Recently, Darevsky (1965b) demonstrated that L.s. terentijevi described by him in 1957 from hilly Armenia was none other than L.s. valentini; the Araks gorge and the village of Bazarchai at an elevation of about 2000 m above the sea level in eastern Armenia which was covered by Radde and Valentin (Radde 1890) in their expeditions should be regarded as the type locality. This form differs greatly from the other of the subspecies of L. saxicola in their morphological characteristics. This phenomenon was also pointed out by R. Mertens (1922) who suggested that it be regarded as an independent species. Since L.s. valentini reveals a good similarity with L.s. lantzicyreni of Asia Minor, the question of its taxonomic rank should be resolved together with a study of the latter for which purpose additional material from northeastern Turkey is required.

Specimens examined. Armenia: ZIL 14197 (4), Kazanchi, Gukasyan region; 14393 (1), Chakalovka, Sevan region; 14911 (5), Agbaba mountain Gukasyan region; 16072 (5), Agmagan mountain, Nor-Bayazet region; 16786 (3), Lchashen, Sevan region; 16549 (10), around Aparani; 16677 (14), Karmrachen, Talin region; 16392 (6), eastern slope of Aragats mountain; 17777 (3), Miskhan range at village Takyalu; 17806 (7), Pambak range at village Akhundov; 17826 (10), Lchashen, Sevan region; 17829 (20), around Gukasyan; 17938 (11), around Karvansar, Martunin region; ZIA (7), northwestern slopes of Aragats mountain at Artik town; (11), upper courses of Mantash gorge, Artik region; (2) southern slopes of Aragats mountain in the upper courses of Amberda River; SMF 12064 (1), Bazarchai, Sisian region 12065 (1), Bazarchai, Sisian region. Georgia; GMG (4), around Bogdanovki. Turkey (northeastern):NMW, 18383 (6), western slopes of Yalnyzcham range; 18384 (2), eastern slopes of Yalnyzcham range.

RUDIS GROUP

Lacerta rudis rudis Bedriaga 1886
(Fig. 41; Photo. 14)

Podarcis depressa Camerano (part.), 1878:539.-- Lacerta depressa var. rudis, Bedriaga, 1886:275 (259). -- muralis var. depressa f. modesta, Boettger (part.), 1892:140.-- muralis var. depressa, Boulenger, 1904:337 Table 22, Fig.c; 1913:196, Table 22, Fig. 7, 7a, 8.-- muralis var. rudis, Mehely, 1909:529, Table 20, Fig. 7; Nikolskii, 1915:373; Lantz and Cyren, 1936:165; Terentiev and Chernov, 1949:187.

Holotype. Not designated. Described by Bedriaga (1886) from Batumi samples.

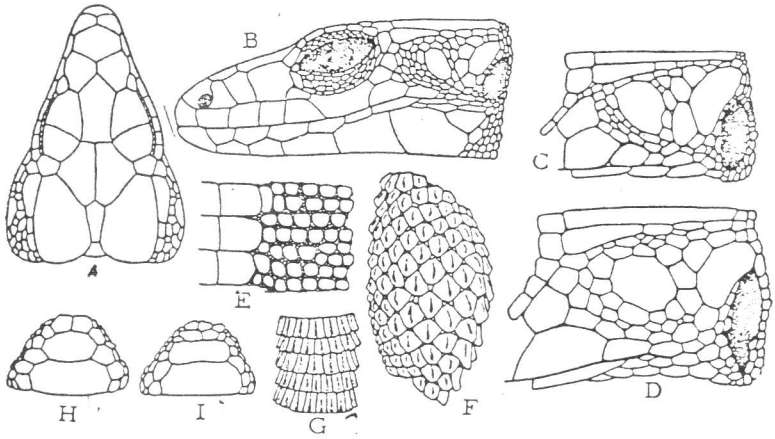

Fig. 41. Major scalation of L. r. rudis.

A - Head, dorsal view; B - head, lateral view; C, D - temporal region; E - contact zone between dorsal and ventral scales of females; F - dorsal surface of ankle; G - dorsal of anterior third of tail; H, I - anal region. (D to G - Mestiya; rest - Adzhariya).

