Comparative notes. Even Méhely (1909) justifiably doubted the genetic relationship of the two poorly preserved rock lizard specimens available to him, from Pseashkho with the species Lacerta caucasica described by him. Lantz and Cyren (1936) also included only Central Caucasus and Daghestan in the range of their L.s. caucasica leaving open the question of the genetic relationship of lizards from northern and northwestern Caucasus with this form.

The extensive original material collected by us in fact showed that the lizards inhabiting the elevated parts of the Glavnyi Caucasus range to the west of Elbruz were not the typical L. caucasica but a special subspecies of this species called L.c. alpina. Nikolskii's observations (1913, 1915) and the much later communication of Bartenev and Reznikova (1935) on the find of L.s. caucasica in western Caucasus should be connected to this form.

Specimens examined. Krasnodar Territory: ZIL 16305 (6) southern slope of Oshten mountain; 17432 (27), Pseashkho pass; 17459 (13), Achishkho mountain at the waterfall; 17966 (3), Fisht mountain. Krachai-Cherkess Autonomous Region. ZIL 16913 (5), Teberda, Ullu-Murudzhu river; 17976 (9), Teberda, Ullu-Murudzhu river. Kabardino-Balkariya; ZIL 17795 (4), Terskol; 17881 (43), northern slope of Cheget mountain; 17959 (17), Elbrus mountain. Abkhaziya: ZIL 17467 (1), Dou pass; 17963 (1), Anchkha pass on Lashipse River.

AGAMIC SPECIES

Lacerta armeniaca Méhely, 1909
(Table II C, Fig. 52, Photo 21)

L. muralis fusca var. saxicola, Bedriaga (part.), 1886:179 (195). -- muralis Boettger (part.), 1893:84. - muralis var. chalybdea, Boulenger (part.), 1904:337, 338; 1913: 187, Table 22, fig. 2; 1920:279. - - saxicola armeniaca, Mehely, 1909:549, tab. 21, fig. 5.--Nikolskii, 1913:78; Lantz and Cyren, 1936: 165; Terentiev and Chernov, 1949:168; Darevsky, 1957:40.--saxicola var. chalybdea, Nikolskii, 1915:337.--armeniaca, Darevsky, 1966b:127, fig. 3 A.

Lectotype-- Senchenbergische Natur-Museum, 12066 ♀, the village Elenovka (Sevan) on the bank of Lake Sevan in Armenia, 1892. Collected by V. Vavra.

Description--The width of the frontonasal is greater than or rarely equal to its length. The rostral is set off from the frontonasal or,

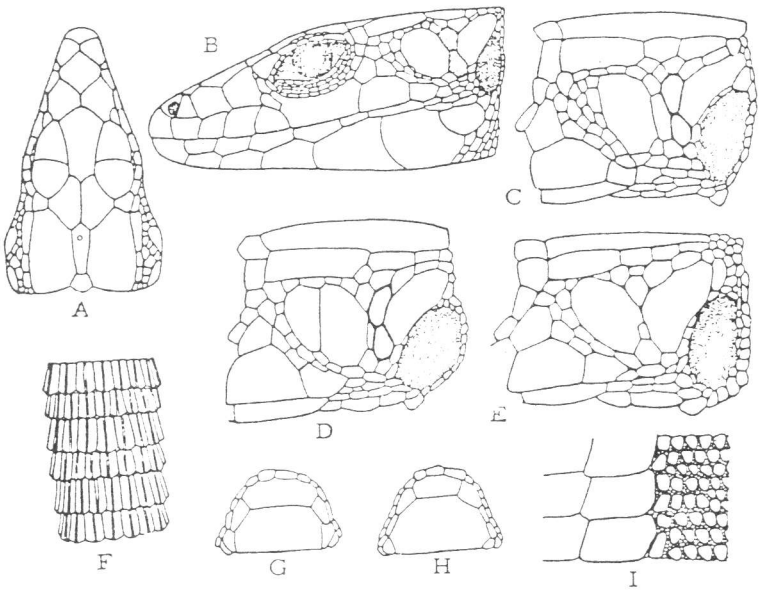

Fig. 52. Major scalation of L. armeniaca.

