

16545 (4), around Kolageran station; 16755 (7), Alaverdy; 17457 (20), gorge of the Dzoraget River, Stepanavan; 17541 (7), Stepanavan; 17941 (13), gorge of the Getikr River. Azerbaijan: ZIL 3130 (1); Kirovabad; 17067 (2), gorge of the Gyandzhachai River.

Lacerta saxicola raddei Boettger 1892

(Fig. 34; photo. 12).

L. muralis var. raddei, Boettger, 1892:142; Mertens, 1922:173; muralis var. defilippii, Boulenger, 1904:337; 1920:298; - saxicola var. defilippii Mehely, 1909:519, Table XVIII, Fig. 1, 3, Nikolskii, 1913:71, 1915:370; - caucasica var. tenuis, Nikolskii, 1910:496; - saxicola defilippii, 1929:102; Lantz and Cyren, 1936:164; Chernov, 1939:111; Terentiev and Chernov, 1949:188; Darevsky, 1957:28.

Lectotype. Senckenbergische Natur-Museum (Germany), 12054, village Nyuvadi in Araks valley, southeastern Armenia, collected by Radde and Valentin in 1890.

Description. The width of the frontonasal exceeds its length. The rostral is separated from the frontonasal, or very rarely joins it at one point. The suture between the frontonasal and postnasal scales is usually somewhat shorter than or equal to that between the anterior and posterior nasals.

The supraciliary and supraocular scales are usually separated by a complete row of 6 - 15 granules. The upper postorbital reaches the parietal roughly in 40 percent of the specimens. The first supratemporal is long or moderately so, slightly constricted and truncated posteriorly; anterior of it along the edge of the parietal, there are 1 - 5 well-developed posttemporals. 2-5 tiny scales of size between that of the midtemporal and the small tympanic are arranged in a very narrow place. Along the midline of the throat up to the collar, there are 20 - 29 scales. The body scales are smooth, fairly prominent; around the midbody 48-62 scale rows are present. Each outer ventral scale meets laterally 2 - 3 body scales in males and more often with 2 than 3 in females; the posterior most boundary scale is usually somewhat enlarged. The ventral scales are arranged in 21 - 27 transverse rows in males and 23-30 in females. The anal scale is large; anterior of it, 2 fairly large preanal scales are arranged symmetrically; often, between these a tiny third one is wedged. The femoral pores number 13 to 23. On the underside of the thigh, between the pores and the outer row of large scales, lie 5 - 8 transverse rows of tiny scales. The dorsal scales of the crus have pronounced keels not exceeding the

size of the body scales. Around the middle of the crus there are 15-22 scales in a single row. The scales on the anterior third of the tail have well-developed longitudinal keels, usually very sharp along the sides; the posterior edge of the scales is truncated or protrudes posteriorly at a low angle. The snout-vent length is 49 - 69 mm in males and 46 - 67 mm in females; the ratio of snout-vent length to that of the unregenerated tail is 0.43 - 0.62 in the former and 0.47 - 0.66 in the latter. The color of the dorsum of the male and female is brownish-gray, bright-brown, dirty-sandy, tobacco-brown, dark-beige, or nut brown. The occipital region is usually formed of innumerable irregular dark blotches sometimes arranged in 2 parallel rows and concentrated along the spine. The temporal stripes which vary widely in width consist of 3 or 4 rows of fairly distinct dark ocelli with whitish (bluish at the level of anterior limbs) centers. A row of whitish spots extends along the broken upper edge of the temporal stripes sometimes forming a punctate ciliary stripe. Dark-rimmed bright, fairly large ocelli usually line the temporal stripes along the lower edge. The venter is whitish, bluish, or greenish-white. During the breeding season, most of the bright ocelli on the sides of males and also the outer rows of ventral scales acquire a bright-blue coloration.

