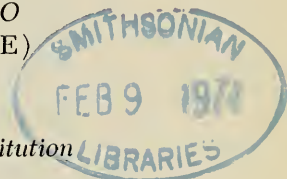


PROCEEDINGS
OF THE
BIOLOGICAL SOCIETY OF WASHINGTON

REDISCOVERY AND REDESCRIPTION OF THE
KHUZISTAN DWARF GECKO, *MICROGECKO*
HELENAE NIKOLSKY (SAURIA: GEKKONIDAE)

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Nikolsky (1907: 264-268) described the genus and species *Microgecko helenae* based on nine specimens from what is now Khuzistan Province, Iran. The syntypes have been lost or destroyed. The taxon has been mentioned several times in the literature since Nikolsky, 1907. Werner (1936: 200) listed *Microgecko helenae* Nikolsky from Iran without seeing additional specimens. Mertens (1956: 92-93) used the name *Tropiocolotes helenae* (Nikolsky) for a single gecko from near Pip (= Pib), Baluchistan Province, Iran, and placed *Microgecko* in the synonymy of *Tropiocolotes* Peters. Romer (1956: 542) listed the genus *Microgecko* as valid but doubtful. Anderson (1961) identified a small male gecko from between Masjid-i-Suleiman and Sar-i-Gach, Khuzistan Province, Iran, as *Tropiocolotes helenae*. He questioned Mertens' tentative identification of the southeastern Iranian specimen. Later, Anderson (1963: 440-441) returned *helenae* to *Microgecko* and stated that the species, although cogenetic with *Tropiocolotes steudneri* Peters, is probably generically distinct from *T. tripolitanus* Peters, the type species of *Tropiocolotes*.

Minton (1962: 11) included *Tropicalotes helenae* (sic) in the West Pakistan herpetofauna, based on specimens from the desert west of the Indus River. He (1966: 81-82) described the specimens under the name *Tropiocolotes helenae* (Nikolsky) and suggested (1966: 82) that his and Anderson's specimens might be subspecifically related. Wermuth (1965: 184) listed *Tropiocolotes helenae* (Nikolsky) in his review of the

