scattered spots and vermiculations with or without gray suffusion and black spots on the abdomen (melanin-dispersed phase). *P. diminutum* sp. nov. is distinguished from *P. douglasii* by a gular pattern consisting of melanistic spots and/or vermiculations and melanistic spots on the abdomen (melanin-dispersed phase), a less convex temporal shelf, and a moderately broad, elliptic, and exposed tympanum.

Comment Distribution: see map 9 in Montanucci 2015: 169. Köhler synonymized *diminutum* with *P. hernandesi*.

Etymology The subspecific epithet *diminutum*, Latin perfect participle of *dēminūo*, *dēminuēre*, meaning “diminutive,” is in reference to the small adult size of this species.

- References
- Cope, E.D. 1900. The crocodylians, lizards and snakes of North America. Ann. Rep. U.S. Natl. Mus. 1898: 153-1270 - [get paper here](#)
  - Gentry, A.F. 1885. A review of the genus *Phrynosoma*. Proc. Acad. Nat. Sci. Philad. (ser. 3) 37: 138-148 - [get paper here](#)
  - MONTANUCCI, RICHARD R. 2015. A taxonomic revision of the *Phrynosoma douglasii* species complex (Squamata: Phrynosomatidae). Zootaxa 4015 (1): 001–177 - [get paper here](#)
  - Reeve, Wayne L. 1952. Taxonomy and distribution of the horned lizard genus *Phrynosoma*. Univ. Kansas Sci. Bull. 34 (14): 817-960 - [get paper here](#)
  - Smith, Hobart M. 1946. Handbook of Lizards: Lizards of the United States and of Canada. Comstock, Ithaca, NY, xxii + 557 pp.
  - Van Denburgh, John 1922. The Reptiles of Western North America. Volume I. Lizards. Occ. Pap. Cal. Acad. Sci. (10): 1–612 - [get paper here](#)
  - Zamudio, Kelly R., Jones, K. Bruce & Ward, Ryk H. 1997. Molecular systematics of Short-horned lizards: Biogeography and taxonomy of a widespread species complex. Systematic Biology 46 (2): 284-305 - [get paper here](#)

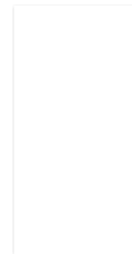
External links • [Google images](#)

Is it interesting? Share with others:

As link to this species use URL



## *Phrynosoma ditmarsii* STEJNEGER, 1906



iNaturalist

Can you confirm these amateur observations of *Phrynosoma ditmarsii*?



[Add your own observation of \*Phrynosoma ditmarsii\*](#) »

We have no photos, try to find some by Google images search: [Google](#)

Higher Taxa Phrynosomatidae, Phrynosomatinae, Phrynosomatini; Iguania, Sauria, Squamata (lizards)

Subspecies

Common E: Rock Horned Lizard

Names S: Camaleón de Roca

*Phrynosoma ditmarsii* STEJNEGER 1906

*Phrynosoma ditmarsii* — SMITH & TAYLOR 1950: 104

Synonym *Phrynosoma ditmarsii* — LINER 1994

*Phrynosoma ditmarsii* — PIANKA & VITT 2003: 161

*Phrynosoma hernandesi ditmarsii* — KÖHLER 2021

Mexico (Sonora)

Distribution

Type locality: State of Sonora, not far from the boundary of Arizona.

Reproduction ovoviviparous (Lambert & Wiens 2013).

Types Holotype: USNM 36022

Definition. *Phrynosomadirmarsiisamoderatelysized*(7690 mm SVL) viviparous homed lizard with a red, brown, gray, or yellow dorsal ground color and dark crossbands posteriorly. The venter is whitish, with strongly keeled scales.

Diagnosis These lizards have a single row of lateral abdominal fringe scales which are bluntly pyramidal. The tail is short. The head is wider than long with a high postorbital ridge extending from the tip of the orbital boss to the outer enlarged temporals. A postocular boss is present as a broad pyramid in which three edges are formed by the continuation of the superciliary, supraocular, and orbitotemporal ridges. Occipital and temporal horns are reduced to rounded, flaring expansions on either side of the head, which has a deep and narrow occipital notch. The nares are in the line of the canthus rostralis. Postlabials are slightly enlarged, convex, and triangular; the keeled edge of the row is directed nearly

horizontally. Mandibles are greatly expanded posteriorly, exceeding the diameter of the orbit. Five to eight rugose sublabials separate chinshields from infralabials, which increase in size and are keeled posteriorly. Gular scales are small and keeled. The tympanum is bare and resides in the anterior neck fold posterior to a vertical row of four small spines. Posterior and dorsal surfaces of the hind legs and tail have large, scattered, bluntly keeled scales, the larger scale bases surrounded by rosettes of smaller scales. Males have enlarged postanal scales (Hodges 1995).

Diagnosis. *Phrynosoma dirmarsi* can be distinguished from all congeners by the combination of reduced occipital and temporal horns appearing as rounded, flaring expansions on either side of the head, a deep and narrow occipital notch, large vertical expansion of the mandibles, a high postorbital ridge, a single row of abdominal fringe scales, nares in the line of the canthus rostralis, and a bare tympanum in the anterior neck fold posterior to a vertical row of four spines (Hodges 1995).

Habitat: montane

#### Comment

Group: Belongs to the Tapaja clade fide LEACHE & MCGUIRE 2006.

Diet: With 11% of its diet being ants this species seems to be the least dependent and specialized on ants (Fabian 2014).

#### Etymology

Named after Dr. Raymond Lee Ditmars (1876-1942), Curator of Reptiles at the Bronx Zoo, New York (1899-). Ditmars also worked in the Department of Entomology at the American Museum of Natural History (1893-1897) and as a reporter for the New York Times (1898).

#### References

- Aguilar-Morales, Cecilia and Thomas R. Van Devender 2018. Horned Lizards (*Phrynosoma*) of Sonora, Mexico: Distribution and Ecology. *Sonoran Herpetologist* 31 (3): 40-50 - [get paper here](#)
- Baur, B. 1986. Die Felsen-Krötenechse. *Herpetofauna* 8 (40): 27 - [get paper here](#)
- Beolens, Bo; Michael Watkins, and Michael Grayson 2011. The Eponym Dictionary of Reptiles. Johns Hopkins University Press, Baltimore, USA - [get paper here](#)
- Burkhardt, Timothy R. and Scott Trageser. 2015. Geographic Distribution: *Phrynosoma ditmarsii* (rock horned lizard). *Herpetological Review* 46 (1): 60 - [get paper here](#)
- Enderson, Erik F.; Thomas R. Van Devender, Robert L. Bezy 2014. Amphibians and reptiles of Yécora, Sonora and the Madrean Tropical Zone of the Sierra Madre Occidental in northwestern Mexico. *Check List* 10 (4): 913-926 - [get paper here](#)
- Fabian, B. F 2014. Überlegungen zur Ernährung von Krötenechsen. *Reptilia (Münster)* 19 (107): 24-29
- Hodges W L. 1995. *Phrynosoma ditmarsii*. *Catalogue of American Amphibians and Reptiles* (614): 1-3. - [get paper here](#)
- Jones, L.L. & Lovich, R.E. 2009. Lizards of the American Southwest. A photographic field guide. Rio Nuevo Publishers, Tucson, AZ, 568 pp. [review in *Reptilia* 86: 84] - [get paper here](#)
- Lambert, Shea M. and John J. Wiens 2013. EVOLUTION OF VIVIPARITY: A PHYLOGENETIC TEST OF THE COLD-CLIMATE HYPOTHESIS IN PHRYNOSOMATID LIZARDS. *Evolution* 67 (9): 2614–2630 - [get paper here](#)
- Leaché, Adam D. and Jimmy A. McGuire 2006. Phylogenetic relationships of horned lizards (*Phrynosoma*) based on nuclear and mitochondrial data: Evidence for a misleading mitochondrial gene tree. *Molecular Phylogenetics and Evolution* 39 (3): 628-644 - [get paper here](#)
- Lemos-Espinal JA, Smith GR, Rorabaugh JC 2019. A conservation checklist of the amphibians and reptiles of Sonora, Mexico, with updated species lists. *ZooKeys* 829: 131-160 - [get paper here](#)
- Lowe, Charles H., Jr.; Robinson, Michael D.; Roth, Vincent D. 1971. A population of *Phrynosoma ditmarsii* from Sonora, Mexico. *Journal of the Arizona Academy of Science* 6 (4): 275-277 - [get paper here](#)
- Meyers, J.J.; Herrel, A. & Nishikawa, K. 2006. Morphological correlates of ant eating in horned lizards (*Phrynosoma*). *Biological Journal of the Linnean Society* 89: 13–24 - [get paper here](#)
- Molina-Padilla, G; Van Devender, T R & Salazar-Martínez, J A; 2019. Geographic Distribution: *Phrynosoma ditmarsii* (Rock Horned Lizard) Mexico: Sonora: Municipality of Bacoachi. *Herpetological Review* 50 (3): 527 - [get paper here](#)
- Pianka, E.R. & Vitt, L.J. 2003. Lizards - Windows to the Evolution of Diversity. University of California Press, Berkeley, 347 pp. [review in *Copeia* 2004: 955] - [get paper here](#)
- Presch, W. 1969. Evolutionary osteology and relationships of the horned lizard genus *Phrynosoma* (family Iguanidae). *Copeia* 1969 (2): 250-275 - [get paper here](#)
- Reeder, T.W. & Montanucci, R.R. 2001. Phylogenetic analysis of the horned lizards (*Phrynosomatidae*: *Phrynosoma*): evidence from mitochondrial DNA and morphology. *Copeia* 2001 (2): 309-323 - [get paper here](#)
- Roth, V.D. 1997. Ditmars' Horned Lizard (*Phrynosoma ditmarsii*) or the case of the lost lizard. *Sonoran Herpetologist* 10 (1): 2-6. - [get paper here](#)
- Sherbrooke, Wade C. 2003. Introduction to Horned Lizards of North America. University of California Press, Berkeley, 178 pp. - [get paper here](#)
- Sherbrooke, Wade C.; Martin, Brent E.; Lowe, Charles H. 1998. Geographic Distribution. *Phrynosoma ditmarsii*. *Herpetological Review* 29 (2): 110-111 - [get paper here](#)
- Stejneger, Leonhard 1906. A new lizard of the genus *Phrynosoma*, from Mexico. *Proc. US Natl. Mus.* 29 (1437): 565-567 - [get paper here](#)
- Turner, D. S., T. R. Van Devender, H. Silva-Kurumiya, N. León Del Castillo, C. Hedgcock, C. Roll, M. Wilson, and F. I. Ochoa-Gutierrez. 2017. Distribution of *Phrynosoma ditmarsii* Stejneger, 1906, with notes on habitat



## *Phrynosoma douglasii* (BELL, 1829)



iNaturalist

Can you confirm these amateur observations of *Phrynosoma douglasii*?



[Add your own observation of \*Phrynosoma douglasii\*](#) »

Find more photos by Google images search: [Google](#)

Higher Taxa Phrynosomatidae, Phrynosomatinae, Phrynosomatini; Iguania, Sauria, Squamata (lizards)  
Subspecies

Common Names E: Pigmy Short-horned Lizard  
G: Zwerg-Kurzhorn-Krötenechse  
douglasii: Pigmy Short-horned Lizard

Synonym Agama Douglassii BELL 1829: 105  
Phrynosoma Douglassi — WAGLER 1830: 146  
Tapaya Douglassi GIRARD 1858: 397  
Phrynosoma douglassii pygmaea YARROW 1882: 443  
Phrynosoma Douglassi — GENTRY 1885: 140  
Phrynosoma douglassii — BOULENGER 1885: 240  
Phrynosoma douglassii douglassii — COPE 1900: 412  
Phrynosoma douglassii — PRESCH 1969  
Phrynosoma douglassii — STEBBINS 1985: 141  
Phrynosoma douglassii — LINER 1994  
Phrynosoma douglasii — COLLINS & TAGGART 2009  
Phrynosoma (Tapaja) douglasii — CROTHER et al. 2012  
Phrynosoma douglasii — MONTANUCCI 2015: 45  
Phrynosoma douglasii — KÖHLER 2021

Distribution Canada (SC British Columbia),  
USA (Washington, Oregon, N California, Idaho, Montana, Wyoming, W North Dakota, W South Dakota, W Nebraska, N California, N Nevada, Utah, Colorado, Arizona, New Mexico, W Texas),

Mexico (Chihuahua)

Type locality. somewhere along the Columbia River, Washington.

Reproduction ovoviviparous (Lambert & Wiens 2013).

Types Holotype: MCZ 5951; also given as MCZ 5952 or 5953 or BMNH 1946.8.10.52-53

Holotype: USNM 23993 [brachycercum]

Syntypes: USNM 9199, 10918, 11473 [Phrynosoma douglassi pygmaea]

Diagnosis. *Phrynosoma douglasii* can be distinguished from other members of the species complex by the following combination of adult characters: (1) snout short,  $44.6\% \pm 1.04$  (36.6–49%) of orbit to rostral scale distance; (2) rostrifrontal profile strongly rounded or angular with a steep, nearly vertical, incline; (3) frontal rim not elevated, or only slightly elevated above the occipital shelf; (4) enlarged frontal rim scales  $0.66 \pm 0.21$  (0–2) /  $0.73 \pm 0.20$  (0–2); (5) temporal shelf short,  $7.4\% \pm 0.86$  (2.0–19.5%) in males,  $10.3\% \pm 0.66$  (1.9–17.5%) in females; (6) temporal shelf surface moderately to strongly convex (rounded); (7) cephalic horns very short, third temporal horn length  $8.0\% \pm 0.13$  (4.6–10.6%); (8) cephalic horns directed upward (ca.  $45^\circ$ ) to vertical; (9) tympanum elliptic, typically narrow, or small and rounded; (10) tympanum exposed, or partly or entirely concealed by granular scales; (11) tail moderately short  $214\% \pm 5.36$  (158–255%) in males,  $167\% \pm 4.14$  (123–225%) in females; (12) dorsal spots small to moderately large, wedge-shaped, slightly rounded, or forming transverse bands; (13) light-colored borders of dorsal spots confined to posterior edges; (14) dorsolateral white spots absent; (15) gular area with gray to charcoal suffusion or flecks (melanin-dispersed phase); (16) abdomen with scattered melanistic flecks or a gray suffusion, no melanistic spots (melanin-dispersed phase); (17) melanistic subcaudal bands absent (melanin-dispersed phase). From Montanucci 2015: 46.

Diagnosis

Comparisons. *Phrynosoma douglasii* can be distinguished from all other members of the species complex by its minute occipital and temporal horns (TH significantly shorter than in all other taxa, Table 3), the absence or weak development of the frontal rim (except *P. brevirostris* and *P. diminutum* sp. nov.), a low number of enlarged frontal rim scales, a short temporal shelf with a convex or strongly rounded surface, a narrow, elliptic tympanum, reduced to a small, rounded disc in some specimens, and usually concealed by scales. It is further distinguished from *P. h. hernandesi* and *P. h. ornatum* by its small adult size, vertical orientation of the occipital and temporal horns, a rounded or angular and steeply inclined rostrifrontal profile, and the absence of melanistic abdominal spots and melanistic subcaudal bands (melanin-dispersed phase). *P. douglasii* can be further distinguished from *P. ornatissimum* and its subspecies by its smaller adult size, pale gray to charcoal suffusion on the gular area (melanin-dispersed phase), absence of dorsolateral white spots and absence of a discrete yellow and/or white line along the medial border of each dorsal spot (except *P. o. brachycercum*).

In southern Oregon, southwestern Idaho, and northern Nevada, where *P. douglasii* may occur in proximity to *P. h. ornatum*, the two taxa may be distinguished by the usual presence of red pigment on the temporal shelf and horns as well as red pigment on the gular area and above the lateral fringe scales of the latter species. In addition, *P. douglasii* may have a dark, transverse band across the frontal area of the head, which is lacking in *P. h. ornatum*. In southwestern Montana, this trait will also help distinguish *P. douglasii* from *P. brevirostris*. From Montanucci 2015: 46.

Subspecies: The former subspecies *Phrynosoma douglassii hernandesi* (Girard, 1858) has been elevated to species status by Zamudio et al. 1997. The subspecies *P. d. brevirostre*, *ornatissimum*, and *P. d. ornatum* have been synonymized with *P. hernandesi* following Zamudio et al. 1997. *Phrynosoma douglassii brachycercum* has been assigned to *Phrynosoma ornatissimum* by Montanucci 2015.

Habitat: montane

Comment

Group: Belongs to the Tapaja clade fide LEACHE & MCGUIRE 2006.

Distribution: see map in Montanucci 2015: 24 (Fig. 6). Not in Sonora fide Lemos-Espinal et al. 2019. Not in Durango fide Lemos-Espinal (2018). Not listed for Mexico by Liner 2007. Also in S Alberta and S Saskatchewan [fide BOULENGER 1887] but not reported from there in the more recent literature.

Publication date: some sources say 1828, but the cover page on the journal says 1829.

Etymology

Named after David Douglas (1799-1834), a botanist and traveler who collected in North America (1823-1834) and Hawaii (1834) for the Royal Horticultural Society, London. *Agama Douglassii* is the original spelling, and Bell repeatedly referred to “Mr. Douglass” although his correct name was “Douglas”.

References

- Bell, T. 1829. Description of a new species of *Agama*, brought from the Columbia River by Mr. Douglass. *Trans. Linn. Soc. London* 16: 105-107 - [get paper here](#)
- Beolens, Bo; Michael Watkins, and Michael Grayson 2011. *The Eponym Dictionary of Reptiles*. Johns Hopkins University Press, Baltimore, USA - [get paper here](#)
- Bergman, Enoch; Hill, Ben; Montgomery, Chad; Childers, Theresa; Manzer, Jerry D.; Sifert, James; Mackessy, Stephen P. 1998. Geographic Distribution. *Phrynosoma douglasii*. *Herpetological Review* 29 (2): 111 - [get paper here](#)
- Blair C; Bryson R 2017. Cryptic diversity and discordance in single-locus species delimitation methods within horned lizards (Phrynosomatidae: Phrynosoma). *Molecular Ecology Resources*-6-17 - [get paper here](#)
- Boulenger, G.A. 1885. *Catalogue of the lizards in the British Museum (Natural History)*. Vol. 2, Second edition.

- London, xiii+497 pp. - [get paper here](#)
- Boulenger, G.A. 1887. On the affinity of the north-American lizard fauna. *Ann. Mag. Nat. Hist.* (5) 20: 345-346 - [get paper here](#)
  - Bradley, W. Glen and James E. Deacon 1966. Amphibian and Reptile Records for Southern Nevada. *Southwestern Naturalist* 11 (1): 132-134 - [get paper here](#)
  - Collins, J.T. and T. W. Taggart 2009. Standard Common and Current Scientific Names for North American Amphibians, Turtles, Reptiles, and Crocodylians, Sixth Edition. Center for North American Herpetology, 48 pp.
  - Conant, R. & Collins, J.T. 1991. A Field Guide to Reptiles and Amphibians of Eastern/Central North America, 3rd ed. Houghton Mifflin (Boston/New York), xx + 450 p.
  - Cope, E.D. 1871. On a peculiar habit ... in the Phrynosomas. *Proc. Acad. Nat. Sci. Philadelphia* 1871: 305 - [get paper here](#)
  - Cope, E.D. 1875. Check-list of North American Batrachia and Reptilia with a systematic list of the higher groups, and an essay on geographical distribution based on specimens contained in the U.S. National Museum. *Bull. US Natl. Mus.* 1: 1-104 - [get paper here](#)
  - Cope, E.D. 1900. The crocodylians, lizards and snakes of North America. *Ann. Rep. U.S. Natl. Mus.* 1898: 153-1270 - [get paper here](#)
  - Crother, B. I. (ed.) 2012. Standard Common and Current Scientific Names for North American Amphibians, Turtles, Reptiles, and Crocodylians, Seventh Edition. *Herpetological Circular* 39: 1-92
  - Degenhardt, William G.; C. W. Painter, and A. H. Price 1996. Amphibians and reptiles of New Mexico. Univ. New Mexico Press, 431 pp.
  - Eaton, Theodore H., Jr 1935. Report on amphibians and reptiles of the Navajo country. *Bulletin* 3. Rainbow Bridge-Monument Valley Expedition : 1-20 - [get paper here](#)
  - Gentry, A.F. 1885. A review of the genus *Phrynosoma*. *Proc. Acad. Nat. Sci. Philad.* (ser. 3) 37: 138-148 - [get paper here](#)
  - Girard, Charles F. 1858. United States Exploring Expedition during the Years 1838, 1839, 1840, 1841, 1842, Under the command of Charles Wilkes, U.S.N. Vol. 20. *Herpetology*. C. Sherman & Son, Philadelphia, xv, 492 pages [see note in Zhao and Adler 1993: 369] - [get paper here](#)
  - Guyer, Craig. 2006. *Phrynosoma douglasii* Copulatory position. *Herpetological Review* 37 (1): 91-92 - [get paper here](#)
  - Hammerson, G.A. & H.M. Smith 1991. The correct spelling of the name for the short-horned lizard of North America. *Bull. Maryland Herp. Soc.* 27: 121-127 - [get paper here](#)
  - Jones, L.L. & Lovich, R.E. 2009. Lizards of the American Southwest. A photographic field guide. Rio Nuevo Publishers, Tucson, AZ, 568 pp. [review in *Reptilia* 86: 84] - [get paper here](#)
  - Knowlton, G., & Janes, M. 1934. Distributional and Food Habits Notes on Utah Lizards. *Copeia*, 1934(1), 10-14 - [get paper here](#)
  - Lambert, Shea M. and John J. Wiens 2013. EVOLUTION OF VIVIPARITY: A PHYLOGENETIC TEST OF THE COLD-CLIMATE HYPOTHESIS IN PHRYNOSOMATID LIZARDS. *Evolution* 67 (9): 2614–2630 - [get paper here](#)
  - Leaché, Adam D. and Jimmy A. McGuire 2006. Phylogenetic relationships of horned lizards (*Phrynosoma*) based on nuclear and mitochondrial data: Evidence for a misleading mitochondrial gene tree. *Molecular Phylogenetics and Evolution* 39 (3): 628-644 - [get paper here](#)
  - Lynch, J.D. 1985. Annotated checklist of the amphibians and reptiles of Nebraska. *Nebraska Acad. of Sci., Lincoln, Trans.* 13: 33-57.
  - Meyers, J.J.; Herrel, A. & Nishikawa, K. 2006. Morphological correlates of ant eating in horned lizards (*Phrynosoma*). *Biological Journal of the Linnean Society* 89: 13–24 - [get paper here](#)
  - MONTANUCCI, RICHARD R. 2015. A taxonomic revision of the *Phrynosoma douglasii* species complex (Squamata: Phrynosomatidae). *Zootaxa* 4015 (1): 001–177 - [get paper here](#)
  - Nussbaum, R.A., Brodie, E.D., Jr., & Storm, R.M. 1983. Amphibians and reptiles of the Pacific Northwest. Univ. Press of Idaho, Moscow 332 pp.
  - Presch, W. 1969. Evolutionary osteology and relationships of the horned lizard genus *Phrynosoma* (family Iguanidae). *Copeia* 1969 (2): 250-275 - [get paper here](#)
  - Sherbrooke, Wade C. 2003. Introduction to Horned Lizards of North America. University of California Press, Berkeley, 178 pp. - [get paper here](#)
  - Siebenrock, Friedrich 1892. Ueber Wirbelassimilation bei den Sauriern. *Annalen des Königlichen Kaiserlichen Naturhistorischen Hofmuseum in Wien* 7: 373-378 - [get paper here](#)
  - Smith, Hobart 1942. Mexican herpetological miscellany. *Proc. US Natl. Mus.* 92 (3153): 349-395 - [get paper here](#)
  - Smith, Hobart M.; Thompson, Dorian 1993. Four reptiles newly recorded from Ouray County, Colorado. *Bull. Chicago Herp. Soc.* 28 (4): 78-79 - [get paper here](#)
  - Stebbins, R.C. 1985. A Field Guide to Western Reptiles and Amphibians, 2nd ed. Houghton Mifflin, Boston
  - Tanner, Vasco M. 1930. The amphibians and reptiles of Bryce Canyon National Park, Utah. *Copeia* 1930 (2): 41-43 - [get paper here](#)
  - Tanner, Vasco M.; Hayward, C. Lynn 1934. A biological study of the La Sal Mountains, Utah report No. 1 (Ecology). *Proceedings of the Utah Academy of Sciences, Arts, and Letters* 11: 209-235
  - Tanner, W.W. 1987. Lizards and turtles of Western Chihuahua. *Great Basin Naturalist*. 47: 383-421 - [get paper here](#)

- Tanner, Wilmer W. 1954. Herpetological notes concerning some reptiles of Utah and Arizona. *Herpetologica* 10: 92-96 - [get paper here](#)
- Van Devender, Thomas R.; Lowe, Charles H. Lowe, Jr. 1977. Amphibians and reptiles of Yepomera, Chihuahua, Mexico. *Journal of Herpetology* 11 (1): 41-50 - [get paper here](#)
- Wagler, Jean G. 1830. Natürliches System der Amphibien, mit vorangehender Classification der Säugetiere und Vögel. Ein Beitrag zur vergleichenden Zoologie. 1.o. Cotta, München, Stuttgart, and Tübingen, 354 pp. [1830-1832] - [get paper here](#)
- Webb, R.G. 1984. Herpetogeography in the Mazatlán-Durango Region of the Sierra Madre Occidental, Mexico. *Veterebrate Ecology and Systematics - A tribute to Henry S. Fitch*; Museum of Natural History, University of Kansas, Lawrence, pp. 217-241
- Woodbury, Angus Munn 1928. The reptiles of Zion National Park. *Copeia* 1928 (166): 14-21 - [get paper here](#)

External  
links

- [IUCN Red List](#)
- [National Center for Biotechnology Information](#)
- <http://www.zo.utexas.edu/research/txherps/lizards/>
- <http://www.nrel.colostate.edu/PROGRAMS/HUMAN/SCOP/photos/amphrep.html>
- <http://www.wildherps.com/families/Phrynosomatidae.html>
- [Google images](#)

#### Is it interesting? Share with others:

As link to this species use URL  
address:

**<https://reptile-database.reptarium.cz/species?genus=Phrynosoma&species=douglasii>**

without field 'search\_param'. Field 'search\_param' is used for browsing search result.

