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A new gecko genus from Zagros Mountains, Iran

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Abstract.—A new genus and species of gekkonid lizard is described from the Zagros Mountains, western Iran. The genus *Lakigecko* gen.n. can be distinguished from other genera of the Middle East by the combination of the following characters: depressed tail, strongly flattened head and body, eye ellipsoid (more horizontal), and approximately circular whorls of tubercles (strongly spinose and keeled).

Keywords. Gekkonidae, *Lakigecko* gen.n., *Lakigecko aaronbaueri* sp.n., new species, Reptilia, Sauria, Western Iran

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Introduction

Thus far, 49 species and 14 genera of Gekkonidae have been recorded in Iran (Safaei-Mahroo et al. 2016). Ten new species of gekkonid lizards have been described since 2000, including seven new species and a recently described monotypic gecko genus, *Parsigecko*, from southern Iran (Safaei-Mahroo et al. 2016). This study adds another new gecko genus to the fauna of Iran based on the species described herein. In addition, this study includes a discussion of the validity of genus *Carinatogecko* Golubev and Szczerbak, 1981.

Materials and Methods

During field trips carried out on the Iranian plateau, the new taxon was collected from Nourabad, Lorestan Province, Zagros Mountain, western Iran (Fig. 1). The holotype and paratype specimens of this new species have been deposited in the MTD (Senckenberg Naturhistorische Sammlungen, Museum für Tierkunde, Dresden, Germany).

Measurements. The following measurements were taken with a digital caliper, and interpolated to the nearest 0.1 mm: SVL: snout-vent length (from tip of snout to anterior margin of cloaca); TaL: tail length (from posterior margin of cloaca to tip of tail, original or regenerated); TaL/TL: ratio tail length/total length; TW: tail width (taken at base of tail); TH: tail height (taken at base of tail); TW/TH: ratio tail width/tail height; HL:

head length (from tip of snout to posterior margin of ear); HH: maximum head height (from occiput to undersides of jaws); HW: maximum head width; HL/SVL: ratio head length/snout-vent length; EDH: eye diameter horizontal; EDV: eye diameter vertical; IO1: anterior interorbital distance; IO2: posterior interorbital distance; EE: distance between posterior margin of eye to posterior margin of ear opening; EaD: ear diameter vertically; IN: internostril distance; IL: interlimbs; FL: forelimb length; and HL: hindlimb length.

Lepidosis. The following scale counts were taken, and on the right side of body where appropriate: N: nasals (nasorostrals, supranasals, postnasals, first supralabial); ISN: intersupranasals (scales between supranasals, in contact with rostral); SPL: supralabials; IFL: infralabials; IO: interorbitals (number of scales in a line between anterior corners of eyes); PO: preorbitals (number of scales in a line from nostril to anterior corner of the eye); PM: postmentals; LT: number of subdigital lamellae (on toes counted from the first broad lamella to the claw); DC: number of dorsal crossbars; and TC: number of tail crossbars.

Comparisons. For comparison, representatives of five other naked-toed gekkonid genera were examined and compared with the new genus as follows: *Cyrtopodion* (*C. scabrum*: $n = 9$, FTHM 004600–08; *C. kiabii*: $n = 8$, FTHM 004880–87); *Tenuidactylus* (*T. caspius*: $n = 11$, FTHM 004851–61); *Mediodactylus* (*M. russowii*, $n = 2$; *M. heterocercus*, $n = 5$; *M. sagittifer*, $n = 3$; *M.*

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Fig. 1. Map showing the type locality of *Lakigecko aaronbaueri* sp.n. in the Garmabe region, Nourabad, Lorestan Province, Iran.

spinicauda, $n = 3$), *Carinatogekko* (*C. heteropholis*: $n = 29$; FTHM 003400–003428; *C. aspratilis*, $n = 12$, FTHM 003300–003311; *C. ilamensis*, $n = 3$), *Bunopus* (*B. tuberculatus*: $n = 12$, FTHM 003200–11). Other data were taken from Minton et al. (1970), Anderson (1973, 1999), Golubev and Szczerbak (1981), Nazarov et al. (2009), Ahmadzadeh et al. (2011), Fathinia et al. (2011), Torki (2011), and Safaei-Mahroo et al. (2016). Abbreviations: TT: Tail tubercle distribution (D: dorsal; L: dorsolaterals; V: ventral); TS: tail shape (S: squat, i.e., short and thick; Q: not squat, i.e., more elongate); LT: Lamella type (M: smooth; K: keeled); DT: dorsal tubercles in each segment (C: in contact; D: not in contact); DS: dorsal scales between whorls (E: elevated; N: not elevated); GS: digits shape (A: angular; S: sub-angular; W: weakly angular; N: not angular); FP: femoral pores (+: present; -: absent); ES: eye shape (G: Globular; E: Ellipsoid); and HA: head angle (degree of lateral view between lower ear-nostril-upper eye).