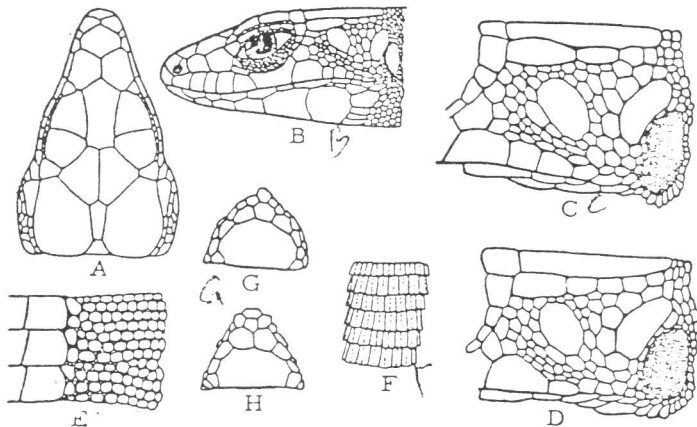


Fig. 34. Major scalation of *L. s. raddei*.

A - Head, dorsal view; B - head, lateral view; C, D - temporal region; E - contact zone between the dorsal and ventral scales; F - dorsal anterior third of tail; G and H - anal region. (A and C - Nyuwadi in Araks gorge, D - Idzhevan, rest - Talysh).

Geographical distribution. This subspecies is widely distributed in the territory of eastern Transcaucasia in southern Armenia, southwestern, western, and southeastern Azerbaijan, and in the adjoining regions of north western Iran.

The northern edge of the range runs along the northeastern slopes of Murovdag and Karabakh ranges in Little Caucasus, then along the northern foothills of Karadag range in the northwestern Iran and the northern and northeastern foothills of Talyash mountains in southwestern Azerbaijan. The southern edge extends along the foothills of Little Caucasus in southern Armenia and Nakhichevan Autonomous Soviet Socialist Republic roughly from the gorge of Azat River in the west, then descends into Araks gorge along the southwestern foothills of the Zangezur range, continues southward into the northwestern Iran where it has not been well delineated. Small isolated portions of the range exist in the eastern foothills of Gugarats range and in the gorges of Debet and Agstev Rivers in northwestern Armenia (fig. 35, 1)

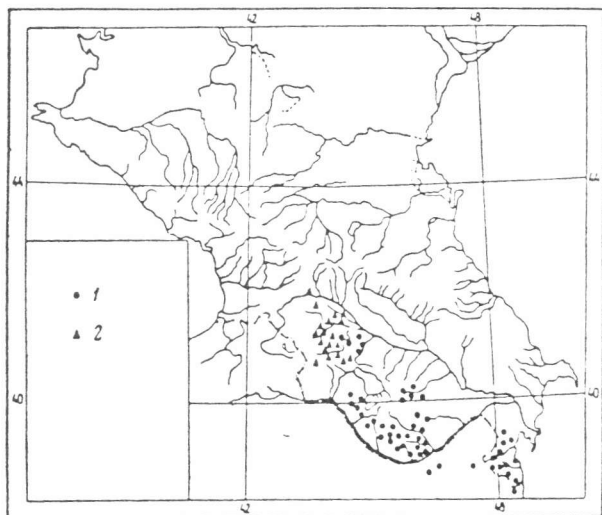


Fig. 35. Main occurrence in the Caucasus.

1 - *L. s. raddei*; 2 - *L. dahli*.

Geographical variation. samples were studied from 6 populations (table 13) separated from west to southeast by distances of 150, 70, 50, 70 and 130 km. The extreme northwestern populations (Idzhevan and Tumanian in northern Armenia) at present are far removed from the rest of the subspecies range. The degree of variations between the samples may be judged from fig. 36, from which a distinct variational cline may be seen increasing from the extreme southeastern populations (Talysh), on the one hand and the group of western populations, on the other. Specimens from northern Armenia (Idzhevan and Tumanian) differ considerably from this group of lizards tending in several characters in favour of the subspecies *L. s. portschi-*

nskii living there. It may be seen from fig. 63 that the differences in the mean body dimensions of lizards from the different samples depend on the height of their habitats above the sea level.

