

## **SPECIFIC AND POPULATION SENSITIVITY TO REPELLENTS OF BLOOD-SUCKING FLIES (INSECTA: DIPTERA)**

**ELENA N. BOGDANOVA**

First I.M.Sechenov Moscow State Medical University, Moskow, Russia

**Abstract** Studies were conducted in several climatic zones of the Western and Eastern Siberia. Blood-sucking Diptera in localities of these regions have rich species composition and reach high numbers. In addition to a considerable irritant effect on people, they are carriers of many infection diseases, and also cause allergic reactions and a dermatosis. The program of researches included studying of species composition of the mosquitoes, horse-flies and black flies, and also determination of the coefficient of repellency of repellents for the main species of blood-sucking insects. Effectiveness of 7 repellents from different chemical groups were studied with the help of olfactometers. An average coefficient of repellency in relation to separate species of mosquitoes, gadflies, black flies and level of reaction of these insects on repellents in various climatic zones was defined. Results of research showed that the sensitivity to repellents of different species of mosquitoes, horse and black flies, differed significantly. Besides, it was established that geographical populations of each species have different levels of sensitivity to repellents. As a rule, the species was most sensitive to repellents, in the climatic zone which was optimal for its ecological requirements. Its level of sensitivity usually correlated with level of specific abundance. Thus, the average level of reaction of blood-sucking Diptera to repellents in each natural zone depends on the one hand on the set of species and on the other hand on level of reactions to repellents of geographical populations of the blood sucking insects.