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ON DISTRIBUTION AND TAXONOMIC STATUS OF ROCK LIZARDS *Darevskia brauneri szczerbaki* (LUKINA, 1963) AND *D. b. darevskii* (SZCZERBAK, 1962)

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The distribution ranges of *Darevskia brauneri* and D. *szczerbaki* are discussed. It is noted the independent speciation of stenotop hemixerophylous maritime-rocks species — *Darevskia szczerbaki* in the conditions of Black Sea refugia of the East-Mediterranean Province and mezophylous arboreal-rocks and ground dwellers forms of *D. b. brauneri* and *D. b. darevskii* in broadleaf mezophyl forests of Western Caucasus.

Keywords: North-Western Caucasus, *Darevskia saxicola* sensu lato; geographic distribution; taxonomic status; *Darevskia brauneri szczerbaki*; *Darevskia brauneri darevskii*.

INTRODUCTION

The polymorphic species *Darevskia saxicola* sensu lato includes 5 subspecies: *Darevskia saxicola saxicola* (Eversmann, 1834), *D. s. lindholmi* (Lantz et Cyren, 1936), *D. s. brauneri* (Mehely, 1909), *D. s. darevskii* (Szczerbak, 1962), and *D. s. szczerbaki* (Lukina, 1963). Ryabinin with co-authors (1996) modified *D. s. lindholmi* to species rank. According to results of genetic study (MacCulloch et al., 2000), the first two forms were raised up in the species rank, while the last three forms were united in *D. brauneri* (*D. brauneri brauneri*, *D. b. darevskii*, and *D. b. szczerbaki*). This point of view is shared also in the modern review of the fauna of reptiles of North Eurasia (Ananjeva et al., 2006). There is an another opinion (Fu, 1999) that *D. b. szczerbaki* is close related to *Darevskia saxicola saxicola*.

After description of *Lacerta saxicola szczerbaki* (= *Darevskia brauneri szczerbaki*) (Lukina, 1963) the ideas on distribution range of this form has been changed to a little degree (Fig. 1). Originally habitat of this lizard was registered on marine waterside rocks from Anapa to the capes of Bol'shoy Utrish and Malyy Utrish (Lukina, 1963; Darevsky, 1967; Bannikov et al., 1977), later its distribution range was extended toward Novorossiysk to 100 km (Ananjeva et al., 2004).

Study of the last years allowed revealing progressive expansion of distribution range of *D. b. szczerbaki* (Tuniyev, 2003).

This paper aims to analyze new data on distribution of *Darevskia brauneri szczerbaki* and *D. b. darevskii* to address the issue of their taxonomic status.

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Fig. 1. Distribution of *Darevskia brauneri szczerbaki* and *D. brauneri darevskii* in North-Western Transcaucasia after literature dates.

MATERIAL AND METHODS

Material was collected in 1987 – 2010 along both macro slopes of North-Western Caucasus from town Anapa south-eastward to Sochi. A total of 139 specimens of both forms were studied. Given the rarity of *Darevskia brauneri szczerbaki* (recorded in 2007 in the Red Book of Krasnodar Territory), collecting of this form was limited and consisted of 27 specimens from 7 localities (Table 1). Additionally 23 specimens of *Darevskia saxicola* from 3 westernmost localities were examined. Samples are stored in the collection of the Scientific Department of the Sochi National Park. Material has been studied by

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TABLE 1. Specimens of *Darevskia saxicola* sensu lato from North-Western Caucasus