[Please submit feedback about this entry to the curator](#)

*This database is maintained by Peter Uetz (database content) and Jakob Hallermann, Zoological Museum Hamburg (new species and updates).*

*Web pages and scripting Jiri Hosek*

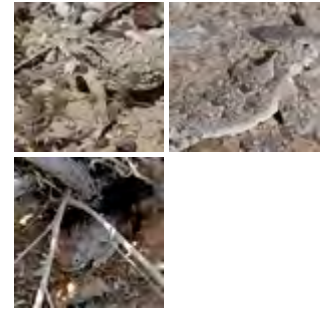


## *Phrynosoma goodei* STEJNEGER, 1893



### iNaturalist

Can you confirm these amateur observations of *Phrynosoma goodei*?



[Add your own observation of \*Phrynosoma goodei\*](#) »

Find more photos by Google images search: [Google](#)

Higher Taxa	Phrynosomatidae, Phrynosomatinae, Phrynosomatini; Iguania, Sauria, Squamata (lizards)
Subspecies	
Common Names	E: Sonoran Horned Lizard G: Sonora-Wüstenkrötenechse S: Camaleón de Sonora
Synonym	Phrynosoma platyrhinos goodei STEJNEGER 1893: 191 Anota goodei — COPE 1896: 834 Anota goodei — COPE 1900 Phrynosoma platyrhinos goodei — PIANKA 1991 Phrynosoma goodei — MULCAHY et al. 2006 Phrynosoma goodei — COLLINS & TAGGART 2009 Phrynosoma (Doliosaurus) goodei — CROTHER et al. 2012 Phrynosoma platyrhinos goodei — KÖHLER 2021 USA (SW Arizona), Mexico (NW Sonora)
Distribution	Type locality: "Coast deserts of the state of Sonora, Mexico," restricted to Puerto Libertad by SMITH & TAYLOR 1950.
Reproduction	oviparous
Types	Holotype: USNM 8567a
Diagnosis	Diagnosis. 3 temporal horns are enlarged, the one posterior equal in size to occipital horns; the 3 posterior chin shields are greatly enlarged and pointed (Pianka 1991). MULCAHY et al. 2006 elevated <i>Phrynosoma platyrhinos goodei</i> to full species status based on mtDNA sequences.
Comment	MULCAHY et al. 2006 also presented evidence for <i>goodei</i> x <i>mcalli</i> hybrids.  Group: Belongs to the <i>Doliosaurus</i> clade fide LEACHE & MCGUIRE 2006.



## Etymology

Named after George Brown Goode (1851-1896), American ichthyologist, assistant to Baird, and Assistant Secretary of the Smithsonian from 1872.

## References

- Aguilar-Morales, Cecilia and Thomas R. Van Devender 2018. Horned Lizards (Phrynosoma) of Sonora, Mexico: Distribution and Ecology. *Sonoran Herpetologist* 31 (3): 40-50 - [get paper here](#)
- Baird, S.F. and Girard, C. 1852. Characteristics of some new reptiles in the Museum of the Smithsonian Institution. *Proc. Acad. Nat. Sci. Philadelphia* 6: 68-70 - [get paper here](#)
- Beolens, Bo; Michael Watkins, and Michael Grayson 2011. *The Eponym Dictionary of Reptiles*. Johns Hopkins University Press, Baltimore, USA - [get paper here](#)
- Bezy, R. L., P. C. Rosen, T. R. Van Devender, and E. F. Enderson. 2017. Southern distributional limits of the Sonoran Desert herpetofauna along the mainland coast of northwestern Mexico. *Mesoamerican Herpetology* 4(1): 138-167 - [get paper here](#)
- Bonetti, Mathilde 2002. 100 Sauri. Mondadori (Milano), 192 pp. - [get paper here](#)
- Boulenger, G.A. 1885. *Catalogue of the lizards in the British Museum (Natural History)*. Vol. 2, Second edition. London, xiii+497 pp. - [get paper here](#)
- Brueckers, Jaco and Peek, Ron 2004. Veldwaarnemingen aan de zuidelijke woestijn-Padhadgedis, *Phrynosoma platyrhinos calidiarum* (COPE 1896) in Nevada en Zuid-Californië. *Lacerta* 62 (3): 106-112 [erratum in 62 (4): 174] - [get paper here](#)
- Burt, Charles E. 1933. Some lizards from the Great Basin of the West and adjacent areas, with comments on the status of various forms. *American Midland Naturalist* 14: 228-250 - [get paper here](#)
- Cope, E.D. 1896. On two new species of lizards from Southern California. *American Naturalist* 30: 833-836 - [get paper here](#)
- Cope, E.D. 1900. The crocodylians, lizards and snakes of North America. *Ann. Rep. U.S. Natl. Mus.* 1898: 153-1270 - [get paper here](#)
- Crother, B. I. (ed.) 2012. *Standard Common and Current Scientific Names for North American Amphibians, Turtles, Reptiles, and Crocodylians*, Seventh Edition. *Herpetological Circular* 39: 1-92
- Gentry, A.F. 1885. A review of the genus *Phrynosoma*. *Proc. Acad. Nat. Sci. Philad.* (ser. 3) 37: 138-148 - [get paper here](#)
- Jones, L.L. & Lovich, R.E. 2009. *Lizards of the American Southwest. A photographic field guide*. Rio Nuevo Publishers, Tucson, AZ, 568 pp. [review in *Reptilia* 86: 84] - [get paper here](#)
- Klauber, Laurence M. 1935. The status of the Sonoran horned toad, *Phrynosoma goodei* Stejneger. *Copeia* 1935 (4): 178-179 - [get paper here](#)
- Lara-Resendiz, Rafael Alejandro, Tereza Jezkova, Philip C. Rosen and Fausto Roberto Mendez-de la Cruz. 2014. Thermoregulation during the summer season in the Goode's Horned Lizard *Phrynosoma goodei* (Iguania: Phrynosomatidae) in Sonoran Desert. *Amphibia-Reptilia* 35 (2): 161-172 - [get paper here](#)
- Leaché, Adam D. and Jimmy A. McGuire 2006. Phylogenetic relationships of horned lizards (*Phrynosoma*) based on nuclear and mitochondrial data: Evidence for a misleading mitochondrial gene tree. *Molecular Phylogenetics and Evolution* 39 (3): 628-644 - [get paper here](#)
- Lemos-Espinal JA, Smith GR, Rorabaugh JC 2019. A conservation checklist of the amphibians and reptiles of Sonora, Mexico, with updated species lists. *ZooKeys* 829: 131-160 - [get paper here](#)
- Meyers, J.J.; Herrel, A. & Nishikawa, K. 2006. Morphological correlates of ant eating in horned lizards (*Phrynosoma*). *Biological Journal of the Linnean Society* 89: 13-24 - [get paper here](#)
- Mosauer, Walter 1936. The reptilian fauna of sand dune areas of Vizcaino Desert and of northwestern Lower California. *Occasional Papers of the Museum of Zoology, University of Michigan* (329): 1-21 - [get paper here](#)
- Mulcahy, Daniel G.; Allen W. Spaulding, Joseph R. Mendelson III & Edmund D. Brodie, Jr. 2006. Phylogeography of the Flat-tailed Horned Lizard (*Phrynosoma mcallii*) and systematics of the *P. mcallii*-*platyrhinos* mtDNA complex. *Molecular Ecology* 15(0): 1-20 - [get paper here](#)
- Pianka, E. R. 1991. *Phrynosoma platyrhinos*. Girard: Desert Horned Lizard. *Catalogue of American Amphibians and Reptiles* 517: 1-4 - [get paper here](#)
- Pianka, E. R.; Parker, W. S. 1975. Ecology of horned lizards: A review with special reference to *Phrynosoma platyrhinos*. *Copeia* 1975 (1): 141-162 - [get paper here](#)
- Reeder, T.W. & Montanucci, R.R. 2001. Phylogenetic analysis of the horned lizards (*Phrynosomatidae*: *Phrynosoma*): evidence from mitochondrial DNA and morphology. *Copeia* 2001 (2): 309-323 - [get paper here](#)
- Smith, H.M. & Taylor, E.H. 1950. An annotated checklist and key to the reptiles of Mexico exclusive of the snakes. *Bull. US Natl. Mus.* 199: 1-253 - [get paper here](#)
- Smith, Hobart M. 1939. An annotated list of the Mexican amphibians and reptiles in the Carnegie Museum. *Annals of the Carnegie Museum* 27: 311-320
- Stebbins, R.C. 1985. *A Field Guide to Western Reptiles and Amphibians*, 2nd ed. Houghton Mifflin, Boston
- Stejneger, L.H. 1893. Annotated list of the reptiles and batrachians collected by the Death Valley Expedition in 1891, with descriptions of new species. *North American Fauna*, No. 7: 159-228 (+ 14 plates + 4 maps) - [get paper here](#)
- Turner, Frederick B.; Wauer, Roland H. 1963. A survey of the herpetofauna of the Death Valley area. *Great Basin Naturalist* 23 (3-4): 119-128 - [get paper here](#)
- Werning, H. 2011. *Phrynosoma platyrhinos*. *Wüstenkrötenchse*. *Reptilia (Münster)* 16 (90): 47-50 - [get paper here](#)
- Werning, H. 2014. Krötenchsen – eine (sehr gute) Laune der Natur. *Reptilia (Münster)* 19 (107): 16-23
- Werning, Heiko 2012. Die Reptilien und Amphibien des Südwestens. *Draco* 13 (50): 18-60 - [get paper here](#)

- Woodbury, Angus Munn 1928. The reptiles of Zion National Park. Copeia 1928 (166): 14-21 - [get paper here](#)
- Zorn, H. 2004. Die Wüste im eigenen Haus. Reptilia (Münster) 9 (48): 41-44 - [get paper here](#)

## External links

- [IUCN Red List](#)
- [National Center for Biotechnology Information](#)
- [Google images](#)

---

**Is it interesting? Share with others:**

As link to this species use URL address:

**<https://reptile-database.reptarium.cz/species?genus=Phrynosoma&species=goodei>**

without field 'search\_param'. Field 'search\_param' is used for browsing search result.

[Please submit feedback about this entry to the curator](#)

*This database is maintained by Peter Uetz (database content) and Jakob Hallermann, Zoological Museum Hamburg (new species and updates).*

*Web pages and scripting Jiri Hosek*



## *Phrynosoma hernandesi* GIRARD, 1858



iNaturalist

Can you confirm these amateur observations of *Phrynosoma hernandesi*?



[Add your own observation of \*Phrynosoma hernandesi\*](#) »

Find more photos by Google images search: [Google](#)

Higher Taxa	Phrynosomatidae, Phrynosomatinae, Phrynosomatini; Iguania, Sauria, Squamata (lizards)
Subspecies	Phrynosoma hernandesi hernandesi GIRARD 1858 Phrynosoma hernandesi ornatum GIRARD 1858
Common Names	E: Mountain Short-horned Lizard; ornatum: Salt Lake Valley Short-horned Lizard G: Berg-Kurzhornkrötenechse; ornatum: Salt Lake Valley Kurzhornkrötenechse S: Camaleón Cuernitos de Hernandez Phrynosoma (Tapaya) hernandesi GIRARD 1858: 395 Phrynosoma hernandesi — GIRARD 1858 Tapaya ornatissima GIRARD 1858: 396 Phrynosoma douglasii ornatum GIRARD 1858: 397 Phrynosoma douglassii hernandesi — COPE 1900 Phrynosoma douglasii hernandesi — VAN DENBURGH 1922 Phrynosoma douglasii hernandesi — BURT 1935 Phrynosoma orbiculare hernandesi — KLAUBER 1939: 91
Synonym	Phrynosoma hernandesi — SMITH & TAYLOR 1950: 100 Phrynosoma douglassii hernandesi — VAN DEVENDER & LOWE 1977 Phrynosoma douglassii hernandesi — TANNER 1987 Phrynosoma douglasii hernandesi — CONANT & COLLINS 1991: 114 Phrynosoma douglasii hernandesi — LINER 1994 Phrynosoma hernandesi — ZAMUDIO et al. 1997 Phrynosoma hernandesi — SMITH et al. 1999 Phrynosoma hernandesi — COLLINS & TAGGART 2009

*Phrynosoma* (*Tapaja*) *hernandesi* — CROTHER et al. 2012  
*Phrynosoma hernandesi* — KÖHLER 2021

*Phrynosoma hernandesi hernandesi* GIRARD 1858  
*Phrynosoma* (*Tapaya*) *hernandesi* GIRARD 1858: 395  
*Phrynosoma* (*Tapaya*) *ornatissima* GIRARD 1858: 396 (part)  
*Phrynosoma douglassii* — GENTRY 1885: 140 (part)  
*Phrynosoma douglassii hernandesi* — COPE 1900: 413  
*Phrynosoma douglassii ornatissimum* — COPE 1900: 415 (part)  
*Phrynosoma douglassii ornatissimum* — VAN DENBURGH 1922: 377 (part)  
*Phrynosoma douglassii hernandesi* — VAN DENBURGH 1922: 382  
*Phrynosoma douglassii hernandesi* — SMITH 1946: 304  
*Phrynosoma douglassii ornatissimum* — SMITH 1946: 305 (part)  
*Phrynosoma douglassii hernandesi* — REEVE 1952: 922  
*Phrynosoma douglassii ornatissimum* — REEVE 1952: 927 (part)  
*Phrynosoma douglassii hernandesi* — ETHERIDGE 1964  
*Phrynosoma hernandesi* — ZAMUDIO et al. 1997: 302  
*Phrynosoma hernandesi hernandesi* — MONTANUCCI 2015: 51  
*Phrynosoma hernandesi hernandesi* — KÖHLER 2021

*Phrynosoma hernandesi ornatum* GIRARD 1858  
*Phrynosoma ornatum* GIRARD 1858: pl. 21  
*Phrynosoma douglassii* — GENTRY 1885:140 (part)  
*Phrynosoma douglassii hernandesi* — COPE 1900:413 (part)  
*Phrynosoma douglassii hernandesi* — RICHARDSON 1915:423 (part)  
*Phrynosoma douglassii ornatum* — STEJNEGER 1919:3.  
*Phrynosoma douglassii ornatissimum* — VAN DENBURGH 1922:377 (part)  
*Phrynosoma douglassii ornatum* — SMITH 1946:307.  
*Phrynosoma douglassii ornatissimum* — SMITH 1946:305 (part)  
*Phrynosoma douglassii douglassii* — REEVE 1952:918 (part)  
*Phrynosoma douglassii hernandesi* — REEVE 1952:922 (part)  
*Phrynosoma hernandesi* — ZAMUDIO et al. 1997: 302 (part)  
*Phrynosoma hernandesi ornatum* — MONTANUCCI 2015: 61  
*Phrynosoma hernandesi ornatum* — KÖHLER 2021

Canada (Alberta, Saskatchewan)

USA (New Mexico, W Texas, Utah, Colorado, Arizona, South Dakota, Idaho, Nevada, Oregon)

Mexico (NE Sonora, Chihuahua)

**Distribution** *hernandesi*: Canada (Alberta, Saskatchewan), USA (New Mexico, W Texas, Utah, Colorado, Arizona, South Dakota), Mexico (NE Sonora, Chihuahua; Type locality: New Mexico and Sonora. Restricted to Santa Fe, New Mexico by SMITH & TAYLOR 1950. Resrestricted to Fort Huachuca, Cochise County, Arizona by MONTANUCCI 2015.

*ornatum*: Idaho, Nevada, Oregon, Utah; Type locality: valley of the Great Salt Lake, Utah

**Reproduction** ovoviviparous (Lambert & Wiens 2013).

Lectotype: USNM 197; paralectotype: USNM 198 (Stejneger 1890:113 referred to USNM 107 and 198 as “Girard’s types” of *P. hernandesi* but the number 107 is a typographical error fide Reeve 1952:923, Montanucci 2015).

**Types** Holotype: USNM 234, a female; UMMZ 3849 fide Banta 1970 but in error fide Montanucci 2010 who concluded that USNM 234 is the holotype [ornatum]

Syntypes: (3) ANSP 8700-02 [Tapaya ornatissima]

**Diagnosis** *Phrynosoma h. hernandesi* can be distinguished from other members of the *P. douglasii* species complex by the following combination of adult characters: (1) snout protruding,  $49.4\% \pm 1.56$  (42.5–57.3%) of orbit to rostral scale distance; (2) rostrofrontal profile rather flat, gradually sloping; (3) frontal rim usually elevated above the occipital shelf; (4) enlarged frontal rim scales  $2.96 \pm 0.15$  (2–4) /  $2.93 \pm 0.13$  (2–4); (5) temporal shelf long,  $25.7\% \pm 0.96$  (18.9–32.3%) in males,  $26.1\% \pm 0.79$  (17.2–36.2%) in females; (6) temporal shelf flat to weakly convex; (7) cephalic horns moderately long, third temporal horn length  $18.2\% \pm 0.46$  (10.3–24.1%); (8) cephalic horns directed horizontally or only slightly elevated; (9) tympanum elliptic, moderately broad to broad; (10) tympanum exposed; (11) tail moderately long,  $247\% \pm 8.87$  (187–301%) in males,  $219\% \pm 4.84$  (175–272%) in females; (12) dorsal spots wedge-shaped or forming transverse bands; (13) light-colored borders of dorsal spots confined to posterior edges; (14) dorsolateral white spots absent; (15) gular area with melanistic vermiculations and relatively few spots, with or without gray suffusion (melanin-dispersed phase); (16) abdomen with large melanistic spots or coalescing into dark suffusion (melanin-dispersed phase); (17) interrupted melanistic subcaudal bands present; bands may be complete distally (melanin-dispersed phase) [Montanucci 2015: 53].

**Comparisons.** *Phrynosoma h. hernandesi* can be distinguished from *P. bauri* sp. nov., *P. brevirostris*, *P. diminutum* sp. nov., and *P. douglasii* by its protruding snout, gradually sloping rostrofrontal profile, frontal rim elevated above the occipital shelf (except *P. bauri* sp. nov.), high number of enlarged frontal rim scales, longer temporal shelf, and longer occipital and temporal horns that are usually directed horizontally. It is further distinguished from *P. brevirostris* and *P. douglasii* by the presence of large, melanistic abdominal spots, and interrupted or complete melanistic subcaudal

bands (melanin-dispersed phase). *P. h. hernandesi* can be further distinguished from *P. douglasii* by an elliptic tympanum that is comparatively broad and naked, and by its large adult size. *P. h. hernandesi* can be distinguished from *P. ornatissimum* by its protruding snout and gradually sloping rostrifrontal profile, longer occipital and temporal horns that are horizontally directed or only slightly elevated, a relatively longer tail, absence of a discrete white and/or yellow line along the medial edge of each dorsal spot (except *P. o. brachycercum*), presence of wedge-shaped dorsal spots or dorsal cross-bands (except *P. o. brachycercum*), and in the melanin-dispersed phase, a gular pattern of vermiculations and relatively few spots with or without gray suffusion (as opposed to chevrons or wavy transverse bands), an abdominal pattern of large melanistic spots more or less in rows, and the presence of complete and/or interrupted melanistic subcaudal bands. Note that *P. h. hernandesi* has a significantly longer snout (ENR), more extensive temporal shelf (TRE), longer temporal horn (TH), and longer tail (TL) than all other taxa in the complex (Table 3).

In the Colorado Plateau region of Utah, where *P. h. hernandesi* may occur in proximity to *P. brevirostris*, the two taxa may be distinguished, in addition to the characters mentioned above, by the usual presence of red pigment on the temporal shelf and horns as well as red pigment above the lateral fringe scales of the former species [Montanucci 2015: 54].

Diagnosis. *Phrynosoma hernandesi ornatum* can be distinguished from other members of the *P. douglasii* species complex by the following combination of adult characters: (1) snout truncate to more or less protruding,  $45.3\% \pm 1.62$  (39.2–54.2%) of orbital to rostral distance; (2) rostrifrontal profile gradually rounded or obtusely angular to flat and gradually sloping; (3) frontal rim not elevated, or only slightly elevated above the occipital shelf; (4) enlarged frontal rim scales  $1.64 \pm 0.28$  (0–3) /  $1.77 \pm 0.29$  (0–3); (5) temporal shelf moderately short,  $17.3\% \pm 0.83$  (13.2–22.6%) in males,  $19.8\% \pm 0.73$  (11.8–27.0%) in females; (6) temporal shelf flat or weakly to moderately convex; (7) cephalic horns moderately short, third temporal horn length  $13.9\% \pm 0.38$  (8.8–21.0%); (8) cephalic horns directed horizontally or elevated (ca.  $45^\circ$ ); (9) tympanum elliptic, moderately broad to broad; (10) tympanum exposed; (11) tail moderately long,  $222\% \pm 6.41$  (188–271%) in males,  $199\% \pm 3.66$  (161–235%) in females; (12) dorsal spots wedge-shaped or forming transverse bands; (13) light-colored borders of dorsal spots confined to posterior edges; (14) dorsolateral white spots absent; (15) gular area with vermiculations and scattered melanistic spots, with or without gray suffusion (melanin-dispersed phase); (16) abdomen with large melanistic spots or scattered flecks (melanin-dispersed phase); (17) interrupted and/or complete melanistic subcaudal bands present (melanin-dispersed phase) [Montanucci 2015: 61].

Comparisons. *Phrynosoma hernandesi ornatum* can be distinguished from the nominate race by a less protruding snout and usually more rounded or angular rostrifrontal profile, a frontal rim not elevated or only slightly elevated above the occipital shelf, a significantly lower mean number of enlarged frontal rim scales, a temporal shelf more or less convex and less produced lateroposteriorly, and shorter occipital and temporal horns on average (except when compared with Wasatch Range *P. hernandesi*). About 18.5% of *P. h. ornatum* have a more or less flattened temporal shelf compared with 54% of the nominotypical *hernandesi* having a flattened temporal shelf. This race also has a higher percentage of upward-directed occipital horns compared with New Mexico and Arizona samples of *P. hernandesi*, but not Utah samples (see Variation).

*P. h. ornatum* can be distinguished from *P. bauri* sp. nov., *P. brevirostris*, *P. diminutum* sp. nov. and *P. douglasii* by its slightly protruding snout and gradually rounded rostrifrontal profile, longer temporal shelf (except *P. bauri* sp. nov.) and longer occipital and temporal horns (except *P. bauri* sp. nov.). It is further distinguished from these taxa by the usual presence of red pigment on the cephalic horns, presence of pink or red pigment on gular and chest areas, and in the melanin-dispersed phase, the presence of large, melanistic abdominal spots (except *P. bauri* sp. nov. and *P. diminutum* sp. nov.) or scattered flecks (except *P. brevirostris*), and interrupted or complete melanistic subcaudal bands. *P. h. ornatum* can be further distinguished from *P. douglasii* by its comparatively broad, elliptic, and exposed tympanum, and by its large adult size. *P. h. ornatum* can be distinguished from *P. ornatissimum* by a more protruding snout and gradually sloping rostrifrontal profile, a slightly shorter temporal shelf, a relatively longer tail, absence of a discrete white and/or yellow line along the medial edge of each dorsal spot (except *P. o. brachycercum*), absence of dorsolateral white spots (except most *P. o. brachycercum*), wedge-shaped dorsal spots or dorsal cross-bands (except *P. o. brachycercum*), presence of reddish color on the cephalic horns contrasting with the general hue of the head, and in the melanin-dispersed phase, a gular pattern of gray suffusion with spots and vermiculations (as opposed to chevrons or wavy and irregular transverse bands), presence of large melanistic spots on the abdomen, and the presence of melanistic subcaudal bands [Montanucci 2015: 62].

