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LEVEL OF DISTRIBUTION OF HEMIPTERA: DIASPIDIDAE IN THE NORTHEAST REGION OF UZBEKISTAN

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Abstract:

Dangerous pest is widespread in Uzbekistan. The most dangerous of these are diaspids. They damage many plants. Damages apple, pear, plum, quince, peach, almond, hawthorn, pine, poplar and other orchards and ornamental trees. According to the taxonomic composition of the fauna of diaspids found in fruit and ornamental plants of Tashkent region, the number of generations in the family Diaspididae in the fauna is 18 (Diaspidiotus, Diaspis, Dynaspidiotus, Unaspis, Shansiaspis, Salicicola, Parlatoria, Lepidosapas, Lepidosaphes, Lepidosaphes, Lepidosaphes Carulaspis, Rhizaspidiotus, and Pseudaulacaspis), and the number of species was 30. Diaspidiotus (8 species, 26,6%) and Lepidosaphes (4 species, 13,3%) predominate in the distribution of species, while Diaspis, Dynaspidiotus, Unaspis, Shansiaspis, Salicicola, Parlatoria, Leucaspis, Aulacaspis, Aonidia, Chon. The number of species of the genus Chlidaspis, Prodiaspis, Mercetaspis, Carulaspis and Rhizaspidiotus is monotypic, the representatives of the genus Parlatoria and Chionaspis have 2 species and account for 13,3% of the total fauna. , Aonidia, Chlidaspis, Prodiaspis, Mercetaspis, Carulaspis and Rhizaspidiotus genus have 1 species, accounting for 46,7% of the total fauna.

Keywords: Population, bioecology, habitat, mature breed, offspring, larvae, shields.

INTRODUCTION.

In the world today, special attention is paid to diaspidological research, the study of the faunal composition of different regions by modern methods, the study of their origin on the basis of the evolution of diaspids. Work has been developed on the faunistic composition, biology, ecology, taxonomic composition, trophic relationships and phylogeny of diaspidofauna of ecological zones in different regions. It should be noted that research is needed to identify the fauna of diaspids in fruit and ornamental plants, their morpho-ecological properties, biological characteristics of some common species, adaptation to forage plant habitat and the use of combined control methods. In this regard, further development of scientific research, including the identification of species diversity of diaspids, assessment of the impact of pests on trees and shrubs, the study of the distribution, biology and ecological characteristics of the most serious species, is of great scientific and practical importance.

In our country, along with various sectors of agriculture, great attention is paid to the full satisfaction of the needs of the population in fruit and vegetable products through the development of horticulture on the basis of state programs. In this regard, in particular, new intensive gardens have been established, and a number of measures have been taken to increase productivity. The Action Strategy for the further development of the Republic of Uzbekistan sets tasks to further strengthen the country's food security, expand the production of environmentally friendly products, and significantly increase the export potential of the agricultural sector. In carrying out these tasks, scientific and practical research aimed at identifying the fauna of diaspids and their seasonal dynamics, including the improvement of coordinated protection measures against them, plays an important role.

MATERIALS AND METHODS.

The research was conducted in Tashkent region, Institute of Zoology of the Academy of Sciences of Uzbekistan, Laboratory of Entomophagous Ecology and Theoretical Foundations of Biosteres, Tashkent State Agrarian University, Department of Plant Protection and the State Plant Quarantine Inspectorate under the Cabinet of Ministers, Plant Quarantine Research Center.

In total, samples of diaspids belonging to 18 genera in the Diaspididae family were collected from different developmental stages of the identified species. Specimens of these insects in the offspring are as follows: Diaspidiotus 8, Diaspis 1, Dynaspidiotus 1, Unaspis 1, Shansiaspis 1, Salicicola 1, Parlatoria 2, Lepidosaphes 4, Leucaspis 1, Aulacaspis 1, Aonidia, Aonidia. 2 specimens were collected, Chlidaspis 1, Prodiaspis 1, Mercetaspis 1, Carulaspis 1, Rhizaspidiotus 1, and Pseudaulacaspis 1.

RESULTS AND DISCUSSION.

The fauna and taxonomic analysis of diaspids found in fruit and ornamental trees of Tashkent region were studied. The following are the results of taxonomic analysis of diaspids found in fruit and ornamental plants of Tashkent region (Table 1).

