



## DIVERSITY AND IMPORTANCE OF THE INSECT CLASS

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**Annotation:** This article is devoted to the study of the diversity and importance of the class Insecta, considering the interactions, diversity, and ecological and economic importance of insects in various ecological systems and environments. Insects are the most numerous species of organisms on Earth, and their adaptations to living in various environments play an important role in natural ecosystems. This article discusses the relationships of insects with pollination, crops and plants, their role in agriculture, as well as their harmful and beneficial aspects. Insects also form important links in maintaining ecological stability and ensure biological diversification.

**Keywords:** Insects, wings, pest, biotope, head, thorax, abdomen, legs, antennae, sensory organs.

### HASHAROTLAR SINFINING XILMA-XILLIGI VA AHAMIYATI

**Anotatsiya:** Ushbu maqola hasharotlar sinfining xilma-xilligi va ahamiyati mavzusini o'rganishga bag'ishlangan bo'lib, hasharotlarning turli ekologik tizimlar va muhitlarda o'zaro aloqalari, xilma-xilligi, hamda ekologik va iqtisodiy ahamiyatini ko'rib chiqadi. Hasharotlar yer yuzida eng ko'p turdagi organizmlar bo'lib, ularning turli xil muhitlarda yashashga moslashuvi tabiiy ekosistemalarda muhim rol o'ynaydi. Ushbu maqolada hasharotlarning polinatsiya, ekinlar va o'simliklar bilan aloqalari, qishloq xo'jaligidagi o'rni, shuningdek, ularning zararli va foydali tomonlari haqida so'z boradi. Hasharotlar, shuningdek, ekologik barqarorlikni saqlashda muhim bog'lanishlarni tashkil etadi va biologik diversifikatsiyani ta'minlaydi.

**Kalit so'zlar:** hasharotlar, qanotlar, zararkunanda, biotop, bosh, toraks, abdome, oyoqlar, moylablar, sezgi organlari

**Introduction.** The class Insecta is the most widespread and diverse group of animals on Earth. They play an important role in the ecological systems of our planet. The study of the class Insecta is of great importance not only for biology, but



also for ecology, agronomy and many other scientific fields. Diversity of the class Insecta

**Main part. Taxonomic diversity:** The class Insecta includes over 30 million species, making it the most diverse group of all animals. Within them, there are three main subgroups: a) winged insects (Pterygota), b) wingless insects (Apterygota), c) short-winged insects (Neoptera).

Anatomical and morphological diversity: Insects have a wide variety of body structures and morphological features. Their body structure consists of three parts: head, thorax, and abdomen. There are also different types of wings, legs, and organs. Ecological diversity: Insects live in a variety of habitats on Earth, including forests, deserts, mountains, water bodies, and urban areas. They form complex ecological relationships with plants, animals, and other organisms.

**The ecological importance of insects.** Pollination: Many insects, especially bees, butterflies, and other pollinating species, play an important role in plant reproduction. They pollinate plants, which is an important part of the food chain.

Debris and the organic matter cycle: Insects help decompose organic matter. They digest dead plants and animals, enriching the soil, which ensures the stability of ecosystems.

Feeding on other animals: Insects are a source of food for many animals, including birds, reptiles, fish, and others. They also play an important role in preventing the spread of certain diseases.

**The social significance of insects.** Importance in agriculture: Insects are divided into beneficial insects and pests in agriculture. Beneficial insects help protect plants, while pests harm plants.

Medicine and pharmaceuticals: Insects can be a source of substances used to treat various diseases. For example, some species of bees and wild insects have their venom used for medical purposes.

Ecological monitoring: Insects provide information about the health of ecosystems. Their numbers and distribution can be indicators of environmental changes and pollution levels.

The class Insecta is a group of living organisms that are very important in nature. Their importance is evident in several main areas:

Role in maintaining ecological balance:

Pollination (cleaning): Bees, butterflies, wasps, and other pollinating insects play an important role in the reproduction of plants.

Parasites and predators: Some insects maintain ecological balance by eating harmful species.

Decomposing organic matter: Insects that eat plants and animals, such as beetles, break down plant and animal remains, increasing soil fertility.



Role in agriculture:

Beneficial as pollinators: Bees contribute significantly to increasing crop yields.

Negative as pests: Some insects damage crops and reduce yields. Therefore, it is important to control them.

**In conclusion**, the class of insects is of great importance in ensuring the stability of ecological systems, in the food chain, in agriculture and in medicine. Their diversity and functions are important not only for the natural world, but also for humanity. The conservation of insects and the study of their various properties contribute to the effectiveness of ecological research and conservation measures.

Many are extremely valuable to humans, and without them human society could not exist in its current form. Due to their pollinating activity, they make it possible to grow many agricultural crops, including fruits from gardens, fodder plants, many vegetables, cotton, passion fruit, etc.

They provide honey and wax, silk and other products of commercial value; they serve as food for many birds, fish and other beneficial animals; they provide services such as predators; they help keep harmful animals and plants under control and are useful in medicine and scientific research. Some insects are harmful and cause annual losses in agriculture and stored products. The class Insecta is a group of living organisms that are very important in nature. Some are harmful to human and animal health.

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