The subspecies *brevirostre*, *hernandesi*, and *ornatissimum* are artificial assemblages of populations (Zamudio et al. 1997).

Hybridization: *Phrynosoma hernandesi* hybridizes with *P. ornatissimum* in Arizona and with *P. bauri* in Colorado (Montanucci 2015).

#### Comment

Habitat: montane

Group: Belongs to the Tapaja clade fide LEACHE & MCGUIRE 2006.

Distribution: see maps 3, 5, 7, 9, 14, 18, 19 in Montanucci 2015: 163ff. See also locality lists in Montanucci 2015: 137 (*hernandesi*) and Montanucci 2015: 151 (*ornatum*). Not in Durango fide Lemos-Espinal (2018).

Named after Francisco Hernandez (1514-1587), Spanish physician who travelled in Mexico to study Aztec herbal medicine and to collect biological specimens. The correct spelling of the specific epithet is with an “s” (see Smith et al. 1999).

#### Etymology

ornatum: The Latin word ornatus –a-um, (participle of the verb orno), meaning “adorned” or “decorated” or “embellished”. As no type description exists, one can only speculate as to Girard’s intended reference, but possibly to contrasting dark and light-colored markings on the dorsum.

- Adams, A. A. Y., R. D. Adams, S. K. Skagen and D. J. Martin 2016. *Phrynosoma hernandesi* (Greater Short-horned Lizard) commensalism. *Herpetological Review* 47(3): 467. - [get paper here](#)
- Aguilar-Morales, Cecilia and Thomas R. Van Devender 2018. Horned Lizards (*Phrynosoma*) of Sonora, Mexico: Distribution and Ecology. *Sonoran Herpetologist* 31 (3): 40-50 - [get paper here](#)
- Bartlett, R. D. & Bartlett, P. 1999. *A Field Guide to Texas Reptiles and Amphibians*. Gulf Publishing Co., Houston, Texas, 331 pp.
- Beolens, Bo; Michael Watkins, and Michael Grayson 2011. *The Eponym Dictionary of Reptiles*. Johns Hopkins University Press, Baltimore, USA - [get paper here](#)
- Bezy, Robert L. and Charles J. Cole 2014. Amphibians and Reptiles of the Madrean Archipelago of Arizona and New Mexico. *American Museum Novitates* (3810): 1-24 - [get paper here](#)
- Burt, Charles E. 1933. Some lizards from the Great Basin of the West and adjacent areas, with comments on the status of various forms. *American Midland Naturalist* 14: 228-250 - [get paper here](#)
- Burt, Charles E. 1935. Further records of the ecology and distribution of amphibians and reptiles in the middle west. *American Midland Naturalist* 16 (3): 311-336 - [get paper here](#)
- Cairns, K.A., Babineau, J. & Cairns, N.A. 2017. *Phrynosoma hernandesi* (Greater Short-horned Lizard). *Herpetological Review* 48 (4): 853 - [get paper here](#)
- CLIFTON, IAN T.; AARON J. BAGROWSKI; ERIN T. MORRISSEY; JEANINE M. REFSNIDER 2021. Thermal Biology Does Not Vary With Body Size in Greater Short-horned Lizards (*Phrynosoma hernandesi*). *Herpetological Review* 52 (3): 507–511
- Collins, J.T. and T. W. Taggart 2009. *Standard Common and Current Scientific Names for North American Amphibians, Turtles, Reptiles, and Crocodylians, Sixth Edition*. Center for North American Herpetology, 48 pp.
- Conant, R. & Collins, J.T. 1991. *A Field Guide to Reptiles and Amphibians of Eastern/Central North America*, 3rd ed. Houghton Mifflin (Boston/New York), xx + 450 p.
- Cooper Jr, William E. and Wade C. Sherbrooke 2018. Crypsis and Flight Initiation Distance in Horned Lizards. *Sonoran Herpetologist* 31 (3): 51-55 - [get paper here](#)
- Crother, B. I. (ed.) 2012. *Standard Common and Current Scientific Names for North American Amphibians, Turtles, Reptiles, and Crocodylians, Seventh Edition*. *Herpetological Circular* 39: 1-92
- Dixon, James R. 2000. *Amphibians and reptiles of Texas*, second edition. Texas A&M University Press, 421 pp.
- Etheridge, Richard 1964. The skeletal morphology and systematic relationships of sceloporine lizards. *Copeia* 1964 (4): 610-631 - [get paper here](#)
- FLESCH, AARON D.; DON E. SWANN, DALE S. TURNER, AND BRIAN F. POWELL 2010. HERPETOFAUNA OF THE RINCON MOUNTAINS, ARIZONA. *Southwestern Naturalist* 55(2):240–253 - [get paper here](#)
- Girard, Charles F. 1858. United States Exploring Expedition during the Years 1838, 1839, 1840, 1841, 1842, Under the command of Charles Wilkes, U.S.N. Vol. 20. *Herpetology*. C. Sherman & Son, Philadelphia, xv, 492 pages [see note in Zhao and Adler 1993: 369] - [get paper here](#)
- Gloyd, Howard K. 1937. A herpetological consideration of faunal areas in Southern Arizona. *Bulletin of the Chicago Academy of Sciences* 5 (5): 77-136 - [get paper here](#)
- Gravenhorst, J. L. C. 1833. Über *Phrynosoma orbicularis*, *Trapelus hispidus*, *Phrynocephalus helioscopus*, *Corythophanes cristatus* und *Chamaeleopsis hernandesii*. *Acta Acad. Caes. Leop. Carol. Nat. Cur. (?)* 16 (2): 909-958
- Hubbard, Kaylan A; Anna D Chalfoun, and Kenneth G Gerow 2016. The Relative Influence of Road Characteristics and Habitat on Adjacent Lizard Populations in Arid Shrublands. *Journal of Herpetology* 50 (1): 29-36. - [get paper here](#)
- Jones, L.L. & Lovich, R.E. 2009. *Lizards of the American Southwest. A photographic field guide*. Rio Nuevo Publishers, Tucson, AZ, 568 pp. [review in *Reptilia* 86: 84] - [get paper here](#)
- Klauber, L. M. 1939. Studies of reptile life in the arid southwest I. Night collecting on the desert with ecological statistics II. Speculations on protective coloration and protective reflectivity III. Notes on some lizards of the southwestern United States. *Bulletins of the Zoological Society of San Diego* 14: 1-100 - [get paper here](#)
- Lambert, Shea M. and John J. Wiens 2013. EVOLUTION OF VIVIPARITY: A PHYLOGENETIC TEST OF THE COLD-CLIMATE HYPOTHESIS IN PHRYNOSOMATID LIZARDS. *Evolution* 67 (9): 2614–2630 - [get paper here](#)
- Lara-Reséndiz Rafael A., Arenas-Moreno Diego M., Beltrán-Sánchez Elizabeth, Gramajo Weendii, Verdugo-Molina Javier, Sherbrooke Wade C. et al. 2015. Selected body temperature of nine species of Mexican horned lizards (*Phrynosoma*). *Rev. Mex. Biodiv.* 86 (1): 275-278. - [get paper here](#)
- Leaché, Adam D. and Jimmy A. McGuire 2006. Phylogenetic relationships of horned lizards (*Phrynosoma*) based on nuclear and mitochondrial data: Evidence for a misleading mitochondrial gene tree. *Molecular Phylogenetics and Evolution* 39 (3): 628-644 - [get paper here](#)
- Lemos-Espinal JA, Smith GR, Rorabaugh JC 2019. A conservation checklist of the amphibians and reptiles of

#### References

- Sonora, Mexico, with updated species lists. ZooKeys 829: 131-160 - [get paper here](#)
- Lemos-Espinal, J.A. & Smith, H.M. 2007. Amphibians and reptiles of the state of Chihuahua, Mexico. Universidad Nacional Autonoma de Mexico, 613 pp.
  - Mathies, T. & D.J. Martin 2008. Overwintering Site Selection by Short-Horned Lizards (*Phrynosoma hernandesi*) in Northeastern Colorado Journal of Herpetology 42 (1): 163-171. - [get paper here](#)
  - Meyers, J.J.; Herrel, A. & Nishikawa, K. 2006. Morphological correlates of ant eating in horned lizards (*Phrynosoma*). Biological Journal of the Linnean Society 89: 13–24 - [get paper here](#)
  - Moll, E.O. 2004. *Phrynosoma hernandesi* (Girard, 1858) Greater Short-horned Lizard. Patronyms of the Pioneer West. Sonoran Herpetologist 17 (6):58-61. - [get paper here](#)
  - MONTANUCCI, RICHARD R. 2015. A taxonomic revision of the *Phrynosoma douglasii* species complex (Squamata: Phrynosomatidae). Zootaxa 4015 (1): 001–177 - [get paper here](#)
  - Murray, Ian W. and Hilary M. Lease. 2013. *Phrynosoma hernandesi* (greater short-horned lizard) predation. Herpetological Review 44 (2): 327 - [get paper here](#)
  - Platt, S.G. et al. 2006. A herpetofaunal survey of southwestern South Dakota with an emphasis on species of conservation concern. Journal of Kansas Herpetology (20): 10-19 - [get paper here](#)
  - Reeder, T.W. & Montanucci, R.R. 2001. Phylogenetic analysis of the horned lizards (Phrynosomatidae: *Phrynosoma*): evidence from mitochondrial DNA and morphology. Copeia 2001 (2): 309-323 - [get paper here](#)
  - Sherbrooke, Wade C. 2003. Introduction to Horned Lizards of North America. University of California Press, Berkeley, 178 pp. - [get paper here](#)
  - Sherbrooke, Wade C. 2017. Antipredator Nest Guarding by Female Horned Lizards (*Phrynosoma*): Iguanian Parental Care. Herpetologica Dec 2017, Vol. 73, No. 4: 331-337. - [get paper here](#)
  - Smith, Hobart M., Kraig Adler, David Chiszar And Frank Van Breukelen. 1999. *Phrynosoma hernandesi*: Correct spelling. Herpetological Review 30 (2): 74-76. - [get paper here](#)
  - Smith, Hobart M.; Thompson, Dorian 1993. Four reptiles newly recorded from Ouray County, Colorado. Bull. Chicago Herp. Soc. 28 (4): 78-79 - [get paper here](#)
  - St. John, A., Calvin, D., Tait, C. K., Ambos, A. & Jezkova, T. 2012. Geographic distribution: *Phrynosoma hernandesi hernandesi* (greater short-horned lizard). Herpetological Review 43: 445-446 - [get paper here](#)
  - Tanner, W.W. 1987. Lizards and turtles of Western Chihuahua. Great Basin Naturalist. 47: 383-421 - [get paper here](#)
  - Tanner, Wilmer W. 1954. Herpetological notes concerning some reptiles of Utah and Arizona. Herpetologica 10: 92-96 - [get paper here](#)
  - Taylor-Young, M. 2011. The Guide to Colorado Reptiles and Amphibians. Fulcrum Publishing, Golden, Colorado, 169 pp.
  - Tye, S P; Harner, M J; Gomez, I R & Buckley, E M B; 2019. *Phrynosoma hernandesi* (Greater Short-horned Lizard) Scavenged by harvester ants. Herpetological Review 50 (1): 143-144 - [get paper here](#)
  - Valdez-Lares, R.; R. Muñoz-Martínez; E.Gadsden; G. Aguirre-León; G. Castañeda-Gaytán; R. Gonzalez-Trápaga 2013. Checklist of amphibians and reptiles of the state of Durango, México. Check List 9 (4):714-724 - [get paper here](#)
  - Van Denburgh, John 1922. The Reptiles of Western North America. Volume I. Lizards. Occ. Pap. Cal. Acad. Sci. (10): 1–612 - [get paper here](#)
  - Van Devender, Thomas R.; Lowe, Charles H. Lowe, Jr. 1977. Amphibians and reptiles of Yepomera, Chihuahua, Mexico. Journal of Herpetology 11 (1): 41-50 - [get paper here](#)
  - Werning, H. 2014. Krötenechsen – eine (sehr gute) Laune der Natur. Reptilia (Münster) 19 (107): 16-23
  - Werning, H. 2015. Jurassic World im Wohnzimmer. Mini-Dinos für das Terrarium. Reptilia (Münster) 20 (114): 26-37 - [get paper here](#)
  - Werning, Heiko 2012. Die Reptilien und Amphibien des Südwestens. Draco 13 (50): 18-60 - [get paper here](#)
  - Werning, Heiko 2013. Best of Southwest. Mit der Familie auf Reptiliensuche. Ein kleiner Reiseführer durch den Südwesten der USA. Reptilia (Münster) 18 (101): 82-93 - [get paper here](#)
  - Zamudio, Kelly R., Jones, K. Bruce & Ward, Ryk H. 1997. Molecular systematics of Short-horned lizards: Biogeography and taxonomy of a widespread species complex. Systematic Biology 46 (2): 284-305 - [get paper here](#)

- [IUCN Red List](#)
- [National Center for Biotechnology Information](#)
- <https://www.utep.edu/leb/chklist/herps/herps.htm>
- <http://www.wildherps.com/species/P.hernandesi.html>
- <http://www.enature.com/fieldguide/showSpeciesSH.asp?curGroupID=7&shapeID...>
- [http://www.cnah.org/state\\_nameslist.asp?state\\_id=49](http://www.cnah.org/state_nameslist.asp?state_id=49)
- [Google images](#)

External  
links

Is it interesting? Share with others:



## *Phrynosoma mcallii* (HALLOWELL, 1852)



iNaturalist

Can you confirm these amateur observations of *Phrynosoma mcallii*?



[Add your own observation of \*Phrynosoma mcallii\*](#) »

Find more photos by Google images search: [Google](#)

Higher Taxa Phrynosomatidae, Phrynosomatinae, Phrynosomatini; Iguania, Sauria, Squamata (lizards)

Subspecies

Common Names  
E: Flat-tail Horned Lizard  
G: Flachschwanzkrötenechse  
S: Camaleón de Cola Plana

Anota M'Callii HALLOWELL 1852: 122

Doliosaurus m'calli — GIRARD 1858: 408

Phrynosoma Maccalli — GENTRY 1885: 148

Phrynosoma maccallii — BOULENGER 1885: 246

Phrynosoma m'calli — STEJNEGER 1893: 190

Anota mcallii — COPE 1900

Synonym Phrynosoma m'callii — SMITH & TAYLOR 1950: 99

Phrynosoma mcallii — FUNK 1981

Phrynosoma mcallii — STEBBINS 1985: 141

Phrynosoma mcallii — LINER 1994

Phrynosoma mcallii — PIANKA & VITT 2003: 68

Phrynosoma (Anota) mcallii — CROTHER et al. 2012

Phrynosoma mcallii — KÖHLER 2021

Distribution USA (SE California, SW Arizona),  
Mexico (NE Baja California Norte, NW Sonora)

Type locality: Great Desert of the Colorado, between Vallecita and Camp Yuma, about 200 miles east of San Diego.



Reproduction oviparous

Types Holotype: ANSP 8680 (fide MALNATE 1971)  
Holotype: unknown fide SMITH & TAYLOR 1950

Diagnosis DIAGNOSIS. A moderate-sized (maximum snout-vent length about 82 mm), oviparous species of *Phrynosoma*, with an immaculate white venter, a narrow dark middorsal stripe from head to tail base, and a dorso-ventrally flattened tail. The dorsal coloration is gray, tan, reddish-brown, or whitish. There are two occipital spines 3-4 times longer than basal width, and not in contact at the base, and three temporal spines on each side. The nostrils lie within the canthal ridge. There is a single row of enlarged lateral gular scales, and the lateral abdominal fringe consists of 2 (occasionally 3) rows of spines. The ventral scales are smooth, and the peritoneum is black. The tympanum is not evident externally (Funk 1981).

Comment Distribution: see map in Mulcahy et al. 2006: 1809 (Fig. 3).

Etymology named after Colonel George A. M'Call who collected the first specimen.

- Aguilar-Morales, Cecilia and Thomas R. Van Devender 2018. Horned Lizards (*Phrynosoma*) of Sonora, Mexico: Distribution and Ecology. *Sonoran Herpetologist* 31 (3): 40-50 - [get paper here](#)
- Baur, B.E. 1986. Longevity of horned lizards of the genus *Phrynosoma*. *Bull. Maryland Herp. Soc.* 22 (3): 149-151 - [get paper here](#)
- Beauchamp, B., B. Wone, S. Bros & M. Kutilek 1998. Habitat Use of the Flat-tailed Horned Lizard (*Phrynosoma mcallii*) in a Disturbed Environment *Journal of Herpetology* 32 (2): 210-216. - [get paper here](#)
- Beolens, Bo; Michael Watkins, and Michael Grayson 2011. *The Eponym Dictionary of Reptiles*. Johns Hopkins University Press, Baltimore, USA - [get paper here](#)
- Bezy, R. L., P. C. Rosen, T. R. Van Devender, and E. F. Enderson. 2017. Southern distributional limits of the Sonoran Desert herpetofauna along the mainland coast of northwestern Mexico. *Mesoamerican Herpetology* 4(1): 138-167 - [get paper here](#)
- Boulenger, G.A. 1885. *Catalogue of the lizards in the British Museum (Natural History)*. Vol. 2, Second edition. London, xiii+497 pp. - [get paper here](#)
- Chavez, Jorge 2016. *Phrynosoma mcallii* (Flat-tailed Horned Lizard) Ultraviolet (UVB) exposure. *Herpetological Review* 47 (4): 671-672 - [get paper here](#)
- Cope, E.D. 1900. The crocodylians, lizards and snakes of North America. *Ann. Rep. U.S. Natl. Mus.* 1898: 153-1270 - [get paper here](#)
- Crother, B. I. (ed.) 2012. *Standard Common and Current Scientific Names for North American Amphibians, Turtles, Reptiles, and Crocodylians*, Seventh Edition. *Herpetological Circular* 39: 1-92
- Crumbo, Woodrow L. and Daniel J. Leavitt. 2014. *Phrynosoma mcallii* (flat-tailed horned lizard) late season courtship behavior. *Herpetological Review* 45 (4): 698 - [get paper here](#)
- Donaldson, W.L. 1995. Conservation of the Flat-tailed Horned Lizard (*Phrynosoma mcallii*) in Arizona. *Sonoran Herpetologist* 8 (2):12-14. - [get paper here](#)
- Fabian, B. F 2014. Überlegungen zur Ernährung von Krötenechsen. *Reptilia (Münster)* 19 (107): 24-29
- Funk, R.S. 1981. *Phrynosoma mcallii* (Halowell): Flat-tailed horned lizard. *Catalogue of American Amphibians and Reptiles* ( 281 - [get paper here](#)
- Gentry, A.F. 1885. A review of the genus *Phrynosoma*. *Proc. Acad. Nat. Sci. Philad.* (ser. 3) 37: 138-148 - [get paper here](#)
- Girard, Charles F. 1858. *United States Exploring Expedition during the Years 1838, 1839, 1840, 1841, 1842, Under the command of Charles Wilkes, U.S.N.* Vol. 20. *Herpetology*. C. Sherman & Son, Philadelphia, xv, 492 pages [see note in Zhao and Adler 1993: 369] - [get paper here](#)
- González-Romero, A., & Alvarez-Cárdenas, S. 1989. *Herpetofauna de la Region del Pinacate, Sonora, Mexico: Un Inventario*. *The Southwestern Naturalist*, 34(4), 519-526 - [get paper here](#)
- Hallowell, E. 1852. Descriptions of new species of reptiles inhabiting North America. *Proc. Acad. Nat. Sci. Philadelphia* 6: 177-182 - [get paper here](#)
- Jones, L.L. & Lovich, R.E. 2009. *Lizards of the American Southwest. A photographic field guide*. Rio Nuevo Publishers, Tucson, AZ, 568 pp. [review in *Reptilia* 86: 84] - [get paper here](#)
- Klauber, Laurence M. 1932. The flat-tailed horned toad in Lower California. *Copeia* 1932 (2): 100 - [get paper here](#)
- Lemos-Espinal JA, Smith GR, Rorabaugh JC 2019. A conservation checklist of the amphibians and reptiles of Sonora, Mexico, with updated species lists. *ZooKeys* 829: 131-160 - [get paper here](#)
- Malnate, Edmond V. 1971. A catalogue of primary types in the Herpetological Collections of the Academy of Natural Sciences, Philadelphia (ANSP). *Proceedings of the Academy of Natural Sciences of Philadelphia* 123 (9): 345-375 - [get paper here](#)
- Mayhew, W.W. & S.J. Wright 1971. Water Impermeable Skin of the Lizard *Phrynosoma m'calli*. *Herpetologica* 27 (1): 8-11. - [get paper here](#)
- Meyers, J.J.; Herrel, A. & Nishikawa, K. 2006. Morphological correlates of ant eating in horned lizards (*Phrynosoma*). *Biological Journal of the Linnean Society* 89: 13-24 - [get paper here](#)
- Mulcahy, Daniel G.; Allen W. Spaulding, Joseph R. Mendelson III & Edmund D. Brodie, Jr. 2006. Phylogeography of the Flat-tailed Horned Lizard (*Phrynosoma mcallii*) and systematics of the *P. mcallii*-*platyrhinus* mtDNA complex. *Molecular Ecology* 15(0): 1-20 - [get paper here](#)
- Park, Brian, Jessica S. Reimche, Mickey Parker and Matt Goode. 2016. *Phrynosoma mcallii* (Flat-tailed Horned Lizard) Necrophilia. *Herpetological Review* 47 (1): 139 - [get paper here](#)

References

- Pianka, E.R. & Vitt, L.J. 2003. Lizards - Windows to the Evolution of Diversity. University of California Press, Berkeley, 347 pp. [review in Copeia 2004: 955] - [get paper here](#)
- Presch, W. 1969. Evolutionary osteology and relationships of the horned lizard genus Phrynosoma (family Iguanidae). Copeia 1969 (2): 250-275 - [get paper here](#)
- Reeder, T.W. & Montanucci, R.R. 2001. Phylogenetic analysis of the horned lizards (Phrynomomatidae: Phrynosoma): evidence from mitochondrial DNA and morphology. Copeia 2001 (2): 309-323 - [get paper here](#)
- Sherbrooke, Wade C. 2003. Introduction to Horned Lizards of North America. University of California Press, Berkeley, 178 pp. - [get paper here](#)
- Stebbins, R.C. 1985. A Field Guide to Western Reptiles and Amphibians, 2nd ed. Houghton Mifflin, Boston
- Stejneger, L.H. 1893. Annotated list of the reptiles and batrachians collected by the Death Valley Expedition in 1891, with descriptions of new species. North American Fauna, No. 7: 159-228 (+ 14 plates + 4 maps) - [get paper here](#)
- Sullivan, Brian K. 2016. Book Review: Track & Signs of Reptiles and Amphibians: a Guide to North American Species. Herpetological Review 47 (1): 158-160 - [get paper here](#)
- Thomson, Robert C.; Amber N. Wright & H. Bradley Shaffer 2016. California Amphibian and Reptile Species of Special Concern. University of California Press - [get paper here](#)
- Turner, F. B.; Medica, P. A. 1982. The distribution and abundance of the flat-tailed horned lizard (Phrynosoma mcallii). Copeia 1982 (4): 815-823 - [get paper here](#)
- Werning, H. 2014. Krötenechsen – eine (sehr gute) Laune der Natur. Reptilia (Münster) 19 (107): 16-23
- Wone, B. & B. Beauchamp 2003. Movement, Home Range, and Activity Patterns of the Horned Lizard, Phrynosoma mcallii Journal of Herpetology 37 (4): 679-686. - [get paper here](#)
- Young, Kevin V.; Edmund D. Brodie Jr. & Edmund D. Brodie III 2004. How the Horned Lizard Got Its Horns. Science 304 (5667): 65 [discussion in 305: 1909 and 306: 230] - [get paper here](#)
- Zweifel, R.G. and Norris, K.S. 1955. Contributions 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: 230-249 - [get paper here](#)

- [IUCN Red List](#)
- [National Center for Biotechnology Information](#)
- <http://uts.cc.utexas.edu/~varanus/phryno.html>
- [Google images](#)

External links

#### Is it interesting? Share with others:

As link to this species use URL address:

**<https://reptile-database.reptarium.cz/species?genus=Phrynosoma&species=mcallii>**

without field 'search\_param'. Field 'search\_param' is used for browsing search result.

