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199034, Leningrad 34

THE FAUNOGENETIC COMPOSITION OF SPIDERS OF THE FAMILY GNAPHOSIDAE OF THE USSR.

The Gnaphosidae family includes over 1400 species described which are spread in all parts of the world and distributed into 130 genera. In arid regions the gnaphosids are represented by the greatest number of species, but in taiga zone of Europe, Asia and North America their number decreases and in tundra zone the number of species is limited.

The Gnaphosidae family of different regions of the world is studied rather unevenly. Palaearctic and Nearctic regions are investigated better than the others; Indo-Malay and Australian regions are studied more poorly. There is plenty of evidences concerning Ethiopian and Neotropic regions though they are often quite contradictory.

Twenty-six genera of the Gnaphosidae family are known at present for Palaearctic. These genera belong to three subfamilies of Drassodinae, Gnaphosinae and Anagraphidinae and to seven tribes of Gnaphosini, Pterotrichini, Callilepini, Drassodini, Herpyllini, Zelotini and Echemini. *Zelotes*, *Drassodes* and *Gnaphosa* genera are represented in Palaearctic by the greatest number of species.

We shall consider first the Gnaphosidae distribution on Palaearctic territory. Palaearctic region includes 5 subregions.

Arctic subregion includes genera with wide spread areals. The composition of species belonging to this family is poor. Genera of this subregion are met both in Europe and Asia as well as in the North America; species of these genera are also found there. *Gnaphosa* genus is more characteristic for this subregion, with most of its species being endemic. Besides that widespread species of *Zelotes* and *Haplodrassus* are met in this subregion.

Boreal subregion is poorly populated by the Gnaphosidae, for instance only seven species from *Gnaphosa*, *Haplodrassus* and *Zelotes* genera are distributed there (Ovtsharenko, 1982). Two provin-

ces of this subregion - those of European forest province and European Siberian taiga province are populated more abundantly and 107 and 31 species are distinguished in them correspondingly. *Gnaphosa* and *Haplodrassus* genera deserve a special notice as they are characteristic for this subregion only. *Haplodrassus* in boreal subregion is represented by twelve species, with seven of them being endemic for this subregion. In Mediterranean province there are seven species of the *Haplodrassus*, but only one is endemic. *Gnaphosa* genus is the most characteristic for boreal subregion and there are 31 species in it. These species belong to *Gnaphosa lucifuga* and *Gnaphosa lugubris* groups with spiders of the former group populating northern Palaearctic regions and being replaced by those of the latter when approaching South. In mountain regions of the boreal subregion there is a high percentage of endemic species of *Gnaphosa*. For example in the best explored Alps and Carpathians there are 4 endemic species of *G. petrobia*, *G. badia*, *G. rhenana* and *G. alpica*. Western regions of the boreal subregion are characterized by disjunctive areals of the species. Those of *G. muscorum*, *G. lapponum* and *G. microps* with wide distribution in the boreal subregion are also found in the Alps.

Mediterranean subregion possesses the greatest number of Gnaphosidae in the whole of Palaearctic and it contains all 26 palaearctic genera. *Zelotes* genus is represented by the biggest number of species. There are 104 species, 78 of them being endemic. The fact that Gnaphosidae fauna of the subregion is closely connected with Ethiopian region is proved by the large number of common genera. Subregion includes 3 provinces.

Saharo-Arabian province is represented by 114 Gnaphosidae species all of them belonging to 18 genera with 108 of them being endemic.

The best explored Mediterranean province numbers 167 species and 16 genera with 137 endemic species and no endemic genera for this province.

By the present Iran-Turan province has been explored much less than Mediterranean and Saharo-Arabian provinces. There are 44 species of Gnaphosidae in this province, with 25 of them being endemic for it. *Asiabadus* and *Fedotovia* genera are also en-

demic (Ovtsharenko, Fet, 1980).

Gnaphosidae of Central Asia subregion are studied rather unevenly, Kazakhstan-Mongol province is best explored. It numbers 61 species, 28 of them are endemic. There are 13 genera and no one of them is endemic.

Twenty-six species out of 9 genera are known for Mountain Asia province, with 26 species being endemic.

Gobi-Kashgar province has been studied rather insufficiently. It has 12 species out of 4 genera with 8 endemic species.

In order to complete the review of the subregions we shall characterize in short China-Gimalai subregion. Only the Japanese Islands have been well-explored in it and the continental part is intensively studied at present. Twenty-six species belonging to 11 genera are known in this subregion with 18 endemic species.

The review of spiders of Gnaphosidae family of Palaearctic shows that the biggest number of gnaphosids species is represented in Mediterranean subregion, then follows Boreal, Central Asia and China Gimalai subregions.