Table 1.
Taxonomic list of diaspids in Tashkent region

№		**Order**	***Hemiptera***
		Family	***Diaspididae***
		Latin name	**Synonym**
Genus			***Diaspidiotus***
1	1	*Diaspidiotus perniciosus* (Comstock, 1881)	*Quadraspidiotus perniciosus*
2	2	*Diaspidiotus elaeagni* (Borchsenius, 1939)	*Aspidiotus elaeagni*
3	3	*Diaspidiotus salicis* (Lupo, 1953)	*Quadraspidiotus salicis*
4	4	*Diaspidiotus transcaspiensis* (Marlatt, 1908)	*Hendaspidiotus transcaspiensis*
5	5	*Diaspidiotus slavonicus* (Green, 1934)	*Targionia slavonica*
6	6	*Diaspidiotus prunorum* (Laing, 1931)	*Diaspidiotus prunorum*
7	7	*Diaspidiotus turanicus* (Borchsenius, 1935)	*Aspidiotus turanicus*
8	8	*Diaspidiotus leguminosum* (Archangelskaya, 1937)	*Aspidiotus leguminosum*
Genus			***Diaspis***
9	1	*Diaspis bromeliae* (Kerner, 1778)	*Coccus bromeliae*
Genus			***Dynaspidiotus***
10	1	*Dynaspidiotus ephedrarum* (Lindinger, 1912)	*Aspidiotus ephedrarum*
Genus			***Unaspis***
11	1	*Unaspis euonymi* (Comstock, 1881)	*Unaspis evonymi*
Genus			***Shansiaspis***
12	1	*Shansiaspis ovalis* (Chen, 1983)	*Chionaspis engeddensis*
Genus			***Salicicola***
13	1	*Salicicola archangelskyae* (Lindinger, 1929)	*Leucaspis archangelskyae*
Genus			***Parlatoria***
14	1	*Parlatoria oleae* (Colvée, 1880)	*Diaspis oleae*
15	2	*Parlatoria ephedrae* (Lindinger, 1911)	*Parlatorea ephedrae*
Genus			***Lepidosaphes***
16	1	*Lepidosaphes turanica* (Archangelskaya, 1937)	*Mytilaspis turanica*

17	2	*Lepidosaphes juniperi* (Lindinger, 1912)	*Insulaspis juniperi*
18	3	*Lepidosaphes ulmi* (Linnaeus, 1758)	*Coccus ulmi*
19	4	*Lepidosaphes pistaciae* (Archangelskaya, 1930)	*Pistaciaspis pistaciae*
Genus			***Leucaspis***
20	1	*Leucaspis gigas* (Maskell, 1879)	*Diaspis gigas*
Genus			***Aulacaspis***
21	1	*Aulacaspis rosarum* (Borchsenius, 1958)	*Aulacaspis thoracica*
Genus			***Aonidia***
22	1	*Aonidia isfarensis* (Borchsenius, 1962)	*Cupressaspis isfarensis*
Genus			***Chionaspis***
23	1	*Chionaspis salicis* (Linnaeus, 1758)	*Coccus salicis*
24	2	*Chionaspis etrusca* (Leonardi, 1908)	*Chionaspis engeddensis*
Genus			***Chlidaspis***
25	1	*Chlidaspis asiatica* (Archangelskaya, 1930)	*Chionaspis asiatica*
Genus			***Prodiaspis***
26	1	*Prodiaspis tamaricicola* (Malenotti, 1916)	*Adiscodiaspis tamaricicola*
Genus			***Mercetaspis***
27	1	*Mercetaspis halli* (Green, 1923)	*Nilotaspis halli*
Genus			***Carulaspis***
28	1	*Carulaspis juniper* (Bouché, 1851)	*Diaspis juniperi*
Genus			***Rhizaspidiotus***
29	1	*Rhizaspidiotus canariensis* (Lindinger, 1911)	*Aspidiotus canariensis*
Genus			***Pseudaulacaspis***
30	1	*Pseudaulacaspis pentagona* (Targioni Tozzetti, 1886)	*Diaspis pentagona*

As can be seen from the table, according to the taxonomic composition of the fauna of diaspids found in fruit and ornamental plants of Tashkent region, the number of generations in the family Diaspididae in the fauna is 18 (Diaspidiotus, Diaspis, Dynaspidiotus, Unaspis, Shansiasipis, Saliciaspis, Salicicala, Parlator, Parlator Prodiaspis, Mercetaspis, Carulaspis, Rhizaspidiotus and Pseudaulacaspis), and the number of species is 30.

CONCLUSION.

According to the taxonomic composition of the fauna of diaspids found in fruit and ornamental plants of Tashkent region, the number of generations in the family Diaspididae in the fauna is 18 (Diaspidiotus, Diaspis, Dynaspidiotus, Unaspis, Shansiaspis, Salicicola, Parlatoria, Lepidosapas, Lepidosaphes, Lepidosaphes, Lepidosaphes Carulaspis, Rhizaspidiotus, and Pseudaulacaspis), and the number of species was 30.

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Among the identified species, Diaspidiotus transcaspiensis (Marlatt, 1908), Diaspis bromeliae (Kerner, 1778), Dynaspidiotus ephedrarum (Lindinger, 1912), Parlatoria ephedrae (Lindinger, 1911) were recorded for the first time for the diaspidofauna of Tashkent region.

In apple orchards, the purple shield and California shield accounted for 34,4% of the total shield damage rate.

California shield infestation of fruit trees affected 12,8% of pears and apples, 10,1% of plums and apricots, 10,9% of cherries and quinces, 9,7% of peaches, and at least 8,6% of cherries.

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