Species	Collection number	The number of specimens (adult/juvenile)	Locality of collecting material	Date	Collector
Darevskia brauneri	787 – 790	4 ad	Creek Selivanova, tributary of Ushkho River, Sochi, Krasnodar Kray	06/22/1987	B. S. Tuniyev
Darevskia brauneri	1126	1 ad	Sochi, sea shore near concert hall "Festival'nyy"	07/2002	V. A. Sadovnikov
Darevskia brauneri	1127	1 juv	Khakudzh Pass, Lazarevskiy Rayon, Krasnodar Kray	07/2002	B. S. Tuniyev
Darevskia brauneri	1144	1 ad	Village Volkonka, Lazarevskiy Rayon, Krasnodar Kray	04/25/1995	B. S. Tuniyev
Darevskia brauneri	1145	1 ad	Ashe River valley, foothill of Mt. Muzoauku, Lazarevskiy Rayon, Krasnodar Kray	04/26/1995	B. S. Tuniyev
Darevskia brauneri	1166	1 ad	Village Bol'shoy Pseushkho, Tuapse Rayon, Krasnodar Kray	05/29/1996	B. S. Tuniyev
Darevskia brauneri	1167	1 ad	Head of Bol'shoy Pseushkho River, Tuapse Rayon, Krasnodar Kray	05/29/1996	B. S. Tuniyev
Darevskia brauneri	1168	1 ad	Mt. Lysaya, head of Ashe River, Lazarevskiy Rayon, Krasnodar Kray	05/29/1996	B. S. Tuniyev
Darevskia brauneri	1170	2 ad	River Psezuapse, vicinity of village Alekseevka, Lazarevskiy Rayon, Krasnodar Kray	05/30/1996	B. S. Tuniyev
Darevskia brauneri	1171	4 ad	Mt. Kolokol'naya, vicinity of village Bol'shoy Kichmay, Lazarevskiy Rayon, Krasnodar Kray	05/30/1996	B. S. Tuniyev
Darevskia brauneri	1181	2 ad	Mt. Chugush, Adler Rayon, Krasnodar Kray	07/13/1996	B. S. Tuniyev
Darevskia brauneri	1209	1 ad	River Vostochnyy Dagomys, village Baranovka, Lazarevskiy Rayon, Krasnodar Kray	05/15/2001	B. S. Tuniyev
Darevskia brauneri	1210	2 ad	Mt. Lysaya, head of Ashe River, Lazarevskiy Rayon, Krasnodar Kray	05/25/1997	B. S. Tuniyev
Darevskia brauneri	1228	5 ad	Azishtau Ridge, glade Ardova, Adygei Republic	07/2002	S. B. Tuniyev
Darevskia brauneri	1237	1 ad	Creek Vodopad, vicinity of village Aibga, Adler Rayon, Krasnodar Kray	08/27/2002	B. S. Tuniyev
Darevskia brauneri	1242	8/1	River Ubin, camping "Dubrava," Severskiy Rayon, Krasnodar Kray	04/12/2003	S. B. Tuniyev
Darevskia brauneri	1245	1 ad	Mt. Papay, Gelendzhik Rayon, Krasnodar Kray	04/14/2003	S. B. Tuniyev
Darevskia brauneri	1251	1 ad	Cape Kadosh near Tuapse, Krasnodar Kray	06/09/2003	B. S. Tuniyev
Darevskia brauneri	1257	2 ad	Mt. Chugush, Adler Rayon, Krasnodar Kray	07/17/2003	S. B. Tuniyev
Darevskia brauneri	1258	1 ad	River Rudovaya, Adler Rayon, Krasnodar Kray	07/20/2003	S. B. Tuniyev
Darevskia brauneri	1268	1 ad	River Ubin, camping "Dubrava," Severskiy Rayon, Krasnodar Kray	09/2003	S. B. Tuniyev
Darevskia brauneri	1269	2 ad	Azishtau Ridge, glade Ardova, Adygei Republic	09/2003	S. B. Tuniyev
Darevskia brauneri	1270	5/1	Mt. Pastbishche Abago, Adygei Republic	08/28/2003	V. A. Sadovnikov
Darevskia brauneri	1276	1 ad	Azishtau Ridge, glade Ardova, Adygei Republic	09/2000	B. S. Tuniyev
Darevskia brauneri	1277	1 ad	River Zapadnyy Dagomys, place Vtoraya Rota, Lazarevskiy Rayon, Krasnodar Kray	05/22/1997	B. S. Tuniyev
Darevskia brauneri	1295	5 ad	Mt. Stagoki, Psezuapse River basin, Lazarevskiy Rayon, Krasnodar Kray	05/22/2004	B. S. Tuniyev
Darevskia brauneri	1296	1 ad	Shirokaya Shchel', Psezuapse River basin, Lazarevskiy Rayon, Krasnodar Kray	05/22/2004	B. S. Tuniyev
Darevskia brauneri	1297	6 ad	Mt. Khakudzh, Lazarevskiy Rayon, Krasnodar Kray	06/05/2004	B. S. Tuniyev
Darevskia brauneri	1315	1 ad	Mt. Aishkha-I, elfin woodland, Adler Rayon, Krasnodar Kray	07/02/2004	S. B. Tuniyev
Darevskia brauneri	1325	1 ad	River Malyy Nauzhi, Lazarevskiy Rayon, Krasnodar Kray	08/06/2004	B. S. Tuniyev
Darevskia brauneri	1328	1 ad	Mt. Khakudzh, Lazarevskiy Rayon, Krasnodar Kray	09/20/2004	B. S. Tuniyev
Darevskia brauneri	1341	2 ad	River Kepsha, Adler Rayon, Krasnodar Kray	04/15/2005	S. B. Tuniyev
Darevskia brauneri	1367	1 ad	Settlement Soloniki, Lazarevskiy Rayon, Krasnodar Kray	04/02/2006	B. S. Tuniyev
Darevskia brauneri	1375	1 ad	Azhek, Sochi river basin, Krasnodar Kray	06/24/2006	S. B. Tuniyev
Darevskia brauneri	1388	2/8	You-box Grove, Khosta Rayon, Krasnodar Kray	05/08/2006	Yu. A. Chumachenko
Darevskia brauneri	1390	14/1	Mt. Lysaya, Lazarevskiy Rayon, Krasnodar Kray	08/08/2006	S. B. Tuniyev

