

## The spider fauna of the Karatau mountain range

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The Karatau (or the Syr Darya Karatau) mountain range is the extreme north-western spur of Tien Shang and has its length above 400 km. Thanks to the unique geographical situation of Karatau, strongly wedging in the desert zone, and its considerable geological age the Karatau range has a number of endemic insects (PRAVDIN 1978): among mammals the endemic Karatau mountain sheep occur here. As to the endemic plants, the Karatau mountain range takes the first place among the other floristic areas of Kazakhstan (GVOZDEV, ANDREJTCHUK 1988).

The present paper includes the results of the determination of spiders collected by the authors in 1988-1989.

The spider fauna of the Karatau up to the last years was an absolute white spot: only recently MARUSIK and LOGUNOV (1990) registered here 6 species of the family Thomisidae from our collections; all these are presented in the Table 1.

During 1988-1989 we collected 110 species of spiders belonging to 83 genera from 24 families (Table 1). The representatives of the families Oecobiidae, Filistatidae, Oonopidae, as well as 10 genera and 17 species, are new for the Kazakhstan fauna: the last make up 15,5 per cent of the total number. Non-determined specimens designated as "sp" (44 species from 17 families, or 40,0 %) presumably are new species.

The most of the species collected (69, or 62,7 %) are rare (isolated) ones. At the same time, some species are usual and constant (31, or 28,2%: see Table 1). The dominating species are the four ones: *Mogrus antonius* (Salticidae), *Agelena orientalis* (Agelenidae), *Pardosa turkestanica* (Lycosidae), *Neoscona adianta* (Araneidae).

**Table 1.-** Species composition and relative abundance of spiders at Karatau montain range

Families, species		Relative abundance
	*1. Oecobiidae	
K*	1 <i>Ambika nadiae</i> (Spas.)	+
	2. Eresidae	
	2 <i>Eresus niger</i> (Pet.)	+
K	3 <i>Stegodyphus lineatus</i> (Latr.)	++
	*3. Filistatidae	
K*	4 <i>Pritha crosbyi</i> (Spas.)	++
	*5 <i>Zaitunia sp.</i>	+
	4. Dictynidae	
	6 <i>Archaeodictyna sp.</i>	+
	7 <i>Brigittae latens</i> (Fabr.)+	
K	8 <i>B. innocens</i> (O.P.-C)	+
	*9 <i>Nigma sp.</i>	+
	10 <i>Lathys puta</i> (O.P.-C.)	++
	5. Titanoecidae	
	11 <i>Titanoeca veteranica</i> Herm.	+
	12 <i>Nursicia albosignata</i> Sim.	+
	6. Uloboridae	
	13 <i>Uloborus walckenaerus</i> Latr.	+
	7. Pholcidae	
K	14 <i>Pholcus ponticus</i> Thor.	++
	8. Palpimanidae	
	15 <i>Palpimanus sp.</i>	+
	*9. Oonopidae	
K*	16 <i>Dysderina loricata</i> (Sim.)	+
	10. Salticidae	
	17 <i>Synageles ramitus</i> Andr.	+
	18 <i>Pellenes seriatus</i> (Thor.)	+
	19 <i>Aelurillus ater</i> (Kroneb.)	++
	20 <i>Philaeus chryspis</i> (Poda)	++
	21 <i>Mogrus antoninus</i> Andr.	+++
	22 <i>Phlegra sogdiana</i> Charit.	+
	23 <i>Ph.sp.</i>	+
	24 <i>Chalcoscirtus sp.</i>	++
	25 <i>Bianor sp.</i>	+

