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## **THE HISTORY OF THE DEVELOPMENT OF ECOLOGY AS A SCIENCE IN XIX – XX CENTURY**

### **Summary**

Ecology is a relatively young science, not so long ago it was interested in a small circle of specialists. In recent decades, she began to develop rapidly. This was due to the need to address such important issues as the rational use of natural resources, prevention of environmental pollution by industrial waste and transport, prevent the destruction of natural communities, preservation of gene pool of flora and fauna. Ecology gives an idea of how to achieve a symbiosis of technology, production and nature.

Ecology has many definitions. Often interpret it as a science about the relationship of living organisms and habitats. In the mid-nineteenth century, it became abundantly clear that it is impossible to study living organisms in isolation from their environment. This stage is associated with large phytogeographical studies, contributed to the further development of ecological thinking. In the early nineteenth century are highlighted in the independent sector of plant ecology and animal ecology. The scientists then analyzed the patterns of organisms and environment, relationships between organisms, privycouncil and prystasavannie. A huge role in the development of ecological ideas played a German scientist O. von Humboldt (1769–1859), who laid the foundations of biogeography. In the book "the ideas of the geography of plants" (1807), he introduced a number of scientific concepts that are used by ecologists today.

The most important milestone in the development of environmental ideas about the nature was the publication of the famous books Including Darwin (1809–1882) on the origin of species by means of natural selection, tough competition.

The year of birth of ecology believe 1866, when the famous German zoologist E. Haeckel coined the term for the new science of ecology, which subsequently received universal recognition.

Exceptionally large contribution in the field of environmental worldview belong centuries Dokuchaev (1846-1903). He created the doctrine of natural areas and the doctrine of the soil, as a special bokone the body (system). Showed that soil is an integral component of almost all terrestrial ecosystems of our planet. Theoretical developments centuries Dokuchaev ("the Doctrine of areas of nature") initiated development of geobotany and landscape ecology.

In 1926, the book was published by C. I. Vernadsky, the Biosphere", which was first shown the planetary role of the biosphere as the set of all species of living organisms. 30-40-ies prepared new synthesis in animal ecology (K. Fredericks - 1930, F. Bodenheimer – 1938). At the same time was published many monographs and textbooks on the geography of plants, ecology of animals and plants.

The decisive stage in the development of General ecology was the selection of new agricultural science of agroecology. Agroecology is a relatively young science, an independent branch of knowledge and formed the scientific direction of research that emerged from the applied ecology and agronomy. It studies the influence of environmental factors on the productivity of cultivated plants, as well as the structure and dynamics of communities of organisms that exist on agricultural lands.

Agroecology has emerged in the mid-twentieth century and its structure, the concept and the main directions are in the formative stages. The main task of agroecology - activation of the biological potential of agro-ecosystems and their constituent elements at all levels (from individual plants and animals to all agroecosystems) and replacement of a significant part of the anthropogenic energy the internal energy of biological processes.

The formation of ecology as a science began at the turn of XIX–XX century and is still ongoing. With the release of ecology on the global biosphere level, because of the new practical needs arising from the development of technology, we are talking about integration and differentiation of ecological knowledge. As a result of these two opposing but interdependent processes is complicated by the structure of ecology, new subdivisions, and science itself distributes its limits to knowledge beyond the biological Sciences.