[Please submit feedback about this entry to the curator](#)

*This database is maintained by Peter Uetz (database content) and Jakob Hallermann, Zoological Museum Hamburg (new species and updates).*

*Web pages and scripting Jiri Hosek*



## *Phrynosoma modestum* GIRARD, 1852



iNaturalist

Can you confirm these amateur observations of *Phrynosoma modestum*?



[Add your own observation of \*Phrynosoma modestum\*](#) »

Find more photos by Google images search: [Google](#)

Higher Taxa Phrynosomatidae, Phrynosomatinae, Phrynosomatini; Iguania, Sauria, Squamata (lizards)

Subspecies

Common Names  
E: Roundtail Horned Lizard  
G: Rundschwanz-Krötenechse  
S: Tapayaxin

Synonym  
Phrynosoma modestum GIRARD in BAIRD & GIRARD 1852: 69  
Doliosaurus modestus — GIRARD 1858: 409  
Phrynosoma modestum — GENTRY 1885: 148  
Phrynosoma modestum — BOULENGER 1885: 248  
Anota modesta — COPE 1896: 1014  
Anota modesta — COPE 1900  
Phrynosoma modestum — SMITH & TAYLOR 1950: 101  
Phrynosoma modestum — STEBBINS 1985: 142  
Phrynosoma modestum — CONANT & COLLINS 1991: 114  
Phrynosoma modestum — LINER 1994  
Phrynosoma modestum — WHITING & DIXON 1996  
Phrynosoma (Doliosaurus) modestum — LINER 2007  
Phrynosoma (Doliosaurus) modestum — DE QUEIROZ in CROTHER et al. 2017  
Phrynosoma modestum — KÖHLER 2021

Distribution  
USA (SE Arizona, New Mexico, W Texas, Colorado),  
Mexico (Chihuahua, Coahuila, W Nuevo Leon, NE Durango, NE Zacatecas, NW San Luis Potosi, Sonora, Aguascalientes; one isolated record in W Tamaulipas)

Type locality: The Rio Grande west of San Antonio, Texas [CHURCHILL], from between San Antonio and El Paso [GRAHAM]. Restricted to Las Cruces, New Mexico by SMITH & TAYLOR 1950.

Reproduction oviparous

Syntypes: INHS (= UIMNH) 40746; J. H. Clark; 1857; USNM 164 (see also SMITH & TAYLOR 1950); USNM 165660 was intended to be the lectotype. Lectotype designation by Ralph Axtell but designation is not valid as it was never published (pers. comm., Ralph Axtell, July 1988, cited in USNM catalog).

Definition. *Phrynosoma modestum* is the smallest horned lizard, with a maximum SVL of 66 mm in males and 71 mm in females (Fitch, 1981). It is the sister taxon to *P. platyrhinos*, and is part of the "northern radiation" (sensu Montanucci, 1987). Head length and width are approximately equal, with an abrupt rostrofrontal angle. The two temporal and two occipital spines are a distinctive feature and are of approximately equal size, although the temporals may project beyond the occipitals. The chinshields are in contact with the infralabials and decrease in size posteriorly; the penultimate chinshield is the largest. Gular scales are small and subequal; a slightly enlarged row is in contact with the chinshields. The distinctiveness of the tympanum is highly variable from complete concealment to completely exposed. Dorsal scales are small, irregular, mainly granular, and interspersed with enlarged, keeled scales (also on tail). A lateral abdominal fringe is absent, although a series of elongate spines occur on either side of the tail next to the anus. Ventral scales are relatively large and smooth. Males have 7-13 femoral pores on each leg and enlarged postanal scales. The tail is cylindrical, and narrows abruptly at the base.

Diagnosis

The ground color varies from light gray to light brown, sometimes appearing yellowish gray. Distinctive brown blotches are on each side of the neck, and on the groin; the groin spots often extend towards the axilla. The tail is banded, and sometimes light bands are visible on the dorsum. The venter is uniform cream to white. Coloration is highly variable, but is normally population specific (Whiting & Dixon 1996).

Diagnosis. Chin shields in contact with infralabials, a cylindrical tail, 4 occipital spines of moderate, equal length (*Phrynosoma douglassi* has 4 short occipital spines), absence of a lateral abdominal fringe, and absence of conical, spinose dorsal scales separate *P. modestum* from all congeners (Whiting & Dixon 1996).

Comment

Group: Belongs to the *Doliosaurus* clade fide LEACHE & MCGUIRE 2006.

References

- Aguilar-Morales, Cecilia and Thomas R. Van Devender 2018. Horned Lizards (*Phrynosoma*) of Sonora, Mexico: Distribution and Ecology. *Sonoran Herpetologist* 31 (3): 40-50 - [get paper here](#)
- Axtell, Ralph W. 1959. AMPHIBIANS AND REPTILES OF THE BLACK GAP WILDLIFE MANAGEMENT AREA, BREWSTER COUNTY, TEXAS. *Southwestern Naturalist* 4 (2): 88-109
- Baird, S.F. and Girard, C. 1852. Characteristics of some new reptiles in the Museum of the Smithsonian Institution. *Proc. Acad. Nat. Sci. Philadelphia* 6: 68-70 - [get paper here](#)
- Baird, S.F. and Girard, C. 1852. Reptiles. in: Stansbury's Exploration and survey of the valley of the Great Salt Lake of Utah, 1852, including a Reconnoissance of a new Route through the Rocky Mountains. pp. 336-365
- Bartlett, R. D. & Bartlett, P. 1999. *A Field Guide to Texas Reptiles and Amphibians*. Gulf Publishing Co., Houston, Texas, 331 pp.
- Baur, B.E. 1986. Longevity of horned lizards of the genus *Phrynosoma*. *Bull. Maryland Herp. Soc.* 22 (3): 149-151 - [get paper here](#)
- Boulenger, G.A. 1885. *Catalogue of the lizards in the British Museum (Natural History)*. Vol. 2, Second edition. London, xiii+497 pp. - [get paper here](#)
- Burt, Charles E. 1935. Further records of the ecology and distribution of amphibians and reptiles in the middle west. *American Midland Naturalist* 16 (3): 311-336 - [get paper here](#)
- Carbajal-Márquez, Rubén A. and Gustavo E. Quintero-Díaz 2016. The Herpetofauna of Aguascalientes, México. *Revista Mexicana de Herpetología* 2(1):
- Conant, R. & Collins, J.T. 1991. *A Field Guide to Reptiles and Amphibians of Eastern/Central North America*, 3rd ed. Houghton Mifflin (Boston/New York), xx + 450 p.
- Cooper Jr, William E. and Wade C. Sherbrooke 2018. Crypsis and Flight Initiation Distance in Horned Lizards. *Sonoran Herpetologist* 31 (3): 51-55 - [get paper here](#)
- Cope, E.D. 1900. The crocodylians, lizards and snakes of North America. *Ann. Rep. U.S. Natl. Mus.* 1898: 153-1270 - [get paper here](#)
- Crother, B. I. (ed.) 2012. *Standard Common and Current Scientific Names for North American Amphibians, Turtles, Reptiles, and Crocodylians*, Seventh Edition. *Herpetological Circular* 39: 1-92
- Davis DR, LaDuc TJ 2018. Amphibians and reptiles of C. E. Miller Ranch and the Sierra Vieja, Chihuahuan Desert, Texas, USA. *ZooKeys* 735: 97-130 - [get paper here](#)
- Degenhardt, William G.; C. W. Painter, and A. H. Price 1996. *Amphibians and reptiles of New Mexico*. Univ. New Mexico Press, 431 pp.
- Dixon, James R. 2000. *Amphibians and reptiles of Texas*, second edition. Texas A&M University Press, 421 pp.
- Fabian, B. F 2014. Überlegungen zur Ernährung von Krötenechsen. *Reptilia (Münster)* 19 (107): 24-29
- García-De la Peña, Cristina; Héctor Gadsden, Rosalinda Palomo-Ramos, Ana B. Gatica-Colima, Pablo A. Lavín-Murcio, and Gamaliel Castañeda. 2012. Spatial Segregation of Microhabitats Within a Community of Lizards in Médanos de Samalayuca, Chihuahua, Mexico. *Southwestern Naturalist* 57 (4): 430-434 - [get paper here](#)
- Gentry, A.F. 1885. A review of the genus *Phrynosoma*. *Proc. Acad. Nat. Sci. Philad.* (ser. 3) 37: 138-148 - [get paper here](#)
- Gloyd, Howard K. 1937. A herpetological consideration of faunal areas in Southern Arizona. *Bulletin of the*

- Chicago Academy of Sciences 5 (5): 77-136 - [get paper here](#)
- Hernandez T, Herr MW, Stevens S, Cork K, Medina-Nava C, Vialpando CJ, Warfel T, Fields N, Brodie C, Graham SP 2019. New distribution records for amphibians and reptiles in eastern Chihuahua, Mexico. *Check List* 15(1): 79-86 - [get paper here](#)
  - Jameson, David H.; Flury, Alvin G. 1949. The reptiles and amphibians of the Sierra Vieja Range of southwestern Texas. *Texas Journal of Science* 1 (2): 54-77 - [get paper here](#)
  - Jones, L. L. C. & Winsor, H. 2012. *Phrynosoma modestum* (round-tailed horned lizard) x *P. solare* (regal horned lizard) putative hybrid. *Herpetological Review* 43: 336-337 - [get paper here](#)
  - Jones, L.L. & Lovich, R.E. 2009. *Lizards of the American Southwest. A photographic field guide.* Rio Nuevo Publishers, Tucson, AZ, 568 pp. [review in *Reptilia* 86: 84] - [get paper here](#)
  - Kasper, Stephen. 2014. Geographical Distribution: *Phrynosoma modestum* (round-tailed horned lizard). *Herpetological Review* 45 (4): 660 - [get paper here](#)
  - Lara-Reséndiz Rafael A., Arenas-Moreno Diego M., Beltrán-Sánchez Elizabeth, Gramajo Weendii, Verdugo-Molina Javier, Sherbrooke Wade C. et al. 2015. Selected body temperature of nine species of Mexican horned lizards (*Phrynosoma*). *Rev. Mex. Biodiv.* 86 (1): 275-278. - [get paper here](#)
  - Lazcano D, Nevárez-de los Reyes M, García-Padilla E, Johnson JD, Mata-Silva V, DeSantis DL, Wilson LD. 2019. The herpetofauna of Coahuila, Mexico: composition, distribution, and conservation status. *Amphibian & Reptile Conservation* 13(2) [General Section]: 31–94 (e189) - [get paper here](#)
  - Leaché, Adam D. and Jimmy A. McGuire 2006. Phylogenetic relationships of horned lizards (*Phrynosoma*) based on nuclear and mitochondrial data: Evidence for a misleading mitochondrial gene tree. *Molecular Phylogenetics and Evolution* 39 (3): 628-644 - [get paper here](#)
  - Lemos-Espinal JA, Smith GR, Gadsden-Esparza H, Valdez-Lares R, Woolrich-Piña GA 2018. Amphibians and reptiles of the state of Durango, Mexico, with comparisons with adjoining states. *ZooKeys* 748: 65-87 - [get paper here](#)
  - Lemos-Espinal JA, Smith GR, Rorabaugh JC 2019. A conservation checklist of the amphibians and reptiles of Sonora, Mexico, with updated species lists. *ZooKeys* 829: 131-160 - [get paper here](#)
  - Lemos-Espinal JA, Smith GR, Woolrich-Piña GA 2018. Amphibians and reptiles of the state of San Luis Potosí, Mexico, with comparisons with adjoining states. *ZooKeys* 753: 83-106 - [get paper here](#)
  - Lemos-Espinal, J.A. & Smith, H.M. 2007. Amphibians and reptiles of the state of Chihuahua, Mexico. *Universidad Nacional Autonoma de Mexico*, 613 pp.
  - Lemos-Espinal, J.A. & Smith, H.M. 2007. Amphibians and reptiles of the state of Coahuila, Mexico. *Universidad Nacional Autonoma de Mexico*, 550 pp.
  - Lemos-Espinal, J.A., C.J. Dibble & G.R. Smith 2013. Diets of two species of horned lizards (*Phrynosoma modestum* and *P. solare*) from Mexico *Bull. Maryland Herpetol. Soc.*, 49(1-4): 1-3. - [get paper here](#)
  - Lemos-Espinal, Julio A. and James R. Dixon 2013. *Amphibians and Reptiles of San Luis Potosí.* Eagle Mountain Publishing, xii + 300 pp.
  - Lemos-Espinal, Julio A., David Chiszar, and Hobart M. Smith 2004. Selected Records of 2003 Lizards from Chihuahua and Sonora, Mexico. *Bull. Chicago Herp. Soc.* 39 (9): 164-168 - [get paper here](#)
  - Liner, Ernest A. 2007. A CHECKLIST OF THE AMPHIBIANS AND REPTILES OF MEXICO. *Louisiana State University Occasional Papers of the Museum of Natural Science* 80: 1-60 - [get paper here](#)
  - Liner, Ernest A.; Johnson, Richard M.; Chaney, Alan H. 1977. A contribution to the herpetology of Northern Coahuila, Mexico. *Transactions of the Kansas Academy of Science* 80 (1-2): 47-53 - [get paper here](#)
  - Liner, Ernest A.; Montanucci, Richard R.; González-Alonso, Arturo; Mendoza Quijano, Fernando 1993. An additional contribution to the herpetology of Northern Coahuila, Mexico. *Bol. Soc. Herpetol. Mex.* 5 (1): 9-11 - [get paper here](#)
  - MATA-SILVA, VICENTE; JERRY D. JOHNSON, GUILLERMO ALVAREZ & DOMINIC DESANTIS. 2022. *PHRYNOSOMA MODESTUM* (Round-tailed Horned Lizard). DEFENSIVE BEHAVIOR. *Herpetological Review* 53(2): 328–329.
  - Mayne, Peter J. 1997. Geographic Distribution. *Phrynosoma modestum*. *Herpetological Review* 28 (1): 50 - [get paper here](#)
  - McCranie, J.R. & Wilson, L.D. 2001. The herpetofauna of the Mexican State of Aguascalientes. *Courier Forschungsinstitut Senckenberg* 230: 1-57
  - Meyers, J.J.; Herrel, A. & Nishikawa, K. 2006. Morphological correlates of ant eating in horned lizards (*Phrynosoma*). *Biological Journal of the Linnean Society* 89: 13–24 - [get paper here](#)
  - Nevárez-de los Reyes, Manuel, David Lazcano, Elí García-Padilla, Vicente Mata-Silva, Jerry D. Johnson and Larry David Wilson. 2016. The Herpetofauna of Nuevo León, Mexico: Composition, Distribution, and Conservation. *Mesoamerican Herpetology* 3 (3): 558–638 - [get paper here](#)
  - Parker, W.S. 1973. Notes on reproduction of some lizards from Arizona, New Mexico, Texas, and Utah. *Herpetologica* 29 (3): 258-264. - [get paper here](#)
  - Presch, W. 1969. Evolutionary osteology and relationships of the horned lizard genus *Phrynosoma* (family Iguanidae). *Copeia* 1969 (2): 250-275 - [get paper here](#)
  - Quintero-Díaz, Gustavo E., Armando Cardona-Arceo and Rubén Alonso Carbajal-Márquez. 2015. *Phrynosoma modestum* Girard, 1852. Mexico, Aguascalientes. *Mesoamerican Herpetology* 2(3): 355 - [get paper here](#)
  - Reeder, T.W. & Montanucci, R.R. 2001. Phylogenetic analysis of the horned lizards (*Phrynomomatidae*: *Phrynosoma*): evidence from mitochondrial DNA and morphology. *Copeia* 2001 (2): 309-323 - [get paper here](#)
  - Schmidt, K.P., and D. Owens. 1944. Amphibians and reptiles of northern Coahuila, Mexico. *Field Museum of Natural History, Zoological Series.* Chicago. 29: 97-115. - [get paper here](#)

- Sherbrooke, Wade C. 2003. Introduction to Horned Lizards of North America. University of California Press, Berkeley, 178 pp. - [get paper here](#)
- Sherbrooke, Wade C. 2017. Antipredator Nest Guarding by Female Horned Lizards (Phrynosoma): Iguanian Parental Care. *Herpetologica* Dec 2017, Vol. 73, No. 4: 331-337. - [get paper here](#)
- Sherbrooke, Wade C. . 2010. *Phrynosoma modestum*: Predation and Nesting. *Herpetological Review* 41 (3): 356 - [get paper here](#)
- Sherbrooke, Wade C. Frost, Sally Kay Vigarina. 1989. Integumental chromatophores of a color-change, thermoregulating lizard, *Phrynosoma modestum* (Iguanidae, Reptilia). *American Museum Novitates* (2943): 1-14 - [get paper here](#)
- Sherbrooke, Wade C.; Montanucci, Richard R. 1988. Stone mimicry in the round-tailed horned lizard, *Phrynosoma modestum* (Sauria: Iguanidae). *Journal of Arid Environments* 14: 275-284 - [get paper here](#)
- Smith, H.M. 1935. Miscellaneous notes on Mexican lizards. *Univ. Kansas Sci. Bull.* 22: 119-156 - [get paper here](#)
- Smith, Hobart M. 1934. Notes on some lizards of the genus *Phrynosoma* from Mexico. *Transactions of the Kansas Academy of Science* 37: 287-297 - [get paper here](#)
- Stebbins, R.C. 1985. *A Field Guide to Western Reptiles and Amphibians*, 2nd ed. Houghton Mifflin, Boston
- Tanner, W.W. 1987. Lizards and turtles of Western Chihuahua. *Great Basin Naturalist*. 47: 383-421 - [get paper here](#)
- Tanner, Wilmer W. 1958. Herpetological range extensions. *Herpetologica* 14: 195-196 - [get paper here](#)
- Taylor, Edward H. 1952. Third contribution of the herpetology of the Mexican state of San Luis Potosí. *Univ. Kansas Sci. Bull.* 34 (13): 793-815 - [get paper here](#)
- Taylor-Young, M. 2011. *The Guide to Colorado Reptiles and Amphibians*. Fulcrum Publishing, Golden, Colorado, 169 pp.
- Terán-Juárez, Sergio A., Elí García Padilla, Vicente Mata-Silva, Jerry D. Johnson and Larry David Wilson. 2016. The herpetofauna of Tamaulipas, Mexico: composition, distribution, and conservation status. *Mesoamerican Herpetology* 3 (1): 43–113 - [get paper here](#)
- Valdez-Lares, R.; R. Muñoz-Martínez; E. Gadsden; G. Aguirre-León; G. Castañeda-Gaytán; R. Gonzalez-Trápaga 2013. Checklist of amphibians and reptiles of the state of Durango, México. *Check List* 9 (4): 714-724 - [get paper here](#)
- Vázquez Díaz, Joel; Quintero Díaz, Gustavo E. 2005. *Anfibios y Reptiles de Aguascalientes* [2nd ed.]. CONABIO, CIEMA, 318 pp.
- Vitt, L.J. 1977. Observations on clutch and egg size and evidence for multiple clutches in some lizards of southwestern United States [with data for many species] *Herpetologica* 33 (3): 333-338. - [get paper here](#)
- Wernicke, Jörg & Klaus Haase 2014. *Phrynosoma modestum*. *Kleine Zwerge mit interessantem Verhalten. Terraria-Elaphe* 2014 (2): 34-37 - [get paper here](#)
- Werning, H. 2014. Krötenechsen – eine (sehr gute) Laune der Natur. *Reptilia (Münster)* 19 (107): 16-23
- Werning, H. 2015. Jurassic World im Wohnzimmer. Mini-Dinos für das Terrarium. *Reptilia (Münster)* 20 (114): 26-37 - [get paper here](#)
- Werning, H. 2018. Nordamerikanische Kleinleguane – Die Familie Phrynosomatidae. *Reptilia* 23 (131): 14-19
- Werning, Heiko 2012. Die Reptilien und Amphibien des Südwestens. *Draco* 13 (50): 18-60 - [get paper here](#)
- Whiting M J. Dixon J R. 1996. *Phrynosoma modestum*. *Catalogue of American Amphibians and Reptiles* (630): 1-6. - [get paper here](#)
- Williams, Kenneth L.; Smith, Hobart M.; Chrapliwy, Pete S. 1960. Turtles and lizards from Northern Mexico. *Transactions of the Illinois State Academy of Science* 53 (1/2): 36-45

- [IUCN Red List](#)
- [National Center for Biotechnology Information](#)
- <http://www.zo.utexas.edu/research/txherps/lizards/>
- <https://www.utep.edu/leb/chklist/herps/herps.htm>
- [Google images](#)

External links

Is it interesting? Share with others:

As link to this species use URL address:

<https://reptile-database.reptarium.cz/species?genus=Phrynosoma&species=modestum>

without field 'search\_param'. Field 'search\_param' is used for browsing search result.



## *Phrynosoma orbiculare* (LINNAEUS, 1758)



iNaturalist

Can you confirm these amateur observations of *Phrynosoma orbiculare*?



[Add your own observation of \*Phrynosoma orbiculare\*](#) »

Find more photos by Google images search: [Google](#)

Higher Taxa	Phrynosomatidae, Phrynosomatinae, Phrynosomatini; Iguania, Sauria, Squamata (lizards)
Subspecies	Phrynosoma orbiculare bradti HOROWITZ 1955 Phrynosoma orbiculare boucardii (DUMÉRIL & BOCOURT 1870) Phrynosoma orbiculare cortezii (DUMÉRIL & BOCOURT 1870) Phrynosoma orbiculare dugesii (DUMÉRIL & BOCOURT 1870) Phrynosoma orbiculare orbiculare (LINNAEUS 1758)
Common Names	E: Mountain Horned Lizard G: Mexikanische Kurzhorn-Krötenechse S: Camaleón de Montaña
Synonym	Lacerta orbicularis LINNAEUS 1758: 206 Lacerta orbicularis — GMELIN in LINNAEUS 1789: 1062 Cordylus orbicularis — MEYER 1795: 17 Agama orbicularis — DAUDIN 1805: 406 (fide GENTRY 1885) Agama orbiculare — CUVIER 1817: 35 Phrynosoma orbiculare — WIEGMANN 1828: 367 Phrynosoma orbiculare — DUMÉRIL & BIBRON 1837: 321 Phrynosoma wiegmanni GRAY 1839: 96 Phrynosoma orbiculare — SUMICHRAST 1864: 507 Phrynosoma orbicularis — GENTRY 1885: 142 Phrynosoma orbiculare — BOULENGER 1885: 241 Tapaya orbicularis longicaudatus DUGÈS 1888: 117 Phrynosoma orbiculare — COPE 1900

Phrynosoma orbiculare orbiculare — SMITH & TAYLOR 1950: 97  
 Phrynosoma orbiculare alticola DAVIS 1953: 27 (preliminary)  
 Phrynosoma orbiculare — LINER 1994  
 Phrynosoma orbiculare alticola — CASTRO-FRANCO & BUSTOS-ZAGAL 2003  
 Phrynosoma orbiculare orbiculare — LINER 2007  
 Phrynosoma orbiculare orbiculare — KÖHLER 2021

Phrynosoma orbiculare boucardii (DUMÉRIL & BOCOURT 1870)  
 Tapaya Boucardi DUMÉRIL & BOCOURT 1870: 225  
 Phrynosoma Boucardi — GENTRY 1885: 142  
 Phrynosoma boucardii — BOULENGER 1885: 243  
 Phrynosoma orbiculare boucardi — MONTANUCCI 1979  
 Phrynosoma orbiculare boucardii — LINER 2007  
 Phrynosoma orbiculare boucardii — KÖHLER 2021

Phrynosoma orbiculare bradti HOROWITZ 1955  
 Phrynosoma orbiculare bradti HOROWITZ 1955:  
 Phrynosoma orbiculare orbiculare — TAYLOR & KNOBLOCH 1940: 125  
 Phrynosoma orbiculare bradti — VAN DEVENDER & LOWE 1977  
 Phrynosoma orbiculare durangoensis HOROWITZ 1955 (fide MONTANUCCI 1979)  
 Phrynosoma orbiculare bradti — WEBB 1984  
 Phrynosoma orbiculare bradti — TANNER 1987  
 Phrynosoma orbiculare bradti — LEMOS-ESPINAL et al. 2004  
 Phrynosoma orbiculare bradti — LINER 2007  
 Phrynosoma orbiculare bradti — KÖHLER 2021

Phrynosoma orbiculare cortezii (DUMÉRIL & BOCOURT 1870)  
 Tapaya cortezii DUMÉRIL & BOCOURT 1870  
 Phrynosoma orbiculare cortezii — BOULENGER 1885: 242  
 Phrynosoma orbiculare cortezii — SMITH 1934  
 Phrynosoma orbiculare cortezii — SMITH 1939  
 Phrynosoma orbiculare cortezii — SMITH & TAYLOR 1950: 98  
 Phrynosoma orbiculare cortezii — LINER 2007  
 Phrynosoma orbiculare cortezii — BARAJAS et al. 2007  
 Phrynosoma orbiculare cortezii — SCHULZ 2018  
 Phrynosoma orbiculare cortezii — KÖHLER 2021

Phrynosoma orbiculare dugesii (DUMÉRIL & BOCOURT 1870)  
 Tapaya Dugesii DUMÉRIL & BOCOURT 1870  
 Phrynosoma orbiculare (var.) dugesii — BOULENGER 1885: 243  
 Phrynosoma orbiculare dugesii — SMITH & TAYLOR 1950: 98  
 Phrynosoma orbiculare orientale HOROWITZ 1955  
 Phrynosoma orbiculare dugesi — MONTANUCCI 1979  
 Phrynosoma orbiculare dugesii — LINER 2007  
 Phrynosoma orbiculare orientale — LINER 2007  
 Phrynosoma orbiculare dugesii — KÖHLER 2021

Mexico (Puebla, Distrito Federal, Guerrero [HR 31: 54], Hidalgo, Morelos, Coahuila, Chihuahua, Jalisco, Durango, Guanajuato, San Luis Potosí, Querétaro, Nuevo León, Tlaxcala, Michoacán, Zacatecas, Aguascalientes, Sonora, Oaxaca, Nayarit)

Type locality: Mexico (by inference). Restricted to México, Distrito Federal, by SMITH & TAYLOR 1950.

