

New Data on the Bioecology of Some of the Castles Encountered in the Conditions of Eastern Fergana

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Abstract: In the article, the red giant worm (*D.turkestanica*), pistachio pillow fake tin (*A.pistaciae*) and plum forgery (*S.new* information on the distribution, biology and life cycle of the pronastri) is presented.

Keywords: hookah, fake hookah, entomofag, Bioecology, larva, pest, Eastern Fergana.

Introduction

In recent years, attention has been paid to studying the adaptation of various groups of plants and insects of the world and their mutual historical development in Uzbekistan, including in the conditions of the Fergana Valley [5, 8, 9, 11, 12]. Therefore, the trophic relations of the hips, which belong to the category of equal wings of insects fed on fruit plants, are studied, in particular, the prevalence, bioecological properties and free-standing predators of species that cause damage to fruit plants. It is important that the research carried out in this regard, based on the materials obtained, determine the morphological, physiologic aspects of their occurrence as a result of the trophic connections between plants and kaloras, determine the species composition of kaloras entomophages, determine the indicators of their effectiveness in reducing the number of their masters, develop theoretical aspects of protective measures that have been adapted

The trophic connections of the hips with fruit plants have not been studied not only in the Fergana Valley, but also on the scale of the Republic. However, the study of the interaction of plants with kalanchors during the historical development allows us to determine the structure of plants with respect to the protection of pests from insects, and in insects-their nutrition with plants. In addition, in the development of effective measures to combat mold spores on fruit trees, the study of the vital processes of mold spores and their number-reducing fungi is one of the important tasks.

Research methods and literature review

Studies on the faunistic composition, biology, ecology and Phylogenesis of slaves in different regions are conducted by leading scientists from abroad, including the Commonwealth of independent states in the countries V.I.Telisky [8], B.B.Bazarav [2], N.S.It is worth noting the work of such scientists as Borxsenius [3, 4].

The results of the research carried out in this sphere in Uzbekistan A.D.Archangelskaya [1], K.Zakirov [6, 7, 8] and A.In the scientific research of Sobirov [7, 8, 9] scientific results on species composition, biological and environmental characteristics of castles were published.

However, on the territory of Uzbekistan there is not enough work on the composition of species of kalorlar, their connection with nutrient plants, vital processes, especially their free and predators, their connection with nutrient plants. Proceeding from this, it is important practical to develop

counter-measures that harmonize against them on the basis of the study of the kaloras and their entomophages, which are distributed in the fruit plants of the Fergana Valley.

The researches were carried out in 2018-2020 on the basis of faunistic researches from the regions of Andijan region of the eastern part of Fergana Valley. General accepted coccidological methods [1, 3, 4] were used in the collection and storage of slaves.

The results obtained and their discussion

During the analysis of the species composition of the castles of the fruit plants of the Eastern Fergana region and their subspecies, it is planned to improve the measures of combating pests against pests.

In some literature, the prevalence of 13 species of kalorlar belonging to 4 families of kalorlar in fruit plants of Fergana Valley in fruit plants, their association with nutrient plants, biological characteristics of important species causing harm to plants, species of omomophages that reduce the number of them, their effectiveness in reducing the number of kalorlar that are their masters were determined [5].

During our scientific research, species that cause serious damage to fruit plants were recorded. Among the identified species, there is information about the common, dominant species.

Drosicha turkestanica Arch. – the red giant worm was first discovered by Arkhangeskaya in 1937 in Samarkand in the zone of the forest of survival - sheep, as the main nutrient plant is Willow and Poplar. The red giant worm, along with poplar and Willow in the Eastern Fergana region, was observed in numerous tributaries of quince and Ji vs fruit trees.

The red giant worm develops giving a generation per year under various environmental conditions. A.D. According to archangelskaya [1], it was found that the larvae of the second age of the worm wintered most often in places close to the root. It was found that the body that killed the females of the wintering larvae winters in the bark. It was observed that the larvae, which hibernate in laboratory conditions, are slowly moving under the influence of hot temperatures. In early spring, wintering larvae move quietly from the lower side of the tree to the upper side and begin their life by staying in the place where they are found for feeding on the plant. Worms are often observed next to the buds, feeding on the armpits of the Leaf. The transition of feeding larvae to the second age takes place in late April. We have witnessed that when larvae are observed to develop and throw away the larvae, a crimson body is visible in the place where their coat is cracked from the side of the shoulder. The transformation of these larvae into females takes place in June. In our observations in nature, it has been observed that sexual maturity females appeared in the first decade of June (2019). And the men appeared in the early decadence of June. The bodies of men are reddish, about 1 cm long and are considered an insect with beautiful violet color wings. Men's breasts, legs and mustaches will be black in color. It was found that the newly appeared male lived 6 days in laboratory conditions. Men find females on the account of creeping and flying and copulate with females. After copulation, men die. It remains to wintering there that the discarded females have penetrated into various cracks of the nutrient plants. The bodies of the females remaining for wintering are wrapped in a white fluffy wax veil, and the females themselves lay their eggs into this veil. One female lays eggs on average about 70-75 pieces.

Anapulvinaria pistaceae (Bodenh.)- pistachio pillow-shaped false shield of pistachio is one of the pest insects feeding on pistachio (*Pistacea Vera*) in Uzbekistan, including in the conditions of the Fergana Valley. A. In Uzbekistan D. It was discovered by Arkhangeskaya in 1937 year from pistazars around the city, such as Samarkand, Bukhara, Shakhrisabz [1].