Description. The width of the frontonasal is greater than or, rarely, equal to its length. The rostral is set off from the frontonasal or rarely 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 prefrontal and frontal are straight or slightly concave inside the latter. The supraciliaries are separated from the supraoculars by a complete or somewhat interrupted row of 13 - 25 granules. The upper postorbital usually touches the parietal across a fairly broad suture. The first supraciliary is long, or moderately so, and is considerably constricted posteriorly. Posterior of the supraciliary, there are 2 - 6 tiny, faint posttemporals at the border with the parietal. The large or moderate midtemporal scale is separated from the supratemporal by 2 - 4 and from the moderate-sized tympanic by 1 - 5 longitudinal rows of tiny scales. In adult specimens, especially the males, the tiny scales of the temporal region often bear short, blunt spinules or blunt longitudinal keels. The collar is not serrated. There are 20 - 32 scales along the midline of the throat up to the collar. The body scales are prominent, noticeably enlarged on the sides, generally with somewhat distinct longitudinal keels or conical tubercles, invariably more prominent on the posterior third of the back and at the border with the abdomen. Around the midbody, 38 - 53 scale rows are present. The ventral scales laterally touch 3, rarely 2, body scales in males and 2, rarely 3, in females; the ventral and pectoral scales are arranged in 21 - 25 transverse rows in the former and 24 - 28 in the latter. Anterior of the large anal scale, one large or rarely 2 or 3

smaller preanal scales are arranged symmetrically. The femoral pores number 13 - 25. On the underside of the thigh between the femoral pores and the outer edge of enlarged scales, there are 4 - 6 transverse rows of tiny scales. The dorsal scales of the crus are considerably larger than the dorsal scales with well-developed longitudinal keels and usually with tiny granules along the edges; the scales in the center are usually considerably larger than those on the sides. 10 - 15 scale rows circle the middle of the crus. The dorsal and lateral caudal scales have strongly developed longitudinal keels posteriorly truncated or attenuated at a distinct angle. On the dorsal third of the tail, the ends of keels are noticeably drawn up and form sharp spinules as a result of which the tail of adult specimens appears spiny. The ventral scales of the tail are smoother but nevertheless have visible longitudinal keels. The snout-vent length is 63 - 85 mm in males and 54 - 83 mm in females; the ratio of the snout-vent length to that of the unregenerated tail is 0.48 - 0.60 in the former and 0.47 - 0.63 in the latter.

The color of the dorsum of males is green, bright green, ivy green olive green, brownishgreen, dark-sandy, olive gray, dark mouse-gray or nutbrown. The midoccipital stripe is formed of large, black or dark-brown blotches extending across and concentrated along the dorsal midline. These blotches are bordered laterally by a more or less broad pattern-free stripes of the same color as the background, sometimes with distinct, bright spots. The temporal stripes are usually formed of three rows of fairly distinct and contiguous black or brown oceili with weii-defined whitish (bluish at the level of anterior limbs) centers. The upper edge of these stripes is usually edged by distinct whitish spots constituting the spotted temporal lines. The venter including the head and throat of males is greenish-yellow, yellowish, dove-green, bluish or blue. The venter of females is yellowish or dove-green. During the breeding season, the outer row of ventral scales and the adjacent body area of males are bright-blue or violet.

Geographical distribution. This subspecies possesses a large range and is encountered in northeastern Turkey and western Transcaucasia, on the one hand, and in the Bolshoy Kavkaz in northern Georgia, northwestern Azerbaijan and hilly Checheno-Ingush, on the other. The southwestern edge of the range extends into Asia Minor along the northern slopes of the Pontii range in the northern part of which the range of the subspecies is confined by the shore line and in the east covers the valley of the lower course of the Chorokh River and its tributaries. It is common on Adzhariya in the valley of the Adzharis-Tskali River and its tributaries originating on the slopes of the Meskhet, Shavshet, and Arsiyan ranges. Along the northern Meskhet foothills and farther along the Suram range, it reaches the southern foothills of the Bolshoy Kavkaz where it is widely distributed in

