

A new record of the keel-scaled gecko, *Carinatogeecko aspratilis* (Anderson, 1973) (Sauria: Gekkonidae) from western Iran

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The gekkonid lizards of the genus *Carinatogeecko* Golubev and Szczerbak, 1981 encompass two distinct species endemic to the foothills of the Zagros Mountains, in Iran and Iraq: the Iraqi keel-scaled gecko *Carinatogeecko heteropholis* (Minton et al., 1970) was first described from Erbil province, Iraq, and in Iran is reported from the western Zagros foothills (Anderson, 1999; Rastegar-Pouyani et al., 2007; Fathinia et al., in press); the Iranian keel-scaled gecko *Carinatogeecko aspratilis* (Anderson, 1973), was first described as *Bunopus aspratilis* Anderson, 1973, from a locality 35 Km east of Gach Saran in Kohguiluyeh Va Boyer Ahmad province, in southwestern Iran (Fig. 1). The *Carinatogeecko* geckos have long been known only from the type localities with additional localities discovered only recently (e.g., Kami, 1999; Nazari-Serenjeh & Torki 2008).

A unique characteristic of the *Carinatogeecko* is that

all the body scales except the maxillary, nasal, chin shields, upper and lower labials are strongly keeled; dorsal pholidosis heterogeneous, small, juxtaposed scales intermixed with tubercles; pupil vertical; tail segmented; no preanal pores.

Carinatogeecko aspratilis (Anderson, 1973) differs from the *Carinatogeecko heteropholis* (Minton et al., 1970) on having a combination of several distinguishing characters as follows: middorsal scales distinctly larger than abdominals in *C. aspratilis* (vs. equal in *C. heteropholis*), pointed, high, with enlarged posterior edge caudal tubercles in *C. aspratilis* (vs. not pointed, flatted, not high in *C. heteropholis*), forearm tubercles almost the same size as dorsal tubercles in *C. aspratilis* (vs. absent forearm tubercles in *C. heteropholis*); 17-18 subdigital lamellae on fourth toes in *C. aspratilis* (vs. 15 in *C. heteropholis*) (Szczerbak, & Golubev, 1996; Anderson, 1999). A recent molecular phylogenetic work support the inclusion of the genus *Carinatogeecko* within the genus *Mediodactylus* (Červenka et al., 2010). During a herpetological study on the western Iranian Plateau from May 2009 to June 2010, we collected three specimens of *Carinatogeecko aspratilis* in Harsin

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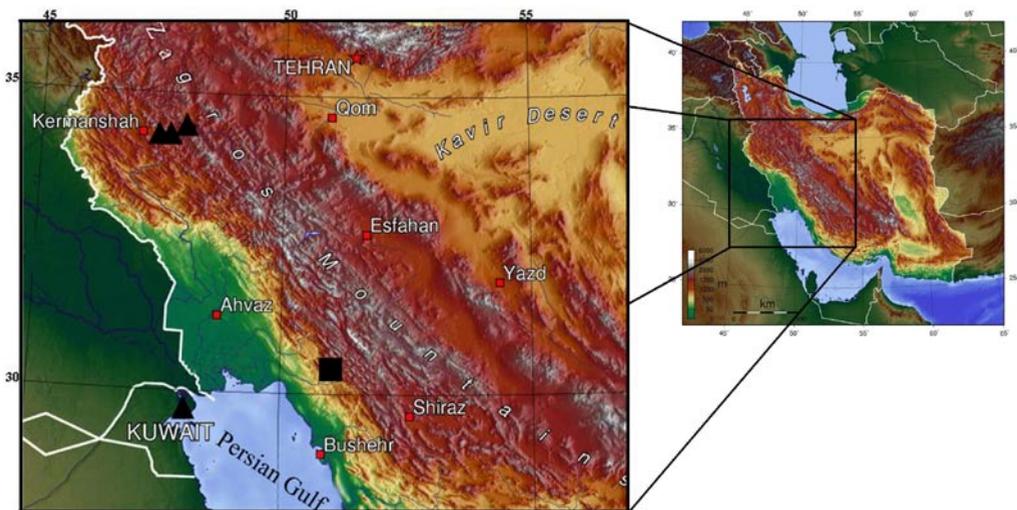


Figure 1. Distribution of *Carinatogeecko aspratilis* (Anderson, 1973) in Iran. Black square= type locality in Kohgiluyeh Va Boyer Ahmad province, black triangle= new records.

Table 1. The main metric and meristic characters and basic statistical data of morphological characters of four adult *Carinatogeko aspratilis* specimens used in this study. All measurements in millimeter.