A - Head, dorsal view; B - head, lateral view; C-E - temporal region; F - dorsal anterior third of tail; G, H - anal region; I - contact zone between the body and ventral scales. (C - Sevan, D, E - Tskhra-Tskaro pass, rest - Semenov pass).

extremely rarely, touches it at one point. The suture between the frontonasal and postnasal is equal to or slightly shorter than that between the anterior and posterior nasals. The sutures between the frontal and prefrontal are straight. A row of 1-8 granules lying between the supraciliary and supraocular shields is invariably discontinuous. The posterior supraciliary in many cases does not reach the parietal: even when it does, it is across a very short suture. The first supratemporal is large, more or less rectangular, truncated porteriorly: 2 - 4 relatively large, well-developed posttemporals are located posterior of it. The midtemporal is very large and is sometimes doubled and usually set off from the first supratemporal by a longitudinal row of tiny scales. In most cases, between the large tympanic and midtemporal, there are 2 enlarged scales located one above the other. In rare cases, the tympanic and the midtemporal reach each other or the disposition of the scales separating them is different. Along the midline of the throat, there are 19 - 26 scales. The collar is straight or somewhat serrated. The body scales are smooth, slightly bulged, sometimes slightly larger laterally than dorsally. Around midbody, 42 - 47 scale rows are present, The outer ventral scales touch laterally 2, rarely, 3, body scales. The ventral and

pectoral scales are in 25 - 29 transverse rows. Anterior of the large anal, there are usually one or 2 preanals enlarged to noticeably different sizes. The femoral pores number 14 - 19. On the underside of the thigh, between the pores and the outer row of large scales, there are 4 transverse rows of small scales. The crus is covered dorsally by uniformly keeled scales not larger than the body scales and usually smaller than them; around the middle of the crus, 15 - 19 tiny scales lie in a single row. The scales of the anterior third of the tail have indistinct keels dorsally and very distinct keels laterally. The posterior edge of the caudal scales is usually blunt. The snout-vent langth is 51 - 73 mm; the ratio of it to the length of the whole unregenerated tail is 0.55 - 0.72.

The chief background colors of the dorsum are brownish-green, brownish-fawn, dirty green, greenish-yellow or olive yellow; the green coloration is usually more prominent on the anterior third of the trunk. The occipital stripe consists of expanded black or brown blotches concentrated along the spine and not covering the entire width of the back. The broad temporal stripes consist of irregular dark ocelli fused together. These ocelli have very distinct, bright centers, one or two of which are bluish at the level of the forelimbs. Fairly distinct whitish spots are usually present along the upper, scalloped edge of each stripe. Faint infratemporal stripes also usually retain the diffused features of the dark ocelli forming them. The abdomen is pale lemon-yellow with alternating bluish and small black patches on the outer ventral scales. The underside of the head and throat is white. The top of the head has small black blotches and specks.

Geographical distribution. The range of this species encompasses the inner section of Armenian uplands in northern Armenia, northeastern Turkey, southern Georgia, and northwestern Azerbaijan. The southern edge of the range extends into Armenia along the northern and northeastern slopes of the Aragets mountain, the southern foothills of the Tsakhkuniats and Shakhdag ranges up to Artanysh peninsula on the bank of Lake Sevan and extends farther to the east in a narrow strip along the northern slopes of the Sevan and Murovdag ranges in Azerbaijan where the eastermost records are known from around Ged-Gel Lake in the upper reaches of the Gandzhachai and Turachai Rivers in hilly Karabakhe. The more southern points of its occurence, from west to east, are around the towns Artik, Aparan, and Rzadan in the regions of same names in the Armenian Soviet Socialist Republic.