northern Georgia, southern Ossetia, and northwestern Azerbaijan from the valley of the middle and upper courses of the Inguri River in Mingreliya and Svanetiya in the west up to the neighborhood of Zakataly in the east. The southern edge of the range in the Glavny range extends along the foothills of Egriss, Lechkhum, and Rachin ranges up to Nakalakevi and Kutaisi in the south, than along the foothills of the ranges bounded from the north by the Vnutrennekartlin plain, and crossing the Kartlin and Kakhetin ranges, continues farther along the southern foothills of the Bolshoy range in the Alazani valley up to the Zakataly Forest Reserve within Azerbaijan. A large isolated population exists on the northern slopes of the Bolshoy range in Checheno-Ingush in which this lizard was recognized for the first time by Chernov (1929) from the gorge of the right tributary Terek of Armkhi River. Our special studies have shown that it is widely distributed in the northern and partly the southern slopes of the Bokovoy range in the valleys of the Terek and Argun Rivers roughly up to the line joining around the Tersk village and Sovetsk in the north (fig. 42, 1). In northeastern Turkey and Adzhariya, the range of this form is almost everywhere sympatric with that of the L. s. parvula and in southern and northern slopes with that of L. caucasica.

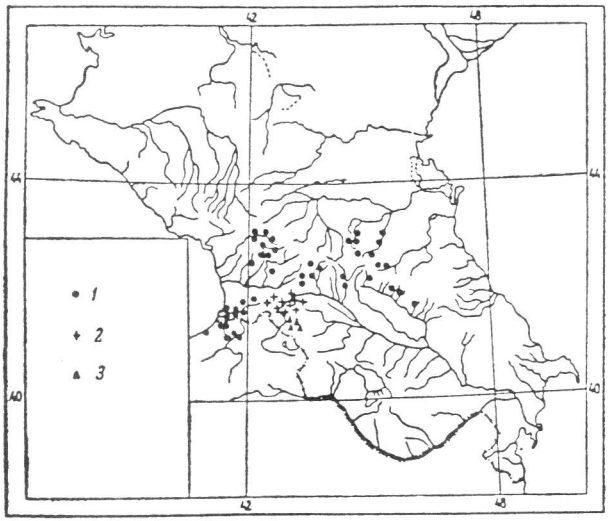

Fig. 42. Distributions in the Caucasus and in northeastern Turkey.

1 - L. r. rudis; 2 - L. r. obscura; 3 - L. r. macromaculata.

Geographical variation. Samples were studied from five populations derived from different parts of the subspecies range (Table 17). The investigated populations were 120 and 260 km apart on the southern slopes of the

