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A NEW SPECIES OF *EUBLEPHARIS* FROM SOUTHWESTERN IRAN (REPTILIA: GEKKONIDAE)

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In a paper now in preparation the authors will present a detailed evaluation of the populations of the gekkonid genus *Eublepharis*. Suffice to say at this time, the sample of animals obtained by the senior author in Iran several years ago evidently belongs to a species quite distinct from those previously recognized and known to inhabit Pakistan and Afghanistan. We believe it appropriate to refer this recently discovered southwestern Iranian population of *Eublepharis* to a new taxon, Eublepharis angramainyu Anderson and Leviton, new species. [1]

Eublepharis macularius (*nec* Blyth, 1854), BOULENGER, 1895, Cat. Liz. British Mus., vol. 1, p. 97 (part). WERNER, 1917, Verh. k. k. Zool.-Bot. Gesell. Wien, p. 197; 1936, Festschrift Strand, vol. 2, p. 200. ANDERSON, 1963, Proc. Calif. Acad. Sci., ser. 4, vol. 31, pp. 435-437, 474, fig. 8.

HOLOTYPE. CAS 86384, adult male, collected along the old road between Masjid-i-Suleiman and Batwand, Khuzistan Province, Iran, by Steven C. Anderson on May 20, 1958.

1 The trivial name is derived from "Angra Mainyu," the Zoroastrian "Spirit of Darkness," in reference to the nocturnal habits of these animals.

Paratypes (13). (All from Khuzistan Province, Iran) CAS 86337, male: same data as holotype. *Males:* CAS 86333 [April 15, 1958], 86362 [April 19, 1958], 86381 [April 28, 1958], 86396 [May 22, 1958], 86398 [May 22, 1958], and 86416 [May 26, 1958] taken between Masjid-i-Suleiman and Naftak. *Females:* CAS 86382 [May 13, 1958] collected along the road between Masjid-i-Sueliman and Sar-i-Gach; CAS 86361 [April 19, 1958], 86366 [April 19, 1958], 86385 [May 21, 1958], and 86397 [May 22, 1958] taken between Masjid-i-Suleiman and Naftak. *Juvenile:* CAS 86383 [May 13, 1958] collected between Masjid-i-Suleiman and Naftak.

Diagnosis. Mid-dorsal tubercles not as large as intertubercular spaces; subdigital lamellae smooth, without tubercles; some elements of dark color pattern of head and body linearly arranged; females with discernable preanal pores.

Description of holotype. Head depressed, massive in postorbital region owing to powerful jaw musculature, nearly cordiform; body and tail somewhat depressed. Rostral hexagonal, 1½ times broader than high, a median cleft in the upper 1/3; nostral pierced entirely within a diagonally elongate nasal shield; supernasals separated by a single, subpentagonal internasal which is nearly twice as broad as long; nasal bordered by the rostral, supranasal, first supralabial, and 5-7 slightly enlarged scales; scales of snout enlarged, convex, some of them subconical; head covered above by unequal, small convex, polygonal, juxtaposed scales, and numerous enlarged subconical tubercles, becoming larger on posterior region of head; ten supralabials, the first highest, tenth smallest; ear opening large, 2½ times higher than long, as large as eye opening; eyelids well developed, margins of lids with a row of enlarged tubercular scales; mental pentagonal, followed by four rows of ir-

Figure 1. Dorsal view of holotype (CAS 86384) of *Eublepharis angamainyu.*

regularly enlarged scales; ten infralabials; gulars oval to subcircular, convex, much larger than dorsal head scales.

Body covered above by small, juxtaposed, subequal, polygonal, flat scales and large subconical tubercles, arranged in irregular longitudinal and diagonal rows; the apex of the tubercles on the anterior portion of the body is centrally positioned, but it is positioned closer to the posterior margins of those tubercles on the posterior portion of the body; along the midline of the back the tubercles are generally smaller than the interspaces, but become larger, more rounded, and more closely spaced on the flanks; ventral scales smooth, slightly swollen, juxtaposed, hexagonal and about 1½ times broader than long medially, in 24 longitudinal rows across the middle of the belly.

There are thirteen preanal pores, each pore positioned on the posterior third of the elongate, hexagonal scale bearing it. A deep axillary pit, about ½ the diameter of the eye is present.

