

Biologists currently classify all living organisms into kingdoms: bacteria, fungi, plants, and animals. In recent years, they have also noted the possibility of classifying viruses into a separate kingdom. Botany is a science that studies plants in various aspects and includes several interconnected branches. Among them, plant morphology studies the external structure of plants, the appearance of individual organs, and how their appearance changes under the influence of the environment. Plant anatomy studies the internal microscopic structure of plants.

Plant systematics studies the similarities and differences between plants, their kinship relations, origins, and the formation of various groups, organizing them into a specific system. Plant cytology is the science that studies the structure and life activity of plant cells. Plant histology studies plant tissues. Plant embryology is the science that studies the structure and development of plant seeds. Plant physiology studies the life processes occurring in plants (growth, development, nutrition, respiration, etc.). Plant ecology studies the interaction of plants with their environment.

Geobotany is the science that studies the plant cover of the Earth, including plant communities (phytocoenoses). Phytosociology deals with the composition, structure, interactions among plants, other organisms, and the environment, as well as productivity. Plant geography studies the distribution of plants on Earth. Paleobotany studies fossilized plants based on the imprints and remains found in sedimentary layers.

The Importance of Plants in Nature

Scientists divide nature into two groups: living and non-living. Plants, animals, fungi, and microorganisms constitute the living nature. Life on Earth is spread over a small part of it. Living organisms are found in the upper layer of the Earth's crust, in water, and in the lower layers of the atmosphere. This part of the Earth where living organisms are found is called the biosphere. Over millions of years, living organisms have adapted to the living conditions of their environment and have significantly influenced the biosphere.

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