Systematics

***Lakigecko* gen.n.**

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Type species: *Lakigecko aaronbaueri* sp.n., herein described.

Definition: The monotypic genus *Lakigecko* gen.n. differs from all other genera of the Family Gekkonidae by the following combination of characters: (1) depressed tail; (2) much flattened head and body; (3) acute head angle (laterally); (4) eye horizontally ellipsoid (horizontal/vertical ratio in life more than 1.2 and preserved approximately 1.6); (5) whorls of tubercles

Table 1. Morphometric measurements (in mm) and scalation of *Lakigecko aaronbaueri* sp.n., abbreviations as defined in the text. * end of tail regenerated; ** most part of tail regenerated.

Characters	Holotype (MTD 49500)	Paratype (MTD 49499)
SVL	32.79	32.19
TaL	25.58*	25.75**
TaL/TL	0.78	0.80
TW	3.06	3.24
TH	2.48	1.95
TW/TH	1.23	1.66
HL	8.04	8.10
HH	3.48	3.40
HW	6.45	6.27
HL/SVL	0.24	0.25
EDH	2.25	2.30
EDV	1.21	1.59
IO1	3.27	3.23
IO2	4.38	4.58
EE	2.68	2.78
EaD	0.70	0.63
IN	0.98	1.02
IL	14.80	13.32
FLL	11.81	11.26
HLL	16.90	15.91
N	5	5
ISN	1	1
SPL	9	10
IFL	7	7
IOS	13	12
PO	9	10
PM	3	3
L4T	17	19

approximately circular (extended onto ventrolateral surface): strongly spinose and keeled caudal tubercles that extend onto dorsolateral and ventrolateral surfaces, lateral tubercles larger than mid-dorsal and ventral, mid-dorsal and ventral tubercles are clearly different from smaller subcaudal scales, whorls separated by two rows of keeled scales; (6) spinose tubercles extend along entire length of tail (tubercle shape consistent throughout); (7) mid-dorsal tubercle rows separated from each other by two scales, dorsolateral rows of tubercles (four tubercle rows on each side) are in contact with one another; (8) dorsolateral scales strongly elevated, pyramidal, and keeled; (9) dorsal scales mostly smooth; and (10) without femoral or precloacal pores; two postcloacal pores (openings to the postcloacal sacs).

Distribution: Known only from the type locality.

Etymology: The generic nomen *Lakigecko* is derived from the word “Laki” which refers to the Lak region near the type locality.

Comparisons (Fig. 2, Table 2): Differs from *Cyrtopodion* Fitzinger, 1843 by having small, spiny, and strongly keeled subcaudal scales (vs. smooth, plate-

