Catalogue of American Amphibians and Reptiles.

Hodges, W.L. 1995. *Phrynosoma ditmarsi.*

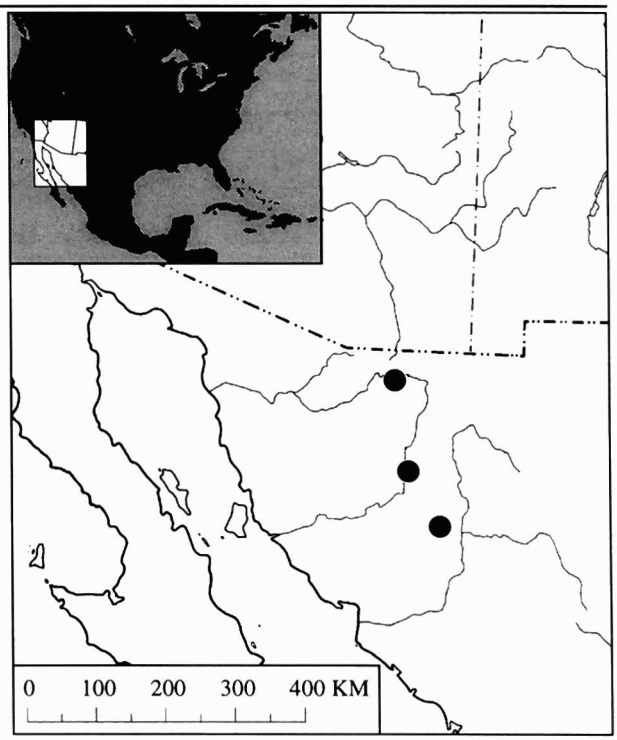
Phrynosoma ditmarsi Stejneger
Rock Horned Lizard

Phrynosoma ditmarsi Stejneger, 1906:565. Type-locality, "State of Sonora, Mexico, not far from boundary of Arizona" (see Remarks). Holotype, National Museum of Natural History (USNM) 36022, adult male, collected by Mr. Eustace in 1897 (not examined by author).

• **Content.** The species is monotypic.

• **Definition.** *Phrynosoma ditmarsi* is a moderately sized (76-90 mm SVL) viviparous horned lizard with a red, brown, gray, or yellow dorsal ground color and dark crossbands posteriorly. The venter is whitish, with strongly keeled scales. 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.

• **Diagnosis.** *Phrynosoma ditmarsi* 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.

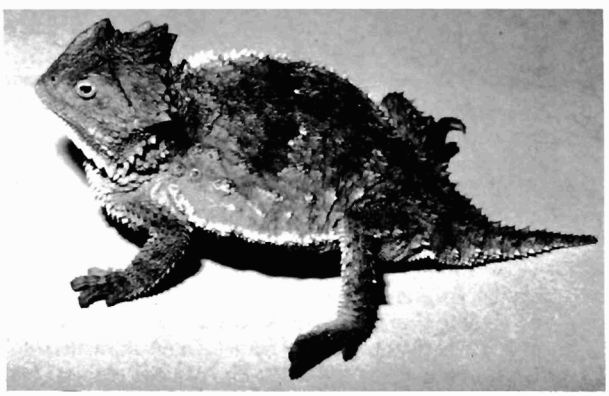


Map. Known distribution of *Phrynosoma ditmarsi*. Dots mark specimen records. The type-locality is too imprecise to plot.

• **Descriptions.** Detailed descriptions of the holotype and the adult female paratype (USNM 36013) occur in Stejneger (1906), Smith (1946), and Reeve (1952). Other descriptions are in Van Denburgh (1922), Cuesta Terron (1932), Ditmars (1936), Smith and Laufe (1945), Smith and Taylor (1950a), Presch (1969), Lowe et al. (1971), and Montanucci (1987, 1989b).

• **Illustrations.** Black and white photographs of adults are in Cuesta Terron (1932), Ditmars (1936), Smith (1946), Lowe et al. (1971), and Montanucci (1989a). Lowe and Howard (1975) provided black and white photographs of an ontogenetic series of females from Cerro de la Palma, and also illustrated habitat at that site. A black and white photograph of an adult mandible is in Montanucci (1989b).

