RESULTS OF MODERN SCIENTIFIC RESEARCH AND DEVELOPMENT

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# DISTRIBUTION COORDINATES OF THE DIASPIDIDAE FAMILY IN SEED GARDENS

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**ABSTRACT:** In order to identify representatives of the Diaspididae family in the orchards of Tashkent region, 1 family and 3 species of pests belonging to the genus Hemiptera were recorded in the orchards of apple, quince and pear orchards on farms of Tashkent region. Three species of Lepidosaphes ulmi (Linnaeus, 1758), Diaspidiotus perniciosus (Comstock, 1881) and Parlatoria oleae (Colvée, 1880) from the family Diaspididae were found to be widespread, and 2 were recorded as dominant species. In order to create a species composition and GIS map of Diaspididae family in orchards in Tashkent region, 15 coordinates of pests in apple, quince and pear orchards were determined and a GIS map was created.

**KEYWORDS:** Orchard, GIS, area, generation, apple, pear, quince, coordinates.

## INTRODUCTION

Uzbekistan is carrying out large-scale reforms to increase horticultural production and create new local and intensive orchards. In recent years, the republic's horticulture is facing serious difficulties in the system of protection of fruit crops from pests. Many species of pests and pathogens that were previously of no economic importance are now beginning to cause serious damage to gardens. Lepidosaphes ulmi, Diaspidiotus perniciosus, Parlatoria oleae, and other pests cause serious damage. The technologies used to control pests of fruit crops in Uzbekistan have significant shortcomings and need to be reconsidered. The main pests of the gardens were not monitored. In view of the above, it is important to identify currently harmful

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species in tax orchards and their taxonomy, as well as entomophagous mass pest species, the next step is to map the distribution of the republic - GIS and the use of new generation insecticides.

## MATERIALS AND METHODS

The research was conducted in Tashkent region, the Institute of Zoology of the Academy of Sciences of the Republic of Uzbekistan, the Laboratory of Theoretical Foundations of Entomophagous Ecology and Biosteres, as well as the Agency for Plant Quarantine and Protection of Uzbekistan, Research Institute of Plant Quarantine and Protection. A total of 1 family and 3 species of pests belonging to the genus Hemiptera were recorded in seed orchards from different stages of development of the identified species and samples were collected.

## RESULTS AND DISCUSSION

The taxonomic analysis of representatives of the Diaspididae family in the Tashkent region was studied. As a result of research and observations, the following are the results of taxonomic analysis of representatives of the family Diaspididae in the seed of Tashkent region (Table 1).

**Table 1**

**Taxonomy of representatives of the family Diaspididae, relatively common in seed orchards in Tashkent region (2020-2021)**

| Class | Order | Family | Genus | Species |
|---|---|---|---|---|
| Insecta | Hemiptera | Diaspididae | Lepidosaphes | Lepidosaphes ulmi |
| | | | Diaspidiotus | Diaspidiotus perniciosus |
| | | | Parlatoria | Parlatoria oleae |

As can be seen from the table, according to the taxonomic composition of the fauna of the family Diaspididae, which occurs in the fruit of the Tashkent region, 1 family and 3 species of pests belonging to the genus Hemiptera were recorded. Three species of Lepidosaphes ulmi (Linnaeus, 1758), Diaspidiotus perniciosus (Comstock, 1881) and Parlatoria oleae (Colvée, 1880) were found to be distributed from the Diaspididae family. In order to compile a species composition and GAT map of the main Diaspididae family of seed orchards in Tashkent region, 15 coordinates of pests in apple, quince and pear orchards were determined and a GIS map was drawn (Figure 1).