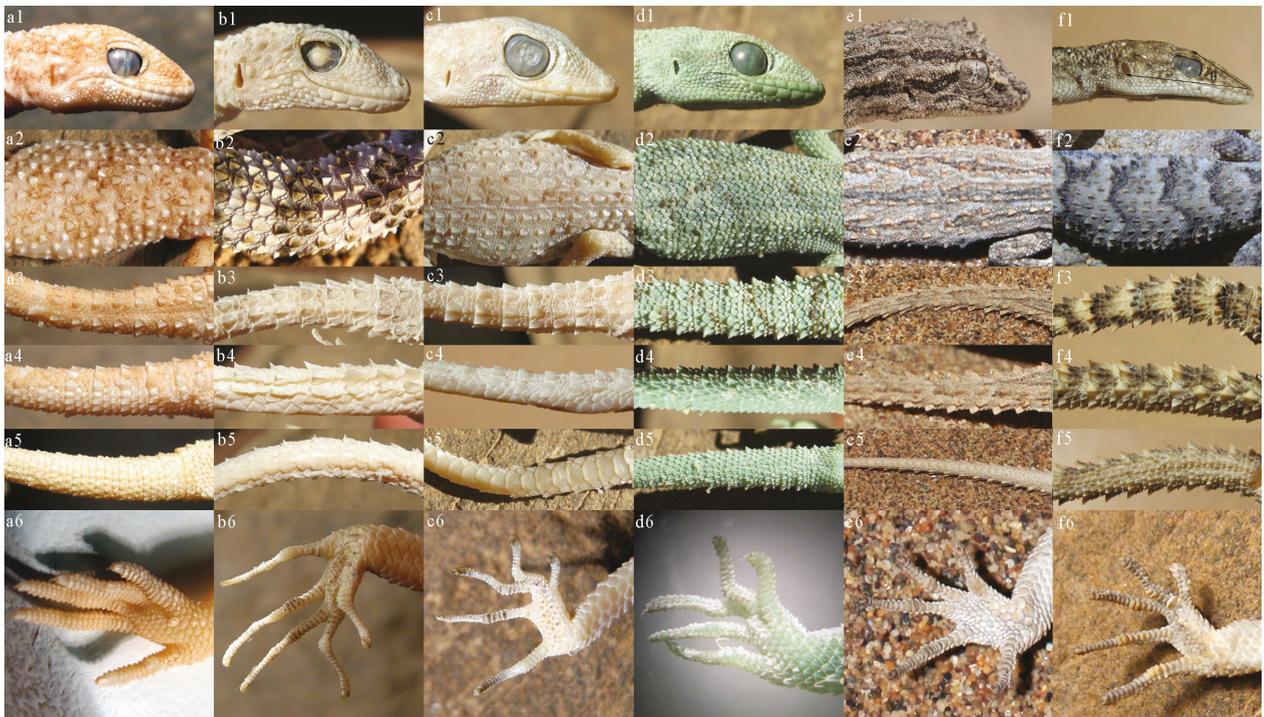


Fig. 2. Comparisons of (1) head shape, (2) dorsal view, (3) dorsal view of tail, (4) lateral view of tail, (5) ventral view of tail, and (6) subdigital lamella of hindlimbs, in the new gecko with other genera. (a) *Bunopus tuberculatus*, (b) *Tenuidactylus caspius*, (c) *Cyrtopodion scabrum*, (d) *Carinatogecko heteropholis*, (e) *Mediodactylus russowii*, and (f) *Lakigecko aaronbaueri* sp.n. Photos by F. Torki (a–d, f) and B. Safaei-Mahroo (e).

like subcaudals); dorsal scales elevated and overlapping (vs. non-elevated or flattened cobble-stone shaped) and a greatly flattened and elongate head (vs. head oval and more massive); from *Mediodactylus* Szczerbak and Golubev, 1977 by having keeled, tubercular scales forming the end of each caudal segment (vs. in the middle of each segment), at least 14 sharply keeled tubercles in each caudal whorl (vs. a semicircle of six whorls: three on left and three on right), caudal tubercles in contact with one another laterally (vs. not in contact), caudal tubercles forming a relatively complete ring around the tail (vs. distributed only on the dorsal half of the tail), and a flattened and elongate head (vs. not); from *Carinatogecko* Golubev and Szczerbak, 1981 by smooth subdigital lamellae on the forelimbs and hindlimbs (vs. keeled transverse subdigital lamellae), and smooth dorsal scales (vs. strongly keeled); from *Tenuidactylus* Szczerbak and Golubev, 1984 by the lack of femoral pores (vs. more than 20 femoral pores), ventral subcaudals small and strongly keeled (vs. plate-like and smooth), 14 sharply keeled tubercles in each tail whorl segment (vs. six tubercles per whorl); and a flattened and elongated head

(vs. not). In general, the new genus is easily differentiated from *Cyrtopodion*, *Tenuidactylus*, *Mediodactylus*, and *Carinatogecko* by its acute head angle (less than 30° vs. 40°, 40°, 35°, and 35°, respectively), strongly flattened head, depressed tail, more caudal tubercles, spinose caudal tubercles, and elliptical eye shape.

