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The Ecological and Zoogeographical-Chorological Peculiarities of
the Spiders (Families *Dipluridae*, *Eresidae*, *Filistatidae*,
Amaurobiidae, *Titanoecidae*, *Dictinidae*, *Uloboridae*, *Mimethidae*,
Scariidae, *Anyphaenidae*, *Sparassidae*) Fauna of East Georgia

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ABSTRACT. It was established that allochthonous element of fauna (11 genera, 15 species) prevails over the autochthonous one (3 genera, 2 species, 2 subspecies). From allochthonous element of fauna with Holarctic distribution are characterized 2 genera, 2 species; with Palearctic - 8 genera, 8 species; with European - 4 genera, 4 species; with Euro-Euro-Siberian - 1 genus and 1 species. From autochthonous element of fauna 1 genus, 2 species and 2 subspecies are characterized with south Caucasian distribution. From ecological point of view the investigation has shown that 12 species and 1 subspecies - are mesophilous, 4 species, 1 subspecies - xerophilous and 1 species - hygrophilous. © 2006 Bull. Georg. Natl. Acad. Sci.

Key words: taxonomy, zoogeography, chorology, ecology, *Dipluridae*, *Eresidae*, *Filistatidae*, *Amaurobiidae*, *Titanoecidae*, *Dictinidae*, *Uloboridae*, *Mimethidae*, *Scariidae*, *Anyphaenidae*, *Sparassidae*.

12 genera and 17 species, 2 subspecies of families *Dipluridae*, *Eresidae*, *Dictinidae*, *Uloboridae*, *Filistatidae*, *Amaurobiidae*, *Titanoecidae*, *Mimethidae*, *Scariidae*, *Anyphaenidae*, *Sparassidae* were registered from East Georgia.

The 11 families are comprised by the following genera and species *Uloborius* Latr. with 3 species, *Brachythele* Ausser., *Eresus* Walck., *Amaurobius* Koch., *Titanoeca* Thor., *Dictina* Sund. - two by two species and *Filistata* Latr., *Hyptiotes* Walck., *Ero* Koch, *Scytodes* Latr., *Anyphaena* Sund., *Micrommata* Latr. - one by one species [1].

Studies of arachnofauna of the families *Dipluridae*, *Eresidae*, *Dictinidae*, *Uloboridae*, *Filistatidae*, *Amaurobiidae*, *Titanoecidae*, *Mimethidae*, *Scariidae*, *Anyphaenidae*, *Sparassidae* in different landscape zones and mountain's altitudinal belts in east Georgia have been carried out from the beginning of 20th Century, but from ecological and zoogeographical viewpoint it was not discussed till the recent time.

Thus, according to the chorological studies of species of arachnofauna belonging to the 11 families, it was established that allochthonous element of fauna (11 genera, 15 species) prevails over the autochthonous one (3 genera, 2 species and 2 subspecies) distributed in East Georgia [1,2].

From autochthonous fauna with south Caucasian Distribution are characterized 3 genera, 2 subspecies (*Brachythele recki* (Mkhaidze, 1983), *Brachythele zaitzevi* (Charitonov, 1948), *Eresus lavrosiae* subsp. Mkhaidze, *Uloborius georgicus* subsp. Mkhaidze) [1,2].

From allochthonous fauna with Holarctic distribution are characterized 2 genera and 2 species (*Dictina arundinace* (Clerk., 1758), *Uloborius plumipes* (Lies., 1846) [3], with Palearctic - 8 genera, and 8 species (*Eresus niger* (Pet., 1787) *Filistata insidiatrix* (For., 1775), *Amaurobius similis* (Walck., 1859), *Uloborius walckenaerius* (Latr., 1806), *Anyphaena accentuate* (Walck., 1802), *Micrommata roseum* (Geer., 1778), *Titanieca shineri* (Koch, 1872) *Dictina pygmae* (Thor., 1875), with European - 4 genera and 4 species (Sim., 1874),