TABLE 1 (continued)

Species	Collection number	The number of specimens (adult/juvenile)	Locality of collecting material	Date	Collector
Darevskia brauneri	1398	2 ad	Mt. Semashkho, Tuapse Rayon, Krasnodar Kray	05/08/2007	S. B. Tuniyev
Darevskia brauneri	1448	3 ad	Creek Pshenakha, Tuapse Rayon, Krasnodar Kray	07/07/2007	B. S. Tuniyev
Darevskia brauneri	1468	1 ad	Mt. Botsekhur, Shebs River basin, Gelendzhik Rayon, Krasnodar Kray	07/01/2009	B. S. Tuniyev
Darevskia brauneri	1471	2 ad	Ėsto-Khrebet ridge, vicinity of Zerkal'noye lake, Adler Rayon, Krasnodar Kray	08/05/2009	B. S. Tuniyev
Darevskia brauneri	1476	1 ad	Vicinity of settlement Zubova Shchel', sea shore, Lazarevskiy Rayon, Krasnodar Kray	10/24/2009	S. B. Tuniyev
Darevskia brauneri	1478	4/1	Adegoy river, vicinity of village Shapsugskaya, Abinskiy Rayon, Krasnodar Kray	04/20/2010	B. S. Tuniyev
Darevskia brauneri	1482	1 ad	River Doguab near village Mikhailovskiy Pereval, Gelendzhik Rayon, Krasnodar Kray	04/25/2010	B. S. Tuniyev
Darevskia szczerbaki	1163	2/1	Cape Malyy Utrish, Novorossiysk Rayon, Krasnodar Kray	04/28/1996	B. S. Tuniyev
Darevskia szczerbaki	1238	1 ad	Gulf Inal near settlement Bzhid, Tuapse Rayon, Krasnodar Kray	09/24/2002	B. S. Tuniyev
Darevskia szczerbaki	1369	1/1	Vicinity of lake Limanchik, Novorossiysk Rayon, Krasnodar Kray	05/11/2006	B. S. Tuniyev
Darevskia szczerbaki	1456	2/3	Village Sosnovoye, vicinity of Agoy Settlement, Tuapse Rayon, Krasnodar Kray	04/12/2009	B. S. Tuniyev
Darevskia szczerbaki	1479	1 ad	Vicinity of Dyurso settlement, Novorossiysk Rayon, Krasnodar Kray	04/23/2010	B. S. Tuniyev
Darevskia szczerbaki	1485	3/2	Village Sosnovoye, vicinity of Agoy Settlement, Tuapse Rayon, Krasnodar Kray	04/26/2010	S. B. Tuniyev, B. S.. Tuniyev
Darevskia szczerbaki	1517	7/2	Cape Kadosh, vicinity of Tuapse, Krasnodar Kray	07/07/2010	B. S. Tuniyev, S. B. Tuniyev
Darevskia szczerbaki	1518	1 ad	Vicinity of settlement Novomikhailovskiy, Tuapse Rayon, Krasnodar Kray	07/08/2010	B. S. Tuniyev
Darevskia saxicola	1275	10/2	Gorge Kapustina, Malaya Laba River basin, Mostovskoy Rayon, Krasnodar Kray	04/2001	B. S. Tuniyev
Darevskia saxicola	1288	2 juv	Gerpegem Ridge, vicinity of settlement Psebay, Mostovskoy Rayon, Krasnodar Kray	04/21/2004	B. S. Tuniyev
Darevskia saxicola	1440	3 ad	Gorge Kapustina, Malaya Laba river basin, Mostovskoy Rayon, Krasnodar Kray	06/18/2008	S. B. Tuniyev
Darevskia saxicola	1463	2 ad	Marinskiy Pass, vicinity of village Verkhniye Mary, Malokarachaevskiy Rayon, Karachay-Cherkessia Republic	05/25/2009	B. S. Tuniyev
Darevskia saxicola	1464	3 ad	Gerpegem Ridge, vicinity of settlement Psebay, Mostovskoy Rayon, Krasnodar Kray	05/26/2009	B. S. Tuniyev
Darevskia saxicola	1466	1 ad	Gorge Kapustina, Malaya Laba River basin, Mostovskoy Rayon, Krasnodar Kray	05/27/2009	S. B. Tuniyev