Lakigecko gen.n. can be distinguished from *Agamura* Blanford, 1874 by its large and strongly keeled caudal tubercles (vs. not), limbs robust (vs. slender), enlarged postmentals (vs. not enlarged), and tail broad (vs. slender); from *Bunopus* Blanford, 1874, by subdigital lamellae completely smooth (vs. subdigital lamellae with free margin under magnification); 14 sharply keeled tubercles in each whorl segment of tail (vs. 4–6 and not sharp and spiny); from *Rhinogecko* de Witte, 1973 by nasal scales not forming a cylindrical caruncle (vs. nostril at apex of prominent swollen or cylindrical caruncle formed by the nasal scales); from *Microgecko* and *Tropiocolotes* Peters, 1880 by having uniform dorsal scales, large scales, and keeled tubercles on the dorsum of body and tail (vs. dorsal scales heterogeneous, scales small, and without keeled

Table 2. Comparisons of *Lakigecko* gen.n. with other related genera. For abbreviations see *Materials and Methods* section.

Characters	TT			TS	LT	DT	DS	GS	FP	ES	HA
	D	L	V								
<i>Cyrtopodion</i>	+	+/-	-	B	M	C	N	A	-	G	≥40°
<i>Tenuidactylus</i>	+	+/-	-	B	M	C	N	A	+	G	≥40°
<i>Bunopus</i>	+	+	-	B	K	C	N	N	-	G	≥40°
<i>Mediodactylus</i>	+	+	-	B	M	D	N	S	-	G	≥35°
<i>Carinatogecko</i>	+	+/-	-	B	K	D	E	W	-	G	≥35°
<i>Lakigecko</i> gen.n.	+	+	+	S	M	C	E	S	-	E	<30°

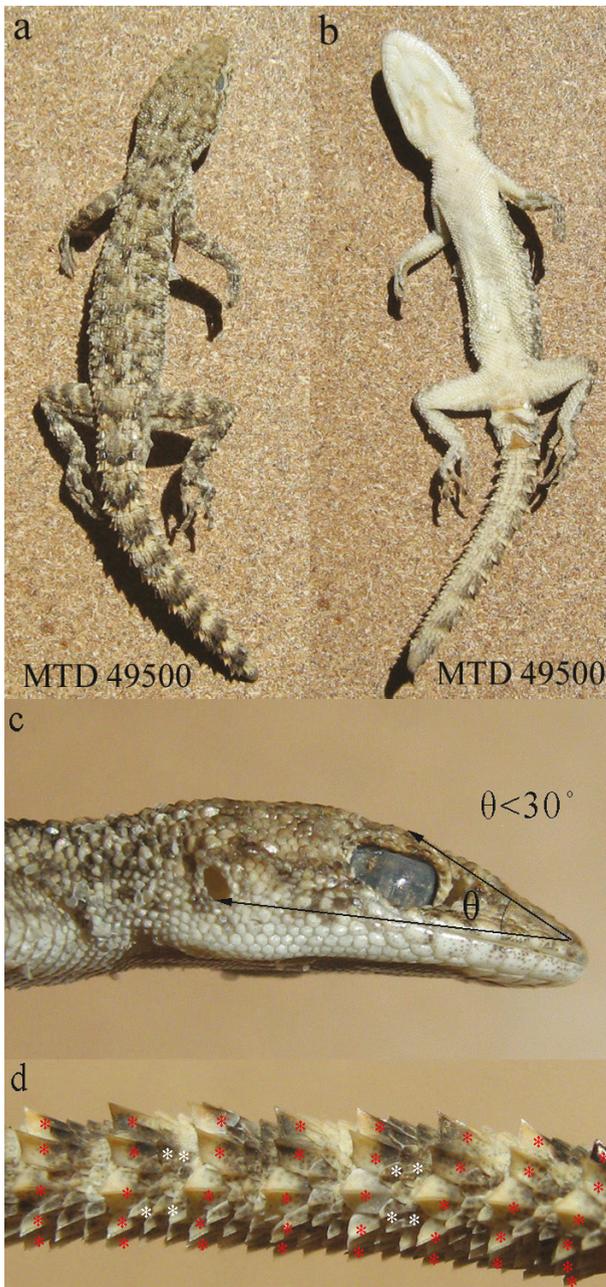


Fig. 3. (a) Dorsal, (b) ventral, (c) lateral head, and (d) lateral tail views of the holotype of *Lakigecko aaronbaueri* sp.n. Red stars: tubercular whorls; white star: keeled scale interspaces.