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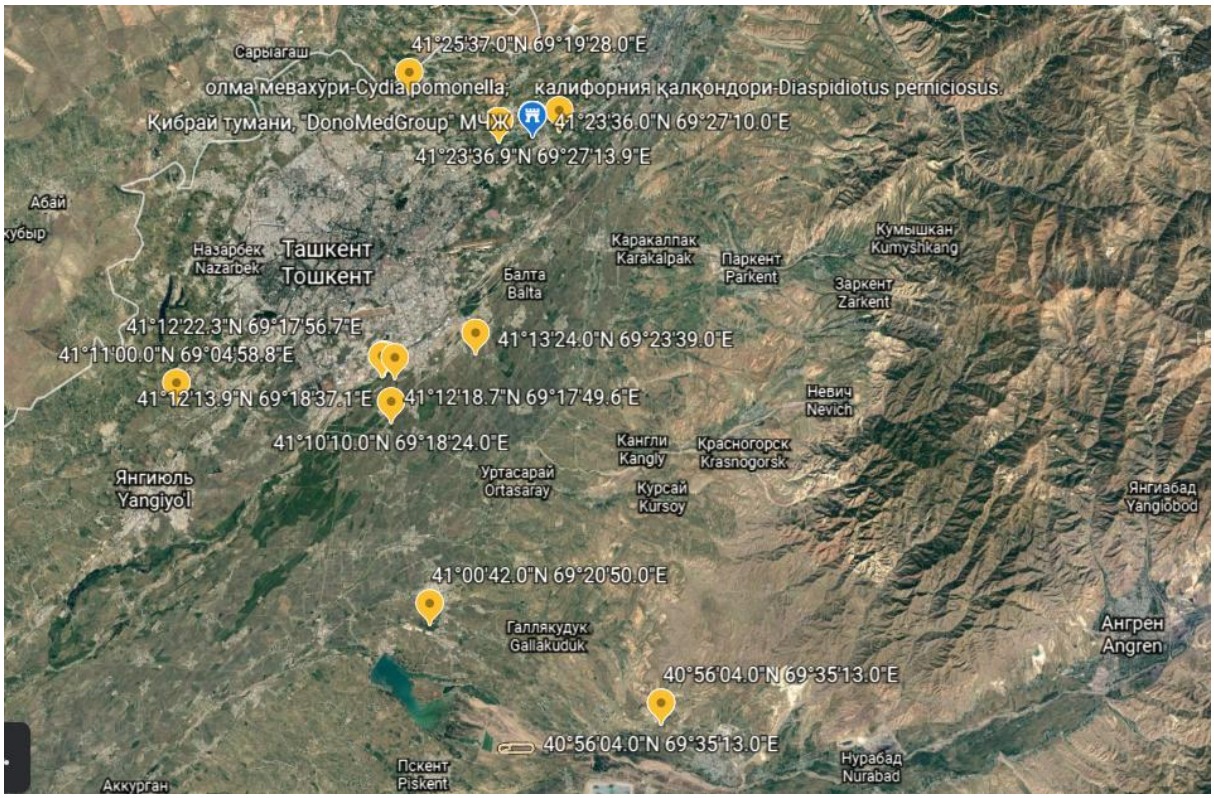


**Figure 1. Coordinates of distribution of Diaspididae family in Tashkent region.**

Class:Insecta; Order:Hemiptera; Family:Diaspididae; Genus:Lepidosaphes; Species:Lepidosaphes ulmi.

Infection with Lepidosaphes ulmi in Qibray district of Tashkent region (41° 25'13 "N 69° 25'56" E), (41° 23'19.8 "N 69° 25'05.2" E); In Urtachirchik district (41° 10'10 "N 69° 18'24" E); Recorded in the coordinates of Akhangaron district (40° 56'04 "N 69° 35'13" E).

Class:Insecta; Order:Hemiptera; Family:Diaspididae; Genus:Diaspidiotus; Species:Diaspidiotus perniciosus.

Diaspidiotus perniciosus infestation of fruit trees in Qibray district of Tashkent region (41° 25'13 "N 69° 25'56" E), (41° 23'50 "N 69° 28'51" E), (41° 23'36 "N 69° 27'10" E), (41° 23'36.9 "N 69° 27'13.9" E); It was recorded in the coordinates of Pskent district (41° 00'42 "N 69° 20'50" E).

Class:Insecta; Order:Hemiptera; Family:Diaspididae; Genus:Parlatoria; Species:Parlatoria oleae.

Infection with Parlatoria oleae in Qibray district of Tashkent region (41° 23'19.8 "N 69° 25'05.2" E), (41° 23'36.9 "N 69° 27'13.9" E); In Urtachirchik district (41° 10'10 "N 69° 18'24" E); In

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Yangiyul district (41° 11'00.0 "N 69° 04'58.8" E); In Akhangaron district (40° 56'04 "N 69° 35'13" E); It was recorded in the coordinates of Pskent district (41° 00'42 "N 69° 20'50" E).

## CONCLUSION

A total of 1 family and 3 species of pests belonging to the genus Hemiptera were recorded in seed orchards from different developmental stages of the identified species. They were identified as 3 species of Lepidosaphes ulmi (Linnaeus, 1758), Diaspidiotus perniciosus (Comstock, 1881) and Parlatoria oleae (Colvée, 1880) from the family Diaspididae, and samples were collected. In order to create a map of the species composition and GIS of members of the family Diaspididae in seed orchards in Tashkent region, 15 coordinates of pests in apple, quince and pear orchards were identified and a GIS map was created.

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