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FORMATION OF APHIDOFAUNA IN THE DENDRAFLORA OF KOKAND FORESTRY

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Annotation: In current article, representatives of aphids in the acclimatized tree and shrub aphid fauna in the dendroflora of Kokand forestry, their biology, ecology, the work of aphidologists in this field, and preliminary information regarding the damage caused by aphids to food plants are presented.

Key words: dendroflora, aphidofauna, aphidology, entomofauna, entomocenosis, aphidocomplex.

The dendroflora of Kokand forestry is characterized by a variety of acclimatized trees and shrubs. In recent years, due to the special attention paid to landscaping, their diversity is increasing. These plants not only enriched the flora of the area, but also caused changes insects existing in the fauna, including aphids, and the formation of a aphidofaunauniqueness.

Owing to appearance of acclimatized plants, species that did notreflecting the characteristic of the fauna of this region appearred and became into dangerous pests, or some local species of aphids adapt to living on the same plants.

A large-scale study of the fauna of tree and shrub saplings in the Kokand forestry area provides an opportunity to analyze problems of theoretical and practical importance in this regard.

Aphids, which have a complex life cycle and many reproductive characteristics, cause serious damage to fruit and ornamental plants during the season, as a result of which their productivity decreases and their decorativeness disappears. In order to prevent this situation, it is necessary to organize scientifically based measures against aphids in due time. This certainly requires a detailed study of the biology, ecological characteristics and seasonal development of these insects.

The problems mentioned in aphidological literature (Nevsky, 1929; Davleshina, 1964; Mukhamediev, 1967; Akhmedov, 1980, 1995; Kann, 1986) have not been solved. In particular, the nutritional spectrum of these insects, their use of food plants and their specialization in living in them, their distribution in various entomocenoses, causing damage, and other ecological features are described.

Insects residing in orchards have been increasing the curiosity of field scholars until now. Among them, V. Plotnikov (1911), V.P. Nevsky (1929), I.V. The works of Vasiliev (1910), V. Plotnikov (1911), P.P. Arkhangelsky (1917) became particularly important. In addition, A.G. Davleshina, M.M. Doniyorova, R.P. Rakauskas, Ye.I. Valentyuk, G.Kh. Shaposhnikov, A.A. Sharov, L.S. Nekrasova, G.A. Arutyunyan, A.P. Barannik, D.A. Belov carried out fundamental research on entomofauna. Later, the scientific research conducted by V. V. Yakhontov was of both practical and theoretical importance and was devoted to the study and approach of combating many harmful insects.

The study of the aphid complexes of landscape trees and shrubs commence reflecting in the researches devoted to the study of aphidsby M.N.Narzikulov, A.A.Muhammadyev, M.H.Ahmedov. Many

of their field-related materials have now become the basis of a separate scientific school.

There is a Ferghana entomological scientific school, in which the research results of M. Yunusov, K. Kh. G`aniev, I. I. Zokirov, M. Shermatov, Sh. Yuldasheva, Sh. Toshmatova and others can be highlighted.

Based on the study of aphid complexes of the Kokand forestry area:

Compilation of a taxonomic list of aphids on trees and shrubs of the Kokand forestry area and determination of the nutrient spectrum, compilation of a list of plants;

The biology and life cycle of widespread and little-studied species of aphids, which are dangerous pests of trees and shrubs, were studied.

The results of present research contribute to the further expansion of the scope of scientific evidence on the fauna, biology and ecology of dendrophilous aphids.

The results of research on the distribution, frequency of occurrence, feeding spectrum of dendrophilous aphids provide an opportunity for comparative analysis of the role and importance of these insects in different ecosystems. Changes in the aphidofauna of other anthropogenic entomocenoses can be explained and predicted based on the main trends in the formation of aphidocomplexes in the conditions of Fergana.

Extensive information on the damage properties of dendrophilous aphids, their ecological grouping according to their habitat and style in food plants, the use of food plants and the analysis of the characteristics of adaptation to adverse conditions is expressed in the relevant fields of theoretical and applied ecology.

Below is a detailed description of the biological characteristics of dendrophyllous aphids in the Kokand forestry area.

Pine - Ulmus

On the Crimean pine, dark green active aphids - Eulachnus alticola (Born) are arranged in chain rows of up to 20-25 along the leaves.

Fur-tree-Picea- Picea ga Cunara grossa Kalt. lives. These large brown-black aphids live in medium-sized colonies on the thick trunks of black pine.

Saur - Biota

Eastern biota - saur trunk and 2-year-old branches are formed by the formation of dense colonies, which are light brown and covered with fine gray dust. The aphid of Cinara tujafilina (delGuerc.) is harmful when it lives.

Fir-tree-Juneperus. Juniper Cinara tujafilina (delGuerc.) has two colors, dark green and light brown. Green aphids live on green tips and leaves of fir-tree, and light-brown aphids live on 2-year-old branches. Colonies of these aphids usually are not be very large size.

Poplar-Populus

Several types of aphids can live in poplars for a period of time, but the forms of galls they form are clearly different.

Thecabius affinis (Calt.) sap galls are formed as a result of the bending of the edges of the poplar leaves.

Pemphigus bursaius (L.) galls are formed on the leaf band, pear-shaped galls with red or green-red spots. Pemphigus immunis (Calt.) thick-walled nut-like galls are located on the branch. Red galls located on the surface of the leaf, at the base of the central vein, are typical for Pemphigus napaeus (Buckt.) aphids. Pemphigus populi Courch. on the base of the poplar leaves, it forms smooth galls. Young galls are red and

become greenish-pink when they mature. Pillow-like yellow galls located along the central vein on the surface of the leaf are formed as a result of the development of Pemphigus populinigrae (Schrank.) aphids.