tubercles on dorsum and tail); from *Hemidactylus* by non-dilated digits (vs. well-defined dilated digital bases); from *Pseudoceramodactylus* Haas, 1957, *Crossobamon* Boettger, 1888, and *Stenodactylus* Fitzinger, 1826 and *Teratoscincus* by digits without elongate fringes (vs. digits with well-defined lateral elongate fringes); from *Parsigecko* Safaei-Mahroo, Ghaffari, and Anderson, 2016 by large, keeled tubercles on body dorsum, subcaudal scales small and strongly keeled (vs. without dorsal tubercles, and subcaudal scales large and smooth).

Contents: At present the new genus includes a single species, *Lakigecko aaronbaueri* sp.n.

***Lakigecko aaronbaueri* sp.n. (Fig. 3–4)**

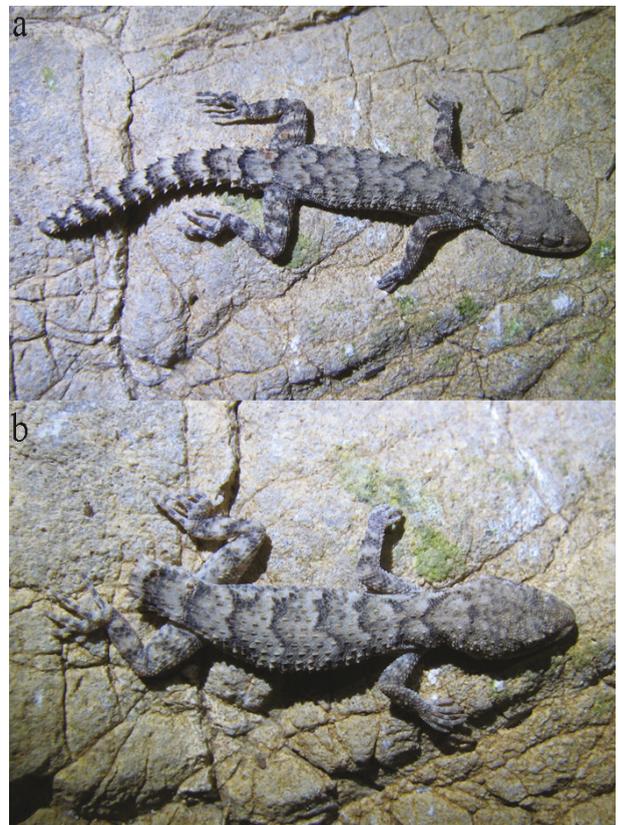


Fig. 4. Dorsal view in life of (a) holotype and (b) paratype of *Lakigecko aaronbaueri* sp.n. before preservation.

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Holotype (Fig. 3): MTD 49500, adult male, collected on the western slope of the central Zagros Mountains, Garmabe Region, Nourabad, Lorestan Province, western Iran on 8 April 2016 at night (34°03'N, 47°28'E, elevation 1,470 m asl) by Farhang Torki.

Paratype (Fig. 4): Adult male, MTD 49499, same data as for holotype.

Description of holotype: Body flattened; head flattened; tail depressed and strongly covered by sharp tubercles, eye opening clear, pupil vertical.

Dorsal body. Nostril surrounded by five scales (rostral, nasal, and three behind); nasal nearly completely divided; large dorsal tubercles strongly keeled, each dorsal tubercle surrounded by 10 (or 11) scales, 13 dorsal tubercle rows on dorsal, mid-dorsal tubercles separated from each other by one or two scales, dorsolateral tubercles (four on each side of vertebral midline) are in contact with one another, eight rows (4+4: left + right) extend onto tail, dorsolateral tubercles mostly in contact with one another, separated by two small scales in the dorsal midline; most dorsal scales small and smooth, a few scales large and keeled, mid-dorsal scales elevated, dorsolateral scales strongly elevated, keeled and pyramidal in form; keeled dorsal



Fig. 5. Habitat of *Lakigecko aaronbaueri* sp.n. at the type locality in the Garmabeh region, Nourabad, Lorestan Province, Iran.