**Distribution**  
 bradti: Mexico (Durango, Chihuahua); Type locality: Caborachic, Chihuahua, Mexico. The location of Caborachic is given by the collector as 15 miles south of Guachochic, Chihuahua, at an elevation of 8000 feet.  
 boucardii: Mexico (Hidalgo); Type locality: "Plateau of Mexico," restricted to Zimapan, Hidalgo by SMITH & TAYLOR 1950.  
 cortezii: Mexico (Puebla, Veracruz); Type locality: "'Hacienda del Jasmin," between "Orisaba and Cordoba," Veracruz.  
 dugesii: Mexico (Colima, Jalisco); Type locality: "Colima".

**Reproduction**  
 orientale: eMxico (San Luis Potosi, Tamaulipas, Nuevo Leon.); Type locality: Miquihuana, Tamaulipas, Mexico.  
 ovoviviparous (Lambert & Wiens 2013).

**Types**  
 Holotype: iconotype, "Presumably the unnumbered figure in Hernandez 1651 Plantas y animales de la Nueva Espana, etc., C. xvi, p. 327" (fide SMITH & TAYLOR 1950: 97)  
 Syntypes: MNHN-RA 1905, MNHN-RA 1906, MNHN-RA 1906A-C (5 syntypes) [cortezii]  
 Syntypes: MNHN-RA 1652, MNHN-RA 1652A-B, MNHN-RA 1653, MNHN-RA 1653A-D, MNHN-RA 1654, MNHN-



Diagnosis	<p>RA 1654A-B (11 syntypes) [dugesii]          Holotype: MNHN [boucardii]          Holotype: AMNH 68359 [durangoensis]          Holotype: AMNH 68962 [bradti]          Holotype: MCZ 19561 [orientale]          Holotype: MDUG HE 422 [Tapaya orbicularis longicaudatus]</p> <p>Diagnosis (genus): adult members of the genus are readily recognizable by their stout body, occipital spines (or horns), their blunt snout, and their short tail. However, the horns are less conspicuous in hatchlings and juveniles and some species have relatively short horns (e.g. <i>P. hernandesi</i>).</p> <p>Diagnosis (species): see HOROWITZ 19, for all subspecies.</p> <p>Synonymy and subspecies after SMITH &amp; TAYLOR 1950 and GENTRY 188. HERNANDEZ 161: 327 mentioned <i>Lacertus orbicularis</i> (fide GENTRY 188). Numerous intergrade zones between the various subspecies appear to exist (Horowitz, 19; Montanucci, 1979) and to such a degree that <i>P. orbiculare</i> was considered one variable monotypic species (McDiarmid, 1963). Barajas et al. 2013 synonymized <i>Phrynosoma orbiculare boucardii</i> with <i>Phrynosoma orbiculare cortezii</i>. Köhler synonymized <i>Phrynosoma orbiculare orientale</i> HOROWITZ 1955 with <i>P. orbiculare dugesii</i>.</p>
Comment	<p>Habitat: montane</p> <p>Original description: “<i>L. cauda tereti brevi, trunco subgloboso supra muricato</i>” (LINNAEUS 178: 206).</p> <p>Phylogeny: Belongs to the Tapaja clade fide LEACHE &amp; MCGUIRE 2006. Bryson et al. (2012) found nearly precise overlapping distributions of genetic lineages with morphologically distinct subspecies.</p>
Etymology	<p>Type species: <i>Lacerta orbicularis</i> LINNAEUS 178: 206 is the type species of the genus <i>Phrynosoma</i> WIEGMANN 1828: 367.</p> <p>The species was named after the Latin word <i>orbis</i>, meaning "round," and the suffix <i>-culare</i>, meaning small, probably in reference to the shape and size of the body.</p> <p>The genus name is derived from Greek “<i>phrynos</i>” = toad, and “<i>soma</i>” = body. Genus names ending in <i>-soma</i> are feminine (Böhme &amp; Denzer 2019).</p>
References	<ul style="list-style-type: none"> <li>• Aguilar-Morales, Cecilia and Thomas R. Van Devender 2018. Horned Lizards (<i>Phrynosoma</i>) of Sonora, Mexico: Distribution and Ecology. <i>Sonoran Herpetologist</i> 31 (3): 40-50 - <a href="#">get paper here</a></li> <li>• Barajas, Ruth Moreno; Felipe Rodríguez-Romero, Alma S. Velázquez Rodríguez, and Fausto R. Méndez de la Cruz 2013. Taxonomic Assessment of the Subspecific Status of <i>Phrynosoma orbiculare</i> (Sauria: Phrynosomatidae) In the Southern Portion of Its Distribution. <i>Southwestern Naturalist</i> Dec 2013, Vol. 58, No. 4: 459-464. - <a href="#">get paper here</a></li> <li>• Benitez, Aldo Gómez; Carlos Alberto Mastachi Loza; Alma Socorro Velázquez Rodríguez; Justin L. Rheubert; Oswaldo Hernández Gallegos 2021. Spatial-Temporal Activity Patterns of the Mexican Plateau Horned Lizard in a Natural Protected Area. <i>Journal of Herpetology</i> 55 (3): 271-278 - <a href="#">get paper here</a></li> <li>• Blatchley, W.S. 1893. On a collection of batrachians and reptiles from Mount Orizaba, Mexico, with descriptions of two new species. <i>Proc. US Natl. Mus.</i> 16: 37-42 - <a href="#">get paper here</a></li> <li>• Böhme, W. &amp; Denzer, W. 2019. Warum die Endungen adjektivischer Artnamen dem Geschlecht der Gattungsnamen angepasst werden müssen <i>Sauria</i> 41 (1): 55–62 - <a href="#">get paper here</a></li> <li>• Boulenger, G.A. 1885. Catalogue of the lizards in the British Museum (Natural History). Vol. 2, Second edition. London, xiii+497 pp. - <a href="#">get paper here</a></li> <li>• Bryson, Robert W.; Uri Omar García-Vázquez, Brett R. Riddle 2011. Diversification in the Mexican horned lizard <i>Phrynosoma orbiculare</i> across a dynamic landscape. <i>Molecular Phylogenetics and Evolution</i> 62 (1): 87-96 - <a href="#">get paper here</a></li> <li>• Cabrera-Hernández, V H; Aguilar-Morales, C &amp; Van Devender, T R 2018. Geographic Distribution: <i>Phrynosoma orbiculare</i> (Mountain Horned Lizard). <i>Herpetological Review</i> 49 (4): 716 - <a href="#">get paper here</a></li> <li>• Carbajal-Márquez, Rubén A. and Gustavo E. Quintero-Díaz 2016. The Herpetofauna of Aguascalientes, México. <i>Revista Mexicana de Herpetología</i> 2(1):</li> <li>• Castro Franco, R. &amp; M. G. Bustos-Zagal 2003. Lagartijas de Morelos, México: distribución, hábitat y conservación. <i>Acta Zoológica Mexicana</i> (n.s.) 88:123-142 - <a href="#">get paper here</a></li> <li>• Castro-Franco, Rubén, María Guasalupe Bustos-Zagal 1994. List of reptiles of Morelos, Mexico, and their distribution in relation to vegetation types. <i>Southwestern Naturalist</i> 39 (2): 171-175 - <a href="#">get paper here</a></li> <li>• Cope, E.D. 1900. The crocodylians, lizards and snakes of North America. <i>Ann. Rep. U.S. Natl. Mus.</i> 1898: 153-1270 - <a href="#">get paper here</a></li> <li>• Cruz-Elizalde R, Ramírez-Bautista A, Pineda-López R, Mata-Silva V, DeSantis DL, García-Padilla E, Johnson JD, Rocha A, Fucsko LA, Wilson LD. 2022. The herpetofauna of Querétaro, Mexico: composition, distribution, and conservation status. <i>Amphibian &amp; Reptile Conservation</i> 16(1) [General Section]: 148–192 (e308) - <a href="#">get paper here</a></li> <li>• Cuvier, G. 1816. <i>Le règne animal distribué d’après son organisation, pour servir de base à l’histoire naturelle des animaux et d’introduction à l’anatomie comparée</i>. Vol. 2. Les reptiles, les poissons, les mollusques et les</li> </ul>

- annélides. Déterville, Paris [often cited as 1817 but see Roux 1976: 31] - [get paper here](#)
- Daudin, F. M. 1802. Histoire Naturelle, générale et particulière des reptiles, ouvrage faisant suite, a l'histoire naturelle, générale et particulière composée par LECLERC DE BUFFON, et redigée par C. S. SONNINI, vol. 3. F. Dufart, Paris, 452 pp. - [get paper here](#)
  - Davis, William B. 1953. A new horned lizard, genus *Phrynosoma*, from Mexico. Proc. Biol. Soc. Washington 66: 27-30 - [get paper here](#)
  - Diaz de la Vega-Pérez, Aníbal H., Ixchel Saavedra-Valero, Rafael A. Lara-Resendiz, Hibrain Pérez, Wade C. Sherbrooke and Amando Bautista-Ortega. 2015. *Phrynosoma orbiculare*. Aberrant (highly-reduced) cranial horn development. Mesoamerican Herpetology 2(3): 340–343 - [get paper here](#)
  - Dixon, James R. and Julio A. Lemos-Espinal 2010. Amphibians and reptiles of the state of Queretaro, Mexico. Tlalnepantla UNAM, 428 pp.
  - Dugès, ALFREDO 1888. Erpetología del Valle de México. La Naturaleza, ser. 2, vol. 1: 97-146 [1887] - [get paper here](#)
  - Duméril, A. M. C. and G. Bibron. 1837. Erpétologie Générale ou Histoire Naturelle Complete des Reptiles. Vol. 4. Libr. Encyclopédique Roret, Paris, 570 pp. - [get paper here](#)
  - Duméril, M. A.; M. F. Bocourt, and F. Mocquard 1870. Etudes sur les reptiles, p. i-xiv, 1-1012. In: Recherches Zoologiques pour servir a l'Histoire de la Faune de l'Amérique Centrale et du Mexique. Mission Scientifique au Mexique et dans l'Amérique Centrale, Recherches zoologiques. Imprimerie Imper., Paris (published in parts 1870-1909) - [get paper here](#)
  - Enderson, Erik F.; Thomas R. Van Devender, Robert L. Bezy 2014. Amphibians and reptiles of Yécora, Sonora and the Madrean Tropical Zone of the Sierra Madre Occidental in northwestern Mexico. Check List 10 (4): 913-926 - [get paper here](#)
  - Feria-Ortiz, M., Hernández-Guitierrez, J.R. & Garcia-Montecinos, D.L. 2018. *Phrynosoma orbiculare* (Mexican Plateau Horned Lizard) Reproduction. Herpetological Review 49 (1): 120-121. - [get paper here](#)
  - Fernández-Badillo, Leonardo & Irene Goyenechea-Mayer Goyenechea 2010. Anfíbios y reptiles del valle del Mezquital, Hidalgo, México. Revista Mexicana de Biodiversidad 81: 705- 712
  - Fernández-Badillo, Leonardo; Norma Leticia Manríquez-Morán; Jesús Martín Castillo-Cerón & Irene Goyenechea 2016. Análisis herpetofaunístico de la zona árida del estado de Hidalgo. Revista Mexicana de Biodiversidad 87: 156–170 - [get paper here](#)
  - FLORES-VILLELA, OSCAR; CÉSAR A. RÍOS-MUÑOZ, GLORIA E. MAGAÑA-COTA & NÉSTOR L. QUEZADAS-TAPIA 2016. Alfredo Dugès' type specimens of amphibians and reptiles revisited. Zootaxa 4092 (1): 033–054 - [get paper here](#)
  - Gentry, A.F. 1885. A review of the genus *Phrynosoma*. Proc. Acad. Nat. Sci. Philad. (ser. 3) 37: 138-148 - [get paper here](#)
  - Gmelin, J.F. 1789. Caroli a Linné Systema naturae. 13. ed., Tom 1 Pars 3. G. E. Beer, Lipsiae. 1033-1516 pp. - [get paper here](#)
  - Gómez-Benitez, Aldo; Wade C. Sherbrooke, Gisela Granados-González, Gabriel Suárez-Varón, Ailed Pérez-Pérez, Ana Esthela López-Moreno & Oswaldo Hernández-Gallegos 2020. BLOOD-SQUIRT OCCURRENCE IN THE MEXICAN PLATEAU HORNED LIZARD (*PHRYNOSOMA ORBICULARE*) The Southwestern Naturalist Mar 2020 Vol. 65, No. 1: 50-52 - [get paper here](#)
  - Gray, J. E. 1839. Reptiles. In: J. Richardson et al., The Zoology of Captain Beechey's Voyage... H.G. Bohn, London, 180 pp. (+ plates) - [get paper here](#)
  - Haase, K. 2014. *Phrynosoma orbiculare* – eine Krötenchse aus dem Hochland in der Terrarienhaltung. Reptilia (Münster) 19 (107): 34-39
  - Horowitz, Samuel B. 1955. An arrangement of the subspecies of the horned toad, *Phrynosoma orbiculare* (Iguanidae). American Midland Naturalist 54 (1): 204-218 - [get paper here](#)
  - Ibarra-Contreras, Clarita Alicia, Uri Omar García-Vázquez, Elí García-Padilla, Vicente Mata-Silva, Dominic L. DeSantis, Jerry D. Johnson and Larry David Wilson. 2016. *Phrynosoma orbiculare* (Linnaeus, 1758). Mexico, Oaxaca. Mesoamerican Herpetology 3(4): 1046–1047 - [get paper here](#)
  - Jones, L.L. & Lovich, R.E. 2009. Lizards of the American Southwest. A photographic field guide. Rio Nuevo Publishers, Tucson, AZ, 568 pp. [review in Reptilia 86: 84] - [get paper here](#)
  - Lambert, Shea M. and John J. Wiens 2013. EVOLUTION OF VIVIPARITY: A PHYLOGENETIC TEST OF THE COLD-CLIMATE HYPOTHESIS IN PHRYNOSOMATID LIZARDS. Evolution 67 (9): 2614–2630 - [get paper here](#)
  - Lara-Reséndiz Rafael A., Arenas-Moreno Diego M., Beltrán-Sánchez Elizabeth, Gramajo Weendii, Verdugo-Molina Javier, Sherbrooke Wade C. et al. 2015. Selected body temperature of nine species of Mexican horned lizards (*Phrynosoma*). Rev. Mex. Biodiv. 86 (1): 275-278. - [get paper here](#)
  - Lazcano D, Nevárez-de los Reyes M, García-Padilla E, Johnson JD, Mata-Silva V, DeSantis DL, Wilson LD. 2019. The herpetofauna of Coahuila, Mexico: composition, distribution, and conservation status. Amphibian & Reptile Conservation 13(2) [General Section]: 31–94 (e189) - [get paper here](#)
  - Leaché, Adam D. and Jimmy A. McGuire 2006. Phylogenetic relationships of horned lizards (*Phrynosoma*) based on nuclear and mitochondrial data: Evidence for a misleading mitochondrial gene tree. Molecular Phylogenetics and Evolution 39 (3): 628-644 - [get paper here](#)
  - Lemos-Espinal JA, Smith GR 2020. A conservation checklist of the amphibians and reptiles of the State of Mexico, Mexico with comparisons with adjoining states. ZooKeys 953: 137-159 - [get paper here](#)
  - Lemos-Espinal JA, Smith GR 2020. A conservation checklist of the amphibians and reptiles of Mexico City, with comparisons with adjoining states. ZooKeys 951: 109-131 - [get paper here](#)

- Lemos-Espinal JA, Smith GR 2020. A conservation checklist of the herpetofauna of Morelos, with comparisons with adjoining states. *ZooKeys* 941: 121-144 - [get paper here](#)
- Lemos-Espinal JA, Smith GR, Gadsden-Esparza H, Valdez-Lares R, Woolrich-Piña GA 2018. Amphibians and reptiles of the state of Durango, Mexico, with comparisons with adjoining states. *ZooKeys* 748: 65-87 - [get paper here](#)
- Lemos-Espinal JA, Smith GR, Pierce LJS, Painter CW 2020. The amphibians and reptiles of Colima, Mexico, with a summary of their conservation status. *ZooKeys* 927: 99-125 - [get paper here](#)
- Lemos-Espinal JA, Smith GR, Rorabaugh JC 2019. A conservation checklist of the amphibians and reptiles of Sonora, Mexico, with updated species lists. *ZooKeys* 829: 131-160 - [get paper here](#)
- Lemos-Espinal JA, Smith GR, Woolrich-Piña GA 2018. Amphibians and reptiles of the state of San Luis Potosí, Mexico, with comparisons with adjoining states. *ZooKeys* 753: 83-106 - [get paper here](#)
- Lemos-Espinal, J.A. & Smith, H.M. 2007. Amphibians and reptiles of the state of Chihuahua, Mexico. Universidad Nacional Autonoma de Mexico, 613 pp.
- Lemos-Espinal, J.A. & Smith, H.M. 2007. Amphibians and reptiles of the state of Coahuila, Mexico. Universidad Nacional Autonoma de Mexico, 550 pp.
- Lemos-Espinal, Julio A. and James R. Dixon 2013. Amphibians and Reptiles of San Luis Potosí. Eagle Mountain Publishing, xii + 300 pp.
- Lemos-Espinal, Julio A., David Chiszar, and Hobart M. Smith 2004. Selected Records of 2003 Lizards from Chihuahua and Sonora, Mexico. *Bull. Chicago Herp. Soc.* 39 (9): 164-168 - [get paper here](#)
- Lemos-Espinal, Julio A., Geoffrey R. Smith 2015. Amphibians and reptiles of the state of Hidalgo, Mexico. *Check List* 11 (3): 1642 - [get paper here](#)
- Leyte-Manrique A, Mata-Silva V, Báez-Montes O, Fucsko LA, DeSantis DL, García-Padilla E, Rocha A, Johnson JD, Porras LW, Wilson LD. 2022. The herpetofauna of Guanajuato, Mexico: composition, distribution, and conservation status. *Amphibian & Reptile Conservation* 16(2) [General Section: 133–180 (e321)] - [get paper here](#)
- Leyte-Manrique, Adrian; Efrén M. Hernández Navarro y Luis A. Escobedo-Morales 2015. Herpetofauna de Guanajuato: Un análisis histórico y contemporáneo de su conocimiento. *Revista Mexicana de Herpetología* 1(1): 1–14
- Liner, Ernest A. 2007. A CHECKLIST OF THE AMPHIBIANS AND REPTILES OF MEXICO. *Louisiana State University Occasional Papers of the Museum of Natural Science* 80: 1-60 - [get paper here](#)
- McCranie, J.R. & Wilson, L.D. 2001. The herpetofauna of the Mexican State of Aguascalientes. *Courier Forschungsinstitut Senckenberg* 230: 1-57
- McDiarmid, Roy W. 1963. A collection of reptiles and amphibians from the highland faunal assemblage of western Mexico. *Contributions in Science* (68): 1-15
- Meyer, F.A.A. 1795. Synopsis Reptilium, novam ipsorum sistens generum methodum, nec non Göttingensium huius ordinis animalium enumerationem. *Vandenhoeck und Ruprecht, Göttingen*, 32 pp [for current names see Rösler & Böhme 2021] - [get paper here](#)
- Meyers, J.J.; Herrel, A. & Nishikawa, K. 2006. Morphological correlates of ant eating in horned lizards (Phrynosoma). *Biological Journal of the Linnean Society* 89: 13–24 - [get paper here](#)
- Montanucci, R. R. 1979. Notes on the systematics of horned lizard allied to *Phrynosoma orbiculare* (Lacertilia: Iguanidae). *Herpetologica* 35 (2): 116-124 - [get paper here](#)
- Montanucci, R.R. 1979. Notes on Systematics of Horned Lizards Allied to *Phrynosoma orbiculare* (Lacertilia: Iguanidae) *Herpetologica* 35 (2): 116-124. - [get paper here](#)
- Nevárez-de-los-Reyes, Manuel, David Lazcano, Elí García-Padilla, Vicente Mata-Silva, Jerry D. Johnson and Larry David Wilson. 2016. The Herpetofauna of Nuevo León, Mexico: Composition, Distribution, and Conservation. *Mesoamerican Herpetology* 3 (3): 558–638 - [get paper here](#)
- Palacios-Aguilar, Ricardo & OSCAR FLORES-VILLELA 2018. An updated checklist of the herpetofauna from Guerrero, Mexico. *Zootaxa* 4422 (1): 1-24 - [get paper here](#)
- Powell, G.L., A.P. Russell & M.J. Ryan 2002. Ontogenetic Scaling of the Cranial Horn Array in *Phrynosoma orbiculare* (Squamata: Phrynosomatidae) *Journal of Herpetology* 36 (4): 578-589. - [get paper here](#)
- Presch, W. 1969. Evolutionary osteology and relationships of the horned lizard genus *Phrynosoma* (family Iguanidae). *Copeia* 1969 (2): 250-275 - [get paper here](#)
- Reeder, T.W. & Montanucci, R.R. 2001. Phylogenetic analysis of the horned lizards (Phrynosomatidae: Phrynosoma): evidence from mitochondrial DNA and morphology. *Copeia* 2001 (2): 309-323 - [get paper here](#)
- Reyes-Velasco, J., Grünwald, C. I., Jones, J. M., Price, M. S. & Fisher, J. T. 2012. New distributional records for the herpetofauna of Mexico. *Herpetological Review* 43: 451-453 - [get paper here](#)
- Rorabaugh, J C; Turner, D; van Devender, T R; Hugo-Cabrera, V; Maynard, R J; Van Devender, R W; Villa, R A; Hamilton, P; Hale, S F; Aguilar-Morales, C; Blanco-Gutiérrez, A; Wallace, E & Hedgcock, C; 2019. Herpetofauna of the Mesa Tres Ríos area in the Northern Sierra Madre Occidental of Sonora, Mexico. *Herpetological Review* 50 (2): 251-259 - [get paper here](#)
- Rösler, Herbert & Wolfgang Böhme 2021. Das Leben von Friedrich Albrecht Anton Meyer (1768 – 1795) und die Herpetologie in seinen Schriften, unter besonderer Berücksichtigung der „Synopsis Reptilium“. *Sekretär* 21: 83-129
- Schulz, Joschka 2018. Die erfolgreiche Terrarienhaltung der Mexikanischen Cortez-Kurzhornkrötenechse *Phrynosoma orbiculare cortezi*. *Terraria-Elaphe* 2018 (5): 58-71 - [get paper here](#)
- Sherbrooke, Wade C. 2003. Introduction to Horned Lizards of North America. University of California Press, Berkeley, 178 pp. - [get paper here](#)

