

Dubitzky A. M.: *Krovososuschie komary (Diptera, Culicidae) Kazakhstana (Blood-sucking mosquitoes Diptera, Culicidae) of Kazakhstan*. Publishing House „Nauka“ of the Kazakhstan S.S.R., Alma-Ata, 1970, 220 pp.

Although systematic attention is given to the study of the fauna and ecology of mosquitoes in the U.S.S.R., investigation of some large areas, noteworthy from the zoogeographic aspect, has by far not yet been finished. This fact has been confirmed by A. M. Dubitzky's book surveying the bloodsucking mosquitoes of Kazakhstan. Among the 53 mosquito species quoted in this work, one species (*Aedes stramineus* Dub.) is entirely new for science, another three species (*Ae. kazachstanicus* Guts., *Ae. simanini* Guts. and *Ae. montschadskyi* Dub.) have been described from Kazakhstan only recently.

The book comprises a systematic survey of the mosquito species of the Kazakhstan fauna and is divided into 9 sections, a summary, appendices (15 maps showing the distribution of the individual species), and References. The first chapter called "Specificities of the exterior formation" deals concisely and systematically with the morphology of the imagos and larvae of mosquitoes. Chapter II, entitled "Methods of collection, preservation and research of mosquitoes", brings a survey of the present methods of the systematic and ecologic research of mosquitoes including the methods of quantitative collections, observation of the activity of mosquitoes, rearing larvae and imagos, study of the natural enemies of the mosquitoes etc., introducing also some original constructions of aids. The most extensive chapter III ("Ecological-faunistic survey of species") contains the determinative keys of the larvae and imagos of six mosquito genera identified in the Kazakhstan territory and detailed data on the incidence and bionomy of the individual species in this area. The next three chapters summarize the ascertained ecologic and zoogeographic regularities. Chapter IV—"The Intraspecific Variability"—pays attention to significant systematic problems of the effect of the ecologic and zoogeographic condi-

tions upon the origin of ecologically and morphologically differentiated populations. In chapter V—"Ecologic specificities of the Kazakhstan mosquitoes"—types of hatching sites, life cycles, seasonal and daily periodicity of the imagos, parasites and natural enemies of the Kazakhstan mosquitoes are dealt with. Chapter VI entitled "Fundamental laws of the distribution and origin of the mosquito fauna in Kazakhstan" includes the division of the identified mosquito species into ecological-faunistic complexes and zoogeographic relationships illustrating the origin of the mosquito fauna in the observed area. The principal regularities ascertained are given in the Summary.

The book is complemented with 40 figures (mostly photographs of typical biotopes) and maps showing the distribution of the detected species. Useful References contain a list of Soviet papers as well as foreign ones relating to the problems examined.

The reviewed book is well done, bringing entirely new information on this medically significant diptera family, and substantially complementing our knowledge on the mosquitoes in the observed area. In my opinion, the part dealing with systematics could have been more detailed. It would have been of great use, especially with the new species, to present pictures and eventual tables of differentiating features. Despite, the reviewed book is a valuable contribution to a better recognition of the mosquito fauna of the palearctic area, aiming especially at defining their distribution and the ecology of the local populations with more precision. It is therefore an expedient basis of adequate control measures against mosquitoes and an aid for parasitologists, entomologists and medical workers.

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