In our observations, it was found that this forgery was spread in mountain areas around Khujaabad district, pistazors of Bagishamol genius in Andijan. This forger is a monophage and lives only on pistols of pistols. Larvae and young females live in the Kings and branches of the pistachio and are fed by sucking their tissue juice.

It was discovered that the pistachio pillow was fed more often on the side of the pistachio leaf and bottom. It was observed that the exchange of substances in the leaves fed by fakes was disturbed, they gradually turned yellow and dried up. Pistachio forgery develops by giving a generation a year. Larvae of the second age of larvae winter in the larvae of the second age in the Crevice areas of different bodies and branches of the nutrient plant. Winter larvae begin to move from the second quarter of March and begin to grow on the branches of the nutrient plant from the place of hibernation. The transformation of the larvae into young females takes place in late April. In the literature, there were no data on the presence of men of pistachio forgery, but for the first time its presence in the Andijan conditions was observed. The males develop under a oblong, Oval-flowing shield, while under laboratory conditions, the outflow of males from under the shield was observed at the end of the April. After the male and female are intertwined, the female divides from the body a white cotton-bearing egg sac. The length of the egg rope goes up to 5 mm. The width of the egg halt is also greater than the width of the body of the female, and on this egg halt, the females begin to lay their eggs.

It turned out that the laid eggs are green, one egg solution contains up to 250 – 300 eggs. The outflow of larvae from laid eggs in laboratory conditions was observed at the end of June (2018). Even in natural conditions, the outflow of larvae coincided with these periods. Larvae from the egg begin to feed on the OSHA place, passing through the top and bottom of the pistachio leaves. When autumn passed to the second age, larvae were observed to migrate from leaves to branches and branches.

Sphaerolecanium pronastri (Boyer de Fonscolombe, 1834) - plum forgery, for the first time in Uzbekistan 1931 year koktsidolog A.D. It is found in fruit trees in the city of Namangan by archangelkaya [1]. Subsequent quarantine observations showed that this fake tin was also spread in several districts of Namangan. In the sources of literature, it is shown that this forgery is planted in danak-fruit trees as the main nutrient plants. During our observations, it was found out that the Plum Blossom is widely distributed in peach, cherry, plum, cherry, which are from almost all the granular plants of Andijan city. Especially it became known that the forgery is very common in Cherry and cherry.

K. Zakirov's plum forgery was widely spread in wild cherries growing in the mountainous areas of the Fergana Valley, indicating that the Cherries were damaged by almost 4 points. Plum forgery develops by giving only one generation per year. Its secondary larvae hibernate in very densely located in different places of the body of the nutrient plant [5].

K. In Zakirov's research it was found that on average in 1 cm² bark of cherry plant winters larvae up to 35 - 46 soles. In our calculations, it was noted that the larvae that wintered were 20-30 pieces on the 1 cm² bark of the nutrient plant. To wintering larvae, the temperature is affected in different ways. It is calculated that up to 30-40% of the larvae that hibernate in severe frosts die. Wintering larvae migrate from spring to the upper branches of plants. After the onset of nutrition, changes occur in the larvae, from which females and male larvae appear. The same characteristic is that at some times the number of larvae that turn into males is observed several times more than females. Larvae, turning into males, develop in a elongated cylindrical white coat. Larvae that turn into females also appear gradually, and black-brown in color. In nature, the flight of men was observed

in the third decade of April [5]. However, in mountainous areas, the development of this insect lasts almost a month. K. According to Zakirov, the appearance of females of this insect, which is spread in wild cherries in The Lion's Nest, was observed at the end of May. The men of the plum cones are red in color, they actively move and fly, as soon as they come out from under the shield.

It was found that new flying men lived up to 1.5 days in laboratory conditions. The female is one of the insects that give birth to the faked living. It was observed that many eggs were located in the egg tubes as a ball when their bodies were ruptured before the birth of eggs. In our observations on binoculars, it was noticed that eggs are in different development. They are Oval, reddish in color. In some eggs, the body shape of the future larva, the head part and eyes are also clearly visible.

The outflow of larvae from the eggs occurs in the first decade of May. The birth of females lasts for a long time. Therefore, the outflow of larvae from the egg in some cases also lasts in June. In the literature, it is shown that larvae from eggs live 4-5 days. Larvae from the eggs continue to develop, as the creeping nutrient spreads to the branches, branches of the plant, sucking the tissue juice of the plant there. Larvae that have passed through the autumn to the age of borganda 2 years gradually move to wintering in different places of the plant.

Conclusion. In the conditions of Eastern Ferghana, the dominant pests of the castles are threeraydi and cause serious damage to horticulture. As a result of the conducted research, the 3 types of castles identified (*Drosicha turkestanica*, *Anapulvinaria pistaceae*, *Sphaerolecanium pronastri*) were considered as important economic damaging species and their bioecological properties in the conditions of Andijan region were investigated.

Studies have shown that different ecosystems have trophic connections of the hips with the plant in the food chain, and in the fight against them, a wide range of systems of "parasitic-boss" and "predatory-prey" relationships require the introduction of large-scale study and biological modification into practice.

This, in turn, makes it possible to theoretically analyze the role and importance of harmful and useful insects in the entomokomplex.

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