tubercles extend onto neck and occipital region; neck tubercles pyramidal in form, but dorsal tubercles less so; middorsal neck scales swollen (similar to granules) and not overlapping or elevated, dorsolateral neck scales strongly swollen and keeled (pyramidal) and extending in front of and behind ear; neck scales are different in shape compared to dorsum; upper head tubercles (keeled) smaller than dorsum; nearly all head scales granule-like, keeled and heterogeneous (small to large, cycloid to polygonal); interorbital scales keeled and heterogeneous in size and shape; snout scales keeled; arm covered by strongly keeled large scales (same size as dorsal tubercles); elbow scales keeled; tubercles and scales on forearm strongly keeled; digits covered by strongly keeled scales; leg covered by large, strongly keeled, and overlapping scales (similar size to dorsal tubercles), keeled scales only distributed near knee, lateral surface of leg covered by small scales; foreleg with strongly keeled tubercles distributed among keeled scales, back of hand and digits with strongly keeled scales.

Ventral body. Mental pentagonal; supralabials nine; infralabials seven; three postmentals (PM), 1st PMs in contact with one another, 2nd PMs separated by two scales, 3rd PMs separated by six scales, PMs surrounded by 12 scales, 1st PM in contact with 1st infralabials, 2nd PMs

in contact with 2nd infralabials, and 3rd PMs in contact with 2nd and 3rd infralabials; chin scales small, round, and smooth; scales on neck and between forelimbs smooth and overlapping; interlimb scales keeled, and less overlapped, scale rugosity increases from proximal (across forelimbs) to distal (across hindlimbs) of interlimbs; scales between hindlimb bases as well as preanal scales large and smooth (not keeled); arm scales keeled, elevated; forearm scales keeled and mostly trihedral; forearm scales larger and more rugose than upper arm; scales on palm granular; lamella swollen; dorsolateral scales on digits sharp; thigh as well as foreleg scales keeled and elevated, foreleg scales more rugose than those on thigh; small scales on lateral surface of leg; scales on soles granule-like with some very similar to lamellae, distal lamella smaller; lamellae swollen; dorsolateral scales on digits sharp, lamellae on the middle of each finger (at joint) larger than others; number of lamellae under toes 10:14:15:17:16.

Tail. Mostly original, end of tail regenerated; eight rows of dorsal tubercles extended onto tail; tail tubercles strongly keeled, elevated, sharply keeled, and in contact with each other within each whorl; each whorl formed by 18 (2+8+6+2) tubercles as follows: two in the middle and different from pyramidal scales, eight (4+4) large and elevated and sharp tubercles on dorsum

and extend ventrolaterally, six small (3+3) ventrolateral tubercles distinguishable from subcaudal scales, and finally two small scales that are similar to subcaudal scales; 14 whorls of tubercles are clear on tail, each separated from one another dorsally by two small scales and ventrally by two keeled scales; two rows of small and strongly keeled scales between each whorl (from 1st to 12th whorls), three such rows of scales between 13th and 14th circles.

Color pattern. Background of dorsal body brown, with dark bars covering dorsum and tail; dorsal bars irregular and reticulating; nine dark bars on tail, interspaces yellowish; ventral dirty white; middle of subcaudals bright grayish, lateral surfaces dark grayish; four irregular longitudinal bars on occipital region; dorsum of head covered by small spots; width of bars (wider than interspaces) covering forelimbs (seven bars) and hindlimbs (seven bars); limb bars extend onto digits, five bars on longer digits and four bars on others; dorsal scales on body, tail, limbs, and head are pigmented; ventral body scales pigmented, pigmentation more pronounced laterally than midventrally, two rows of small preloacal scales exhibit the maximum pigmentation, large preloacal scales have minimum pigmentation; scales on venter of leg and foreleg pigmented; all lamellae of pes are dark brownish, middle lamellae less dark; lamellae on digits of manus are light brown, scales on palm are brownish or ashy; chin scales less pigmented; mental, labials, and postmentals pigmented. Color pattern in preservative is similar to life, but paler.

Description of Paratype

Most characters are similar to holotype, some differences are shown in Table 1 and others are: 13 dorsal tubercle rows, four lateral tubercles are in contact with each other and middle tubercles are separated by small scales (same as holotype); tail regenerated, all dorsal and ventral scales are small, strongly keeled, and similar to one another, dorsal scales regular and ventral scales less regular, strongly elevated and overlapping; number of lamellae under toes 11:13:18:19:15.

