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## THE CONCEPT «COMPETITION» IN BIOLOGY AND ECOLOGY

*Аннотация:* в статье рассмотрены дефиниции понятия «конкуренция», приведенные в различных словарях. Особое внимание уделяется значению этого понятия в областях биологии и экологии. В статье детально описаны типы взаимоотношений между отдельными организмами и их группами в биосфере, делается акцент на конкуренции как подтипе антибиотических отношений, указываются основные ресурсы, являющиеся предметом конкуренции. Показано, что люди, будучи биологическим видом, также сталкиваются с конкуренцией в различных сферах жизни. Эта статья представляет интерес для студенток биологических и экологических направлений, которые хотели бы углубить свои знания в области данной концепции.

*Ключевые слова:* экология, биология, конкуренция, дефиниция, организм, вид, популяция, биосфера.

*Abstract:* the article examines definitions of the concept «Competition» given by several dictionaries. In the article much attention is given to its place in biology and ecology in particular. It describes in detail the types of interactions between organisms and their groups in the biosphere and focuses on the competition as a sub-type mentioning its forms and the main resources organisms compete for. It is shown that people as a species experience competition as well. The article is of interest to biology and ecology students, who would want to develop their understanding of the concept «Competition».

*Keywords:* ecology, biology, competition, definition, dictionary, organism, species, population, biosphere.

When it comes to the word «Competition», the first thing to imagine for most of us is a contest and the process of defeating any rivals. Actually, this image is not far from the truth. There are several definitions below to observe. To begin with, Longman Dictionary of Contemporary English defines competition as:

- a situation in which people or organizations try to be more successful than other people or organizations;
- the people or groups that are competing against you, especially in business or in a sport;
- an organized event in which people or teams compete against each other [3].

In addition to this, Macmillan Dictionary suggests another definition:

- the activities of companies that are trying to be more successful than others;
- the activities of people who are to get something that other people also want;
- the efforts of people who are trying to win prizes;
- an organized event in which people try to win prizes by being better than other people;
- the person, company or thing that someone is competing with [4].

Furthermore, widely known Cambridge Dictionary defines the concept in a fashion familiar to the others as well:

- a situation in which someone is trying to win something or be more successful than someone else;
- an organized event in which people try to win a prize by being the best, fastest, etc.;
- the person or people you are trying to be better than [1].

Although these definitions are quite similar, all of them perfectly describe competition as we experience it in our everyday life. However, they can be applied to various scientific fields as well. For instance, this kind of definition is presented by Merriam Webster's Dictionary:

- the act or process of competing;

- the effort of two or more parties acting independently to secure the business of a third party by offering the most favorable terms;
- active demand by two or more organisms or kinds of organisms for some environmental resource in short supply;
- a contest between rivals [2].

According to Oxford Dictionaries, competition is based on supremacy, regardless of the gain:

- the activity or condition of striving to gain or win something by defeating or establishing superiority over others;
- an event or contest in which people take part in order to establish superiority or supremacy in a particular area;
- the person or people over whom one is attempting to establish one's supremacy or superiority; the opposition;
- interaction between animal or plant species, or individual organisms, that are attempting to gain a share of a limited environmental resource [5].

The latter definition given by Oxford Dictionaries applies particularly to ecology. Ecology is a broad branch of biology, which studies the interactions between various groups of organisms and the environment. In ecology competition is a subtype of biological interaction, which appears in three different types: neutralism, symbiotic relationships and antibiosis. Obviously, interactions form a tight connection between all organisms in the biosphere. However, to determine types and subtypes of interaction in ecology one has to examine interaction between two organisms or their groups solely. Biological interactions are commonly viewed between species, populations, or organisms. All the three types are distinguished by neutral, positive, or negative effect exerted by one or each of interacting sides.

Competition is detrimental to both interacting sides. It can be interspecific, occurring between different species, or intraspecific, occurring between organisms of the same species, direct or indirect. Organisms, populations and species inevitably compete for resources every moment of their lives. There is a number of essential resources,

and whenever they are limited, organisms are forced to compete for survival. The resources that organisms are most likely to compete for are space, food, water, and mates. Generally, organisms compete for more than one resource at a time.

Moreover, human beings are social animals and these interactions, especially competition, are inherent parts of our lives. As any other animals, we require room for supporting our needs such as feeding, reproducing and more. Furthermore, everyday access to food and water is in strong demand. As social beings, we depend on each other, thus connection and interaction is key to not only our survival, but to our happiness and comfortable living as well.

In conclusion, the concept «Competition» is broad and capacious, and appears in different scientific and non-scientific fields, and various aspects of our lives. Although the core meaning is similar in most of definitions, it is crucial to define its specifics more precisely.

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