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Analysis of Orthoptera in The Territory of Central Uzbekistan

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Abstract : According to the geographical range of orthopteran insects of Central Uzbekistan, it belongs to 9 groups: Trans-Palaearctic species 24, European-Siberian species 7, European-Kazakh species 10, European-Central Asian species 6, Kazakhstan - Western Mongolian species 5, Kazakh-Mongolian species 5, Central Asian-Kazakh species 10, Central Asian species 32, Central Asian species. There are 12 species in Asia and Kazakhstan.

Key words: Orthoptera, family, offspring, species, locust, agrobiocenosis, landscape, coordinates.

Zoogeography is an integral part of biogeography and studies the laws of distribution of animals on Earth. The main object of zoogeography is fauna. Fauna is a population of a certain type of animal, formed as a result of the historical development of a certain geographical environment - biogeocenosis. Any zoogeographical study begins with determining the species composition of the fauna of a particular region. It is important to identify the elements of fauna within the boundaries of the territory, to have information about the features of its formation, to determine the area occupied by these elements, their quantity and changes in them. Studying the species composition of the animal world is a more difficult and time-consuming task. Although research into the species composition of animals began in the eighteenth century, it has not yet been completed. While the study of the species composition of vertebrates is nearing completion, the study of the species composition of invertebrates is just beginning. The species composition of some insect taxa has been studied from 20 to 40%, and a number of problems remain to be solved [1].

A habitat is an area or aquarium inhabited by a particular species of animal or a population of other taxa distributed throughout the world. Information on the distribution of each studied species of Orthoptera is given. To provide a broader representation of these data, species were grouped into latitude and longitude ranges. This analysis was studied according to the method of M.G. Sergeev [2].

Accordingly, the distribution of 111 species and subspecies identified in the region by latitude and longitude is given [3]. According to the data identified in the study area and study of habitats, there are 11 polyzonal species (10.0%), 14 steppe species (12.6%), 4 Northern steppe species (3.6%) and 14 Southern steppe species (12. 6%). %), 23 semi-desert species (20.7%), 44 desert species (39.7%) and one Southern desert species (0.9%). These data by species are shown in Table 1.

Table 1 - Grouping of Orthoptera insect species in Central Uzbekistan by regions of geographic latitude

No.	Geographic latitude	Types	Quantity
1	Polyzonal	*Decticus verrucivorus, Grullatalpa grullatalpa, Grullatalpa unispina, Gryllotalpa orientalis Tetrix bolivari, Tetrix subulata , Chorthippus* (s.str.) *albomarginatus karelini, Glyptobothrus meridionalis, Euthystira brachyptera Chorthippus* (s.str.) *dichrous , Chorthippus (G.) apricarius*	eleven 10.0%
2	Steppe	*Gryllus bimaculatus, Melanogryllus desertus, Modicogryllus frontalis, Modicogryllus pallipalpis, Pteronemobius gracillis, Pezotmethis tartarus tartarus, Pezotmethis ferghanensis, Pezotmethis nigrescens, Conophyma semenovi semenovi, Conophyma sokolovi*	14 _ 12.6%

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		modestum, Conophyma sokolovi decorum, Oedaleus decorus , Oedaleus senegalensis, Oedipoda caerulescens,	
3	North steppe	*T.caudata, T.Viridissma, Platycleis intermedia, Phaneroptera falcata*	4 3.6%
4	Southern steppe	*Modicogryllus bordigalensis, Turanogryllus lateralis, Eyprepocnemis plorans, Truxalis eximia, Mecostethus alliaceus turanicus , Epacromius tergestinus, Aiolopus thalassinus, Locusta migratoria migratoria, Oedipoda miniata, Dociostaurus (s.str.) kraussi, Notostaurus albicornis, Eremippus simple x simplex, Oxya fuscovittata, Dociostaurus* (S.) *kraussi nigrogeniculatus*	14 12.6%
5	Semi- desert	*Decticus albifrons, Tartarogryllus tartarus, Gryllodinus kerkennensis, Velarifictorus bolivari, Oecanthus turanicus, Tetrix tartara tartara, Egnatius apicalis, Acrida oxycephala, Pyrgodera armata, Mioscirtus wagneri, Acrotylus insubricus, Sphingonotus nebulosus, Sphingonotus nebulosus discolor , Sphingonotus salinus, Sphingonotus maculatus maculatus, , Hyalorrhipis clausi, Hyalorrhipis tirctepa, Leptopternis gracilis, Ramburiella turcomana , Dociostaurus (s.str.) tartarus, Kazakia tarbinskyi, Mesasippus kozhevnikovi kozhevnikovi, Dericorys tibilalis*	23 20.7%
6	Desert	*Glyphonotus alactaga, Eremogryllodes semonovi , Melanotmethis fuscipennis, Asiotmethis heptapotamicus, Pyrgomorpha bispinosa deserti, Chrotogonus turanicus , Atrichotmethis semenovi, Thrinchus desertus, Thrinchus turcmenus, Thrinchus campanulatus, Strumiger desertorum desertorum, Diexis varentzowi, Dericory s albidula, Tropidopola turanica t uranica, Tropidopola turanica iliensis, Anacridium aegyptium, Calliptamus turanicus, Calliptamus italicus italicus, Heteracris littoralis littoralis, Heteracris adspersa, Heteracris pterosticha, Egnatioides desertus desertus, Egnatioides desertus iliensis, Gonista sagitta, Ochrilidia hebetata kazaka, Ochrilidia hebetata hebetata, Duroniella gracilis, Duroniella kalmyka, Hilethera turanica, Oedipoda fedtschenkoi, Sphingonotus halocnemi, Sphingonotus halophilus , Sphingonotus miramae, Sphingonotus elegans, Sphingonotus octofasciatus, Sphingonotus rubescens rubescens, Sphingonotus satrapes, Pseudosphingonotus sa vignyi, Helioscirtus moseri, Leptoternis iliensis, Ramburiella foveolata , Dociostaurus (s.str .) maroccanus, Dociostaurus* (*s.str.*) *plotnikova, Glyptobothrus biguttulus*	44 39.7%
7	South Desert	*Calliptamus barbarus cephalotes*	1 0.9%

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Based on the results of the zoogeographical grouping of orthopteran insect species in Central Uzbekistan according to longitudinal geographic regions, they were divided into 9 groups .

There are 24 transpalactic species (21.6%), and the ranges of the species included in this group are distributed over a large part of the Polarctic . These include genera common in regions of Eurasia, such as Gryllatalpa, Locusta, Chorthippus. European-Siberian species 7 (6.4%), European-Kazakh species 10 (9.0%), European-Central Asian species 6 (5.4%), Kazakhstan-Western Mongolian species 5 (4.4%), Kazakh-Mongolian species 5 (4.4%), Central Asian-Kazakh species 10 (9.3%), Central Asian species 32 (31.0%), Central Asian , Kazakhstan species 12 (10.1%). %). The distribution of Orthoptera in Central Uzbekistan by latitude and longitude is presented in Table 3. According to this, Orthoptera are divided into 7 groups by latitude and 9 groups by geographic longitude.

According to the geographical longitudinal range, the species of orthopteran insects of Central Uzbekistan belong to 9 groups: transpalarctic species 24 (21.6%), European-Siberian species 7 (6.4%), European-Kazakh species 10 (9.0%), European - Central Asian species 6 (5.4%), Kazakhstan - Western Mongolian species 5 (4.4%), Kazakhstan - Mongolian species 5 (4.4%), Central Asian-Kazakh species 10 (9.3%), There are 32 Central Asian species (31.0%), Central Asian and Kazakhstani species 12 (10.1%).

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