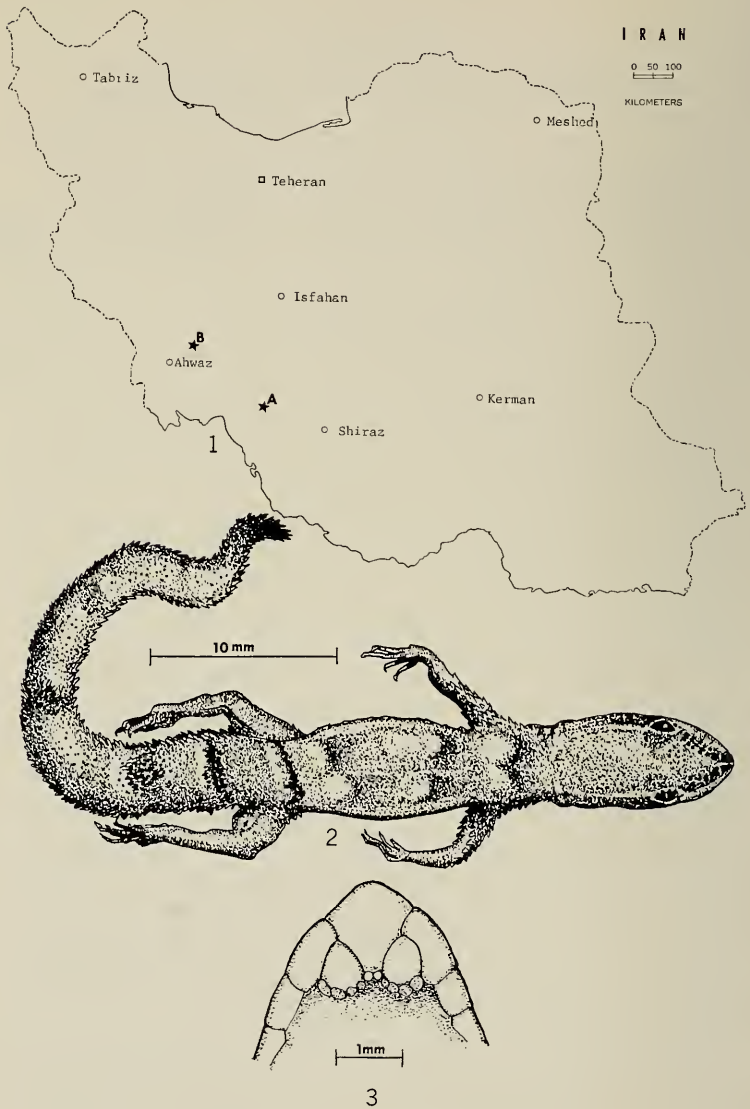


FIG. 1. Outline map of Iran, showing approximate locations of major cities and of collecting sites of *Microgecko helenae* in Khuzistan Province: A, 35 km east of Gachsaran (see Fig. 4); B, 16 km south of Masjid-i-Suleiman.



FIG. 4. Habitat of *Microgecko helenae* (see Fig. 1, A). Geckos were collected from under small stones along wadi in left foreground, indicated by arrows. Gachsaran-Kazeroun Road crosses center of photograph. View faces south-southwest.

Gekkonidae and gave the distribution as southern and south-western Iran. Guibé (1966a: 184) identified as *Microgecko helenae* a single female gecko from 100 km north of Iranshahr, Baluchistan Province, Iran. Guibé (1966b: 338) recognized *Microgecko* Nikolsky but questioned Anderson's referral of *T. steudneri* to it. Kluge (1967: 9) cited only Wermuth (1965) but removed *Microgecko* from *Tropicolotes*, referring it to his Group I of the Gekkoninae.

In addition to being from the same Province as the syntypes, 20 recently collected specimens of dwarf gecko agree in detail

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FIG. 2. *Microgecko helenae*, USNM 153701, dorsal view. Tip of tail is regenerated.

FIG. 3. *Microgecko helenae*, USNM 153701, ventral view of anterior chinshields.

with Nikolsky's description and figures (1907: Plate 1, Figs. 4, 4a). They differ from the material seen by Anderson and Minton in scale counts, configuration of the chinshields, and in details of the pattern. They also differ from Minton's specimens in having the regenerated portion of the tail black, as in Nikolsky's Fig. 4, rather than yellow, as described by Minton. Anderson's specimen (CAS 86408) possesses a full, slender tail, while seven of the present specimens show regenerated tails to varying degrees, one has a healed stump, and ten have lost their tails since preservation. They differ from Mertens' tailless example in having six or seven supralabials, versus eight or nine, and five or six infralabials, versus seven. Guibé apparently identified his specimen by comparing it with Mertens', although his re-evaluation of *Microgecko* was based on Nikolsky's original description. It thus seems apparent that the 20 new specimens of *M. helenae* are the first collected since the discovery of the Khuzistan dwarf gecko. A redescription of the species follows (Figs. 2, 3):

A small gecko, snout-vent length 15.0–26.2 mm, with smooth, homogeneous, juxtaposed dorsal scales, 62–76 along midline between axilla and groin; nostril bordered by 4–5 scales; internasals large, followed by a second pair of enlarged shields; rostral about three-quarters cleft by a distinct, vertical groove; pupil vertical; supralabials 6–7, usually 7; infralabials 5–6, usually 6; mental pentagonal, followed by two large postmentals, which are separated by 1–3, usually 2, small scales at apex of mental (Fig. 3); dorsal body pattern (in preserved specimens) absent or indistinct, when present consisting of 4–5 undulating transverse brown bands, narrower than interspaces, each followed by a pair of poorly-defined white blotches; laterally, a brown line on either side from rostral passing through eye to ear, where it may end, or continuing onto shoulder; venter white, unpatterned; ventral scales smooth, homogeneous, imbricate, larger than dorsals; digits not dilated, compressed, clawed, with slight angular bend; subdigital lamellae smooth, 13–15 under fourth toe; scales of tail smooth, homogeneous, imbricate, larger than dorsals, subequal dorsally and ventrally; tail thick, fragile, four-fifths, or more, snout-vent length; dorsal pattern always present on tail, consisting of 8–10 transverse straight or undulating brown bands narrower than interspaces, each followed by a pair of poorly-defined white blotches or indistinct white band of about equal width; interspaces indistinctly speckled with black pigment; ventral surface of unregenerated tail white, may be indistinctly speckled with black pigment; regenerated portion of tail uniformly black dorsally and ventrally; sexual dimorphism not obvious, males