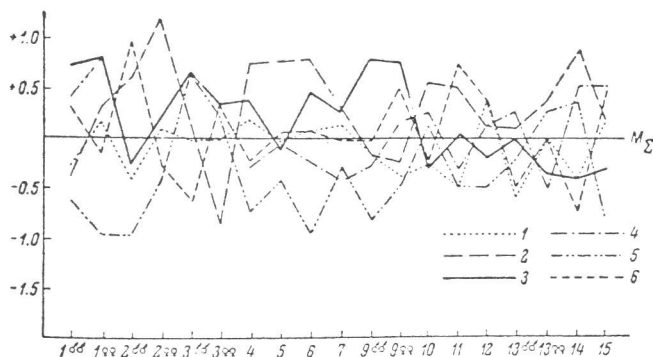


Fig. 36. Summary graph of variations of *L. s. raddei*.

1 - Idzhevan-Tumanyan; 2 - Ordubad-Paraga; 3 - Goris-Sisian;
4 - Karadag range in northwestern Iran; 5 - Talysh; 6 - gorge of the Terter River.

Comparative notes. *L. muralis* var. *raddei* was described by Boettger (1893) from the Araks valley and later included by M ehely (1909) in the synonymy of *L. s. defilippii*. The need to distinguish between these two forms was clearly recognized by Lantz and Cyren (1936) who, while tentatively agreeing with Mehely's view, did point out that the name *L. s. raddei* should be restored to the specimens from the eastern Transcaucasia if their views were correct. These investigators similarly demonstrated that the forms *L. c. tenuis* and *L. s. tenuis* described by Nikolskii (1913, 1915) were nothing but *L. s. defilippii* (= *L. s. raddei*).

Specimens examined. Armenia: ZIL 14395 (7), Zangezur; 17442 (19), Tsav. Kafan region; 17444 (16), Sisian; 17456 (16), Vagravar, Megrin region; 17480 (10), Areni-Chaikend, Egegnadzor region; 17461 (44), Shaki, Sisian region; 17462 (12), road from Goris in Tekh; 17448 (5), Noemberian; 17775 (4), Nyuvadi, Megrin region; 17776 (15), Tatev, Goris region; 17788 (15), Idzhevan; 17797 (4), Azizbekov; 17910 (19), around Kolageran station. Nakhichevan Autonomous Soviet Socialist Republic; ZIL 15391 (1), 15398 (8) and 15391 (1), Darry-Dag mountain, Dzhulfin region; 17450 (11), Chanab, Ordubad region; 17780 (8), Paraga, Ordubad region; 17793 (4), Ilanlu-Dag, Dzhulfin region. Azerbaijan: 17055 (3), Dyman, Talysh; No. 17064 (19), Orant, Lenkoran oblast; 17512 (2), Gorsu, Lachin region; 17799 (25), Kelbadzhar, gorge of Terter River; 17818 (12), Istisu, gorge of Terter River; ZMMSU, 2508 (10), Shusha, Nagornyi Karabakh; 2515 (5),