Families, species	Relative abundance
26 <i>Euophrys nigrita</i> (Thor.)	+
27 <i>E.sp.</i>	++
28 <i>Heliophanus potanini</i> Schenk.	++
11. Gnaphosidae	
29 <i>Gnaphosa sp. 1</i>	+
30 <i>G.sp.2</i>	+
31 <i>G.sp.3</i>	+
K 32 <i>Leptodrassus memorialis</i> Spas.	+
33 <i>Drassodes sp.</i>	+
34 <i>Haplodrassus sp.</i>	+
35 <i>Synaphosus turanicus</i> Ovt.	++
36 <i>Talanites sp.</i>	+
K *37 <i>Phaeoedus braccatus</i> (L.Koch)	+
K 38 <i>Ph. rufescens</i> (Kroneb.)	+
39 <i>Zelotes jaxartensis</i> (Kroneb.)	+
40 <i>Z. praeficus</i> (L.Koch)	++
41 <i>Z.sp.1</i> (pr.puritanus)	+
42 <i>Z.sp.2</i> (pr.atrocoeruleus)	+
K 43 <i>Aphantaulax seminigra</i> Sim.	+
K 44 <i>Micaria albimana</i> O.P.-C	+
45 <i>M. formicaria</i> (Sund.)	++
K 46 <i>M. septempunctata</i> O.P.-C	+
12. Philodromidae	
47 <i>Philodromus sp.1</i>	+
48 <i>Ph.sp.2</i>	+
49 <i>Thanatus sp.1</i>	+
50 <i>Th.sp.2</i>	++
13. Thomisidae	
51 <i>Thomisus onustus</i> Walck.	+
52 <i>Runcinia tarabayevi</i> Marus., Log.	+
53 <i>Xysticus cristatus</i> (Cl.)	+
54 <i>X.sabulosus</i> (Hahn)	++
55 <i>S.turanicus</i> Charit.	+
56 <i>X.turlan</i> Marus., Log.	+
14. Clubionidae	
57 <i>Chiracanthium sp.1</i>	+
58 <i>Ch.sp.2</i>	++
K *59 <i>Phrurolithus pullatus</i> Kulcz.	++
15. Liocranidae	

Families, species		Relative abundance
*60	<i>Mesiotelus sp.</i>	++
*61	<i>Castianeira sp.1</i>	++
62	<i>C.sp.2</i>	+
16. Theridiidae		
63	<i>Latrodectus tredecimguttatus</i> (Ros.)	++
64	<i>Steatoda paykulliana</i> (Walck.)	++
65	<i>Lithyphantes albomaculatus</i> (De Geer)	++
66	<i>Teutana triangulosa</i> (Walck.)	++
67	<i>Theridion varians</i> Hahn	++
68	<i>Enoplognatha ovata</i> (Cl.)	+
69	<i>E.sp.</i>	++
70	<i>Euryopis sp.</i>	+
71	<i>Robertus sp.</i>	+
17. Oxyopidae		
72	<i>Oxyopes sp.</i>	+
18. Zodariidae		
73	<i>Zodarion sp.1</i>	++
74	<i>Z.sp.2</i>	+
75	<i>Z.sp.3</i>	+
19. Agelenidae		
K	76 <i>Agelena orientalis</i> C.L.Koch	+++
K	77 <i>A.marakandensis</i> (Charit.)	+
	78 <i>Coelotes sp.</i>	+
20. Hahniidae		
	79 <i>Hahnia sp.1</i>	+
	80 <i>H.sp.2</i>	++
21. Lycosidae		
	81 <i>Lycosa nordmanni</i> (Thor.)	++
	82 <i>L.sp.</i>	++
	83 <i>Allohogna singoriensis</i> (Laxam.)	+
	84 " <i>Geolycosa</i> " <i>sp.1</i>	+
	85 " <i>G.</i> " <i>sp.2</i>	+
	86 <i>Alopecosa sp.</i>	+
	87 <i>Arctosa leopardus</i> (Sund.)	++
	88 <i>Pirata sp.</i>	++
	89 <i>Evippa sp.</i>	++
	90 <i>Pardosa turkestanica</i> (Roew.)	+++
22. Araneidae		
	91 <i>Argiope lobata</i> (Pall.)	++