- Smith, Hobart M. 1934. Notes on some lizards of the genus *Phrynosoma* from Mexico. Transactions of the Kansas Academy of Science 37: 287-297 - [get paper here](#)
- Smith, Hobart M. 1939. An annotated list of the Mexican amphibians and reptiles in the Carnegie Museum. Annals of the Carnegie Museum 27: 311-320
- Smith, Hobart M. 1939. Notes on Mexican reptiles and amphibians. Zoological Series of Field Museum of Natural History 24 (4): 15-35 - [get paper here](#)
- Sumichrast, F. 1864. Note on the habits of some Mexican reptiles. Ann. Mag. Nat. Hist. (3) 13: 497-507 - [get paper here](#)
- Tanner, W.W. 1987. Lizards and turtles of Western Chihuahua. Great Basin Naturalist. 47: 383-421 - [get paper here](#)
- Terán-Juárez, Sergio A., Elí García Padilla, Vicente Mata-Silva, Jerry D. Johnson and Larry David Wilson. 2016. The herpetofauna of Tamaulipas, Mexico: composition, distribution, and conservation status. Mesoamerican Herpetology 3 (1): 43-113 - [get paper here](#)
- Torres-Hernández, LA, Ramírez-Bautista A, Cruz-Elizalde R, Hernández-Salinas U, Berriozabal-Islas C, DeSantis DL, Johnson JD, Rocha A, García-Padilla E, Mata-Silva V, Fucsko LA, and Wilson LD. 2021. The herpetofauna of Veracruz, Mexico: composition, distribution, and conservation status. Amphibian & Reptile Conservation 15(2) [General Section]: 72-155 - [get paper here](#)
- Valdez-Lares, R.; R. Muñiz-Martínez; E.Gadsden; G. Aguirre-León; G. Castañeda-Gaytán; R. Gonzalez-Trápaga 2013. Checklist of amphibians and reptiles of the state of Durango, México. Check List 9 (4):714-724 - [get paper here](#)
- Van Devender, Thomas R.; Lowe, Charles H. Lowe, Jr. 1977. Amphibians and reptiles of Yepomera, Chihuahua, Mexico. Journal of Herpetology 11 (1): 41-50 - [get paper here](#)
- Vázquez Díaz, Joel;Quintero Díaz, Gustavo E. 2005. Anfibios y Reptiles de Aguascalientes [2nd ed.]. CONABIO, CIEMA, 318 pp.
- Vite-Silva, Victor D.; Aurelio Ramírez-Bautista y Uriel Hernández-Salinas 2010. Diversidad de anfibios y reptiles de la Reserva de la Biosfera Barranca de Metztitlán, Hidalgo, México Diversity of amphibians and reptiles from the Barranca de Metztitlán Biosphere Reserve in Hidalgo, Mexico. Revista Mexicana de Biodiversidad 81: 473- 485 - [get paper here](#)
- Webb, R.G. 1984. Herpetogeography in the Mazatlán-Durango Region of the Sierra Madre Occidental, Mexico. Vertebrate Ecology and Systematics - A tribute to Henry S. Fitch; Museum of Natural History, University of Kansas, Lawrence, pp. 217-241
- Werning, H. 2014. Krötenechsen – eine (sehr gute) Laune der Natur. Reptilia (Münster) 19 (107): 16-23
- Wiegmann,A.F.A. 1828. Beiträge zur Amphibienkunde. Isis von Oken 21 (4): 364-383 - [get paper here](#)
- Wilson, Larry David;McCranie, James R. 1979. Notes on the herpetofauna of two mountain ranges in Mexico (Sierra Fria, Aguascalientes, and Sierra Morones, Zacatecas. Journal of Herpetology 13 (3): 271-278 - [get paper here](#)
- Woolrich-Piña, G. A., E. García-Padilla, D. L. DeSantis, J. D. Johnson, V. Mata-Silva, and L. D. Wilson 2017. The herpetofauna of Puebla, Mexico: composition, distribution, and conservation status. Mesoamerican Herpetology 4(4): 791-884 - [get paper here](#)
- Woolrich-Piña, Guillermo A, Paulino Ponce-Campos, Jesús Loc-Barragán, Juan Pablo Ramírez-Silva, Vicente Mata-Silva, Jerry D. Johnson, Elí García-Padilla and Larry David Wilson. 2016. The herpetofauna of Nayarit, Mexico: composition, distribution, and conservation status. Mesoamerican Herpetology 3 (2): 376-448 - [get paper here](#)

## External links

- [IUCN Red List](#)
- [National Center for Biotechnology Information](#)
- [http://www.desertmuseum.org/programs/yecora\\_fauna.html](http://www.desertmuseum.org/programs/yecora_fauna.html)
- <http://www.seh-herpetology.org/images/atlas/pdf/squamata/phrorb.pdf>
- [Google images](#)

## Is it interesting? Share with others:

As link to this species use URL address:

<https://reptile-database.reptarium.cz/species?genus=Phrynosoma&species=orbiculare>

without field 'search\_param'. Field 'search\_param' is used for browsing search result.



## *Phrynosoma ornatissimum* GIRARD, 1858

iNaturalist



[Add your own observation of \*Phrynosoma ornatissimum\*](#) »

We have no photos, try to find some by Google images search: [Google](#)

Higher Taxa Phrynosomatidae, Phrynosomatinae, Phrynosomatini; Iguania, Sauria, Squamata (lizards)

Subspecies *Phrynosoma ornatissimum ornatissimum* GIRARD 1858  
*Phrynosoma ornatissimum brachycercum* SMITH 1942  
 E: Desert Short-horned Lizard

Common Names G: Wüsten-Kurzhorn-Krötenechse  
 E: Short-tail Short-horned Lizard [brachycercum]  
 G: Kurzschwanz-Kurzhorn-Krötenechse [brachycercum]  
*Phrynosoma* (Tapaya) *ornatissima* GIRARD 1858: 396  
*Phrynosoma ornatissima* — COPE 1871: 305  
*Phrynosoma* Douglassi subsp. *ornatissima* COPE 1878: 49  
*Phrynosoma douglassi ornatissimum* — KNOWLTON & JANES 1934

Synonym *Phrynosoma ornatissimum ornatissimum* GIRARD 1858  
*Phrynosoma* (Tapaya) *hernandesi* GIRARD 1858: 395 (part)  
*Phrynosoma* (Tapaya) *ornatissima* GIRARD 1858: 396.  
*Phrynosoma douglassi* — GENTRY 1885: 140 (part)  
*Phrynosoma douglassii hernandesi* — COPE 1900: 413 (part)  
*Phrynosoma douglassii ornatissimum* — COPE 1900: 415  
*Phrynosoma douglassii ornatissimum* VAN DENBURGH 1922: 377  
*Phrynosoma douglassii hernandesi* — VAN DENBURGH 1922: 382 (part).  
*Phrynosoma douglassii hernandesi* — SMITH 1946: 304 (part)  
*Phrynosoma douglassii ornatissimum* — SMITH 1946: 305  
*Phrynosoma douglassii ornatissimum* — REEVE 1952: 927  
*Phrynosoma hernandezi* — ZAMUDIO et al. 1997: 302 (part)  
*Phrynosoma ornatissimum ornatissimum* — MONTANUCCI 2015: 67  
*Phrynosoma hernandezi ornatissimum* — DE QUEIROZ in CROTHER et al. 2017

*Phrynosoma ornatissimum brachycercum* SMITH 1942  
*Phrynosoma douglassii brachycercum* SMITH 1942: 362  
*Phrynosoma douglassii brachycercum* — REEVE 1952: 916  
*Phrynosoma douglassii hernandesi* — REEVE 1952: 922 (part).  
*Phrynosoma douglassii brachycercum* — WEBB 1984  
*Phrynosoma douglassii brachycercum* — TANNER 1987  
*Phrynosoma douglassii brachycercum* — SMITH 1994: 114  
*Phrynosoma ornatissimum brachycercum* — MONTANUCCI 2015: 75  
 USA (New Mexico, Texas), Mexico (Durango, Chihuahua, Zacatecas)

Distribution *ornatissimum*: USA (New Mexico, Texas); Type locality: restricted to the Rio Grande Valley at Albuquerque, Bernalillo County, New Mexico

*brachycercum*: Mexico (Durango, Chihuahua, Zacatecas); Type locality: “Durango” (restricted to Durango City, Durango, Mexico by REEVE 1952)

Reproduction ovoviviparous

Types Lectotype: USNM 204 (designated by Montanucci 2015: 68); Girard (1858a) described this species on the basis of specimens in the USNM, but he did not designate a type specimen. Other syntypes: USNM 576284

Holotype: USNM 23993 [*brachycercum*]

Diagnosis. *Phrynosoma ornatissimum* can be distinguished from other members of the *P. douglasii* species complex by the following combination of adult characters: (1) snout truncate,  $43.8\% \pm 1.39$  (35.2–50%) of orbit to rostral scale distance; (2) rostrifrontal profile rounded or angular with a steep incline; (3) frontal rim well elevated above the occipital shelf; (4) enlarged frontal rim scales  $3.20 \pm 0.16$  (2–4) /  $3.21 \pm 0.21$  (2–4); (5) temporal shelf moderately long,  $22.9\% \pm 0.98$  (16.7–28.4%) in males,  $23.1\% \pm 0.68$  (17.9–30.0%) in females; (6) temporal shelf weakly to moderately convex; (7) cephalic horns moderately short, third temporal horn length  $13.9\% \pm 0.41$  (10.5–16.7%); (8) cephalic horns elevated (ca.  $45^\circ$ ) to nearly vertical; (9) tympanum elliptic, moderately broad; (10) tympanum exposed; (11) tail short,  $193\% \pm 4.51$  (139–224%) in males,  $160\% \pm 3.16$  (118–196%) in females; (12) dorsal spots large, rounded; (13) discrete white and/or yellow line along medial and posterior edges of each dorsal spot; (14) dorsolateral white spots present; (15) gular area with melanistic spots and short lines forming a series of chevrons or wavy transverse bands (melanin-dispersed phase); (16) abdomen with scattered gray flecks and patches, no large melanistic spots (melanin-dispersed phase); (17) melanistic subcaudal bands absent (melanin-dispersed phase) [MONTANUCCI 2015].

Diagnosis Comparisons. *Phrynosoma o. ornatissimum* can be distinguished from *P. h. hernandesi* and *P. h. ornatum* by its more truncate snout and rounded or angular and steeply inclined rostrifrontal profile, its slightly shorter temporal shelf, and its shorter occipital and temporal horns (except *P. h. ornatum*) that are usually directed upward to nearly vertical, and its short tail. It is further distinguished from *P. hernandesi* and its subspecies by the presence of large rounded dorsal spots with discrete, narrow, white and/or yellow lines forming the medial and posterior borders of the dorsal spots, a series of chevrons or wavy, irregular transverse bands on the gular area (melanin-dispersed phase), absence of large, melanistic spots on the abdomen (except some *P. h. ornatum*), and absence of interrupted or complete melanistic subcaudal bands. Cope (1900:415–16) erroneously ascribed to this taxon a more obtuse head and a deeper occipital emargination owing to the temporal shelf being produced farther posteriorly than in *P. hernandesi*; just the reverse is true (Table 3). *P. ornatissimum* can be distinguished from *P. brevirostris*, *P. diminutum* sp. nov. and *P. douglasii* by the frontal rim well elevated above the occipital shelf (except *P. bauri* sp. nov.), the high number of enlarged frontal rim scales, the longer temporal shelf, and melanistic chevrons or wavy transverse bands on the gular area (melanin-dispersed phase). *P. ornatissimum* can be distinguished further from *P. douglasii* by its large body size, moderately broad, elliptic and exposed tympanum. Note that *P. ornatissimum* and its subspecies *brachycercum* (next account) have the shortest mean tail length of all other taxa within the complex (except for the female sample of *P. douglasii*, Table 3) [MONTANUCCI 2015].

Diagnosis (*brachycercum*). *Phrynosoma ornatissimum brachycercum* can be distinguished from other members of the *P. douglasii* species complex by the following combination of adult characters: (1) snout short,  $45.4\% \pm 2.15$  (40.8–50%) of orbit to rostral scale distance; (2) rostrifrontal profile abruptly rounded or angular with a steep incline; (3) frontal rim well elevated above the occipital shelf; (4) enlarged frontal rim scales  $2.75 \pm 0.22$  (2–3) /  $2.82 \pm 0.26$  (2–4); (5) temporal shelf moderately long,  $20.9\% \pm 2.31$  (15.1–26.8%) in males,  $22.6\% \pm 1.39$  (14.7–32.0%) in females; (6) temporal shelf weakly to moderately convex; (7) cephalic horns moderately short, third temporal horn length  $12.7\% \pm 0.72$  (7.3–18.2%) of head length; (8) cephalic horns elevated (ca.  $45^\circ$ ) to nearly vertical; (9) tympanum elliptic, moderately broad; (10) tympanum exposed; (11) tail short,  $189\% \pm 14.47$  (149–238%) in males,  $153\% \pm 5.50$  (117–193%) in females; (12) dorsal spots wedge-shaped or slightly rounded, or transverse bands present; (13) light-colored borders, discrete or grading, confined to posterior edges of each dorsal spot; (14) dorsolateral white spots absent or present; (15) gular area with melanistic spots and short lines forming a chevron pattern or an undulating series of bands (melanin-dispersed phase); (16) abdomen with scattered gray flecks and patches, no large melanistic spots (melanin-dispersed phase); (17) melanistic subcaudal bands absent (melanin-dispersed phase) [MONTANUCCI 2015: 75].

Comparisons (*brachycercum*). *P. o. brachycercum* has essentially the same morphology, including tail proportions, as nominotypical *P. ornatissimum*, but differs from most specimens of the nominate subspecies by the absence of the

discrete yellow or white line along the medial border of the dorsal spots (100% of 45 specimens), and by the absence of dorsolateral white spots (86% of 45 specimens). Also, in the nominate subspecies the brown dorsal spots are typically large and rounded, but in this race, the spots vary from small, rounded or wedge-shaped to transverse bands (see below). Smith (1942) also considered the keeled chest scales as diagnostic, but many specimens which I examined lack this trait.

*P. o. brachycercum* can be distinguished from *P. h. hernandesi* and *P. h. ornatum* by its more truncate snout and abruptly rounded or angular and steeply inclined rostrifrontal profile, its slightly shorter temporal shelf, and its shorter occipital and temporal horns (except *P. h. ornatum*) that are usually directed upward to nearly vertical, and its short tail. It is further distinguished from *P. hernandesi* and its subspecies by a series of chevrons or wavy transverse bands on the gular area (melanin-dispersed phase), absence of large, rounded or irregular melanistic spots on the abdomen (except some *P. h. ornatum*), and absence of interrupted or complete melanistic subcaudal bands. *P. o. brachycercum* can be distinguished from *P. bauri* sp. nov. by its short tail, absence of dorsolateral white spots (in most specimens), absence of large melanistic spots on the abdomen, and a gular pattern consisting of chevrons or wavy transverse bands. *P. o. brachycercum* can be distinguished from *P. brevirostris*, *P. diminutum* sp. nov. and *P. douglasii* by its frontal rim well elevated above the occipital shelf, its high number of enlarged frontal rim scales, its longer temporal shelf, and its melanistic chevrons or irregular, wavy transverse bands on the gular area. *P. o. brachycercum* can be further distinguished from *P. douglasii* by its large body size, moderately broad, elliptic, and exposed tympanum [MONTANUCCI 2015: 75].

Subspecies: The subspecies *P. d. brevirostre*, *ornatissimum*, and *P. d. ornatum* have been synonymized with *P. hernandesi* following Zamudio et al. 1997 but revalidated by Montanucci 2015.

Synonymy: Köhler 2021 synonymized *Phrynosoma ornatissimum* and *brachycercum* with *Phrynosoma hernandesi*.

Comment Habitat: montane

Group: Belongs to the Tapaja clade fide LEACHE & MCGUIRE 2006.

Distribution: see map and locality list in Montanucci 2015: 154, 164, 165, 167.

Illustration, drawing (head): KNOWLTON & JANES 1934: 13

*ornatissima*: The Latin word *ornatus* –a – um, (participle of the verb *orno*), with the neuter superlative suffix, –issimum, meaning “the most highly adorned” or “...decorated” or “... embellished.”

Etymology

*brachycercum*: The Greek word roots *βραχύς* = *brachys* an adjective meaning “short” and *κέρκος* = *kerkos* or *cercus*, a feminine noun meaning “tail”, in reference to the very short tail in this race. Smith (1942) modified *brachycercus* (used as a trinomial) to *brachycercum* as though it were an adjective needing to agree with the neuter gender of *Phrynosoma*. Although nouns used in apposition to other nouns retain their own gender (only adjectives must agree in gender with the name of the genus) such that Smith’s modification of the name was unnecessary, his use of the word as an adjective must be followed. See ICZN articles 31.2.1 and 34.2.1.

References

- Bell, T. 1829. Description of a new species of *Agama*, brought from the Columbia River by Mr. Douglass. *Trans. Linn. Soc. London* 16: 105-107 - [get paper here](#)
- Bergman, Enoch; Hill, Ben; Montgomery, Chad; Childers, Theresa; Manzer, Jerry D.; Sifert, James; Mackessy, Stephen P. 1998. Geographic Distribution. *Phrynosoma douglasii*. *Herpetological Review* 29 (2): 111 - [get paper here](#)
- Boulenger, G.A. 1885. Catalogue of the lizards in the British Museum (Natural History). Vol. 2, Second edition. London, xiii+497 pp. - [get paper here](#)
- Boulenger, G.A. 1887. On the affinity of the north-American lizard fauna. *Ann. Mag. Nat. Hist.* (5) 20: 345-346 - [get paper here](#)
- Bradley, W. Glen and James E. Deacon 1966. Amphibian and Reptile Records for Southern Nevada. *Southwestern Naturalist* 11 (1): 132-134 - [get paper here](#)
- Collins, J.T. and T. W. Taggart 2009. Standard Common and Current Scientific Names for North American Amphibians, Turtles, Reptiles, and Crocodylians, Sixth Edition. Center for North American Herpetology, 48 pp.
- Conant, R. & Collins, J.T. 1991. A Field Guide to Reptiles and Amphibians of Eastern/Central North America, 3rd ed. Houghton Mifflin (Boston/New York), xx + 450 p.
- Cope, E.D. 1871. On a peculiar habit ... in the *Phrynosomas*. *Proc. Acad. Nat. Sci. Philadelphia* 1871: 305 - [get paper here](#)
- Cope, E.D. 1875. Check-list of North American Batrachia and Reptilia with a systematic list of the higher groups, and an essay on geographical distribution based on specimens contained in the U.S. National Museum. *Bull. US Natl. Mus.* 1: 1-104 - [get paper here](#)
- Cope, E.D. 1900. The crocodylians, lizards and snakes of North America. *Ann. Rep. U.S. Natl. Mus.* 1898: 153-1270 - [get paper here](#)
- Crother, B. I. (ed.) 2012. Standard Common and Current Scientific Names for North American Amphibians, Turtles, Reptiles, and Crocodylians, Seventh Edition. *Herpetological Circular* 39: 1-92

- Degenhardt, William G.; C. W. Painter, and A. H. Price 1996. Amphibians and reptiles of New Mexico. Univ. New Mexico Press, 431 pp.
- Eaton, Theodore H., Jr 1935. Report on amphibians and reptiles of the Navajo country. Bulletin 3. Rainbow Bridge-Monument Valley Expedition : 1-20 - [get paper here](#)
- Gentry, A.F. 1885. A review of the genus Phrynosoma. Proc. Acad. Nat. Sci. Philad. (ser. 3) 37: 138-148 - [get paper here](#)
- Girard, Charles F. 1858. United States Exploring Expedition during the Years 1838, 1839, 1840, 1841, 1842, Under the command of Charles Wilkes, U.S.N. Vol. 20. Herpetology. C. Sherman & Son, Philadelphia, xv, 492 pages [see note in Zhao and Adler 1993: 369] - [get paper here](#)
- Guyer, Craig. 2006. Phrynosoma douglasii Copulatory position. Herpetological Review 37 (1): 91-92 - [get paper here](#)
- Hammerson, G.A. & H.M. Smith 1991. The correct spelling of the name for the short-horned lizard of North America. Bull. Maryland Herp. Soc. 27: 121-127 - [get paper here](#)
- Jones, L.L. & Lovich, R.E. 2009. Lizards of the American Southwest. A photographic field guide. Rio Nuevo Publishers, Tucson, AZ, 568 pp. [review in Reptilia 86: 84] - [get paper here](#)
- Knowlton, G., & Janes, M. 1934. Distributional and Food Habits Notes on Utah Lizards. Copeia, 1934(1), 10-14 - [get paper here](#)
- Leaché, Adam D. and Jimmy A. McGuire 2006. Phylogenetic relationships of horned lizards (Phrynosoma ) based on nuclear and mitochondrial data: Evidence for a misleading mitochondrial gene tree. Molecular Phylogenetics and Evolution 39 (3): 628-644 - [get paper here](#)
- Lemos-Espinal JA, Smith GR, Gadsden-Esparza H, Valdez-Lares R, Woolrich-Piña GA 2018. Amphibians and reptiles of the state of Durango, Mexico, with comparisons with adjoining states. ZooKeys 748: 65-87 - [get paper here](#)
- Lorvelec O, Berchel J, Barré N 2016. First report of the Flowerpot Blindsnake, Indotyphlops braminus (Daudin, 1803), from La Désirade (Guadeloupe, the French West Indies). Caribbean Herpetology 55:1-2 - [get paper here](#)
- Meyers, J.J.; Herrel, A. & Nishikawa, K. 2006. Morphological correlates of ant eating in horned lizards (Phrynosoma). Biological Journal of the Linnean Society 89: 13-24 - [get paper here](#)
- MONTANUCCI, RICHARD R. 2015. A taxonomic revision of the Phrynosoma douglasii species complex (Squamata: Phrynosomatidae). Zootaxa 4015 (1): 001-177 - [get paper here](#)
- Nussbaum, R.A., Brodie, E.D., Jr., & Storm, R.M. 1983. Amphibians and reptiles of the Pacific Northwest. Univ. Press of Idaho, Moscow 332 pp.
- Reeve, Wayne L. 1952. Taxonomy and distribution of the horned lizard genus Phrynosoma. Univ. Kansas Sci. Bull. 34 (14): 817-960 - [get paper here](#)
- Sherbrooke, Wade C. 2003. Introduction to Horned Lizards of North America. University of California Press, Berkeley, 178 pp. - [get paper here](#)
- Siebenrock, Friedrich 1892. Ueber Wirbelassimilation bei den Sauriern. Annalen des Königlichen Kaiserlichen Naturhistorischen Hofmuseum in Wien 7: 373-378 - [get paper here](#)
- Smith, Hobart 1942. Mexican herpetological miscellany. Proc. US Natl. Mus. 92 (3153): 349-395 - [get paper here](#)
- Smith, Hobart M. 1946. Handbook of Lizards: Lizards of the United States and of Canada. Comstock, Ithaca, NY, xxii + 557 pp.
- Smith, Hobart M.; Flores-Villela, Oscar A. 1994. Noteworthy lizards of the genera Phrynosoma and Sceloporus in the Museo de Zoología "Alfonso Herrera". Bull. Maryland Herp. Soc. 30 (3): 114-119 - [get paper here](#)
- Smith, Hobart M.; Thompson, Dorian 1993. Four reptiles newly recorded from Ouray County, Colorado. Bull. Chicago Herp. Soc. 28 (4): 78-79 - [get paper here](#)
- Stebbins, R.C. 1985. A Field Guide to Western Reptiles and Amphibians, 2nd ed. Houghton Mifflin, Boston
- Tanner, Vasco M. 1930. The amphibians and reptiles of Bryce Canyon National Park, Utah. Copeia 1930 (2): 41-43 - [get paper here](#)
- Tanner, Vasco M.; Hayward, C. Lynn 1934. A biological study of the La Sal Mountains, Utah report No. 1 (Ecology). Proceedings of the Utah Academy of Sciences, Arts, and Letters 11: 209-235
- Tanner, W.W. 1987. Lizards and turtles of Western Chihuahua. Great Basin Naturalist. 47: 383-421 - [get paper here](#)
- Tanner, Wilmer W. 1954. Herpetological notes concerning some reptiles of Utah and Arizona. Herpetologica 10: 92-96 - [get paper here](#)
- Van Denburgh, John 1922. The Reptiles of Western North America. Volume I. Lizards. Occ. Pap. Cal. Acad. Sci. (10): 1-612 - [get paper here](#)
- Webb, R.G. 1984. Herpetogeography in the Mazatlán-Durango Region of the Sierra Madre Occidental, Mexico. Vertebrate Ecology and Systematics - A tribute to Henry S. Fitch; Museum of Natural History, University of Kansas, Lawrence, pp. 217-241
- Woodbury, Angus Munn 1928. The reptiles of Zion National Park. Copeia 1928 (166): 14-21 - [get paper here](#)

External  
links

- [National Center for Biotechnology Information](#)
- [Google images](#)





## *Phrynosoma platyrhinos* GIRARD, 1852



iNaturalist

Can you confirm these amateur observations of *Phrynosoma platyrhinos*?



