

The Importance of the Study of Dendrophag Solids in the Fergana Valley

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Annotation. The article describes the important species of dendrophage beetles found in the Fergana Valley, fruit and ornamental trees belonging to 27 families, which are important for their nutrition and survival. Here is a list of 37 species of insects collected and studied from the southern parts of the Fergana Valley. The practical significance of the study of dendrophage solids and ideas on how to increase the effectiveness of the organization of the fight against them are described.

Keywords: dendrophage, fauna, ecological features, ornamental tree, food, population, southern Fergana, step, recommendations.

Introduction. Dendrophage beetles play an important role in the food chain and function of various ecosystems as an integral part of entomocenoses. All species of dendrophage beetles have a wide range of food, they feed on fruit, ornamental and wild trees and shrubs of cultural and natural landscapes and cause serious damage. The productivity of ornamental and fruit trees infested by these insects will drop dramatically, and severely damaged trees will eventually die.

Given the role of dendrophage beetles in agriculture and their damage, the interest in studying them has a history of more than 150 years [1]. Over the years, this group of beetles, along with other insects, has been studied in various parts of Central Asia. It should be noted that in Uzbekistan, including the Fergana Valley, the diversity, distribution, biology, ecology and economic importance of these insects have not been extensively studied.

In the Fergana region itself, all the ornamental trees along the streets contribute to the prosperity of the city and the purity of nature, and the various fruits grown in horticultural farms contribute to our health and economic growth. There are about 50 species of fruit and ornamental trees in Fergana region.

Experts say that 1 hectare of orchards absorbs 54 tons of dust (through leaves) into the atmosphere each year, trapping more than 5 tons of carbon monoxide from waste, cars and sources. Saturation of the air with harmful microflora is reduced by 40-45% due to green trees. In large-scale landscaping, the air temperature in the area is 16 degrees cooler than in the open. Therefore, the protection of such useful plot, ornamental and fruit trees from various diseases, pests is one of the current problems of today.

Material and methods. The surveillance was conducted mainly in Southern Fergana. During the study, 304 specimens of 37 species of dendrophage were collected and a collection was prepared. Entomological, ecological, natural geographical methods were used in the work. During the study, the fruits (Armeniaca, Cerasus, Persica, Malus, Cydonia, Amygdalus, Prunus, Elaeagnus, Juglandis, Vitis, Punica, Ficus, Diospyros and Diospyros) grown in the alleys, gardens, sanatoriums and alleys of the Fergana Valley were studied. woody, cultivated and wild (Ulmus, Elaeagnus, Acer, Gleditschia, Salix, Hippophae, Pinus, Picea, Biota, Juniperus, Aesculus, Catalpa, Fraxinus, Ailanthus) observed dendrophage beetles, the samples obtained were analyzed comparatively by region. The data were also used to study the rate of denrophage infestation of trees and shrubs in each region.

Research results and their discussion. The dendrophage hardwoods of Southern Fergana are the object of study, and the diversity, biology, ecology, and damage characteristics of these insects determine the subject of the study.

The purpose of the study is to study the fauna, biology and ecology of the dengrophagous crustaceans of the valley on the example of South Fergana, and on this basis to perform the following tasks..

Including;

- Study of the fauna and distribution characteristics of dendrophagous crustaceans in southern Fergana;

- ecological analysis of the food spectrum of dendrophage solids; • study the biology and ecology of dendrophage solids;
- to study the impact of environmental factors on the distribution and damage of dendrophage solids;
- Develop scientifically based recommendations for the control of dendrophage.

Extensive study of the distribution, biology and ecological characteristics of dendrophage beetles in Southern Fergana:

- explain the morphological features of the species diversity of these insects;
- determine the distribution characteristics, the role and importance of different entomocenoses in the food chain;
- identify sources of their distribution, interpret their biology and ecological characteristics;
- Provides an opportunity to explain the impact of environmental factors on this process and to develop ways to combat them.

The results of this study will contribute to the further expansion of scientific evidence on the fauna, biology and ecology of dendrophage beetles in South Fergana.

Data on the comparative morphology and distribution of dendrophagous crustaceans may be a useful scientific resource for studying the fauna of other regions. The catalog of food spectra of dendrophagous crustaceans is of theoretical as well as practical importance, on the basis of which it is possible to organize the fight against them on the basis of 1 and 2-tier plant groups [2, 3]. Biological and ecological features of dendrophage beetles of Southern Fergana, in particular, the impact of external factors on this process, as well as the expansion of theoretical and practical knowledge to explain the role and importance of these insects in different ecosystems, their quantity, density, seasonal and perennial changes in population rates. All the information obtained can be a valuable resource in the study of zoology, entomology, ecology, plant protection, as well as in agricultural practice.

A list of 37 species of dendrophagous crustaceans living in Southern Fergana (*Polydrosus dohrni* Faust., *Polydrosus obliquatus* Faust., *Rhyachites aratas* Scop., *Rhyne kites auratas* s.sp. *ferghanensis* Nev., *Polyphylla adspersa* Motsch., *Melolontha afflicta* Ball., *M. gussakovskii* Med., *Epicometis turanica* Rtt., *Potosia marginicollis* Pall., *Oxythyrea cinctelfa* Schaum., *Melanophila picta* Pall., *Capnodis miliaris* Klug., *Capnodis tenebricosa* Ol., *Sphenoptera Kaznakovi* Jak., *Aeoleshthes sarta* Sols., *Trichoferus campestris* Fald., New., *Xylotrellus jant.* *Maladera japonica* Motsch., *Scolytus mali* Bachst., *Scolytus scolytus* R., *Ips typhographus* L., *Carphoborus perrisi* Chap., *Scolytus fasciatus* Rtt., *Scolytus rugulosus* Rotz., *Scolytus samarkandicus* But., *Xyleborus dispar* F., *Xyleborus.* *Polyphylla tridentata* Rtt., *Melolontha afflicta* Ball., *M. hippocastani* F., *Chioncosoma porosum* F., *Galerucella luteolla* Muell. *Melasoma populli* L., *Plagioderma versicolora* Haich.), Biological and ecological properties were studied.

Conclusion. This study is the first study of the study of dendrophage beetles in Southern Fergana, including the interpretation and description of the diversity, distribution, and morphological characteristics of dendrophage beetles in Southern Fergana. The nutrient spectra of South Fergana dendrophagous crustaceans were studied and all of them were divided into appropriate groups according to the botanical classification. Forage plants are divided into 1- and 2-stage groups according to their nutritional status, role and importance in the developmental cycle. The distribution of these insects, their distribution across sides and tiers of the world, as well as the impact of abiotic factors on the degree of damage have also been extensively explained. Control measures and practical recommendations have been developed for the organization of the fight against dendrophage.

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