Table

1	2	3	4	5	6	The relation (as a habitats) to plant's life forms			10
						7	8	9	
Subspecies	Distribution	Zoogeographic area	The relation to humidity	Landscape-genetical type	Tree	Bush	Grass	Food (prey)	
1. <i>Brachytele rechi</i>	South Caucasus (Georgia)	SC	M	f	+	+	-	Insecta (Coleoptera, Diptera)	
2. <i>Brachytele zaitzevi</i>	South Caucasus (Azerbaijan, Georgia)	SC	M	f	+	+	-	Insecta (Orthoptera)	
3. <i>Erebus niger</i>		P	X	f	+	+	-	Coleoptera (Orthoptera)	
3.1. <i>Erebus laevissimus sub sp.n. Mchekidze</i>	South Caucasus	SC	X	f	-	-	+	Insecta (Coleoptera, Orthoptera)	
4. <i>Ptilinota insularia</i>	Europe (wide), Mediterranean Countries, South Caucasus (Azerbaijan, Georgia), Middle Asia (Turkmenistan)	P	X	Hum.	-	-	-	Insecta, Myriapoda	
5. <i>Amurobia pallidus</i>	Russia, Ukraine, Moldavia, South Caucasus (Georgia)	E	M	Mf	+	+	-	Insecta (Orthoptera)	
6. <i>Amurobia trinitis</i>	Carpathians, Russia, Ukraine, Moldavia, Kazakhstan, South Caucasus (Azerbaijan, Georgia)	P	M	Mf	-	+	-	Insecta (Coleoptera)	
7. <i>Thamoeca thunei</i>	Asia Minor, Russia, Byelorussia, Ukraine, South Caucasus (Azerbaijan, Georgia), Kazakhstan, the Urals, Siberia	P	M	f	-	-	+	Insecta (Orthoptera)	
8. <i>Thamoeca vinidis</i>	Spain, Portugal, France, Switzerland, Russia, South Caucasus (Georgia), Kamchatka, Siberia	EES	M	f	-	-	+	Insecta (Diptera)	
9. <i>Dicoma arandinoae</i>		H	H	f	+	+	+	Insecta (Coleoptera)	
10. <i>Micromis pygmaea</i>	European countries of the former Soviet Union,	P	X	f				Insecta (Diptera, Orthoptera)	
11. <i>Glibotaria fulvipes</i>	South Caucasus (Georgia), Middle Asia (Tajikistan)	H.	M	f	-	-	+		
12. <i>Glibotaria walckenaeriana</i>	Europe (wide), Russia, Moldavia, Ukraine, South Caucasus (Azerbaijan, Georgia), Kazakhstan, Middle Asia (Uzbekistan, Turkmenistan, Kirgizia, Tajikistan) Sakhalin	P	M	f	-	+	+	Insecta (Coleoptera, Homoptera)	
12.1. <i>Glibotaria georgicus sp.</i>	South Caucasus	SC	M	f	-	-	+	Insecta (Hemiptera)	
13. <i>Hyploidea paradosus</i>	Carpathians, Russia, Estonia, Ukraine, Moldavia, South Caucasus (Azerbaijan, Georgia)	E	M	f	+	+	-	Insecta (Coleoptera, Diptera)	
14. <i>Eco aphana</i>	Europe (wide), Russia, Ukraine, South Caucasus (Azerbaijan, Georgia)	E	M	f	-	-	+	Insecta (Coleoptera, Diptera)	
15. <i>Seydora thuraxii</i>	Carpathians, Russia, Ukraine, Moldavia, South Caucasus (Azerbaijan, Armenia, Georgia)	E	X	Hum	+	-	-	Insecta (Coleoptera, Homiptera)	
16. <i>Anophana accentuata</i>	Europe (wide), Carpathians, Russia, Estonia, Latvia, Lithuania, Byelorussia, Ukraine, Moldavia, South Caucasus (Azerbaijan, Armenia, Georgia), Middle Asia (Turkmenistan)	P	M	f	+	+	-	Insecta (Hemiptera, Homoptera)	
17. <i>Micromis fuscum</i>		P	M	f	+	+	+	Insecta (Orthoptera, Diptera)	

Abbreviation: E. - European, ES. - European - Siberian, EES. - Euro-European-Siberian, SC. - South Caucasian, P. - Palearctic, H. - Holarctic, f. - forest, f. - field, Mf - Mountains belt, H um. - Human shelter, M - Mesophilous, X - Xerophilous, H - Hygrophilous.

with Euro-Europe-Siberian - 1 genus and 1 species *Titanoeca nivalis* (Sim., 1874) [1-4].