Next problem is to consider connections of Palaearctic Gnaphosidae fauna with Nearctic and Ethiopian faunas.

The Gnaphosidae fauna of Palaearctic and Nearctic has common genera as well as 14 common species. Out of these species only 4 are circumboreal, they are: *Gnaphosa muscorum*, *G. microps*, *Sosticus loricatus* and *Zelotes rusticus*. *Gnaphosa orites* and *Haplodrassus hiemalis* species in Palaearctic are found only in the tundra zone. The first one is distributed as far as Scandinavia, the latter as far as the Polar Urals. Six species common with those of Nearctic are met in North-Eastern regions of Palaearctic (Platnick, Shadab, 1975, 1976, 1982).

The fauna of spiders of *Gnaphosa* genus of Palaearctic is the closest to that of Nearctic; the number of species in Nearctic, however, is less than that in Palaearctic: 21 and 77 species correspondingly.

Herpyllini tribe is represented in these regions by 9 genera with only two of them *Herpyllus* and *Poecilochroa* being common. *Herpyllus* genus is distinguished for the first time for Palaearctic. It was found in the Far East of the USSR.

Synaphosus genus spreading should be specially underlined. It was described for the first time by Platnick and Shadab in 1980 for Sonor province of Nearctic. Two new species of this genus were discovered in Iran-Turan province of Palaeartic.

It is worth noticing that the representatives of Pterotrichini tribe from Gnaphosinae subfamily are completely absent in Nearctic.

The comparison of Gnaphosidae fauna of Nearctic and Palaeartic shows that it has many features in common. Though the number of common genera (which equals 10) for these regions is less than for Palaeartic and Ethiopian ones in the same time they have the greatest number of Holarctic species.

In order to understand connections of Palaeartic Gnaphosidae Fauna with that of Ethiopia it's interesting to consider Pterotrichini tribe as one of the most characteristic for these regions.

Pterotrichini tribe presents an isolated group in Gnaphosidae family. In accordance with a number of morphological features spiders of Pterotrichini tribe belong to one of the most primitive family groups. Another important peculiarity of this tribe is that it might have served as a basis for the formation of a huge Holarctic tribe Gnaphosini with the only Gnaphosa genus.

Pterotrichini tribe consists of fourteen genera with five of them being distributed only in Southern Africa (they are: Trepnopoda, Upognampa, Gnaphosoides, Smionia and Aneplasa). Asemestes genus includes 26 species spread mainly in Southern Africa with one species distributed to Northern Africa and another one reaching Southern regions of Sahara-Arabian province.

The next is Pterotricha genus. There are 22 species with 5 of them distributed only in Ethiopian region (Ethiopia, Somalia, Yemen). The rest of the species of Pterotricha genus are spread in Mediterranean province of Palaeartic and the main number of species is distributed in North of Africa and in Near Asia. Two species are met in Europe, one in Spain, another on Balkan Peninsula and in the Crimea. Spiders belonging to this genus don't spread to East any further.

Spiders of *Minosia* genus are spread mainly in Western Africa and Yemen and some species move to North; in Spain and France *Minosia spinosissima* is found; a rare *Minosia karakumensis* species is met in Afganistan and Turkmenia.

Minosiella genus which is close to *Minosia* genus is distributed in North of Africa and Yemen. In Irak and Turkmenia there is one species, that of *Minosiella intermedia*. In sand desert this species dwells in holes of *Rhombomus opimus* and is highly adapted to the hole way of life. This species has practically a whole-year life-cycle, that is the activity of mature stages does not end all year round. They catch fleas and small beetles inside the holes of rodents. The connection of this species with the hole way of life allows it to move further to North where it reaches the Aral Sea.

Berlandina genus is represented by 14 species with 5 of them dwelling in Ethiopian region. The rest of them are in Palaearctic. The majority of the species of this genus is spread in the whole of Mediterranean. To a great extent the genus moves to East, perhaps to Kazakh and Mongol steppes where their own endemic species are found and reaches China.

The biggest genus of *Nomisia* numbers 36 species with 12 of them dwelling in Ethiopian region. In Palaearctic the majority of the species is connected with Mediterranean subregion. Two widespread species of *Nomisia exornata* and *Nomisia aussereri* move to East with the first reaching Uzbekistan and the second being a fairly ordinary species in the stepp zone of East Mongolia. There is one endemic genus of *Fedotovia* in Iran-Turan province.

In conclusion a supposition can be made that the fauna of spiders of Gnaphosidae was formed under the great influence of the faunas of arid regions of Palaearctic dominion and mainly Ethiopian region.

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