Table 17

Geographical variation

Characters	Adzhariya, N = 41 (17 ♂♂, 24 ♀♀)		Verkhnyaya Svanetiya (around Mestiya) N = 26 (14 ♂♂, 12 ♀♀)		Suram pass and southern Ossetia (around Dzhav resort), N = 29 (15 ♂♂, 14 ♀♀)	
	Range of variation	$M \pm m$	Range of variation	$M \pm m$	Range of variation	$M \pm m$
1 ♂♂	66—81	75.35±0.84	65—85	77.64±1.4	63—73	67.93±0.81
1 ♀♀	59—80	70.27±1.35	65—84	73.58±1.72	60—74	65.40±1.18
2 ♂♂	125—154	143.83±4.35	138—163	148.20±4.63	113—145	130.10±2.94
2 ♀♀	100—137	119.62±3.37	118—129	124.83±1.65	103—123	113.09±1.79
3 ♂♂	0.50—0.59	0.53±0.01	0.52—0.60	0.54±0.01	0.48—0.59	0.51±0.01
3 ♀♀	0.47—0.63	0.55±0.01	0.53—0.61	0.57±0.009	0.52—0.62	0.57±0.008
4	38—52	45.64±0.53	38—45	41.58±0.38	41—51	45.97±0.53
5	22—32	28.98±0.35	20—29	25.31±0.37	22—31	26.17±0.35
6	15—25	20.02±0.30	13—19	16.58±0.25	15—22	18.12±0.27
7	5—14	11.25±0.26	10—16	12.12±0.27	3—13	7.71±0.46
7a	4.9	—	0	—	68.9	—
9 ♂♂	22—24	23.24±0.04	22—24	23.29±0.19	23—25	23.87±0.17
9 ♀♀	24—28	25.54±0.19	25—27	26.08±0.23	25—27	26.29±0.17
10	1—3	1.14±0.10	1—2	1.15±0.07	1—2	1.14±0.06
11	1—4	2.14±0.09	1—2	1.71±0.08	1—4	2.17±0.12
11a	9—5		0		0	
12	2—6	3.43±0.12	3—6	4.00±0.15	2—5	3.47±0.13
13 ♂♂	2—3	2.74±0.10	2—3	2.14±0.09	2—3	2.4 ±0.13
13 ♀♀	2—3	2.16±0.10	2—2	2.00±0.00	2—3	2.10±0.07
14	11—15	12.97±0.18	11—14	11.81±0.16	10—13	12.10±0.16
15	4—6	4.75±0.09	4—6	5.04±0.10	4—6	5.14±0.10

Bolshoy range from west to east while the extreme southern samples (in Adzhariya and Checheno-Ingush) were 270 km apart. Similarly it may be pointed out that the Checheno-Ingush populations are now isolated on the northern slope of the Glavny range and are separated from the main range in the south. The variation patterns of the samples investigated are depicted in fig. 43. It may be seen from the Adzhariya and Checheno-Ingush populations that an overwhelming majority of scale characters reveal a distinct variational cline rising from west to east in the southern slope of the Glavnyi range. This is confirmed by additional analytical data, not included in this table, covering the intermediate sample from around Pasanauri in the Belaya Aragva gorge.

On the other hand, some characters also reveal a variational cline from south to northeast (from Adzhariya to the Suram range in Checheno-Ingush).

As in several other rock lizard forms, the maximum body dimensions (characters 1 and 2) are recorded for lizards inhabiting the higher altitudes. It should similarly be noted that the live lizards from Verkhnyaya Svanetiya, apart from a larger size, are distinguished by a fairly bright blue coloration of the throat, particularly intense in adult males.

of Lacerta rudis rudis

Zakataly (northwestern) Azerbaijan, N = 5 (3 ♂♂, 2 ♀♀)		Chechen-Ingush (northern Caucasus), N = 20 (8 ♂♂, 12 ♀♀)		E Subspecies as a whole, N = 121 (57 ♂♂, 64 ♀♀)		
Range of variation	$M \pm m$	Range of variation	$M \pm m$	Range of variation	$M \pm m$	σ
73—75	74.00±0.57	63—72	69.13±1.06	63—85	73.02±0.72	5.48
54—65	59.50±5.5	60—74	67.08±1.27	54—84	68.89±0.65	5.23
141—146	143.50±2.5	132—140	136.67±2.40	113—163	140.27±1.54	11.65
—	—	—	—	100—137	119.04±1.57	12.6
0.51—0.53	0.52±0.01	0.50—0.55	0.52±0.01	0.48—0.60	0.52±0.003	0.028
—	—	—	—	0.47—0.63	0.56±0.003	0.030
45—47	46.2 ±0.49	44—53	48.20±0.49	38—53	45.29±0.31	3.48
24—27	25.60±0.60	26—32	28.85±0.33	20—32	27.36±0.22	2.52
16—18	16.8 ±0.35	15—20	18.08±0.22	13—25	18.37±0.18	2.02
5—10	7.5 ±0.64	2—12	5.68±0.59	2—16	9.51±0.28	3.15
50.0	—	90	—	—	—	—
24—25	24.33±0.33	21—25	24.00±0.46	21—25	23.58±0.104	0.79
26—27	26.50±0.50	26—28	27.00±0.17	24—28	26.11±0.11	0.954
1—2	1.2 ±0.20	1—2	1.65±0.10	1—3	1.23±0.056	0.618
2—3	2.3 ±0.21	1—3	2.35±0.13	1—4	2.10±0.056	0.625
0		0				
2—5	3.5 ±0.38	3—5	3.85±0.13	2—6	3.63±0.07	0.775
2—3	2.50±0.34	2—3	2.37±0.17	2—3	2.44±0.06	0.50
2—3	2.5 ±0.40	2—3	2.12±0.09	2—3	2.12±0.04	0.332
12—13	12.20±0.20	10—14	12.38±0.23	10—15	12.38±0.09	1.00
5—5	5.00±0.00	5—6	5.10±0.06	4—6	4.97±0.05	0.55

