

Every thing has its place, every species its habitat

A **habitat** is a place where animals can find **shelter** and **food**, and where they **reproduce**, and where plants find the **water, soil** (food) and **solar energy** they need. Habitats are absolutely essential for life and survival.

Example: *Your habitat is your house (shelter) and everything else you need to live (food, heat, sleep, love, affection, and adults who take care of you).*



Black bear

In addition, **every organism has different needs**. Black Poplars need sun. Ash need water and rich soil (soil containing a lot of food). A hare needs **a lot of vegetation** as a source of food, for reproduction and to hide from predators. Some animals need very large territories to find all the food they need, whereas others remain in very small territories because they find all the food they need in the same place. A habitat, therefore, can be huge or miniscule.

Example: *The habitat of a bear generally covers a forest the size of more than a thousand football fields, but the habitat of a caterpillar is a leaf.*

Biodiversity includes all the various living organisms and all the different places where they live. Every habitat can shelter a large number of different occupants.



American marten



Example: An old tree in an old forest (habitat) may be home to 3, 4 or more different species of birds and more than 20 species of insects (biodiversity); also, a porcupine may find food there, squirrels may hide there and an American marten may seek its prey there.

To learn more:

What is the edge effect?

When there are two habitats located next to each other, one of the habitats will have a certain number of occupants and the other another set of occupants. The edge where the two habitats meet will have occupants from both habitats.

- So there will be more occupants in the edge where two habitats meet.
- And biodiversity will be greater in an edge environment.

Habitats are quite different from one another because the amount of water, rich soil and solar energy will differ from one to another. Organisms will colonize a habitat that meets their respective needs and allows it to build on their strengths. However, a living organism may opt to live in the best possible environment or adapt to a less favourable area. It is important to understand that just because an organism seems to tolerate limited water, food, heat or sun that it cannot live in areas with more of these elements.



A poplar leaf

Example: You live at home (in your habitat), but you could also live elsewhere, in another house, another city or another country with warmer or colder temperatures, and eat different types of food.

- Poplars need sun to grow, so they will grow quickly in sunny locations but will not survive in an area that is too shady. Beech, on the other hand, tolerate only limited light,



and will grow more quickly in shade than in sunny conditions.



A beech leaf

- A fish can live in water and needs water to survive, whereas a camel lives in the desert, without water, but can also live where there is water.

- A polar bear lives in very cold climates, but can also live in more moderate temperatures. A lizard lives in hot climates, but would not survive in cold climates.