Color pattern. Five dark irregular bars between limbs; one V-shaped bar on neck; one arcuate bar on occipital; head covered by small spots; all dorsal body bars and spots are blackish; background of dorsal body grayish; tubercles on bars are black and most of those in interspaces are brownish (some of them are both black and brownish in color); regular and irregular bars covering limbs and digits; chin white; ventrals of body and limbs are dirty white; irregular darkish stripes cover dorsum of regenerated tail, all dorsal and ventral scales pigmented; color pattern in preservative is similar to life, but colors are more pale.

Etymology. The species name “*aaronbaueri*” refers to Professor Aaron M. Bauer (Villanova University, Villanova, Pennsylvania, USA) for his major contributions to works on the systematics and morphology of the geckos of the world.

Habitats and ecology. The specimens of *L. aaronbaueri* **sp.n.** were found between stones in the Garmabe region (Nourabad, Lorestan Province, Iran). The type locality is characterized by oak forested hills surrounded by mountains, and is adjacent to the Giz-e-roo River (Fig. 5). Specimens were obtained from the top of the mountains. The new species is syntopic with three reptiles, *Laudakia nupta*, *Ophisops elegans*, and *Heremites aurata*.

Distribution. *Lakigecko aaronbaueri* **sp.n.** is at present known only from the type locality.

Discussion

Previously Červenka et al. (2010) suggested that *Carinatogekko* belonged in the synonymy of *Mediodactylus*. Based on my collections from the Shorab region near Khorramabad (the locality of *Carinatogekko* cf. *heteropholis*, REPT/IRA/1139), Červenka et al. (2010) worked on *Mediodactylus* sp. from Lorestan Province, not *Carinatogekko*. This mistake occurred due to an erroneous taxonomic diagnosis based on two criteria. First, the dorsal scalation type and shape (Červenka et al. 2010; Torki 2011) of *Carinatogekko* cf. *heteropholis* (REPT/IRA/1139) does not support this species belonging to *Carinatogekko*, as the author has previously discussed (Torki 2011). Second, the subdigital lamellae of the new collection do not match the condition of *Carinatogekko* (smooth vs. keeled). Therefore, I suggest that *Carinatogekko* is valid and distinct from the other genera of the *Mediodactylus-Cyrtopodion-Tenuidactylus* group as well as from *Lakigecko* **gen.n.** The number of lamellae, a character cited by Červenka et al. (2010) to confirm that their specimens belonged to *Mediodactylus*, is not an important taxonomic character for the distinguishing of *Carinatogekko* from *Mediodactylus*. Also, the typical cryptic color patterns on the dorsum and tail in *Mediodactylus* are not M- or V-shaped dark transverse bars, as reported by Červenka et al. (2010). Based on my personal observations, there is more variability in the dorsal color patterns in *Mediodactylus* sp. and *Carinatogekko* sp., such as zigzag forms and completely irregular dorsal patterns (this variability is clear in urban house geckos). On the other hand, based on my observations, *Mediodactylus* sp. are distributed mostly in urban houses in Iran, as a result of human activity, rather than in the surrounding habitats. This is also true for some other geckos, such as *Cyrtopodion* and *Hemidactylus*, and for some hair-like pad geckos (Torki 2007; Torki et al. 2008). *Carinatogekko* may

be defined on the basis of at least three important taxonomic characters: (1) all body scales keeled (except intermaxillaries, nasals, chin shields, and labials), (2) subdigital lamellae keeled (not smooth), and (3) subcaudal scales small and strongly keeled. In any case, gecko taxonomy in the Zagros Mountains is a complex problem, largely due to incomplete and poor taxonomic studies to date.

Tail tubercles in *Cyrtopodion*, *Tenuidactylus*, *Bunopus*, and *Lakigecko* **gen.n.** are in contact with one another within whorls, and this is in contrast to *Mediodactylus* and *Carinatogekko* (where they are separated). This character is inconsistent with a recent phylogenetic study (Bauer et al. 2013) that includes some of these taxa. *Tenuidactylus*, *Bunopus*, and *Cyrtopodion* are more closely related to each other and collectively have a sister-taxon relationship with *Mediodactylus*. Both the highly keeled and ventrally

extending tubercles in *Lakigecko* **gen.n.** and the shape of the tail differ from other genera (*Tenuidactylus*, *Bunopus*, *Cyrtopodion*, *Mediodactylus*, *Carinatogekko*). Additionally, the eye shape (horizontally elliptical) and head shape (greatly flattened) of *Lakigecko* **gen.n.** are different from those in these genera. Although, I have not studied the skull anatomy of *Lakigecko* **gen.n.** directly, the external morphology of the head suggests a distinctive skull anatomy of the new genus as well.