[Add your own observation of \*Phrynosoma platyrhinos\*](#) »

Find more photos by Google images search: [Google](#)

Higher Taxa Phrynosomatidae, Phrynosomatinae, Phrynosomatini; Iguania, Sauria, Squamata (lizards)

Subspecies

E: Desert Horned Lizard

G: Wüsten-Krötenechse

Common Names

calidiarum: Southern Desert Horned Lizard

platyrhinos: Northern Desert Horned Lizard

goodei: Sonoran Horned Lizard

S: Camaleón del Desierto

Synonym

*Phrynosoma platyrhinos* GIRARD in BAIRD & GIRARD 1852: 69

*Doliosaurus platyrhinos* GIRARD 1858: 443

*Phrynosoma platyrhinos* — GENTRY 1885: 147

*Phrynosoma platyrhinos* — BOULENGER 1885: 247

*Phrynosoma platyrhinos* — STEJNEGER 1893: 190

*Anota calidiarum* COPE 1896: 833

*Anota platyrhina* — COPE 1896: 333

*Anota calidiarum* — COPE 1900

*Anota platyrhina* — COPE 1900: 443

*Phrynosoma platyrhinos* — BURT 1933

*Phrynosoma platyrhinos* — SMITH & TAYLOR 1950: 101

*Phrynosoma platyrhinos calidiarum* — REEVE 1952: 856

*Phrynosoma platyrhinos platyrhinos* — ETHERIDGE 1964

*Phrynosoma platyrhinos* — STEBBINS 1985: 140

Phrynosoma platyrhinos calidiarum — PIANKA 1991  
 Phrynosoma platyrhinos — LINER 1994  
 Phrynosoma platyrhinos calidiarum — BRUEKERS & PEEK 2004  
 Phrynosoma (D.) platyrhinos calidiarum — CROTHER et al. 2012  
 Phrynosoma (Doliosaurus) platyrhinos — CROTHER et al. 2012  
 Phrynosoma platyrhinos platyrhinos — KÖHLER 2021  
 USA (E Oregon, S Idaho, Nevada, E Utah, SW California, W Arizona), Mexico (Baja California Norte)

## Distribution

Type locality: Great Salt Lake, Utah.

## Reproduction

oviparous

## Types

Holotype: USNM 189 ? (fide SMITH & TAYLOR 1950)

Holotype: USNM 18444, female [calidiarum]

Definition. A medium to large horned lizard (adults 72-95 mm SVL) characterized by a single row of relatively small lateral abdominal fringed ed along the side of the body. Other characteristics include: relatively short occipital horns; the longest temporal spine nearly as long as the occipital horns; small throat scales sometimes with a single row of slightly larger scales on each side of throat; enlarged chin shields; nostril inside a line connecting the supraorbital ridge with the tip of the snout; snout very blunt. The belly is usually spotted. The dorsal color is variable, and can be buff, yellowish, reddish, or grayish. Two prominent dark patches are present immediately behind the neck, grading into a series of several more down the back and on to the tail (Pianka 1991).

## Diagnosis

Diagnosis. *P. platyrhinos* can be distinguished from all congeners by the following: two moderately elongated occipital horns at the back of the head usually not in contact at their base; posterior head margin between occipital horns not indented; nostril openings inside the canthus rostralis; eardrum either exposed or covered with scales; gular scales small, granular, uniform in size or with a single marginal row of slightly enlarged scales on each side of the throat; side of body between limbs with a single row of elongate, pointed fringe scales; smooth ventral scales; tail broadening gradually rather than abruptly at base (Pianka 1991).

Diagnosis (calidiarum). Occipital horns are heavy and long (45% or more of head length); interoccipital space one-half the basal diameter of occipital spine; 5 or 6 temporal horns, each longer than the one anterior; tail often somewhat flattened posteriorly (Pianka 1991).

Synonymy partly after SMITH & TAYLOR 1950.

## Comment

Subspecies: The subspecies of *P. platyrhinos* are questioned by Pianka (1991). MULCAHY et al. 2006 elevated *Phrynosoma platyrhinos goodei* to full species status based on mtDNA sequences. MULCAHY et al. 2006 also presented evidence for *goodei* x *mcalli* hybrids. KÖHLER 2021 synonymized *Phrynosoma platyrhinos calidiarum* with the nominate subspecies, and moved *goodei* (back) to *platyrhinos*.

Group: Belongs to the *Doliosaurus* clade fide LEACHE & MCGUIRE 2006.

Distribution: see map in Mulcahy et al. 2006: 1809 (Fig. 3). Not in Sonora fide Lemos-Espinal et al. 2019.

Genome: KOOCHEKIAN et al. 2022.

## Etymology

The name *platyrhinos* is a combination from the Greek "platy" (broad, or flat) and "rhino" (nose).

## References

- Baird, S.F. and Girard, C. 1852. Characteristics of some new reptiles in the Museum of the Smithsonian Institution. Proc. Acad. Nat. Sci. Philadelphia 6: 68-70 - [get paper here](#)
- Banta, B.H. 1961. Herbivorous Feeding of *Phrynosoma platyrhinos* in Southern Nevada Herpetologica 17 (2): 136-137. - [get paper here](#)
- Baur, B. 1973. Pflege und Zucht der Wüstenkrötechse *Phrynosoma platyrhinos*. Salamandra 9 (3-4): 145-159 - [get paper here](#)
- Baur, B.E. 1986. Longevity of horned lizards of the genus *Phrynosoma*. Bull. Maryland Herp. Soc. 22 (3): 149-151 - [get paper here](#)
- Bonetti, Mathilde 2002. 100 Sauri. Mondadori (Milano), 192 pp. - [get paper here](#)
- Boulenger, G.A. 1885. Catalogue of the lizards in the British Museum (Natural History). Vol. 2, Second edition. London, xiii+497 pp. - [get paper here](#)
- Bruekers, Jaco and Peek, Ron 2004. Veldwaarnemingen aan de zuidelijke woestijn-Padhadgedis, *Phrynosoma platyrhinos calidiarum* (COPE 1896) in Nevada en Zuid-Californië. Lacerta 62 (3): 106-112 [erratum in 62 (4): 174] - [get paper here](#)
- Burt, Charles E. 1933. Some lizards from the Great Basin of the West and adjacent areas, with comments on the status of various forms. American Midland Naturalist 14: 228-250 - [get paper here](#)
- Clark, Howard O., Jr. 2017. Herpetofauna Inventory on a Small Mammal Trapping Grid. Sonoran Herpetologist 30 (2): 42 - [get paper here](#)
- Cope, E.D. 1896. On two new species of lizards from Southern California. American Naturalist 30: 833-836 - [get paper here](#)
- Cope, E.D. 1900. The crocodylians, lizards and snakes of North America. Ann. Rep. U.S. Natl. Mus. 1898: 153-1270 - [get paper here](#)
- Crother, B. I. (ed.) 2012. Standard Common and Current Scientific Names for North American Amphibians,

- Turtles, Reptiles, and Crocodylians, Seventh Edition. Herpetological Circular 39: 1-92
- Daly, J.A. 2017. *Phrynosoma platyrhinos* (Desert Horned-lizard) Scavenged by tarantula. *Herpetological Review* 48 (4): 853 - [get paper here](#)
  - Etheridge, Richard 1964. The skeletal morphology and systematic relationships of sceloporine lizards. *Copeia* 1964 (4): 610-631 - [get paper here](#)
  - FABIAN, B. 2013. Die Südliche Wüstenkrötenechse *Phrynosoma platyrhinos calidiarum* (COPE, 1896) – Artgerechte Haltung und Nachzucht eines Nahrungsspezialisten. *Sauria* 35 (1): 21-30 - [get paper here](#)
  - Fabian, B. F 2014. Überlegungen zur Ernährung von Krötenechsen. *Reptilia* (Münster) 19 (107): 24-29
  - Ferguson, Denzel E.;Payne, K. Ellsworth;Storm, Robert M. 1958. Notes on the herpetology of Baker County, Oregon. *Great Basin Naturalist* 18 (2): 63-65 - [get paper here](#)
  - Gentry, A.F. 1885. A review of the genus *Phrynosoma*. *Proc. Acad. Nat. Sci. Philad.* (ser. 3) 37: 138-148 - [get paper here](#)
  - Girard, Charles F. 1858. United States Exploring Expedition during the Years 1838, 1839, 1840, 1841, 1842, Under the command of Charles Wilkes, U.S.N. Vol. 20. Herpetology. C. Sherman & Son, Philadelphia, xv, 492 pages [see note in Zhao and Adler 1993: 369] - [get paper here](#)
  - Gloyd, Howard K. 1937. A herpetological consideration of faunal areas in Southern Arizona. *Bulletin of the Chicago Academy of Sciences* 5 (5): 77-136 - [get paper here](#)
  - González-Romero, A., & Alvarez-Cárdenas, S. 1989. Herpetofauna de la Region del Pinacate, Sonora, Mexico: Un Inventario. *The Southwestern Naturalist*, 34(4), 519–526 - [get paper here](#)
  - Haase, K. 2012. Die Wüstenkrötenechse (*Phrynosoma platyrhinos*). Ein Nahrungsspezialist in der Terrarienhaltung. *Reptilia* (Münster) 17 (97): 72-75 - [get paper here](#)
  - Harris, R.W. 1958. A Nocturnal Tendency in *Phrynosoma platyrhinos* *Copeia* 1958 (3): 222. - [get paper here](#)
  - Jones, L.L. & Lovich, R.E. 2009. *Lizards of the American Southwest. A photographic field guide.* Rio Nuevo Publishers, Tucson, AZ, 568 pp. [review in *Reptilia* 86: 84] - [get paper here](#)
  - Klauber, Laurence M. 1935. The status of the Sonoran horned toad, *Phrynosoma goodei* Stejneger. *Copeia* 1935 (4): 178-179 - [get paper here](#)
  - Knowlton, G., & Janes, M. 1934. Distributional and Food Habits Notes on Utah Lizards. *Copeia*, 1934(1), 10-14 - [get paper here](#)
  - Koochekian, Nazila; Alfredo Ascanio, Keaka Farleigh, Daren C Card, Drew R Schield, Todd A Castoe, Tereza Jezkova 2022. A chromosome-level genome assembly and annotation of the desert horned lizard, *Phrynosoma platyrhinos*, provides insight into chromosomal rearrangements among reptiles. *GigaScience* 11: giab098 - [get paper here](#)
  - Leaché, Adam D. and Jimmy A. McGuire 2006. Phylogenetic relationships of horned lizards (*Phrynosoma*) based on nuclear and mitochondrial data: Evidence for a misleading mitochondrial gene tree. *Molecular Phylogenetics and Evolution* 39 (3): 628-644 - [get paper here](#)
  - Meyers, J.J.; Herrel, A. & Nishikawa, K. 2006. Morphological correlates of ant eating in horned lizards (*Phrynosoma*). *Biological Journal of the Linnean Society* 89: 13–24 - [get paper here](#)
  - Mosauer, Walter 1936. The reptilian fauna of sand dune areas of Vizcaino Desert and of northwestern Lower California. *Occasional Papers of the Museum of Zoology, University of Michigan* (329): 1-21 - [get paper here](#)
  - Mulcahy, Daniel G.; Allen W. Spaulding, Joseph R. Mendelson III & Edmund D. Brodie, Jr. 2006. Phylogeography of the Flat-tailed Horned Lizard (*Phrynosoma mcallii*) and systematics of the *P. mcallii*–*platyrhinos* mtDNA complex. *Molecular Ecology* 15(0): 1–20 - [get paper here](#)
  - Newbold, T. A. Scott and James A. MacMahon 2014. Determinants of Habitat Selection by Desert Horned Lizards (*Phrynosoma platyrhinos*): The Importance of Abiotic Factors Associated with Vegetation Structure. *Journal of Herpetology* Sep 2014, Vol. 48, No. 3: 306-316. - [get paper here](#)
  - Pianka, E. R. 1966. Convexity, desert lizards, and spatial heterogeneity. *Ecology* 47 (6): 1055-1059 - [get paper here](#)
  - Pianka, E. R. 1967. On lizard species diversity: North American flatland deserts. *Ecology* 48 (3): 333-351 - [get paper here](#)
  - Pianka, E. R. 1991. *Phrynosoma platyrhinos*. Girard: Desert Horned Lizard. *Catalogue of American Amphibians and Reptiles* 517: 1-4 - [get paper here](#)
  - Pianka, E. R.;Parker, W. S. 1975. Ecology of horned lizards: A review with special reference to *Phrynosoma platyrhinos*. *Copeia* 1975 (1): 141-162 - [get paper here](#)
  - Presch, W. 1969. Evolutionary osteology and relationships of the horned lizard genus *Phrynosoma* (family Iguanidae). *Copeia* 1969 (2): 250-275 - [get paper here](#)
  - Reeder, T.W. & Montanucci, R.R. 2001. Phylogenetic analysis of the horned lizards (*Phrynomomatidae*: *Phrynosoma*): evidence from mitochondrial DNA and morphology. *Copeia* 2001 (2): 309-323 - [get paper here](#)
  - Schulz, Joschka 2015. Bepflanzung eines Freilandterrariums für Krötenechsen. *Draco* 16 (62): 68-76
  - Schulz, Joschka 2018. Die Etablierung und mehrjährige Zucht der Nördlichen Wüstenkrötenechse, *Phrynosoma platyrhinos platyrhinos* Girard, 1852. *Terraria-Elaphe* 2018 (2): 62-76 - [get paper here](#)
  - Sherbrooke, Wade C. 2003. *Introduction to Horned Lizards of North America.* University of California Press, Berkeley, 178 pp. - [get paper here](#)
  - Smith, H.M. & Taylor, E.H. 1950. An annotated checklist and key to the reptiles of Mexico exclusive of the snakes. *Bull. US Natl. Mus.* 199: 1-253 - [get paper here](#)
  - Stebbins, R.C. 1985. *A Field Guide to Western Reptiles and Amphibians*, 2nd ed. Houghton Mifflin, Boston
  - Stejneger, L.H. 1893. Annotated list of the reptiles and batrachians collected by the Death Valley Expedition in 1891, with descriptions of new species. *North American Fauna*, No. 7: 159-228 (+ 14 plates + 4 maps) - [get](#)

[paper here](#)

- Tanner, W.W. & J.E. Krogh 1973. Ecology of Phrynosoma platyrhinos at the Nevada Test Site, Nye County, Nevada Herpetologica 29 (4): 327-342. - [get paper here](#)
- Tanner, W.W. & J.E. Krogh 1974. Variations in Activity as Seen in Four Sympatric Lizard Species of Southern Nevada Herpetologica 30 (3): 303-308. - [get paper here](#)
- Tollestrup, K. 1981. The Social Behavior and Displays of Two Species of Horned Lizards, Phrynosoma platyrhinos and Phrynosoma coronatum Herpetologica 37 (3): 130-141. - [get paper here](#)
- Turner, Frederick B.; Wauer, Roland H. 1963. A survey of the herpetofauna of the Death Valley area. Great Basin Naturalist 23 (3-4): 119-128 - [get paper here](#)
- Van Denburgh, J. and Slevin, J.R. 1921. A list of the amphibians and reptiles of Nevada, with notes on the species in the collection of the academy. Proc. Cal. Acad. Sci. (4) 11 (2): 27-38 - [get paper here](#)
- Villegas-Patracá R, Aguilar-López JL, Hernández-Hernández JC, Muñoz-Jiménez O 2022. Diversity and conservation of terrestrial vertebrates (birds, mammals, and reptiles) of Sierra Cucapá, Mexicali, Baja California, Mexico. ZooKeys 1088: 17-39 - [get paper here](#)
- Vitt, L.J. 1977. Observations on clutch and egg size and evidence for multiple clutches in some lizards of southwestern United States [with data for many species] Herpetologica 33 (3): 333-338. - [get paper here](#)
- Werning, H. 2011. Phrynosoma platyrhinos. Wüstenkrötenexche. Reptilia (Münster) 16 (90): 47-50 - [get paper here](#)
- Werning, H. 2014. Krötenexchen – eine (sehr gute) Laune der Natur. Reptilia (Münster) 19 (107): 16-23
- Werning, Heiko 2012. Die Reptilien und Amphibien des Südwestens. Draco 13 (50): 18-60 - [get paper here](#)
- Woodbury, Angus Munn 1928. The reptiles of Zion National Park. Copeia 1928 (166): 14-21 - [get paper here](#)
- Zorn, H. 2004. Die Wüste im eigenen Haus. Reptilia (Münster) 9 (48): 41-44 - [get paper here](#)
- Zweifel, R.G. and Norris, K.S. 1955. Contributions 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: 230-249 - [get paper here](#)

External links

- [IUCN Red List](#)
- [National Center for Biotechnology Information](#)
- [http://bio.lmu.edu/socal\\_nat\\_hist/reptiles/lizards.htm](http://bio.lmu.edu/socal_nat_hist/reptiles/lizards.htm)
- <http://www.wildherps.com/species/P.platyrhinos.html>
- [Google images](#)

Is it interesting? Share with others:

As link to this species use URL address:

**<https://reptile-database.reptarium.cz/species?genus=Phrynosoma&species=platyrhinos>**

without field 'search\_param'. Field 'search\_param' is used for browsing search result.

[Please submit feedback about this entry to the curator](#)

*This database is maintained by Peter Uetz (database content) and Jakob Hallermann, Zoological Museum Hamburg (new species and updates).*

*Web pages and scripting Jiri Hosek*



# *Phrynosoma sherbrookei* NIETO-MONTES DE OCA, ARENAS-MORENO, BELTRÁN-SÁNCHEZ & LEACHÉ, 2014

## iNaturalist

Can you confirm these amateur observations of *Phrynosoma sherbrookei*?



[Add your own observation of \*Phrynosoma sherbrookei\*](#) »

We have no photos, try to find some by Google images search: [Google](#)

Higher Taxa Phrynosomatidae, Phrynosomatinae, Phrynosomatini; Iguania, Sauria, Squamata (lizards)

Subspecies

Common Names

Synonym *Phrynosoma sherbrookei* NIETO-MONTES DE OCA, ARENAS-MORENO, BELTRÁN-SÁNCHEZ & LEACHÉ 2014  
*Phrynosoma taurus sherbrookei* — KÖHLER 2021  
México (Guerrero)

Distribution Type locality: Tenexatlajco, municipality of Chilapa de Álvarez, Guerrero, México, 17.55437°N, 99.26973°W (datum 1/4 WGS84 for all localities), 1997 m elevation.

Reproduction

Holotype: MZFC 28101 (ADL 4173), a male, collected on 18 June 2012 by D. Arenas-Moreno, M.A. Días-Ojendis, M. García-Pareja, P.P. González-Alvarado, J. Grummer, A. Hernández-Ríos, R. Lara-Reséndiz, A.D. Leache, A. Nieto-Montes de Oca, and W.C. Sherbrooke. Paratypes. Ten specimens, all from Guerrero, México: three males (MZFC 27894, 27896, 27897) and four females (MZFC 27893, 27898–27900) from the same locality as the holotype (MZFC 27893–27894 collected on 2011 or 2012 by unrecorded collectors; MZFC 27896–27900 collected on 18 June 2012 by the same collectors as the holotype), and three specimens from the municipality of Olinalá: one female (MZFC 27895) from near La Encinera (Los Terrenos), 17.85202778°N, 98.75125°W, 1794 m elevation, collected on 19 July 2012 by W. Gramajo, and two specimens, one female and one juvenile of undetermined sex (MZFC 28303 and 28304, respectively) from 1 km NW Xixila, 17.94564°N, 98.85996°W, 1677 m elevation, collected on 1 October 2011 by E. Rosendo, V.H. Jiménez-Arcos, and S. Santa Cruz- Padilla.

Types

	<p>Diagnosis. <i>Phrynosoma sherbrookei</i> may be distinguished from <i>P. blainvillii</i>, <i>P. cer-roense</i>, <i>P. coronatum</i>, <i>P. douglasii</i>, <i>P. goodei</i>, <i>P. hernandesi</i>, <i>P. mcallii</i>, <i>P. modestum</i>, <i>P. orbiculare</i>, <i>P. platyrhinos</i>, and <i>P. solare</i> by having keeled ventral scales (vs. ventral scales smooth in the other species).</p> <p>Among the species with keeled ventral scales, <i>Phrynosoma sherbrookei</i> differs from <i>P. asio</i> and <i>P. cornutum</i> by having a smaller adult body size (snout–vent length [SVL], 63.0 mm vs. SVL 140.0 mm in the other species; Smith and Taylor, 1950), a shorter tail (tail length, 23% of SVL vs. tail length <math>\geq</math> 50% of SVL in the other species; Smith and Taylor, 1950), and one lateral abdominal row of fringe scales (vs. two lateral abdominal rows of fringe scales in the other species; Smith and Taylor, 1950; Montanucci, 1987). <i>Phrynosoma sherbrookei</i> can be distinguished from <i>P. ditmarsii</i> by having well-developed occipital and temporal spines (vs. occipital and temporal spines absent, replaced by low, rounded protuberances in <i>P. ditmarsii</i>; Smith and Taylor, 1950; Reeve, 1952) and one or two short rows of sublabials (vs. five or six rows of sublabials in <i>P. ditmarsii</i>; Reeve, 1952).</p> <p><i>Phrynosoma sherbrookei</i> is most closely related to the two species in the <i>Brevicauda</i> clade (<i>P. braconnieri</i> and <i>P. taurus</i>). The new species can be distinguished from <i>P. braconnieri</i> by having the outer temporal part of the skull prolonged posteriodorsally into two temporal spines (vs. the outer temporal part of the skull prolonged posteriodorsally into three temporal spines in <i>P. braconnieri</i>), posterior chinshields larger than the postlabials (vs. posterior chinshields smaller than at least the posterior-most postlabial in <i>P. braconnieri</i>), and more numerous sublabials (10–18, <math>\bar{X}</math> 14.7, <math>n</math> 9) usually arranged in two rows (vs. 1–7, <math>\bar{X}</math> 4.8, <math>n</math> 9, sublabials in one row in <i>P. braconnieri</i>).</p> <p><i>Phrynosoma sherbrookei</i> differs from <i>P. taurus</i> by having a smaller adult body size (54 and 63 mm SVL in males and females, respectively, vs. 55.5–77.0 and 65.0–90.0 mm SVL in <i>P. taurus</i> males and females, respectively; Zamudio and Parra-Olea, 2000); by having outer temporal spines only slightly longer than the occipital spines (length ratio 1.1–1.6, <math>\bar{X}</math> 1.4, <math>n</math> 12) and not or barely exceeding the occipital spines in posterior extension (vs. outer temporal spines much longer than the occipital spines [length ratio 2.1–3.0, <math>\bar{X}</math> 2.5, <math>n</math> 6] and far exceeding the occipital spines in posterior extension in <i>P. taurus</i>), and in lacking enlarged postcloacal scales (vs. the presence of enlarged postcloacal scales in <i>P. taurus</i>).</p>
Diagnosis	<p>Similar species: <i>P. braconnieri</i> (morphologically) and <i>P. taurus</i> (genetically).</p>
Comment	Named after Wade C. Sherbrooke in recognition of his many and significant contributions to the knowledge of horned lizards.
Etymology	
References	<ul style="list-style-type: none"> <li>• Bautista-Del Moral, A; Palacios-Aguilar, R &amp; Santos-Bibiano, R; 2019. Geographic Distribution: <i>Phrynosoma sherbrookei</i> (Guerrero Horned Lizard) Mexico: Guerrero: Municipality of Atlixtlac. <i>Herpetological Review</i> 50 (3): 527-528 - <a href="#">get paper here</a></li> <li>• Lara-Reséndiz Rafael A., Arenas-Moreno Diego M., Beltrán-Sánchez Elizabeth, Gramajo Weendii, Verdugo-Molina Javier, Sherbrooke Wade C. et al. 2015. Selected body temperature of nine species of Mexican horned lizards (<i>Phrynosoma</i>). <i>Rev. Mex. Biodiv.</i> 86 (1): 275-278. - <a href="#">get paper here</a></li> <li>• Nieto-Montes de Oca, Adrián; Diego Arenas-Moreno, Elizabeth Beltrán-Sánchez, and Adam D. Leaché 2014. A New Species of Horned Lizard (Genus <i>Phrynosoma</i>) from Guerrero, México, with an Updated Multilocus Phylogeny. <i>Herpetologica</i> Jun 2014, Vol. 70, No. 2: 241-257. - <a href="#">get paper here</a></li> <li>• Palacios-Aguilar, Ricardo 2020. UNA LISTA COMENTADA DE LAS ESPECIES DE ANFIBIOS Y REPTILES CON LOCALIDAD TIPO EN GUERRERO, MÉXICO. <i>Rev. Latinoamer. Herp.</i> 3 (2): 43-60</li> <li>• Palacios-Aguilar, Ricardo &amp; OSCAR FLORES-VILLELA 2018. An updated checklist of the herpetofauna from Guerrero, Mexico. <i>Zootaxa</i> 4422 (1): 1-24 - <a href="#">get paper here</a></li> </ul>
External links	<ul style="list-style-type: none"> <li>• <a href="#">National Center for Biotechnology Information</a></li> <li>• <a href="#">Google images</a></li> </ul>

### Is it interesting? Share with others:

As link to this species use URL address:

<https://reptile-database.reptarium.cz/species?genus=Phrynosoma&species=sherbrookei>

without field 'search\_param'. Field 'search\_param' is used for browsing search result.