Table 13

Geographical variation of *Lacerta saxicola raddei*

Characters	Izhigyan-Tumanyan (northern Armenia), N = 30 (15 ♂♂, 15 ♀♀)			Gorge of the Terter River (Karabakh uplands, Azerbaijan), N = 30 (14 ♂♂, 12 ♂♂, 18 ♀♀)			Goris-Stilam (eastern Armenia), N = 30 (20 ♂♂, 10 ♀♀)			Ordubad-Paraga (Nakhichevan), N = 30 (21 ♂♂, 9 ♀♀)		
	Range of variation	M ± m	Range of variation	M ± m	Range of variation	M ± m	Range of variation	M ± m	Range of variation	M ± m		
1 ♂♂	53-66	58.53 ± 1.02	57-66	60.92 ± 0.87	57-66	62.50 ± 0.63	49-69	58.24 ± 0.97				
1 ♀♀	51-65	58.33 ± 1.37	50-63	56.89 ± 0.77	58-65	61.00 ± 0.71	52-67	58.75 ± 1.52				
2 ♂♂	89-131	109.67 ± 3.98	124-127	126.00 ± 0.99	91-128	110.9 ± 4.13	103-139	121.78 ± 3.14				
2 ♀♀	85-125	101.88 ± 4.46	90-108	97.75 ± 1.89	95-110	102.5 ± 7.5	93-133	113.33 ± 5.81				
3 ♂♂	0.47-0.66	0.53 ± 0.02	0.48-0.51	0.49 ± 0.008	0.45-0.68	0.57 ± 0.02	0.43-0.62	0.48 ± 0.14				
3 ♀♀	0.50-0.66	0.56 ± 0.02	0.55-0.65	0.59 ± 0.01	0.53-0.65	0.59 ± 0.06	0.47-0.59	0.52 ± 0.02				
4	50-58	53.17 ± 0.36	48-56	52.30 ± 0.29	50-62	53.5 ± 0.49	50-59	54.43 ± 0.38				
5	22-29	23.83 ± 0.25	21-27	23.83 ± 0.29	20-27	23.63 ± 0.28	21-29	25.17 ± 0.37				
6	13-23	18.02 ± 0.32	15-21	17.95 ± 0.24	16-21	18.60 ± 0.19	16-22	19.18 ± 0.25				
7	8-15	10.80 ± 0.31	8-14	10.68 ± 0.24	6-13	11.10 ± 0.23	8-14	11.23 ± 0.20				
7a	0	—	6.6	—	0	—	0	—				
9 ♂♂	24-26	24.87 ± 0.17	24-26	25.00 ± 0.21	24-27	25.95 ± 0.19	23-27	24.90 ± 0.20				
9 ♀♀	24-29	26.53 ± 0.38	26-29	27.56 ± 0.23	26-30	27.80 ± 0.44	25-28	26.78 ± 0.32				
10	1-3	1.93 ± 0.06	1-3	1.90 ± 0.07	1-2	1.86 ± 0.06	1-4	2.27 ± 0.12				
11	2-4	2.73 ± 0.12	2-5	3.60 ± 0.13	2-4	3.13 ± 0.12	3-5	3.41 ± 0.97				
11a	3.3	—	5.3	—	0	—	26.6	—				
12	2-5	3.28 ± 0.12	2-5	3.28 ± 0.13	2-4	2.93 ± 0.09	2-5	3.13 ± 0.11				
13 ♂♂	2-3	2.96 ± 0.04	2-3	2.66 ± 0.13	2-3	2.85 ± 0.08	2-3	2.9 ± 0.06				
13 ♀♀	2-3	2.90 ± 0.07	2-3	2.89 ± 0.07	2-3	2.8 ± 0.13	3-3	3.00 ± 0.00				
14	16-20	17.23 ± 0.20	15-17	16.83 ± 0.14	15-19	17.17 ± 0.20	16-22	18.93 ± 0.29				
15	5-7	6.10 ± 0.07	6-8	6.30 ± 0.09	5-7	5.90 ± 0.09	6-7	6.13 ± 0.06				

Contd.