The northern edge of the range extends into southern Georgia along the western border of Dzhavakhet plateau and the northwestern and southern slopes of the Trialet range from the gorge of the Kyrbulak River

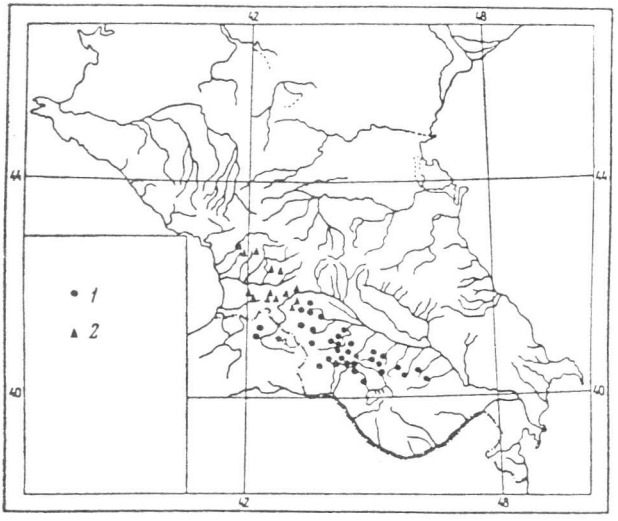

Fig. 53. Main occurrence in the Caucasus.
1 - L. armeniaca; 2 - L. mixta.

and around Akhalkalaki in the west to vicinity of Tsalka and the upper reaches of the Khrami River in the east. The northernmost finds are around Bakuriani in Tskhra-Tskaro pass and around Tsikhidzhavari health resort in a Trialet range. In the west, the range of this species penetrates like a tongue into northeastern Turkey; from the Arsiyan range and from around Ardogan in this region, P.V. Nesterov (1911a) made his collections. Recently, this lizard was caught by Kh. Steiner also between Artvin and the pass through the Arsiyan range (Darevsky, 1965b). Local isolated populations occur on the slopes of the Aragats mountain and the shores of Lake Sevan (Fig. 53, 1). In central Armenia, the range of the species is, to a large extent, sympatric with that of the partheno-genetic forms L. dahli and L. rostombekovi and at places with L.s. valentini, L.s. nairensis and L.s. portschinskii. On the Dzhavakhet plateau and around Bakuriani, there are zones of sympatry with L.r. macromaculata, L.r. obscura, and also L. mixta.

Geographical variation. Samples were studied from 5 populations, separated from northwest to southeast by distances of 45, 125, 20, and 115 km (Table 22). As may be seen from fig. 54, the samples differ relatively little from each other in many characters of the scaly integument the maximum negative and positive values of several characters appear in the extreme populations of southern Georgia and northwestern Azerbaijan. At the same time, no prominent variational cline is exhibited by this

Geographical variation

Characters	Akhalakalaki-Tsalka (southern Georgia), N = 25 ♀♀		Tskhra-Tskaro pass close to Bakuriani (Georgia), N = 13 ♀♀		Semenov pass (northern Armenia), N = 30 ♀♀	
	Range of variation	$M \pm m$	Range of variation	$M \pm m$	Range of variation	$M \pm m$
1	66—73	69.16±0.48	64—73	68.69±0.81	55—66	59.40±0.61
2	96—115	105.09±2.03	98—120	111.25±4.82	90—108	99.80±1.07
3	0.61—0.71	0.66±0.009	0.59—0.72	0.63±0.02	0.55—0.61	0.58±0.003
4	42—45	43.80±0.18	40—46	43.92±0.38	43—47	44.87±0.22
5	21—26	22.52±0.23	20—24	21.85±0.37	19—26	22.23±0.29
6	14—18	15.58±0.17	14—19	15.81±0.31	14—17	15.63±0.15
7	3—8	5.84±0.22	1—7	3.58±0.41	2—8	4.22±0.23
7a	100	—	100	—	100	—
9	26—28	27.24±0.14	24—27	26.15±0.25	25—29	26.70±0.16
10	1—3	1.64±0.14	1—2	1.38±0.14	1—3	1.50±0.11
11	0—1	0.88±0.06	0—1	0.81±0.11	1—2	1.08±0.07
12	2—3	2.40±0.10	2—3	2.35±0.13	2—4	2.48±0.10
13	2—3	2.06±0.02	2—3	2.08±0.11	2—3	2.05±0.04
14	16—18	16.84±0.14	15—17	16.23±0.12	15—19	16.50±0.17
15	4—4	4.00±0.00	4—4	4.00±0.00	4—5	4.03±0.03

