Definition: **habitat** from *Philip's Encyclopedia*

Place in which an organism normally lives. A habitat is defined by characteristic physical conditions and the presence of other organisms. See also ecosystem.

Summary Article: **Habitat**
From *Encyclopedia of Environment and Society*

HABITAT IS THE environment in which natural or human species live. In all cases, a habitat is an area where an individual or population exists or can exist. The Joshua Tree, for example, can only be found in its natural habitat, which is the Mohave Desert. Water lilies can only be found in aqueous conditions, while cacti can only be found in desert conditions. Certain types of fish reside only in the ocean’s abyss while longhorn sheep live on mountains.

A habitat can consist of a single individual living alone on an island, such as the fictional character Robinson Crusoe, as well as the individual members of a species in an area. Habitats can cover wide or small areas.

A microhabitat can be viewed as the immediate surroundings in which a plant or animal lives. A goldfish in a fishbowl dwells in a microhabitat. If it lived in an artificial pond, its habitat would be the area in the pond where it can swim. The microhabitat for a plant in a home aquarium is the immediate place where the planted is located.

Scientists usually use the term *habitat* in a general sense to mean the ecology of an area where the species exists. The habitat shared by many species is usually termed a *biotope*. A *biome* includes all of the flora and fauna living in the habitat of a certain geographic area.

The destruction of habitat is a grave danger to many species. It may well be the leading cause of species extinction. This is especially the case for species that are dependent on unique ecological niches. For example, the ivory-billed woodpecker resided only in fully matured forests. However, the destruction of most of its habitat probably caused its extinction, unless reported sightings of ivory-billed woodpeckers around 2004 turn out to be true.

Ecological niches are descriptions of the role that a species plays in an environment. The way that a species gets its food, that is, “earns its living,” can be of significance to other species. Some species such as panda occupy a narrow niche as do koala bears, which live entirely on eucalyptus leaves. Pigs, in contrast, are generalists and feed on almost anything.

Habitats can be destroyed by natural or human causes. Volcanoes can cover wide areas burying all living things under a layer of ash and lava. If a unique species has developed a special niche in the area of a dormant volcano that returns to life, it can be destroyed by geological developments.

Climatic changes have also changed the habitats of many species in the geologic ages of the earth's biography. The Sahara Desert was a grassy savannah with teeming wildlife 5,000–10,000 years ago. Numerous species that it supported lost their habitats because of the climatic changes that overtook the Sahara.

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Habitats for some species can be greatly expanded as well as destroyed by natural or human activity. Geologic or meteorological forces can cause massive changes in the ecology of wide areas in a relatively short time. However, geological and climatic forces can also cause enormous changes in the habitat conditions. The great Sahara desert was verdant until a few thousand years ago. Climatic changes have made it into a desert without any apparent human intervention.

Human intervention has changed some of the Caribbean islands from wet to arid because of the destruction of the original vegetation. The destruction led to the loss of habitat for many species. Human activity can impact species. The snail darter is a small fish that needs clean gravel in moving water as a major part of its habitat. It was threatened with extinction by the building of the Tellico Dam on the Tennessee River.

The destruction of habitat is a grave threat to species like the North American mountain lion.

The building of dams can destroy some species, but it can also increase the habitat for others. There has been a marked increase of some insects and parasites behind the Aswan Dam in Egypt because their habitat has been increased. The same phenomenon happens when farming occurs or is abandoned. Heavily forested areas are more favorable habitats for some species, while broken country is more agreeable to others. The decrease in farming in the eastern United States has led to declines in the upland dove populations because the corn or other seeds favored as food are no longer available. However, the broken country of suburbs and the absence of hunting have led to an explosion in the deer population because the habitat is more favorable than previously.

Human intervention that creates—however unintended—a species invasion can have an impact on species. For example, the American grey squirrel was imported into England in the 1800s as a biological diversity addition. However, by the year 2000, it had virtually replaced the native English red squirrel. Its ecological niche is such that it feeds on acorns from oak trees in winter. However, because these oak trees are absent in some areas, the red squirrel has been able to survive. The difference is in how the
two species “make their living.” The red squirrel species may well become extinct because its habitat has been over run by a more prolific and aggressive similar species.

Habitat destruction is the gravest threat to numerous species at the beginning of the 21st century. The destruction of forest, wetlands, and other places that were home to unique species has led to their extinction. This was evidenced by the extinction of the passenger pigeon shortly after 1900.

Since the late 1800s, a growing number of efforts have developed to protect habitats influenced by the conservation and environmental movements. Programs to promote both government preserves and private land preserves have gained significant political support. Legislation such as the Endangered Species Act and other similar programs has allowed conservation groups to save numerous species. They have also found support in a ruling by the United States Supreme Court that has said that the destruction of critical habitats is as deadly as directly killing the plants or animals in a biome.

Current laws and programs allow habitat conservation plans to be adopted. In addition, species breeding programs have promoted the return of endangered species to habitats they were exterminated from previously. These programs allow for species recovery. The animals and plants that were eliminated earlier can be bred in captivity and later returned to their original habitat.

SEE ALSO:
Biome; Endangered Species Act (1973); Sahara Desert.

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