Characters	Karadag range (north western Iran), N = 19 (11 ♂♂, 8 ♀♀)		Talysh (south-eastern Azerbaijan), N = 29 (11 ♂♂, 18 ♀♀)		Species as a whole N = 168 (90 ♂♂, 78 ♀♀)	
	Range of variation	M ± m	Range of variation	M ± m	Range of variation	M ± m
1 ♂♂	54-66	61.27 ± 1.01	51-63	57.10 ± 1.27	49-69	59.82 ± 0.43
1 ♀♀	57-65	60.88 ± 1.22	46-62	53.60 ± 1.03	46-67	57.56 ± 0.49
2 ♂♂	—	—	90-116	103.25 ± 5.90	89-139	114.58 ± 1.31
2 ♀♀	—	—	76-106	96.29 ± 4.00	76-133	100.34 ± 1.35
3 ♂♂	—	—	0.51-0.62	0.57 ± 0.02	0.43-0.68	0.53 ± 0.006
3 ♀♀	—	—	0.48-0.66	0.58 ± 0.02	0.57-0.66	0.57 ± 0.007
4	50-54	52.05 ± 0.32	48-54	51.00 ± 0.32	48-62	52.79 ± 0.18
5	20-27	23.80 ± 0.43	20-26	23.10 ± 0.27	20-29	23.30 ± 0.14
6	15-21	17.59 ± 0.29	13-20	16.17 ± 0.27	13-23	17.94 ± 0.13
7	8-13	10.00 ± 0.31	6-14	10.17 ± 0.33	6-15	10.71 ± 0.117
7a	0	—	0	—	0-6.6	—
9 ♂♂	23-26	24.75 ± 0.28	21-26	24.18 ± 0.46	21-27	25.04 ± 0.11
9 ♀♀	25-29	27.13 ± 0.44	23-28	26.50 ± 0.24	23-30	27.01 ± 0.123
10	2-3	2.15 ± 0.08	1-4	2.13 ± 0.09	1-4	2.03 ± 0.03
11	2-5	2.84 ± 0.15	2-3	2.72 ± 0.08	2-5	3.09 ± 0.05
11a	5	—	0	—	0-26.6	—
12	2-5	3.12 ± 0.16	1-4	2.72 ± 0.10	1-5	3.08 ± 0.052
13 ♂♂	2-3	2.95 ± 0.05	2-3	2.77 ± 0.12	2-3	2.86 ± 0.04
13 ♀♀	2-3	2.75 ± 0.15	2-3	2.97 ± 0.03	2-3	2.90 ± 0.033
14	16-20	18.40 ± 0.23	17-20	18.21 ± 0.15	15-22	17.76 ± 0.1
15	5-7	6.30 ± 0.12	5-7	5.62 ± 0.10	5-8	6.05 ± 0.04
						4.16
						4.34
						12.50
						11.21
						0.065
						0.059
						2.29
						1.78
						1.69
						1.49
						—
						1.06
						1.09
						0.50
						0.72
						—
						0.663
						0.383
						0.30
						1.30
						0.541

Lenkoran. Iran (northwestern): ZIL 15599 (1), Ardebil; 16622 (1), northwestern slopes of Bogrov-Dag mountains; 16626 (21), Sarka-Dariya, Karadag range; 16910 (5), Altalykh nomadic territory, Bogrov-Dag; 17047 (1), Salavat mountain; 17484 (2), Ardebil.

Lacerta saxicola szczerbaki Lukina 1963
(Fig. 37; photo 1)

L. saxicola szczerbaki Lukina, 1963: 57, Fig. 1.

Holotype. Rostov State University, 39, around the town of Anapa, June 27, 1962, collected by G. P. Lukina.

Description. The width of the frontonasal is greater than or equal to its length. The rostral does not reach the frontonasal or (in 12 percent) touches it at one point. The suture between the frontonasal and postnasal is not shorter than that between the anterior and posterior nasals. The sutures between the frontal and prefrontals in fully mature specimens are somewhat convex in the frontal. In 52 percent of specimens, 1-3 tiny additional scales are present between the two prefrontals. The supraciliaries are invariably separated from the supraoculars by a full row of 9 - 14 granules. The upper postorbital does not reach the parietal or is separated from it by a tiny scale. The first supratemporal is short or moderately long, truncated, rarely pointed posteriorly; the 2-7 posttemporals located posterior of it usually do not differ in size from the other tiny scales of the temporal region. The midtemporal is very tiny or not at all enlarged; it is set off by 2-5, from the first supratemporal, and from the small tympanic by 3 - 7 tiny scales. Along the midline of the throat, there are 26 - 36 scales. The body scales are smooth and prominent. Around midbody, there are 54 - 74 scale rows. The ventral scales in males and females laterally touch 3 body scales, of which the posterior one is sometimes considerably enlarged. The ventrals are arranged in 23 - 26 transverse rows in males and 26 - 27 in females. The large anal shield is surrounded anteriorly by 6 - 10 scales, of which 1 - 2 middle ones are considerably enlarged. The femoral pores number 14 - 24. Below the thigh between the pores and the outer row of large scales, there are 5 - 7 transverse rows of tiny scales. The dorsal scales of the crus are not larger than the spinal ones, and have well-developed keels. The dorsal and lateral scales on the anterior third of the tail show well-developed longitudinal keels. The snout-vent length is 69 - 88 mm in males and 61 - 80 mm in females; the ratio of its length to that of the unregenerated tail is 0.46 - 0.55 and 0.52 - 0.54, respectively.