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SOME SPECIES OF BLACK BODIED BEETLES-TENEBRIONIDAE FOUND IN THE BUKHARA CITY

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Abstract:

The article presents data on the morphology of black-bodied beetles, blaps. Their features, role in nature, features of protection and harm to plants.

Keywords: Coleoptera, beetles, egg, larva, pupa, imago, the slow-moving beetle.

Introduction

Nature makes the Earth beautiful because of its biological diversity.

Every organism, regardless of whether it is useful or not, let it be a pest, in nature they have a function that they must perform, as well as a role in the food chain. The destruction of one organism as a disease vector or pest can result in the loss of its place in the food chain, as well as loss in numbers and populations of other related species.

Materials and Methods

Coleoptera, or beetles (lat. Coleoptera), an order of insects, the representatives of which are characterized by the modification of the front wings into hard, highly sclerotized or leathery elytra, devoid of venation, with the preservation of membranous hind (lower) wings, used for flight and folded under the elytra (very rarely the wings and elytra are reduced). Representatives of the order are characterized by gnawing and chewing mouthparts, a developed anterior part of the chest, and a movable articulation of the prothorax with its middle part. The shape and size of the body are very diverse: from 0.3-1.0 mm to 171 mm.

Development with complete transformation: there are stages of egg, larva, pupa and imago. Larvae with a well-developed chitinous head and gnawing mouth, mainly worm-like or campodeoid, in most species with jointed thoracic limbs, without abdominal legs. Pupae are mostly free, usually soft, motionless (only the abdomen can move), unpainted. Beetles are the largest group among insects and living creatures in general. As of August 2013, there are 392,415 species in the order, including 2,928 extinct species, which is 40% of all known insect species.

The body (length 1.2–80 mm) is black or brown, in forest species it is often with a blue or green metallic sheen, less often with bright spots. Most blackbirds have protective glands in the back of the abdomen that secrete a secret with a sharp unpleasant odor.

The larvae are false wormholes. They are divided into 2 main ecological groups: desert-steppe and forest.

In our city of Bukhara, most of the inhabitants are black-bodied beetles, flour beetle, on the outskirts of the city of Cetonia aurata.

Results

Tenebrionidae (Latin: Tenebrionidae) is one of the largest families of coleoptera insects, numbering up to 20,000 species, of which approximately 1775 species live in Europe.

We have observed black-bodied beetles from the genus of The slow-moving beetle. The sluggard, which looks a bit like a clumsy ground beetle, really crawls very slowly. They especially inhabit moist soil rich in plant remains. They rarely go out during the day, especially live in the shade, at night they actively leave their habitats during the day, looking for food. The body is oval, dark black in color, the elytra are smooth, they can mate on warm winter days, some other species of the genus Blaps emit a special smell that gathers other beetles in one place, and both females and males come to this smell. But there is also such a secret that beetles secrete at the moment of danger, and if one of the gathered beetles allocates this secret, then the whole "pack" will scatter in different directions in the shortest possible time. Eggs, females lay in loose soil one at a time, choosing wetter places. The larvae live in the soil, thanks to the smooth covers, they easily crawl from one place to another, eating food lying on the surface of the earth. The larvae pupate, also making special chambers in the soil, in which there will be enough space for the beetle to exit the pupa.

We met blaps mostly in the evening, as it begins to get dark, beetles crawl out of their places of "refuge", they are omnivorous, they feed mainly on the remains of plants and insects. They can often be found where a bunch of plant remains feed on decomposing organic remains. By doing this, they loosen the soil and enrich it with organic fertilizer. But there is also a second side to their diet, they feed on leaves and this harms plants, especially gnawing the soft part, the young shoot of plants and lead to the death of the latter. In case of danger, beetles are protected with the help of a special secret-tolukhinone (ethylkhinone, benzokhinone), which smells unpleasant and scares off predators. At the same time, the beetle lifts the end of the body and secretes a dark brown liquid. Also, when mating, the male smears the female with such a liquid, and other males are unsuitable for this female. There are 3 subfamilies, 16 tribes, 30 genera and 46 species in the Lower Zerafshan district. In the Bukhara Oasis 2019-2023, an employee of the Department of Zoology and General Biology of the Faculty of Agronomy and Biotechnology of Bukhara State University, Doctor of Philosophy of Biological Sciences (PhD) Luisa Khalilovna Alimova identified 44 species of black beetles.

Discussion

As mentioned above, every living being has its place in nature and in the food chain. Studying the harmful sides of the black beetle, we found the features of this species, this is the release

of a specifically odorous substance. The substance secreted by beetles scares away not only the enemy, but also notifies of the threat of relatives. Beetles are protected by a special secret - tolukhinone, its analogues ethylkhinone, benzokhinone. These secrets can be used to protect plants. Since the substance repels insects and alarms them, artificially developing these substances can protect plants from the beetles themselves.

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