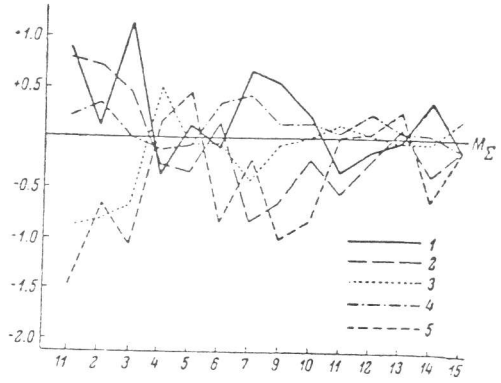

Fig. 54. Summary graph of variation of L. armeniaca.

1 - Akhalkalaki-Tsalka; 2 - Tskhra-Tskaro pass; 3 - Semenov pass; 4 - Sevan; 4 - around Gei-Gel Lake.

parthenogenetic species, although it is traced in certain isolated sections of its range. Thus, the fairly distinct clines of several characters from north to south are applicable to the section between the Tskhra-Tskaro pass and Akhalkalaki in Georgia and from west to east between the Semenov pass and Gei-Gel Lake in Armenia and Azerbaijan. The fairly distinct differences in body dimensions observed in females of the different samples could be well correlated with the elevation of their habitat.

of Lacerta armeniaca

Around Sevan village on the shore of Lake Sevan (Armenia), N = 20 ♀♀		Around Gei-Gei Lake (north-western Azerbaijan), N = 7 ♀♀		Species as a whole, N = 95		
Range of variation	$M \pm m$	Range of variation	$M \pm m$	Range of variation	$M \pm m$	σ
60—71	65.55±0.76	51—60	56.00±1.20	51—73	69.16±0.58	5.59
100—107	107.06±1.54	96—101	98.50±2.50	90—120	104.19±0.82	7.98
0.56—0.67	0.61±0.007	0.56—0.56	0.56±0.00	0.55—0.72	61.27±0.005	0.044
43—45	44.10±0.20	43—47	44.43±0.53	42—47	44.26±0.12	1.20
21—24	22.45±0.25	21—25	23.00±0.53	19—26	22.36±0.14	1.40
14—18	15.98±0.18	14—16	14.93±0.18	14—19	15.66±0.09	0.89
2—8	5.50±0.32	2—7	4.50±0.53	1—8	4.85±0.17	1.52
100	—	100	—	—	—	—
26—28	26.90±0.12	25—27	25.86±0.51	25—29	26.75±0.095	0.90
1—3	1.60±0.15	1—1	1.00±0.00	1—3	1.50±0.065	0.63
1—2	1.02±0.03	1—1	1.00±0.00	0—2	1.00±0.034	0.34
2—3	2.60±0.11	3—3	2.57±0.20	2—4	2.47±0.052	0.51
2—3	2.08±0.06	2—3	2.14±0.14	2—3	2.07±0.02	0.25
15—19	16.55±0.21	15—17	16.00±0.31	15—19	16.53±0.09	0.84
4—4	4.00±0.00	4—4	4.00±0.00	4—4	4.01±0.01	0.10

Comparative notes. Lantz and Cyren (1936) were the first to draw attention to the absence of males in this form and explained that of the 4 male specimens noted by Boulenger (1920), though belonging to L.s. armeniaca, 2 were in fact females and 2 were of a different subspecies. In exactly the same manner, the data of Chernov (1939) also proved erroneous, in that there were 7 males among the 180 specimens examined by him (Darevsky, 1957). It has been demonstrated above that L. armeniaca, like all the other parthenogenetic forms of rock lizards, should be regarded as belonging to independent species.