previously used morphological characters (Tuniyev and Ostrovskikh, 2006). In addition to the morphological characteristics (pholidosis, seasonal color patterns) the analysis of phytolandscape conditions and hydrology of each lizards locality was done as well as microbiotopic features of zone of sympatry and syntopy of *Darevskia brauneri szczerbaki* and *D. b. darevskii*.

RESULTS AND DISCUSSION

In addition to classic habitats at Capes Bol'shoy Utrish (Fig. 2) and Malyy Utrish Szczerbak's lizard in 1996 – 2002 was recorded in Mokraya Shchel' at Dyurso settlement, in vicinity of Lake Limanchik, at Betta settlement and on the rocks of Inal Gulf at settlement Bzhid (Fig. 3). Thus, the known distribution range was increased on more than 100 km. It is hardly possible to suppose that lizards earlier were not registered on the 100 km area of the cost of Black Sea. The hypothesis about expansion of natural habitat of *D. b. szczerbaki* along seashore rocks in south-east direction was suggested.

It was also assumed that if this tendency will continued, *D. b. szczerbaki* will be able to colonize seashore

Fig. 2. Habitats of *D. szczerbaki* on living cliff of cape Bol'shoy Utrish and Sukko seashore.

Fig. 3. Habitats of *D. szczerbaki* on rocks near Limanchik.

Fig. 4. Habitats of *D. szczerbaki* on living cliff of cape Dzhankhot.

Fig. 5. Habitats of *D. szczerbaki* at Rock Parus near Praskoveevka settlement.

Fig. 6. Distribution of *Darevskia szczerbaki* and *D. brauneri* after the data field seasons of 2008 – 2010. *Darevskia szczerbaki*, dots: 1, vicinity of Anapa; 2, Cape Bol'shoy Utrish; 3, vicinity of Shirokaya Shchel'; 4, Cape Malyy Utrish; 5, Mokraya Shchel' and lake Limanchik at Dyurso Settlement; 6, vicinity of Gelendzhik; 7, vicinity of Dzhankhot Settlement; 8, Cape Idokopas; 9, vicinity of Betta Settlement; 10, Gulf Inal; 11, vicinity of Bzhid Settlement; 12, vicinity of Novomikhailovskiy Settlement; 13, Village Sosnovoye at Agoy Settlement; 14, Cape Kadosh near Tuapse. *D. brauneri*: strippe, known area; stars, new localities: 1, Village Shapsugskaya; 2, north slope of Markhot Ridge above Kabardinka Settlement; 3, Botsekhur Mountain; 4, Aderba River; 5, Shebs River; 6, Achibs River; 7, Zhene River; 8, Kozach'ya Mountain; 9, Temnaya Shchel'.