The investigated spiders as predators are hunting on their preies from all forms of vegetation - grasses, bushes and trees: *Brachythelae recki* (charitonov, 1869), *Brachythelae zaitzevi* (Mcheidze, 1983), *Eresus niger* (Pet., 1787), *Titanoeca nivalis* (Sim., 1874), *Amaurobius pallidus* (Koch., 1787), *Amaurobius similis* (Blakw., 1859), *Dictina arundinace* (Clerck., 1757), *Dictinia pygmaea* (Thor., 1875), *Uloborius plumipes* (Licas., 1846), *Uloborius walekenariensis* (Latr., 1806), *Uloborius georgicus* Subsp. Mcheidze, *Hyptiotes paradoxus* (Koch., 1834), *Ero aphana* (Wolck., 1802), *Anyphaena acentuata* (Walck., 1802), *Micrommata roseum* (Geer., 1778), the other group of predators to hunt on the ground, mainly on the stony soil, rocky and cliff biotopes: *Erexus lavrosiae*, Subsp. Mcheidze, *Titanoeca shineri* (Koch., 1872). Some species inhabit human's habitats and from these shelters are dispersed in different natural habitats, mainly forests, mountain's forests and steppes. As regards to abiotic factors, from the above mentioned spiders *Filistata insidiatrix* (For., 1775), *Scythodes thoracica* (Latr., 1802) (table) 1 species is hygrophilous; 13 species and one subspecies are mesophilous; 4 species and one subspecies - xerophilous.

From the view point of feeding spiders are typical predators (zoophagous invertebrate animals which are usually hunting on insects, on their imagoes, pupas and larvae (Insecta: *Coleoptera*, *orthoptera*, etc.), myriapods as well.

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ზოოლოგია

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აღმოსავლეთ საქართველოში გავრცელებული ობობების ოჯახთა -
(Dipluridae, Eresidae, Filistatidae, Amaurobiidae, Titanocidae,
Dictinidae, Uloboridae, Mimethidae, Sicariidae, Anyphaenidae, Sparassidae) -
ეკოლოგიური და ზოოგეოგრაფიულ-ქოროლოგიური
(არეალოგიური) შესწავლის შედეგები

რეზიუმე. აღმოსავლეთ საქართველოში დღეისათვის რეგისტრირებულია ობობების 12 გვარი, 17 სახეობა და 2 ქვესახეობა შემდეგი ოჯახებიდან: Dipluridae, Eresidae, Dictinidae, Uloboridae, Filistatidae, Amaurobiidae, Titanocidae, Mimethidae, Sicariidae, Anyphaenidae, Sparassidae.

დადგინდა, რომ ფუნის ალოქტონური ელემენტი (11 გვარი, 15 სახეობა) ქარბობს ფუნის ავტოქტონურ ელემენტს (3 გვარი, 2 სახეობა და 2 ქვესახეობა). ალოქტონური ფუნიდან პოლარქტიკული გავრცელებით ხასიათდება 2 გვარი, 2 სახეობა; პალე-არქტიკულით - 8 გვარი, 8 სახეობა; ევროპულით - 4 გვარი, 4 სახეობა; ევრო-ევროპულ-ციმბირულით - 1 გვარი, 1 სახეობა. ავტოქტონური ფუნიდან სამხრეთ კავკასიურია 1 გვარი, 2 სახეობა და 2 ქვესახეობა. აბიოტურ ფაქტორებთან, კერძოდ ატმოსფერულ ტენიან სპეციალიზაციის თვალსაზრისით აღმოსავლეთ საქართველოს არაქსოფაუნა იყოფა 3 მთავარ ეკოლოგიურ ჯგუფად: 12 სახეობა, 1 ქვესახეობა მუზოფილური ბუნებისაა, 4 სახეობა, 1 ქვესახეობა - ქსეროფილური, 1 სახეობა - პიკროფილური. მუზოფილები ქარბობენ ქსეროფილებსა და პიკროფილებს.