lacking preanal pores; peritoneum unpigmented. Specimens examined (CAS, California Academy of Sciences; USNM, National Museum of Natural History, Smithsonian Institution):

Microgecko helenae (20)—CAS 120795, USNM 153693–97, Iran: Khuzistan Province; 35 km E Gachsaran, 8 February 1964, J. W. Neal, Jr., collector; USNM 153698–703, CAS 120796, USNM 153705–10, as above, except 10 February 1964; USNM 153731, Iran: Khuzistan Province; 16 km S Masjid-i-Suleiman, 25 February 1964, J. W. Neal, Jr., collector.

Provisionally referred to *Alsophylax persicus* (3)—CAS 86408, Iran: Khuzistan Province; Sar-i-Gach, on road between Masjid-i-Suleiman and Sar-i-Gach, 13 May 1958, S. C. Anderson, collector; USNM 166177–78, West Pakistan: Las Bela Province; Hub Chowki, lower Pub hills, 27 December 1963, J. A. Anderson, collector.

The camp where Neal collected the series of Khuzistan dwarf geckos was situated along a wadi, or dry watercourse, in the western foothills of the Zagros Mountains near the Gachsaran-Kazeroun Road (Fig. 4). The area was characterized by rolling hills with limestone and gypsum outcroppings, and, in the immediate environs of camp, the ground was paved with small, flat stones, under which scorpions, centipedes, and solpugids abounded. Vegetation consisted of scattered grasses, mosses, thorny shrubs and cactus like euphorbs, and an occasional oak. Daily temperatures ranged from a low of 33°F (7 February) to a high of 78°F (6 February), the mean low of seven successive daily recordings being 40°F and the mean high 65°F. Rain, drizzle, and high relative humidity were experienced during four days, but the wadi remained dry. The geckos were taken from under small stones along the wadi on 8 February (low 34°F, high 75°F, relative humidity 89%) and on 10 February (low 38°F, high 52°F, rain). None of the eight females appears to be gravid. In addition to the geckos, we collected one *Bufo v. arabicus*, 22 *Agama nupta*, three *Ophisops e. elegans*, two *Mabuya aurata affinis*, two *Eumeces schneideri*, one *Varanus griseus*, one *Eirenis persica*, one *E. punctatolineata*, and one *Echis carinatus pyramidum*.

The other camp, south of Masjid-i-Suleiman, was also in the Western Zagros foothills and was characterized by sandstone outcroppings and sparser, less varied, vegetation. The area was also dissected by wadis. The maximum recorded air temperature was 80°F (25 February) and the minimum was 43°F (22 February). The mean low temperature of four successive daily recordings was 47°F, and the mean high of three successive daily readings was 76°F. The single juvenile *M. helenae* was collected on 25 February (low 50°F, high 80°F, relative humidity not recorded). Other amphibians and reptiles taken at this site were: two *Bufo v. arabicus*, one *Agama nupta*, one *Eremias guttulata watsonana*, and one *Spalerosophis diadema cliffordi*.

The Khuzistan dwarf gecko, *Microgecko helenae* Nikolsky, a nocturnal,

terrificolous creature, appears to be endemic to the western foothills of the Zagros Mountains in southwestern Iran.

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