southward to Tuapse, i.e., in the area with suitable biotopes (Tuniyev, 2003). In this context it is interesting to note the records in 2009 in a vicinity of village Sosnovoye (Tuapse Rayon), and in 2010 in vicinity of settlement Novomikhailovskiy and in Cape Kadosh near Tuapse town. Furthermore *D. b. szczerbaki* was noted by us practically along all marine cliff from type locality in north-west to the environs of Tuapse in southeast (Figs. 4 and 5).

Regardless of possible reasons (absence in collections of previous years, or modern expansion of species), we meet a fact of practically continuous distribution of *D. b. szczerbaki* along coastal Mediterranean cenozis of North-Western Transcaucasia and vicariation of *D. b. darevskii* and *D. b. brauneri* in the Colchis sector of sea coast. It is necessary to remind that Darevsky (1967) wrote about distribution of *D. brauneri* along the coast from Tuapse to Bzyb River and its gradual decline of altitudinal preference.

Distribution of the *D. b. darevskii*, according to our field observations from 2009 – 2010, is also considerably wider and adjoins area of *D. b. szczerbaki* practically along the whole extension, at least in a segment between Novorossiysk and Tuapse (Fig. 6). The western border of distribution of *D. b. darevskii* was noted as the valley of Pshada River (Fig. 1) (Darevsky, 1967). We found this species westward from Pshada River in whole basin of Mezyb River: at vicinity Mikhailovskiy pass in a Temnaya Shchel' and on Cozach'ya Mountain, in the gorges of rivers Zhene, Achibs, Shebs, Aderba, Botsekhur Mountain, north slope of Markhot Ridge above Kabardinka settlement, and also in vicinity of village Shapsugskaya on Adegoy River (Fig. 6). The record of Brauner (1903) on Markhot ridge to north-east from Novorossiysk should be referred to *D. b. darevskii* (not to