[Please submit feedback about this entry to the curator](#)

*This database is maintained by Peter Uetz (database content) and Jakob Hallermann, Zoological Museum Hamburg (new species and updates).*



## *Phrynosoma solare* GRAY, 1845



*Phrynosoma solare*  
Arizona, Santa Cruz Co., Tubac  
© Laurie Vitt

1 / 3



iNaturalist

Can you confirm these amateur observations of *Phrynosoma solare*?



[Add your own observation of \*Phrynosoma solare\*](#) »

Find more photos by Google images search: [Google](#)

Higher Taxa Phrynosomatidae, Phrynosomatinae, Phrynosomatini; Iguania, Sauria, Squamata (lizards)

Subspecies

Common Names  
E: Regal Horned Lizard  
G: Vierhorn-Krötenechse  
S: Camaleón Real

Synonym

*Phrynosoma solaris* GRAY 1845: 229  
*Phrynosoma solare* — VAN DENBURGH 1895: 115  
*Phrynosoma regale* GIRARD 1858: 406  
*Phrynosoma regale* — GENTRY 1885: 146  
*Phrynosoma regale* — BOULENGER 1885: 245  
*Phrynosoma solare* — COPE 1900  
*Phrynosoma regale* — DITMARS 1911  
*Phrynosoma solare* — BURT 1933  
*Phrynosoma solare* — SMITH & TAYLOR 1950: 104  
*Phrynosoma solare* — PARKER 1974  
*Phrynosoma solare* — STEBBINS 1985: 142  
*Phrynosoma solare* — LINER 1994  
*Phrynosoma solare* — LINER 2007  
*Phrynosoma* (Anota) *solare* — CROTHER et al. 2012  
*Phrynosoma* (Anota) *solare* — DE QUEIROZ in CROTHER et al. 2017  
*Phrynosoma solare* — KÖHLER 2021

Distribution	USA (S Arizona, New Mexico), Mexico (Sonora, N Sinaloa, Baja California)
Reproduction	Type locality: California (in error). Restricted to Yuma, Arizona by SMITH & TAYLOR 1950.
Types	oviparous Holotype: BMNH XXIII.125.d, Syntype: USNM 161, 131664 [Phrynosoma regale]
Diagnosis	DIAGNOSIS. Phrynosoma solare is one of the larger members of the genus (maximum snout-vent length 117 mm in females; 95 mm in males), with four (rarely only two) equal sized occipital spines, which form a continuous series with the large temporal spines on the posterior edge of the head. The bases of the occipital spines are close together. The nostrils lie within the canthal ridge. There are two scale rows in the lateral abdominal fringe, and the ventral scales are keeled (Parker 1974). Group: Belongs to the Anota clade fide LEACHE & MCGUIRE 2006.
Comment	Diet: With 89% of its diet being ants this species seems to be the most dependent and specialized on ants (Fabian 2014).
References	<ul style="list-style-type: none"> <li>• Aguilar-Morales, Cecilia and Thomas R. Van Devender 2018. Horned Lizards (Phrynosoma) of Sonora, Mexico: Distribution and Ecology. <i>Sonoran Herpetologist</i> 31 (3): 40-50 - <a href="#">get paper here</a></li> <li>• Axtell, R.W. 1986. The Eipterygoids in Phrynosoma solare, Still Present, but Disappearing <i>Journal of Herpetology</i> 20 (1): 79-81. - <a href="#">get paper here</a></li> <li>• Baharav, D. 1975. Movement of the Horned Lizard Phrynosoma solare <i>Copeia</i> 1975 (4): 649-657. - <a href="#">get paper here</a></li> <li>• Baur, B.E. 1986. Longevity of horned lizards of the genus Phrynosoma. <i>Bull. Maryland Herp. Soc.</i> 22 (3): 149-151 - <a href="#">get paper here</a></li> <li>• Bezy, Robert L. and Charles J. Cole 2014. Amphibians and Reptiles of the Madrean Archipelago of Arizona and New Mexico. <i>American Museum Novitates</i> (3810): 1-24 - <a href="#">get paper here</a></li> <li>• Boulenger, G.A. 1885. Catalogue of the lizards in the British Museum (Natural History). Vol. 2, Second edition. London, xiii+497 pp. - <a href="#">get paper here</a></li> <li>• Burt, Charles E. 1933. Some lizards from the Great Basin of the West and adjacent areas, with comments on the status of various forms. <i>American Midland Naturalist</i> 14: 228-250 - <a href="#">get paper here</a></li> <li>• Cope, E.D. 1900. The crocodylians, lizards and snakes of North America. <i>Ann. Rep. U.S. Natl. Mus.</i> 1898: 153-1270 - <a href="#">get paper here</a></li> <li>• Crother, B. I. (ed.) 2012. Standard Common and Current Scientific Names for North American Amphibians, Turtles, Reptiles, and Crocodylians, Seventh Edition. <i>Herpetological Circular</i> 39: 1-92</li> <li>• Cutter, W.L. 1959. An Instance of Blood-Squirting by Phrynosoma solare <i>Copeia</i> 1959 (2): 176. - <a href="#">get paper here</a></li> <li>• Degenhardt, William G.; C. W. Painter, and A. H. Price 1996. <i>Amphibians and reptiles of New Mexico</i>. Univ. New Mexico Press, 431 pp.</li> <li>• Ditmars, Raymond L. 1911. Reptiles of all lands. <i>National Geographic</i> 22(7): 601-633</li> <li>• Enderson, Erik F.; Thomas R. Van Devender, Robert L. Bezy 2014. Amphibians and reptiles of Yécora, Sonora and the Madrean Tropical Zone of the Sierra Madre Occidental in northwestern Mexico. <i>Check List</i> 10 (4): 913-926 - <a href="#">get paper here</a></li> <li>• Fabian, B. F 2014. Überlegungen zur Ernährung von Krötenechsen. <i>Reptilia (Münster)</i> 19 (107): 24-29</li> <li>• FLESCHE, AARON D.; DON E. SWANN, DALE S. TURNER, AND BRIAN F. POWELL 2010. HERPETOFAUNA OF THE RINCON MOUNTAINS, ARIZONA. <i>Southwestern Naturalist</i> 55(2):240–253 - <a href="#">get paper here</a></li> <li>• Gentry, A.F. 1885. A review of the genus Phrynosoma. <i>Proc. Acad. Nat. Sci. Philad.</i> (ser. 3) 37: 138-148 - <a href="#">get paper here</a></li> <li>• Girard, Charles F. 1858. United States Exploring Expedition during the Years 1838, 1839, 1840, 1841, 1842, Under the command of Charles Wilkes, U.S.N. Vol. 20. <i>Herpetology</i>. C. Sherman &amp; Son, Philadelphia, xv, 492 pages [see note in Zhao and Adler 1993: 369] - <a href="#">get paper here</a></li> <li>• Gloyd, Howard K. 1937. A herpetological consideration of faunal areas in Southern Arizona. <i>Bulletin of the Chicago Academy of Sciences</i> 5 (5): 77-136 - <a href="#">get paper here</a></li> <li>• Gray, J. E. 1845. Catalogue of the specimens of lizards in the collection of the British Museum. Trustees of die British Museum/Edward Newman, London: xxvii + 289 pp. - <a href="#">get paper here</a></li> <li>• Hardy, L.M., &amp; McDiarmid, R.W. 1969. The amphibians and reptiles of Sinaloa, Mexico. <i>Univ. Kansas Publ. Mus. Nat. Hist.</i> 18 (3): 39-252. - <a href="#">get paper here</a></li> <li>• Jones, L.L. &amp; Lovich, R.E. 2009. <i>Lizards of the American Southwest. A photographic field guide</i>. Rio Nuevo Publishers, Tucson, AZ, 568 pp. [review in <i>Reptilia</i> 86: 84] - <a href="#">get paper here</a></li> <li>• Lara-Reséndiz Rafael A., Arenas-Moreno Diego M., Beltrán-Sánchez Elizabeth, Gramajo Weendii, Verdugo-Molina Javier, Sherbrooke Wade C. et al. 2015. Selected body temperature of nine species of Mexican horned lizards (Phrynosoma). <i>Rev. Mex. Biodiv.</i> 86 (1): 275-278. - <a href="#">get paper here</a></li> <li>• Lara-Resendiz, Rafael A., Rodrigo Garcia-Figueroa and Ramón F. Ochoa-Jara. 2016. Phrynosoma solare. Nocturnal activity. <i>Mesoamerican Herpetology</i> 3(4): 1010–1011 - <a href="#">get paper here</a></li> <li>• Leaché, Adam D. and Jimmy A. McGuire 2006. Phylogenetic relationships of horned lizards (Phrynosoma) based on nuclear and mitochondrial data: Evidence for a misleading mitochondrial gene tree. <i>Molecular Phylogenetics and Evolution</i> 39 (3): 628-644 - <a href="#">get paper here</a></li> </ul>



- Lemos-Espinal JA, Smith GR 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 - [get paper here](#)
- Lemos-Espinal JA, Smith GR, Rorabaugh JC 2019. A conservation checklist of the amphibians and reptiles of Sonora, Mexico, with updated species lists. ZooKeys 829: 131-160 - [get paper here](#)
- Liner, Ernest A. 2007. A CHECKLIST OF THE AMPHIBIANS AND REPTILES OF MEXICO. Louisiana State University Occasional Papers of the Museum of Natural Science 80: 1-60 - [get paper here](#)
- Meyers, J.J.; Herrel, A. & Nishikawa, K. 2006. Morphological correlates of ant eating in horned lizards (Phrynosoma). Biological Journal of the Linnean Society 89: 13–24 - [get paper here](#)
- Nevárez-de los Reyes; Manuel, David Lazcano, Javier Banda-Leal and Ian Recchio 2014. Notes on Mexican Herpetofauna 22: Herpetofauna of the Continental Portion of the Municipality of Hermosillo, Sonora, Mexico. Bull. Chicago Herp. Soc. 49(8):105-115 - [get paper here](#)
- Painter, Charles W. 1993. Phrynosoma solare (regal horned lizard). USA: New Mexico. Herpetological Review 24 (4): 155 - [get paper here](#)
- Parker, W.S. 1974. Phrynosoma solare (Gray): Regal horned lizard. Catalogue of American Amphibians and Reptiles ( 162): 1-2 - [get paper here](#)
- Parker, William S. 1971. Ecological observations on the regal horned lizard (Phrynosoma solare) in Arizona. Herpetologica 27 (3): 333-338 - [get paper here](#)
- Presch, W. 1969. Evolutionary osteology and relationships of the horned lizard genus Phrynosoma (family Iguanidae). Copeia 1969 (2): 250-275 - [get paper here](#)
- Reeder, T.W. & Montanucci, R.R. 2001. Phylogenetic analysis of the horned lizards (Phrynomomatidae: Phrynosoma): evidence from mitochondrial DNA and morphology. Copeia 2001 (2): 309-323 - [get paper here](#)
- Schonberger, C.F. 1945. Oviposition by Phrynosoma solare Copeia 1945 (1): 53-54. - [get paper here](#)
- Sherbrooke, Wade C. 2003. Introduction to Horned Lizards of North America. University of California Press, Berkeley, 178 pp. - [get paper here](#)
- SHERBROOKE, WADE C. 2021. PHRYNOSOMA SOLARE (Regal Horned Lizard). HIBERNATING POSTURE. Herpetological Review 52 (3): 651–652. - [get paper here](#)
- SHERBROOKE, WADE C. 2021. PHRYNOSOMA SOLARE (Regal Horned Lizard). HIBERNATING BLOOD-SQUIRTING DEFENSE. Herpetological Review 52 (2): 411–412. - [get paper here](#)
- Skubowius, Bernd 2012. Echsen, Schildkröten, Amphibien und Spinnentiere – die vielfältige Welt der „creeping crawlers“ in Arizona. Draco 13 (50): 70-78 - [get paper here](#)
- Stebbins, R.C. 1985. A Field Guide to Western Reptiles and Amphibians, 2nd ed. Houghton Mifflin, Boston
- Sullivan, B.K., and E.A. Sullivan. 2016. Late fall and early winter activity by hatchling and adult Regal Horned Lizards, Phrynosoma solare. Sonoran Herpetologist 29 (1):5-6. - [get paper here](#)
- Sullivan, Brian K., Elizabeth A. Sullivan, Keith O. Sullivan and Hunter McCall. 2014. Geographical Distribution: Phrynosoma solare (regal horned lizard). Herpetological Review 45 (4): 660-661 - [get paper here](#)
- Taylor, Edward Harrison 1938. Notes on the herpetological fauna of the Mexican state of Sonora. Univ. Kansas Sci. Bull. 24 (19): 475-503 [1936] - [get paper here](#)
- Van Denburgh, J. 1895. A review of the herpetology of Lower California. Part I - Reptiles. Proc. Cal. Acad. Sci. (2) 5: 77-163 - [get paper here](#)
- Van Devender, T.R. & C.W. Howard 1973. Notes on Natural Nests and Hatching Success in the Regal Horned Lizard (Phrynosoma solare) in Southern Arizona Herpetologica 29 (3): 238-239. - [get paper here](#)
- Werning, H. 2014. Krötenechsen – eine (sehr gute) Laune der Natur. Reptilia (Münster) 19 (107): 16-23
- Werning, H. 2015. Jurassic World im Wohnzimmer. Mini-Dinos für das Terrarium. Reptilia (Münster) 20 (114): 26-37 - [get paper here](#)
- Zweifel, R.G. and Norris, K.S. 1955. Contributions 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: 230-249 - [get paper here](#)

## External links

- [IUCN Red List](#)
- [National Center for Biotechnology Information](#)
- [http://www.desertmuseum.org/programs/yeocora\\_fauna.html](http://www.desertmuseum.org/programs/yeocora_fauna.html)
- <http://www.wildherps.com/species/P.solare.html>
- <http://www.enature.com/fieldguide/showSpeciesSH.asp?curGroupID=7&shapeID...>
- [Google images](#)

Is it interesting? Share with others:

As link to this species use URL address:

<https://reptile-database.reptarium.cz/species?genus=Phrynosoma&species=solare>



## *Phrynosoma taurus* BOCOURT, 1870



iNaturalist

Can you confirm these amateur observations of *Phrynosoma taurus*?



[Add your own observation of \*Phrynosoma taurus\*](#) »

Find more photos by Google images search: [Google](#)

Higher Taxa Phrynosomatidae, Phrynosomatinae, Phrynosomatini; Iguania, Sauria, Squamata (lizards)

Subspecies

Common Names  
E: Mexican Horned Lizard  
G: Büffelhorn-Krötenechse  
S: Camaleón Toro

Synonym  
Phrynosoma taurus BOCOURT 1870  
Phrynosoma taurus — DUGÈS 1873: 302  
Phrynosoma taurus — GENTRY 1885: 146  
Phrynosoma taurus — BOULENGER 1885: 249  
Phrynosoma taurus — SMITH & TAYLOR 1950: 104  
Phrynosoma taurus — LINER 1994  
Phrynosoma taurus — LINER 2007  
Phrynosoma taurus — CANSECO-MÁRQUEZ & GUTIÉRREZ-MAYÉN 2010  
Phrynosoma taurus — KÖHLER 2021  
Mexico (Morelos, Puebla, Oaxaca, Guerrero)

Distribution

Type locality: Matamoras Izúcar [Puebla]

Reproduction ovoviviparous (Lambert & Wiens 2013).

Types Syntypes: MNHN-RA 1270, MNHN-RA 1310, MNHN-RA 1310A-C, MNHN-RA 1915, MNHN-RA 1915A-B, MNHN-RA 1916 (9 specimens)

- Diagnosis:** A moderate-sized species of the genus *Phrynosoma* (SVL to 90 mm) that is distinguished from all congeners by having the temporal shelf greatly extended posterolaterally, terminating in a large spine, bordered medially by a smaller spine. It has the following combination of characters: (1) occipital spines small, only slightly larger than adjacent scales; (2) temporal shelf greatly extended posterolaterally, terminating in a large spine, bordered medially by a smaller spine; (3) lateral abdominal fringe in one scale row; (4) ventral scales keeled; (5) small, granular, subequal or with a single marginal row of slightly enlarged scales on each side, separated from infralabials by one scale row; (6) ventral surface of body with dark spots; (7) tail about as long as head; (8) ovoviviparous (Baur & Köhler 2021).
- History:** the year of description for this species seems to be somewhat unclear, because the name was apparently mentioned several times without description (starting in 1868) and therefore was a “nomen nudum” for some time (SMITH & TAYLOR 1950: 104). The correct authorship is BOCOURT 1870 fide Flores-Villela et al. 2016: 48.
- Comment**

**Group:** Belongs to the Brevicauda clade fide LEACHE & MCGUIRE 2006.

- Baur, B. & Köhler, G. 2021. Krötenechsen - Biologie, Pflege, Zucht. Frankfurt, Herpeton-Verlag
- Bergmann PJ, Irschick DJ. 2012. Vertebral evolution and the diversification of squamate reptiles. *Evolution* 66(4):1044-58. doi: 10.1111/j.1558-5646.2011.01491.x - [get paper here](#)
- Boulenger, G.A. 1885. Catalogue of the lizards in the British Museum (Natural History). Vol. 2, Second edition. London, xiii+497 pp. - [get paper here](#)
- 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 - [get paper here](#)
- Casas-Andreu, G., F.R. Méndez-De la Cruz and X. Aguilar-Miguel. 2004. Anfibios y Reptiles; pp. 375–390, in A.J.M. García-Mendoza, J. Ordoñez and M. Briones-Salas (ed.). Biodiversidad de Oaxaca. Instituto de Biología, UNAM-Fondo Oaxaqueño para la Conservación de la Naturaleza-World Wildlife Fund, México, D. F.
- Castro Franco, R. & M. G. Bustos-Zagal 2003. Lagartijas de Morelos, México: distribución, hábitat y conservación. *Acta Zoológica Mexicana* (n.s.) 88:123-142 - [get paper here](#)
- Castro-Franco, Rubén, María Guasalupe Bustos-Zagal 1994. List of reptiles of Morelos, Mexico, and their distribution in relation to vegetation types. *Southwestern Naturalist* 39 (2): 171-175 - [get paper here](#)
- Dugès, ALFREDO 1873. Estudio sobre una nueva especie de camaleon. *La Naturaleza* 1873: 302-305 - [get paper here](#)
- FLORES-VILLELA, OSCAR; CÉSAR A. RÍOS-MUÑOZ, GLORIA E. MAGAÑA-COTA & NÉSTOR L. QUEZADAS-TAPIA 2016. Alfredo Dugès' type specimens of amphibians and reptiles revisited. *Zootaxa* 4092 (1): 033–054 - [get paper here](#)
- Gentry, A.F. 1885. A review of the genus *Phrynosoma*. *Proc. Acad. Nat. Sci. Philad.* (ser. 3) 37: 138-148 - [get paper here](#)
- Hodges, W.L. and Kelly R. Zamudio 2004. Horned lizard (*Phrynosoma*) phylogeny inferred from mitochondrial genes and morphological characters: understanding conflicts using multiple approaches. *Molecular Phylogenetics and Evolution* 31 (3): 961-971 - [get paper here](#)
- Lambert, Shea M. and John J. Wiens 2013. EVOLUTION OF VIVIPARITY: A PHYLOGENETIC TEST OF THE COLD-CLIMATE HYPOTHESIS IN PHRYNOSOMATID LIZARDS. *Evolution* 67 (9): 2614–2630 - [get paper here](#)
- Lara-Reséndiz Rafael A., Arenas-Moreno Diego M., Beltrán-Sánchez Elizabeth, Gramajo Weendii, Verdugo-Molina Javier, Sherbrooke Wade C. et al. 2015. Selected body temperature of nine species of Mexican horned lizards (*Phrynosoma*). *Rev. Mex. Biodiv.* 86 (1): 275-278. - [get paper here](#)
- Leaché, Adam D. and Jimmy A. McGuire 2006. Phylogenetic relationships of horned lizards (*Phrynosoma*) based on nuclear and mitochondrial data: Evidence for a misleading mitochondrial gene tree. *Molecular Phylogenetics and Evolution* 39 (3): 628-644 - [get paper here](#)
- Lemos-Espinal JA, Smith GR 2020. A conservation checklist of the herpetofauna of Morelos, with comparisons with adjoining states. *ZooKeys* 941: 121-144 - [get paper here](#)
- Liner, Ernest A. 2007. A CHECKLIST OF THE AMPHIBIANS AND REPTILES OF MEXICO. *Louisiana State University Occasional Papers of the Museum of Natural Science* 80: 1-60 - [get paper here](#)
- López-Vargas, M. R. & Lemos-Espinal, J. A. 2012. *Phrynosoma taurus* (bull horned lizard) prey. *Herpetological Review* 43: 337-338 - [get paper here](#)
- Mata-Silva, Vicente, Jerry D. Johnson, Larry David Wilson and Elí García-Padilla. 2015. The herpetofauna of Oaxaca, Mexico: composition, physiographic distribution, and conservation status. *Mesoamerican Herpetology* 2 (1): 6–62 - [get paper here](#)
- Meyers, J.J.; Herrel, A. & Nishikawa, K. 2006. Morphological correlates of ant eating in horned lizards (*Phrynosoma*). *Biological Journal of the Linnean Society* 89: 13–24 - [get paper here](#)
- Nieto-Montes de Oca, Adrián; Diego Arenas-Moreno, Elizabeth Beltrán-Sánchez, and Adam D. Leaché 2014. A New Species of Horned Lizard (Genus *Phrynosoma*) from Guerrero, México, with an Updated Multilocus Phylogeny. *Herpetologica* Jun 2014, Vol. 70, No. 2: 241-257. - [get paper here](#)
- Palacios-Aguilar, Ricardo & OSCAR FLORES-VILLELA 2018. An updated checklist of the herpetofauna from Guerrero, Mexico. *Zootaxa* 4422 (1): 1-24 - [get paper here](#)
- Presch, W. 1969. Evolutionary osteology and relationships of the horned lizard genus *Phrynosoma* (family Iguanidae). *Copeia* 1969 (2): 250-275 - [get paper here](#)
- Reeder, T.W. & Montanucci, R.R. 2001. Phylogenetic analysis of the horned lizards (*Phrynomomatidae*):

- Phrynosoma): evidence from mitochondrial DNA and morphology. Copeia 2001 (2): 309-323 - [get paper here](#)
- Sherbrooke, Wade C. 2003. Introduction to Horned Lizards of North America. University of California Press, Berkeley, 178 pp. - [get paper here](#)
  - Smith, H.M. & Taylor, E.H. 1950. An annotated checklist and key to the reptiles of Mexico exclusive of the snakes. Bull. US Natl. Mus. 199: 1-253 - [get paper here](#)
  - Werning, H. 2014. Krötenechsen – eine (sehr gute) Laune der Natur. Reptilia (Münster) 19 (107): 16-23
  - Woolrich-Piña, G. A., E. García-Padilla, D. L. DeSantis, J. D. Johnson, V. Mata-Silva, and L. D. Wilson 2017. The herpetofauna of Puebla, Mexico: composition, distribution, and conservation status. Mesoamerican Herpetology 4(4): 791–884 - [get paper here](#)
  - Zamudio, K.R., Parra-Olea, G. 2000. Reproductive mode and female reproductive cycles of two endemic Mexican horned lizards (*Phrynosoma taurus* and *Phrynosoma braconnieri*). Copeia 2000 (1): 222–229 - [get paper here](#)

## External links

- [IUCN Red List](#)
- [National Center for Biotechnology Information](#)
- <http://uts.cc.utexas.edu/~varanus/phryno.html>
- [Google images](#)

## Is it interesting? Share with others:

As link to this species use URL address:

**<https://reptile-database.reptarium.cz/species?genus=Phrynosoma&species=taurus>**

without field 'search\_param'. Field 'search\_param' is used for browsing search result.

[Please submit feedback about this entry to the curator](#)

*This database is maintained by Peter Uetz (database content) and Jakob Hallermann, Zoological Museum Hamburg (new species and updates).*

*Web pages and scripting Jiri Hosek*