Willow - Salix

5 types of aphids live in willows and cause their damage. Most of these aphids are found in willows during their seasonal period. Cavariella del Guerc. only seed aphids live for a short time in the spring months. Chaitiphourus capreae (Mosl.), Chaitiphourus salicti (Schrank.) aphids of the genus Chaitiphourus Koch, living in willows, are easily distinguished by the color and habitat. Chaitiphorus capreae (Mosl.) is a clear aphid that forms medium-sized colonies on the lower and upper surfaces of leaves. The species Chaitiphorus salicti (Schrank.) is distinguished by its brown, almost black color. It always lives on the underside of leaves, at the tips of branches, its colonies are not large. With the last feature, it differs from the green willow sap (A'his farinosa Gmel), which is constantly found in willows throughout the season.

Nut - Juglandis

2 types of aphids live in walnuts. These aphids are clearly distinguished by their habitats. Callaphis Juglandis (Goese.)-sized winged aphids, which form a linear colony along the central vein, are light green in color and have 4 rows of black spots on the abdomen. All the genera of Chromaphls Juglandicola (Calt.), which live sparsely on the underside of the leaf, are winged. small aphids of clear green, almost yellow color.

Oak – Quarcus

Aphids found separatelyon the underside of oak leaves - Tubarculattus annulatus (Hart.). All his descendants are winged. Their colours are light yellow. Green spots are covered on the abdomen.

Elm– Ulmus

7 species of aphids living in elms were found in Tashkent. Eriosoma Leach, 3 types of aphids living in the elms can cause damage. E. lanuginosum (Hart.) was distinguished by having large, thin-walled, green galls on the leaf surface, covered with hairs. Eat. Phaenax Mordv. the aphid forms false galls. As a result of its effect, the leaves are strongly curled and foamed towards the bottom, the surface of the leaf acquires a slightly reddish tint.As a result of the feeding of ulmi (L.) aphid, the leaf is rolled downwards in the form of a tube. Tetraneura Hart, both types of seed aphids are gall-forming aphids. T. coerulescens (Pass.) forms large galls on the surface of the leaf. T. ulmi (L.) galls are also located on the leaf surface. The main difference is that their size is relatively small, in the form of restored columns, the base is a little thin, usually 2-4. and sometimes it can be even more. Kaltenbachiella Pallida (Halid.) galls on the surface of the leaf. on the basis of the central vein. located near the leaf band. Galls are round, stiff, with thick walls. Aphids living sparsely on the undersides of the leaves are Tinocallis saltans (Nevs.). All its offspring are winged, the head and chest are brown. abdomen bright yellow. Up to 20-25 under one leaf plate. fed singly. It can be found in many young sprouts and buds of the elms.

Hawthorn - Crataegus

There are 4 types of aphids in hawthorn. Dysa'his crataegi (Calt.) aphid, covered with brown, white dust, hangs on the underside of hawthorn leaves. The leaf it lives on swells and turns red or yellow. Hawthorn green apple aphid (Aphis Pomi de Geer.) does not form large colonies. It feeds on the tips of young branches, less often on the underside of leaves. On the underside of the leaves, wide oval, pale green aphidis rare. Few of these aphids live in hawthorn Rhopalosiphum insertum (Walk.) until the end of May. The green non-glossy aphid Ovatus insitus (Wakl.) is its own. easily distinguished by long thin white aphid tubes.

It widespreads on the underside of the leaves and the tips of the branches.

Blackberry- Rubus

Blackberries feed on 2 types of clear green aphid of Aphis L. seeds. A. idaei van der Goot. the size of the species is large (2.10-2.15 mm), it grows on the ends of the branches, flower bands and the undersides of the leaves. Affected leaves turn yellow. young branches bend incorrectly. Small-sized (1.62-1.78 mm) A. ruborum (Bogn.) sap always feeds on the underside of leaves. Clear green color. shiny large (3.30-3.50 mm) mobile aphid Acyrtosiphon rubi Narz. rod ends. sparsely located under the leaves and in the leaf bands. But the length of the colonies on the branch reaches up to 20-25 cm.

Dogrose- Rosa

5 types of aphids were identified in roses and dogrose from Tashkent. 4 types of aphids were identified in Kokand forestry. Amphorophora catharinae (Nevs.) produces large colonies of two different colors (green and pink) at the tips of the branches of dogrose and roses. Dark green. Macrosiphum rosae (L.) with shiny whiskers and cup-colored legs lives mostly in flower buds, except for the tips of branches. Maculolachnus submacula Walk. - large brown aphid with long bristles. they live mainly in rural areas. It produces small colonies in the veins of plants growing in dry conditions with high temperature. There was enough moisture. in the shade It can spread in all the branches of the weeds growing along the ditches. Myzaphis rosarum (Calt.) on the leaf surface. bud. it lives alone at the ends of the branches, it can form small colonies only in some places, it has little movement, small (1.42-1.52 mm) these aphids are clear yellow in color.

Zirk - Berberls

Liosomaphis turanlcs (Narz.) lives on the underside of the leaves of perennial branches, the leaves are not deformed as a result of its feeding. Berberidaphis Iydiae (Narz.) is a species that lives in a large colony on the underside of the leaves of a new branch of cypress. This aphid takes over the new leaves as the branch grows, it is very rare on the leaves of perennial branches. Affected leaves are first bent in the shape of a boat, then strongly twisted and curled, the leaf and stem are yellow in the initial period, and then turn reddish.

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