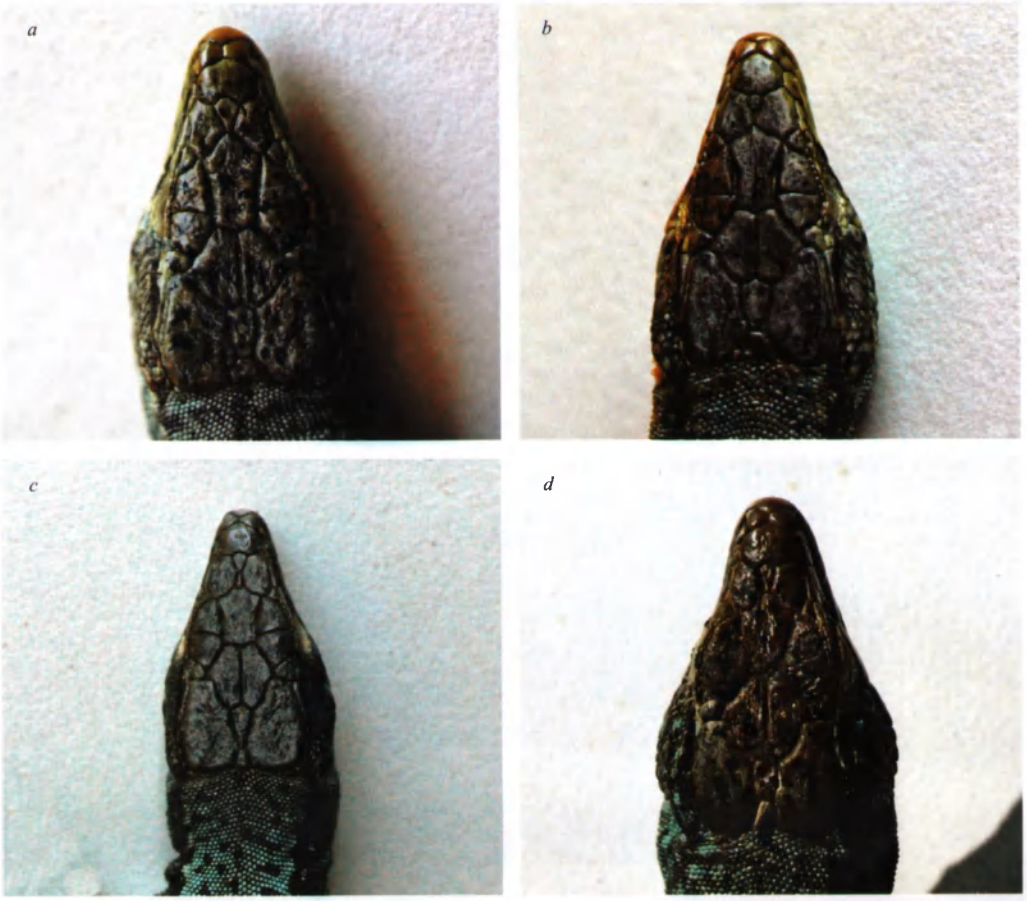

Fig. 7. Intercalary shields between prefrontals in *D. szczerbaki* from south-eastern populations: *a*, Cape Kadosh (No. 1517 SNP); *b*, Cape Kadosh (No. 1517 SNP); *c*, Novomikhailovskiy Settlement (No. 1518 SNP), *d*, Village Sosnovoye (No. 1485 SNP).

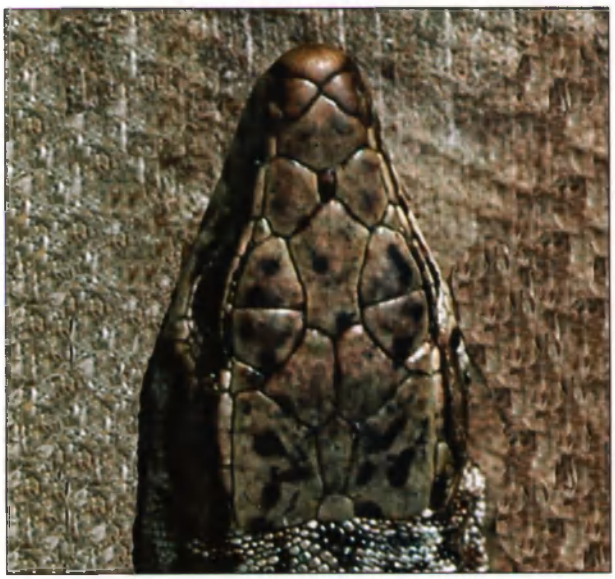

Fig. 8. Intercalary shields between prefrontals in *D. saxicola* from one of westernmost population in Marinskiy Pass (No. 1463 SNP).

D. b. szczerbaki as it was supposed by Darevsky (1967). Records of *Lacerta saxicola* in the belt of broadleaf (oak-beech) forests of Ridge Navagir (Tsellarius and Tsellarius, 2001a; 2001b; Tsellarius, 2005) according to personal communication of A. Yu. Tsellarius, also belongs to *D. b. darevskii*.

Darevsky (1967) noted special and basal position of *D. b. szczerbaki* within this lizard group. However despite of clear morphological and ecological differences the geographic isolation was a base for its subspecific status. According all the known data and widespread opinion *D. b. szczerbaki* and *D. b. darevskii* have the isolated, nowhere contiguous geographical ranges, and were used as a good example of allopatric forms.

Our new distributional data and results of analysis of natural habitats of two forms showed the sympatry of these species along the Black Sea coast on the distance not less than 150 km. According to our data and information of A. Tsellarius sympatric zone occupies practically along the whole extension of the range of *D. b. szczer-*

Fig. 9. In Spring *D. szczerbaki* is characterize by sandy-gray upper color of the body (*a*) and yellow-orange color of thighs with darker femoral pores (*b*).

Fig. 10. In Summer males of *D. szczerbaki* is characterize by greenish or green upper color of the body (*a*) and yellow belly with dark-orange color of thighs and femoral pores (*b*).

Fig. 11. Ventral coloration of *D. brauneri*.