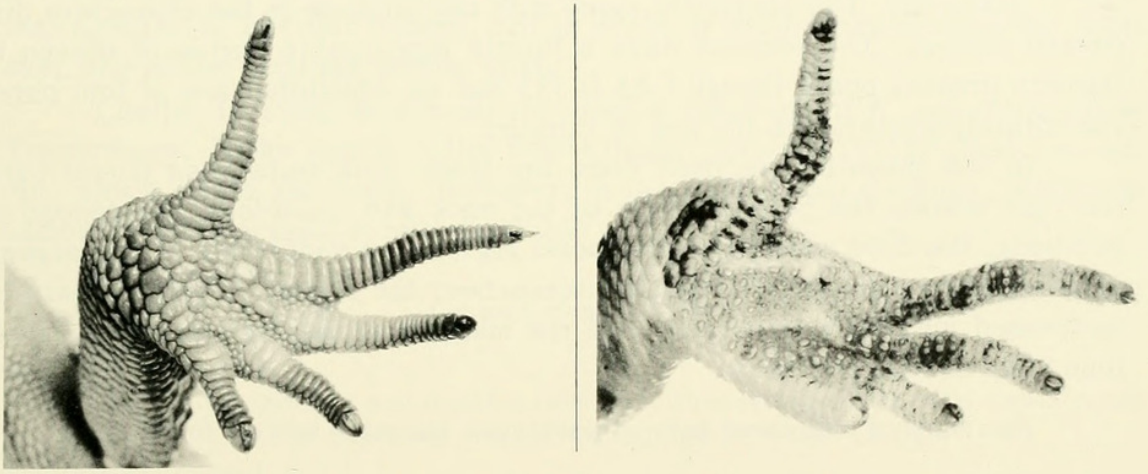

Figure 2. (Left) Ventral view of toes of *Eublepharis angamainyu* showing smooth subdigital lamellae; and (right) *E. macularius* with tuberculate lamellae.

Dorsal surfaces of limbs with enlarged, subconical tubercles. Subdigital lamellae and scales of palmar and plantar surfaces without tubercles. Twenty-four smooth lamellae under fourth toe. Claw between an enlarged dorsal and two enlarged lateral scales and the apical lamella.

Tail thick, somewhat constricted at the base, tapering, covered above by transverse rows of small subquadrangular, juxtaposed scales, and transversely arranged, flattened, weakly keeled tubercles, ten in each transverse row across the thickest portion; below with irregular, unequal quadrangular and hexagonal smooth scales, broader than long, three transverse rows to each segment. Two postanal sacs at the base of the tail.

Color (preservation in alcohol after initial fixation in formalin): above a continuous light vertebral stripe, bordered on each side by a broken black stripe from occiput to base of tail; dark markings *not* confined primarily to tubercles and immediately surrounding scales but confluent, linearly arranged either side of vertebral stripe; dorsolateral dark markings also linearly arranged, confluent with transverse markings; head with a pattern of dark and light reticulations; no horseshoe-shaped mark, dark or light, on nape; limbs with numerous dark blotches; tail with numerous irregular dark transverse markings, wider than the light interspaces; venter light tan.

Measurements (in mm.):

Snout-vent	147	Head length	39
Tail	100	Head width	32
(distal 12 mm. regenerated)		Depth of head	21

Variation. The paratypes agree with the holotype in the characters discussed above. The females have a faintly discernable series of eleven to thirteen preanal pores though CAS 86333 has an additional row of four pores immediately posterior to the row of thirteen.

In the juvenile specimen there are three dark transverse dorsal bars, the first across the posterior part of the neck and shoulders, the second at mid-body, the third anterior to the sacral region; the middle bar is the largest, approximately equal to the lighter interspaces; the lighter interspaces are interspersed with dark tubercles; and the margins of the dark bars are darker than their central portions.

Summary of measurements of paratypes (in mm.) are as follows:

Males	142-154 mm.	Snout-vent	97-100 mm. tail
Females	126-137 mm.	Snout-vent	86-90 mm. tail
Juvenile	90 mm.	Snout-vent	(regenerated)

Distribution. The new species is known from the western foothills of the Zagros mountains and the upper reaches of the Mesopotamian Plain in Iran and Iraq. While Smith (1935), Nikolsky (1915) and others have included Iran in the range of *Eublepharis macularius*, the only Iranian locality cited in the literature previous to the collection of the present series of specimens is Kazrun, also in the western Zagros foothills at between 2000 and 3000 feet elevation (Werner, 1917). Boulenger (1885) recorded a specimen from the ruins of Nineveh, in the upper Mesopotamian Plain (about 1000 feet elevation) in Iraq, which we assign to *E. angramainyu* on the basis of its probable similarity to another Iraqi specimen in the collection of the Museum of Comparative Zoology, Harvard University, which we have seen.

REMARKS. The natural history of this species and the conditions under which the available series from Iran was collected has been discussed previously (Anderson, 1963, pp. 435, 437, fig. 8).

Eublepharis angramainyu is clearly allied to *E. macularius* agreeing generally with published descriptions of that species and those of *E. fasciolatus* (referred by Smith, 1935, to the synonymy of *E. macularius*) except for color pattern. However, *E. angramainyu* differs from specimens of *E. macularius* (*sensu lato*, Smith, 1935) we have seen from Afghanistan and Sind in the non-tuberculate nature of the subdigital lamellae and scales of the palmar and plantar surfaces, the abdominal scales which are hexagonal and the mental which is twice as broad as long.

With respect to the status of *E. fasciolatus*, the type locality of which is Hyderabad, Sind, West Pakistan, we are not entirely convinced that it is properly regarded as a synonym of *E. macularius*, whose type locality is the Salt Range, Punjab, northwestern India, as proposed by Boulenger (1890) and Smith (1935). The only immediately apparent difference between the two nominal species is in color pattern, not in scale or digital characteristics; however, the matter requires further study.

Lastly, in 1890, Boulenger recorded a specimen of *E. macularius* from Transcaspia, in the region of the Kopet Dagh. Nikolsky (1915) cited this record, which we do not doubt. However, in the light of our findings, reidentification of the specimen seems desirable.

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