The considerable morphological similarity of the parthenogenetic L. armenaica to the bisexual subspecies L.s. valentini (also their present ranges) suggests a close phylogenetic relationship of both these forms.

Specimen examined. Armenia: ZIL 14385 (8), Privolnoe, Stepanavan region; 14386 (4), Stepanavan; 1438 (3), Gerger, Stepanavan region; 14390 (4), around Aparan; 14391 (5), Pushkin pass; 14392 (9), Miskhana; 14402 (7); Dilizhan; 15437 (2). Tumanian, Alaverd region; 14974 (4, (4), Shorzha, Sevan lake Shore; 15600 (9), Dilizhan; 16724 (4), Kara-Ketik Alaverd region 17065 (1), Khnzorut, Kirovakan region; 17452 (31), northern slopes of Semenov pass; 17468 (1), Spitak; 17554 (27), around the town of Sevan; 17831 (7), Lchashen, Sevan region; 17836 (5), Dzhadzhur pass, Leninakan region; 17897 (1), Tsamakaberd, Sevan region; 17949 (14); around lake Arep, Amasil region; ZMMSU 2783 (7), Kalinino, Stepanavan region; ZIA (8), Shamlung, Alaverd region; (11), Arich,

Artik region; (6) pass between Idzhevan and Bered; and (3) around Berd-Georgia; ZIL, 17446 (18), around Bakuriani, road in the pass Tskhra-Tskara; 17537 (7), around Akhaikalaki: 17737 (7), around Tsalka; 17741 (20), around Tsalka; 17778 (9), western slope of Tskhra-Tskaro pass; and 17798 (4), Rekha, Tsalkin region. Azerbaijan ZIL 14420 (1) Turchai river, Kirovabad region; 17487 (6), upper course of river Gandzhachai, Kirovabad region; 17781 (5); Gei-Gel lake, Kirovabad region. Turkey (northeastern): ZIL 10819 (5), around Ardagan; 10820, around Ardagan; NMW 18383 (3), Western slopes of Yalnizcham range, Artvin vilayet.

Lacerta dahli Darevsky 1957
(Table II D, Fig.55;Photo.22).

L. saxicola defilippii, Chernov (part.) 1939:111.-- saxicola dahli, Darevsky, 1957 32, Table 2, Fig.3. -- dahli Darevsky 1966b: 127, Fig. 3C.

Holotype. -- ZIA, Academy of Sciences, Armenian Soviet Socialist Republic 892, ♀. around Shagali village in northern Armenia, July 27, 1955, collected by I.S. Darevsky.

Description -- The width of the frontonasal is greater than or rarely equal to its length. The rostral is invariably separate from the frontonasal. The suture between the postnasal and frontonasal is considerabely shorter than that between the anterior and posterior nasals; in 60 percent of the cases, they are fully separated from each other or there is a small additional supranasal between them. The sutures between the frontonasals and frontal are straight or slightly concave. The supraciliaries are set off from the supraoculars by a full row of 14 - 20 granules. The posterior supraciliary usually does not reach the parietal or sometimes touches it, only on one side. The first supratemporal is long, noticeably constricted, and truncated posteriorly: posterior of it, there are 2 - 5 relatively small, sometimes indistinct, posttemporals in a single row. 2-3 enlarged scales are arranged in single file between the midtemporal and the large tympanic. Along the midline of the throat, there are 24 - 30 scales. The collar is not serrated. The body scales are smooth, faintly bulged, being larger laterally than dorsally. Around midbody, 51 - 56 scale rows are present. The pectoral and ventral scales are arranged in 24 - 29 transverse rows. The ventral scales meet laterally with 7 body scales of which the posterior is somewhat triangular in form and greatly enlarged so that they form narrow additional rows of scales on each side of the body. Anterior of the large anal, 2 enlarged preanals are arranged symmetrically. The femoral