Characters	Kermanshah (Harsin) (N=3)		Hamedan (Asad Abad) (N=1)
	Range	Mean	-
Snout-vent length, mm	29.06-36.48	32.83	45.59
Tail length	44.28-47.60	45.94	47.08
Head width	6.01-7.79	6.9	7.52
Interorbital distance	3.41-4.00	3.70	4.94
Number of dorsal tubercles	13-14	-	13
Number of interorbital scales	13-14	-	13
Postmentals	3	-	2
Number of supralabials	8	-	8
Number of infralabials	7-8	-	7
Subdigital lamellae under the fourth toe	18	-	19
Number of scales across mid abdomen (in a single transverse row)	23-24	-	23

(34° 16' N, 47° 35' E), southeast of Kermanshah province; and one individual in Asad Abad (34° 47' N, 48° 06' E) in Hamadan province. Individuals were found on walls and ceiling of buildings, sympatric with *Cyrtopodion heterocercum* (Blanford, 1874) and *Cyrtopodion scabrum* (Heyden, 1827).

All the specimens were anaesthetized with ether, fixed in 96% ethanol, and stored in 75% ethanol. The specimens are deposited in the collection of the Razi University Zoological Museum (RUZM), under RUZM- GC10.1, RUZM- GC10.2, GC10.3, and RUZM- GC10.4.

The main metric and meristic characters of the adult specimens of *Carinatogeko aspratilis* (Anderson, 1973) (Fig. 2) are as follows: pentagonal mental scales, three pairs of postmental scales (the specimens from Harsin), two pairs of postmental in which the first pair are in

contact (the specimen from Asad Abad) and the ending pair are surrounded by 12 granules (Fig. 3. A-B); nostril surrounded by rostral, first supralabial, three polygonal scales; dorsal tubercles arranged in 13- 14 longitudinal rows; interorbital scales in irregular longitudinal rows; eight supralabials; seven infralabials; 18- 19 subdigital lamellae under the fourth toe; ventral scales in 23- 24 longitudinal series on mid-body, uniform, keeled, and weakly imbricate; tail tubercles strongly pointed; 6-8 scales on ventral in the basal part of the tail.

The snout-vent lengths (SVL) in the adult specimens are as follows: Harsin (n=3) 29.06-36.48 mm (mean=32.83 mm); Asad Abad 45.59 mm; the tail length (TL) in three specimens from Harsin is 44.28-47.60 mm (mean=45.94 mm), and in the Asad Abad specimen it is 47.08 mm (Table. 1).

Color and pattern.

Light grayish brownish dorsal background with a combination of 7-8 transverse dark chevron-shaped bars on dorsum, first one on nape, the last one on the sacral region. 10- 15 transverse brown dark bands on the tail; ventral surfaces light gray.

Previous workers (e.g., Szczerbak, & Golubev, 1996; Anderson 1999; Kami, 1999; Rastegar-Pouyani et al., 2007) have argued that the type and paratype of *C. aspratilis* were found under pebbles, flat stones in an area with sparse vegetation and few trees. All our specimens were collected on the walls of old buildings, 1-3 hours after sunset, when air temperature was between 25 – 30 °C. The elevation was more than 1500 m.



Figure 2. *Carinatogeko aspratilis* (Anderson, 1973) from Harsin.

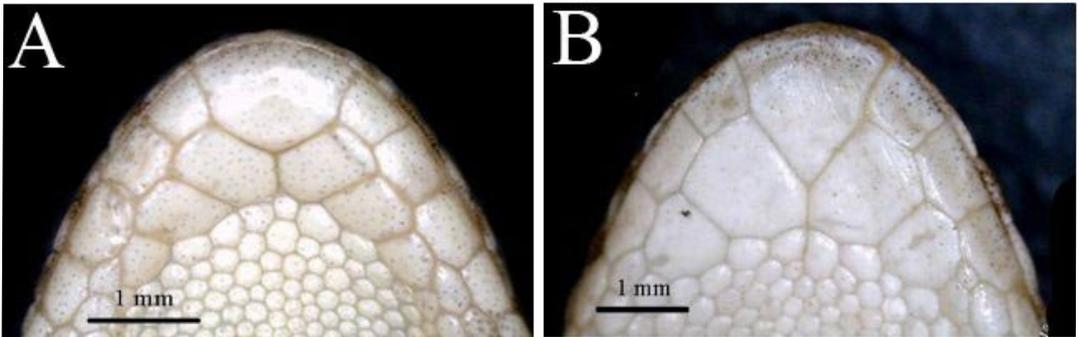


Figure 3. Various forms of postmental scales in *C. aspratilis*: (A) RUZM- GC10.1; (B) RUZM- GC10.4.

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