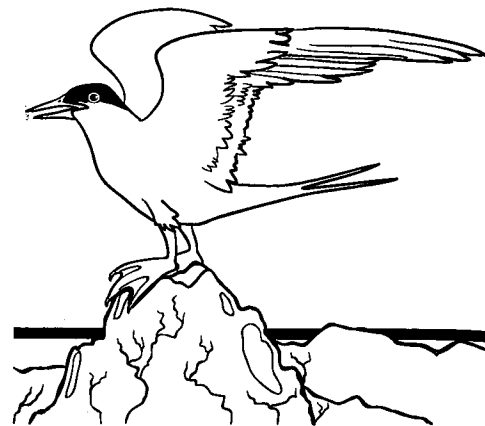


Why do animals migrate or hibernate? – I

What is migration?

Migration is the purposeful movement of animals from one place to another. It may occur seasonally, just once in a lifetime or whenever the environment dictates that it is time to move on. Although many species of animal migrate, birds are the best known travellers, with some, such as the arctic tern, flying across the globe in search of warmer conditions. Seasonal migrating animals begin to move when they detect natural changes in the environment; for example, less hours of daylight and an abundance of food as nature's autumn harvest ripens. They prepare for their long journey by eating well and producing layers of fat that will maintain them until they reach their next stop.



What is hibernation?

Hibernation is a winter sleep—nature's way for animals to conserve energy when environmental conditions are too harsh for survival. The animal's metabolism drops to very low levels, gradually using up the fat stored during the autumn when food was abundant. Energy is also conserved as the body temperature and breathing rate fall. Some animals hibernate very deeply; for example, the European hedgehog does not wake up at all until the spring. Others may stir regularly; for example, some species of bear.

Finding food, water and shelter and rearing young are the driving forces of an animal in the wild. When the environmental conditions make any of these difficult or impossible, an animal's survival instinct informs it that something has to be done.

In many parts of the world, winter is a lean time. Temperatures can fall below freezing and snow and ice cover the land, making the search for food almost impossible.

With the onset of autumn, many changes occur in the natural environment. The days shorten and the temperature falls. Plants are unable to photosynthesise effectively and so they begin to shut down, dispersing their seeds, shedding their leaves and preparing themselves to survive the winter. In this state, they provide no nutrition to animals that feed off them. This has an effect on all consumers—carnivores as well as herbivores.

An animal's instinct is to provide food for its young to give them the best chance of survival. Many animals instinctively migrate to a place with an abundant source of food where they can breed and rear their young.

For example, in the Serengeti in September each year, thousands of grazing animals (such as wildebeest, zebras, elephants and gazelles) migrate in search of watering holes and lush pastures. When the water and grass disappear, the animals move to the next stage on the route where the rains have fallen and provided new watering holes and fresh, young grass.