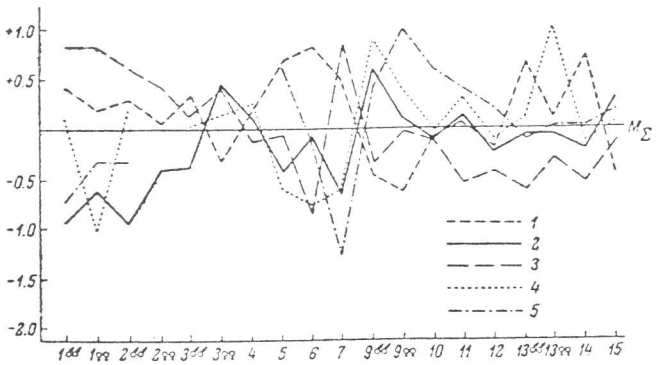

Fig. 43. Summary graph of variation of L. r. rudis.

1 - Adzhariya; 2 - ram pass; 3 - Verkhnyaya Svanetiya; 4 - Zakataly; 5 - Chechno-Ingush.

Deryugin (1901) and Bodenheimer (1944) also noticed an unusually high variation in several characters of lizards from around Trabzon. This is also confirmed by our samples from several points between Trabzon and Sinop. An analysis of the latter data shows that a distinct hybridization

zone exists between L. rudis and the Asia Minor form L.s. lantzicyreni on the Black Sea coast of northeastern Turkey; their ranges partially sympatric in the southern foothills of the Vostochno-Pontii range.

It should also be stated that the specimens from the Black Sea coast of Turkey differ noticeably in several scale characters from those of Adzhyariya and the Glavnyi range which permits the assumption of the existence here of a special subspecies different from the nominal form. This is confirmed by Deryugin's data (1899) that rock lizards from around Trabzon are distinguished by an unusually bright yellow coloration of the venter which is never the case with L. rudis from Transcaucasia.

Comparative notes. Bedriaga (1886) described his Lacerta depressa var. rudis from around Batumi, and later Méhely (1909) and Nikolskii (1913 and 1915) extended this name to lizards from Adzhariya, northeastern Turkey and the southern slopes of the Glavnyi Caucasus range. In spite of the fact that the type specimens of Podarcis depressa Camerano, 1878, (or at least some of them) came from around Trabzon, the occurrence of L.s. rudis on the Black Sea coast of Turkey remained doubtful for a long time. Though Lantz and Cyren (1936) had doubts about the relationships of this form to some of the specimens encountered by them from Trabzon, Bodenheimer (1944) showed it on his map as a whole row of points along the coast between Sinop, Trabzon, and Rize. The author (Darevsky, 1965b) also recently showed the occurrence of this lizard around Trabzon. Distinct morphological differences of L. rudis and also the absence of intermediate forms in the area of sympatry with L. caucasica, L. mixta L. armeniaca, L.s. brauneri, L.s daghestanica, and L.s. parvula conclusively point to the specific independence of this form.