Fig. 12. Coloration of juveniles: *a*, gray in *D. szczerbaki*; *b*, brawn in *D. brauneri*.

baki. The real syntopy of two forms is identified in a segment between Tuapse and Pshada River. Within whole range both forms save morphological individuality and ecological differentiation that can apparently confirm their specific status.

In the description of *D. b. szczerbaki* I. S. Darevsky (1967) indicated that 52% specimens have 1 – 3 little additional scales between prefrontals, while *D. b. darevskii* has 1 small additional scale in approximately 10% of specimens. It is noteworthy that in 27 specimens of *D. b. szczerbaki* the additional scales were absent in those from north-western area (described by Darevsky). They are present in extreme southeastern populations in vicinity of settlement Novomikhailovskiy, village Sosnovoye and Tuapse in 20% of specimens (Fig. 7). Very little additional shield was noted in *Darevskia saxicola* from Marinskiy Pass (Fig. 8) and Ridge Gerpegem — this fact was not noted by I. S. Darevsky for this species. Thus, character of additional scales can by observed among all Westcaucasian members of *Darevskia saxicola* sensu lato.

TABLE 2. Comparative Morphological Characteristics of *Darevskia szczerbaki* from New Localities and Type Territory

Character	Examined samples			
	♂♂ ($n = 7$) min – max $\bar{x} \pm m$	♀♀ ($n = 4$) min – max $\bar{x} \pm m$	♂♂ ($n = 68$) min – max $\bar{x} \pm m$	♀♀ ($n = 52$) min – max $\bar{x} \pm m$
No.	SNP 1218 SNP 1217	SNP 1156 SNP 1185	Darevsky, 1967	Darevsky, 1967
L.	71.3 – 79.2 76.1 ± 1	66.6 – 75.2 69.9 ± 2	69 – 88 73.75 ± 0.11	61 – 80.1 68.17 ± 0.6
L.cd.	—	—	128 – 166 150 ± 1.25	107 – 156 125 ± 1.74
G.	29 – 35 31.4 ± 0.9	26 – 29 27.3 ± 0.8	26 – 36 31.7 ± 0.18	
Sq.	54 – 65 58.9 ± 1.7	51 – 57 54.8 ± 1.3	54 – 74 60 ± 0.7	
P.fm.	19 – 24 21.5 ± 0.6	18 – 21 19.5 ± 0.4	14 – 24 20.1 ± 0.35	
S.l.	5 – 7 6.1 ± 0.3	6 – 9 7.5 ± 0.3	—	—
P.f.	8 – 13 10.6 ± 0.5	10 – 13 10.8 ± 0.9	9 – 14 12.05 ± 0.26	
Pil.	17.6 – 19.1 18.3 ± 0.2	13.8 – 18.4 15.8 ± 0.9	—	—
Lt.c.	10.5 – 12.3 11.3 ± 0.2	8.6 – 12.5 10.1 ± 0.6	—	—
Al.c.	6.6 – 8.2 7.5 ± 0.2	6.2 – 8.8 7.3 ± 0.6	—	—
Lab.	7 – 9 7.4 ± 0.3	7 – 8 7.5 ± 0.3	—	—
F.Lab.	4 – 5 4.1 ± 0.1	4	—	—
Pil. × 100/L.	23.1 – 24.9 24 ± 0.3	20.7 – 24.5 22.7 ± 1	—	—
Lt.c. × × 100/Pil.	57.4 – 66.1 61.8 ± 1.3	60.7 – 67.9 64.2 ± 1.6	—	—
Al.c. × × 100/Pil.	37.3 – 44.3 41.2 ± 0.9	42.6 – 49.3 46.2 ± 1.5	—	—
Lt.c./Al.c.	1.3 – 1.7 1.5 ± 0.1	1.3 – 1.4 1.4 ± 0.02	—	—

Note. No. 1156, village Sosnovoye in vicinity of Agoy Settlement, seashore rocks, 04/12/2009, SNP; No. 1185, village Sosnovoye in vicinity of Agoy Settlement, seashore rocks, 04/26/2010, SNP; No. 1217, Cape Kadosh in vicinity of Tuapse city, 07/07/2010, SNP; No. 1218, vicinity of village Novomikhailovskiy, 07/08/2010, SNP; Darevsky examined ZISP No. 17835, vicinity of Anapa city; ZISP No. 17968, Black sea coast between Anapa city and Sukko village; ZMMGU No. 2502, vicinity of Anapa city.