• **Distribution.** *Phrynosoma ditmarsi* is known from rocky habitats within oak and oak-pine woodlands and short-tree



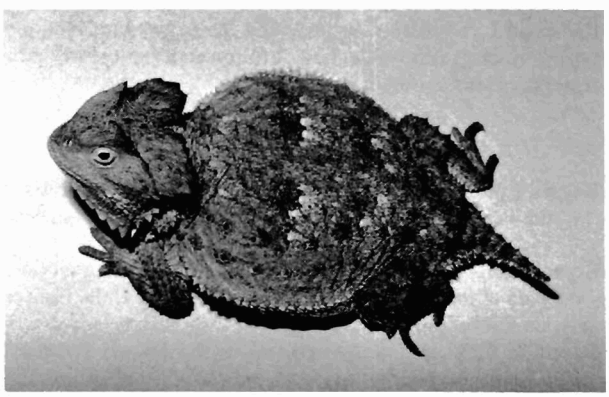


Figure. Adult male (left) and female *Phrynosoma ditmarsi* (RRM 2458-9) from 26 km ENE Baviácora (29°47'N, 110°W), Sonora, México. Photographs courtesy of Richard R. Montanucci.

Sinaloan deciduous forest along the western aspect of the Sierra Madre Occidental in the Mexican state of Sonora, north of Yécora, at elevations of 1050-1425 m. Distributional notes are in Stejneger (1906), Van Denburgh (1922), Stejneger and Barbour (1917, 1943), Bogert and Oliver (1945), Smith (1946), Smith and Taylor (1950a,b), Lowe et al. (1971), Lowe and Howard (1975), and Perrill (1983).

• **Fossil Record.** None.

• **Pertinent Literature.** Presch (1969) discussed general osteological features. Detailed descriptions of osteology and scalation, and a discussion of trophic specialization are in Montanucci (1987, 1989b). Lowe et al. (1971) provided an historical perspective of the discovery and distribution of *Phrynosoma ditmarsi*, and provided descriptions of live specimens and habitat characteristics. Roth (1971) reported stomach contents and parasites, and attempted to restrict the type-locality. Lowe and Howard (1975) reported on reproductive characteristics, including parturition, clutch size, weights of young and adults, and testicular and ovarian cycles. Pianka and Parker (1975) presented data on diet. Perrill (1983) reported a large range extension and provided a habitat description. Montanucci (1989a, c, d) described diel activity, locomotion, juvenile aggression, sleeping sites, longevity, breeding behavior, and clutch size in captive individuals. Van Denburgh (1922) and Ditmars (1936) described foraging and defensive behavior of a captive male. Cuesta Terron (1932), Smith (1946), and Smith and Taylor (1950a) included general references to *Phrynosoma ditmarsi*, and brief descriptive or biogeographical notes are in Ditmars (1910), Bryant (1911), Smith (1934), Burt (1935), Stejneger and Barbour (1917, 1943), Bogert and Oliver (1945), Smith and Laufe (1945), Smith and Taylor (1950b), Pope (1955), Etheridge (1964), Richardson (1972), and Flores-Villela (1993). Smith and Smith (1973, 1976) provided a synopsis of the literature on the species.

• **Remarks.** At the time of the original description of *Phrynosoma ditmarsi* by Stejenger (1906) only three specimens were known to science; the two given to Stejneger by Ditmars and a third, apparently unknown to him, collected during 1890-1891 by the Lumholtz expedition in the collection of the American Museum of Natural History (AMNH 557; Lowe et al., 1971). No additional specimens were available for study until those reported by Lowe et al. (1971) and Roth (1971). Based on an exhaustive cross-correlational analysis of gut contents of both earlier and newly-extant specimens, as well as field experience in the region, Roth (1971) speculated that the type-locality would be found to occur in an area between Naco, Agua Prieta, and Fronteras in Sonora, México.

• **Etymology.** The name *ditmarsi* is a patronym honoring Raymond L. Ditmars who provided Stejneger with the holotype from his private collection. I followed Liner (1994) in the selection of the common name.

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