eJBio

Electronic Journal of Biology, 2021, Vol. 17(S3):219

Overlapping Niches Resource Partitioning and Ecological Niche Importance

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Citation: Swathi G. Biodiversity: Overlapping Niches Resource Partitioning and Ecological Niche Importance. Electronic J Biol, 17(S3):219

Received: May 05**,** 2021; **Accepted:** May 19, 2021; **Published**: May 26, 2021

Editorial

The ecological niche [1] is a term that explains how a species communicates with its environment. A species' niche is determined by both biotic and abiotic factors that influence its ability to survive and thrive. Food availability and predators are two biotic factors that influence a species' niche. Temperature, landscape characteristics, soil nutrients, and light are all abiotic factors that influence ecological niche.

The dung beetle is an example of an ecological niche. The dung beetle, as its name implies, eats dung both as a larva and as an adult. Female dung beetles lay eggs in dung balls that are stored in burrows by dung beetles. This ensures the newly hatched larvae have immediate access to food. The dung beetle, in turn, has an effect on the ecosystem [2] by aerating the soil and redistributing beneficial nutrients. There is no doubt about it.

Ecological Niches' Importance

Ecological niches allow organisms to thrive in their natural habitat. The species will survive and play a special role in the right circumstances. There would be less biodiversity and the world would be out of balance without ecological niches. When ecologists talk about ecological niches, they talk about interspecies rivalry. In one ecological niche, two opposing species cannot coexist. Owing to a scarcity of capital, this is the case. Competition has an effect on a species' fitness and can contribute to evolutionary changes. An animal that forages for pollen or nectar from a particular plant species and competes with other animals of the same species is an example of interspecies rivalry. Ants may fight for nests and prey, as well as water and food, in the case of certain species.

In a niche, competition either causes each species to specialize in a different way so that they do not compete for the same resources, or it causes one of the competing species to go extinct. This is a different perspective on natural selection. When it comes to competitive exclusion, there are two hypotheses to consider. Multiple organisms cannot coexist with the same resources unless they separate their niches, according to the R Theory. When resource density is at its lowest, those species whose populations are most hampered by the resource will be competitively pushed out. Due to mutual enemies, consumers in P Theory may occur in high densities.

Overlapping Niches/Resource Partitioning Importance

Since organisms cannot live in a vacuum and must communicate with other species in order to survive, niches will sometimes overlap. Similar species can adapt over time to use different resources to escape competitive exclusion. They can occur in the same region but use resources at different times in other situations. Resource partitioning [3] is the term for this situation. Lizards like anoles used various parts of their overlapping habitats in different ways, which is an example of resource partitioning. Some anoles may be found on the forest floor, while others may be found high in the canopy or along the trunk and branches.

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