Other character noted by Darevsky (1967) for *D. b. szczerbaki* is a small size or indistinct tympanic shield. According to our observations this character in fact overlapped with those of *D. b. darevskii*, at varying degrees of expression in all populations. More often well developed tympanic shield may be considered as large.

Color of adult *D. b. szczerbaki* in spring is sandy-gray back surface of the body, light gray, or white belly and yellow-orange painting thighs with darker femoral pores (Fig. 9). In summer, the females have gray back and white belly; back of most males are green in different degrees, the belly yellow, thighs yellow-orange with darker femoral pores (Fig. 10), which is never observed in *D. b. darevskii* (Fig. 11). In addition, juveniles of *D. b. szczerbaki* are colored in gray tones (Fig. 12*a*) and juveniles of *D. b. darevskii* and *D. b. brauneri* are colored in brown tones (Fig. 12*b*).

D. b. szczerbaki occurs exceptionally on seashore rocks and stony beaches with pure petrohilos-maritimal East-Mediterranean vegetation with such corresponding species as *Pinus pitysa*, *Glaucium flavum*, *Crithmum maritimum*, *Seseli ponticum*, *Lamyra echinocephala*, *Crambe kokteblica*, *Crambe maritima*, *Matthiola odoratissima*, *Dianthus acatholimonoides*, and others. Habitats of *D. b. darevskii* rather various and include as rocky and stony places in forest mountain belt (from seashore up to subalpine meadows) as different kinds of broadleaf forests without stony sites. The most typical biotopes of *D. b. darevskii* are river gorges.

Phylogenetic relations between *D. b. brauneri* and *D. b. darevskii* is a point at a separate issue, as well as analysis of natural habitats of all of forms of *D. saxicola* sensu lato in the Caucasus. However we can consider today the independent speciation of stenotopic hemixerophylous maritime-rocks species — *Darevskia szczerbaki* in the conditions of Black Sea refugia of the East-Mediterranean Province (Tuniyev, 1996) and mesophylous arboreal-rocks and ground dwellers *D. b. brauneri* and

Fig. 13. Seashore with railway between Zubova Shchel' and Matrosskaya Shchel'.

D. b. darevskii in broadleaf mesophylous forests of Western Caucasus.

Despite of significant increasing of range of *Darevskia szczerbaki* there are no significant geographic variation between population. Morphometrical characters of specimens from south-eastern populations (including easternmost one from Cape Kadosh) have no differences from those of the type series (Table 2).

To the south of Tuapse the geomorphology of seashore area changes sharply (Zenkovich, 1958). Here cliff and coast line strain out. To the south of Tuapse railway was constructed along with the sea coast to Sukhumi and it radically changed a seashore landscape. Even if to suppose that *D. szczerbaki* lived south of Tuapse, in fact a south point could be Dagomys settlement behind which geomorphology of seashore area seriously changes. We did not observe *D. szczerbaki* in remaining three small areas within region between Zubova Shchel' and Matrosskaya Shchel' where this species could be expected to be find (Fig. 13). Two other segments of coast between Gizel-Dere gorge and Shepsi River and at Dagomys settlement are extremely small and it's impossible to expect saving of natural populations of *Darevskia szczerbaki* there.

It should be noted that recent distribution of *Darevskia szczerbaki* is related not only to living cliff (Figs. 8 – 11) but also by the sources of fresh water. Animals meet by small groups on a seashore rocks near small permanent springs (Fig. 14). Each such spring looks like the center of micropopulation. Nevertheless, expansion of natural habitat of species can not change the idea on its conservation status: *D. szczerbaki* is rare, narrow distributed species with disjunctive range included to the Red Data Book of the Krasnodar Kray (2007) and recommended to including in the Red Data Book of Russian Federation and the Red List of IUCN with the category status VU B2b(ii, iii)c(iv);C2a(i).

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Fig. 14. Small constant springs of fresh waters are an original centers of micropopulations of *D. szczerbaki*.

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