Families, species	Relative abundance
92 <i>Larinioides folium</i> (Schr.)	++
93 <i>Agalenatea redii</i> (Scop.)	+
94 <i>Aculepeira</i> sp.	+
95 <i>Neoscona adianta</i> (Walck.)	+++
96 <i>Mangora acalypha</i> (Walck.)	+
97 <i>Zygiella caspica</i> (Sim.)	++
23. Tetragnathidae	
98 <i>Tetragnatha extensa</i> (L.)	++
99 <i>Pachygnatha clercki</i> Sund.	+
24. Linyphiidae	
100 <i>Microlinyphia pusilla</i> (Sund.)	++
101 <i>Agyneta (Agyneta)</i> sp.	+
102 <i>A. (Meioneta) fuscipalpis</i> (C.L.Koch)	+
K 103 <i>Lepthyphantes kuhitangensis</i> Tanas.	+
K 104 <i>L. tchatkalensis</i> Tanas.	+
105 <i>Bolyphantes indexoides</i> Tanas.	+
106 <i>Erigone dentipalpis</i> (Wid.,Reuss.)	+
107 <i>Oedothorax apicatus</i> (Blackw.)	+
108 <i>Ceratinopsis romana</i> (O.P.-C.)	+
109 <i>Mesasigone mira</i> Tanas.	+
*110 <i>Trachelocamptus</i> sp.	+

Total: 110 species, 24 families, 83 genera

- + - rare (isolated) species
- ++ - usual species
- +++ - dominating species
- \* - families and genera new for Kazakhstan
- K - species new for Kazakhstan

The most numerous as to the number of species are the families Gnaphosidae (18 species, or 16,4%), Salticidae (12-10,9), Linyphiidae (11-10,0), Oycosidae (10-9,1), Theridiidae (9-8,2), Araneidae (7-6,4), Thomisidae (6 species, or 5,5 per cent), and as to the generic diversity the families Gnaphosidae and Salticidae (10 Genera), Linyphiidae (9), Lycosidae and Theridiidae (in 8), Araneidae (7 genera).

The main part of the species collected constitute geobionts (the spiders living in soil and on the ground surface): these are 84 species, or 76,4 per cent of the total number of species - the representatives of the families Titanocidae, Pholcidae, Palpimanidae,

Oonopidae, Salticidae (except the genera *Synageles*, *Mogrus*, *Heliophanus*), Gnaphosidae (except *Aphantaulax*), Hahniidae, Lycosidae, Linyphiidae (except *Microlinyphia*) and the genera *Eresus* (Eresidae), *Zaitunia* (Filistatidae), *Lathys* (Dictynidae), *Xysticus* (Thomisidae), *Phrurolithus* (Clubionidae), *Zygiella* (Araneidae), *Pachygnatha* (Tetragnathidae). The most of geobionts are the species hiding from the sunrays under stones: these are the representatives of above mentioned families and genera, except the families Salticidae, Philodromidae and genera *Castianeira* (Liocranidae), *Agelena* (Agelenidae), *Pardosa* (Lycosidae), active under bright light. The separate group of geobionts constitute the species burrowing deep holes - trypobionts (trupa-the hole): these are the species of the genera *Lycosa*, *Allohogna* and "Geolycosa" (Lycosidae). Some geobionts are strictly limited to their specific habitats (stenobionts). Thus, *Pardosa turkestanica* (Lycosidae) lives among stones and in a grass along the banks of streams. The lycosids *Arctosa leopardus* and *Pirata* sp. prefer marshy places. The species *Evipa* sp. (Lycosidae), living on screes, and *Xysticus turanicus* (Thomisidae), are typical petrobionts having uniform grey colour (Araneidae) builds its webs on the cracked rocks. *Castianeira* spp. (Liocranidae) live only in the *Scyrpus* along the streams.

Phytobionts (plant inhabitants) are basically represented by the hortobionts (grass inhabitants): these are the species of the genera *Archaeodictyna*, *Brigittea* (Dictynidae), *Synageles*, *Heliophanus* (Salticidae), *Aphantaulax* (Gnaphosidae), *Thomisus*, *Runcinia* (Thomisidae), *Chiracanthium* (Clubionidae), *Oxyopes* (Oxyopidae), *Larinioides*, *Agalenatea*, *Neoscona*, *Mangora* (Araneidae), *Tetragnatha* (Tetragnathidae), *Microlinyphia* (Linyphiidae). The inhabitants of bushes and low trees (thamnobionts) are represented by the genera *Uloborus* (Uloboridae), *Stegodyphus* (Eresidae), *Mogrus* (Salticidae), *Argiope*, *Aculepeira* (Araneidae).

The species *Pritha crosbyi* (Filistatidae), inhabiting the wall cracks, and *Ambika nadiae* (Oecobiidae), are synanthropic ones.

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