SPECIMENS EXAMINED. Georgia: ZIL 3382 (1), Ghernaya Arogva: 13226 (1), Lagodekhi; 17745 (16), Suram pass: 17796 (3), Gornaya Tushegiya, Omalo; 17814 (23), gorge of Inguri in the basin of Nakry river; 17875 (10), Mestiya, Verkhnayaya Svanetiya; GMG (7), Pasanauri;(4) Leberde, Gegechkor region; (6) Nizhnaya Svanetiya, Lentekhi; (2) Dzhvari, Tsalendzhikh region. Adzhariya: ZIL 13500 (3), Zelenyi Cape near Batumi; 13501 (4), Zelenyi cape: 17515 (9), Shuakhev region; 17517 (5), Chvana, Shuakhev region; 17518 (13), Keda, road to Merisi; 17522 (5), Chakvis-Tskali river, Kobulet region; 17523 (8), Keda, road to Oktomberi. Southern Osetia: ZIL 17733, around Dzhav resort. Checheno-Ingush: ZIL 15607 (2), Solsh, Gornaya Ingush; 17878 (13), gorge of Armkhi river, 8 km before falling into Terek; 17882 (4), gorge of Argun river, 4 km above Sovetsk village. Turkey (northeastern): ZIL 10688 (6), Ichkhan-Su river, Artvin vilayet; 10689 (5), Kvartskhany, Artvin vilayet; 10690 (?), Ipkhreul-Su, Artvin vilayet; 10693 (5), Ichkhan-Su river, Artvin vilayet; 10818 (1), Salolettopas post, Artvin vilayet;

13824 (1), Dzansul, Artvin vilayet; 13466 (1), Dzansul, Artvin vilayet; 17971 (1), Trabzon; NMW 18385, ?,4 (?), Meriemana, near Trabzon; 18383 (1), Yalnyzcham range, eastern slope; ZMF 11981 (1), Trabzon; 12004 (1), Sinop; 12008 (1), Sinop; 12009 (1), Sinop.

Lacerta rudis macromaculata ssp. n
(Fig.44; Photo. 16)

Holotype -- ZIL, Academy of Sciences, USSR, 17940, ♂, around the town of Akhalkalaki in Georgia, about 1800 m above sea level June 24, 1961, collected by I. S. Darevsky (Fig.16D).

Paratypes. ZIL, Academy of Sciences, USSR, 17440 (21), gorge of Akhalkalakichai River downstream from Akhalkalaki in Georgia, July 21, 1959, collected by I.S. Darevsky.

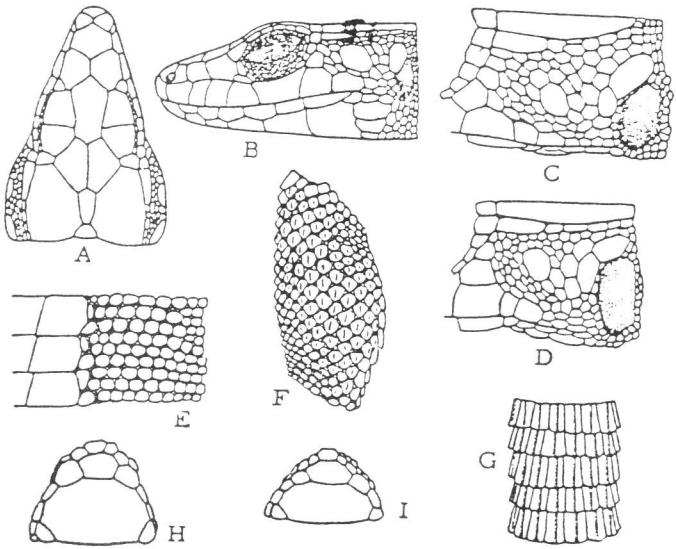

Fig. 44. Major scalation of L. r. macromaculata.

A - Head, dorsal view; B - head, lateral view; C, D - temporal region; E - contact zone between dorsal and ventral scales; F - upperside of ankle; G - dorsal anterior third of tail; H, I - anal region (A-I - Akhalkalaki).

Description of holotype. The frontonasal is wider than long. The rostral is set off from the frontonasal (in many paratypes, sometimes touches at one point). The suture between the frontonasal and postnasal is subequal to the width of that between the anterior and posterior nasals. The