In general, four characters of *Lakigecko* **gen.n.** are completely different from related genera (*Tenuidactylus*, *Bunopus*, *Cyrtopodion*, *Mediodactylus*, and *Carinatogekko*) including (Table 2): (1) tail tuberculation, (2) tail shape, (3) eye shape, and (4) head shape. On this basis I suggest that *Lakigecko* **gen.n.** is likely sister to the group *Tenuidactylus-Bunopus-Cyrtopodion* + *Mediodactylus-Carinatogekko*.

Key to the genera of Gekkonidae in Iran (after Anderson 1999; Safaei-Mahroo et al. 2016)

1a: Digits strongly dilated.....	<i>Hemidactylus</i> Oken, 1817
1b: Digits not dilated.....	2
2a: Digits with well-defined lateral fringe of elongate scales.....	3
2b: Digits without fringe of elongate scales.....	5
3a: Small dorsal scales intermixed with rounded tubercles.....	<i>Crossobamon</i> Boettger, 1888
3b: Dorsal scales uniform, not intermixed with tubercles.....	4
4a: Enlarged postmental scales present.....	<i>Pseudoceramodactylus</i> Haas, 1957
4b: No enlarged postmentals.....	<i>Stenodactylus</i> Fitzinger, 1826
5a: Dorsal scales heterogeneous.....	6
5b: Dorsal scales small (granule like), homogeneous.....	13
6a: Nostril at apex of prominent swollen or cylindrical caruncle formed by nasal scales, rostral excluded from border of nostril.....	<i>Rhinogekko</i> de Witte, 1973
6b: Nasal scales do not form cylindrical caruncle, although they may appear to be swollen around the nostril; rostral normally forms part of border of nostril.....	7
7a: Tail cylindrical, very slender, and of almost uniform diameter from base to tip (tip blunt), no mucronate tubercles or annuli.....	<i>Agamura</i> Blanford, 1874
7b: Tail different from above.....	8
8b: Tail depressed, tail tubercles strongly keeled, spinose, in contact together in at least 14 rows in each whorl, whorl tubercles extended in laterals and ventral of tail; head angle (laterally) less than 30°.....	<i>Lakigecko</i> gen.n.
8b: Tail different from above; head angle (laterally) more than 35°.....	9
9a: Subdigital lamellae keeled.....	10
9b: Subdigital lamellae smooth.....	11
10a: All scales on body except chin shields, supralabials, and infralabials keeled; dorsal tubercles in each caudal segment not in contact, subcaudal scales not denticulate.....	<i>Carinatogekko</i> Golubev and Szczerbak, 1981
10b: All body scales are not keeled; dorsal tubercles in each segment are in contact; subcaudal scales denticulate.....	<i>Bunopus</i> Blanford, 1874
11a: Digit shape sub-angular, spine-shaped caudal tubercles do not contact each other in the whorls of a segment.....	<i>Mediodactylus</i> Szczerbak and Golubev, 1977
11b: Digit shape strongly angular, low, or moderately high tail tubercles broadly contact each other across the dorsum of tail whorls and are surrounded by one to two smaller scales.....	12
12a: Femoral pores present.....	<i>Tenuidactylus</i> Szczerbak and Golubev, 1984
12b: Femoral pores absent.....	<i>Cyrtopodion</i> Fitzinger, 1843
13a: Subcaudals arranged in single large, broad row, two strongly keeled tubercles on either side of each annulus.....	<i>Parsigekko</i> Safaei-Mahroo, Ghaffari, and Anderson, 2016
13b: Tail scales uniform, homogenous, not keeled.....	14
14a: Subdigital lamellae keeled.....	<i>Tropicolotes</i> Peters, 1880
14b: Subdigital lamellae smooth.....	<i>Microgekko</i> Nikolsky, 1907

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