

Focus on the fauna and the flora

The geographical location and climate conditions generate **a set of remarkable ecosystems**, sensitive to the smallest variations. In spite of the extreme conditions, the Arctic regions are far from being desert-like or deserted and **harbour a great diversity of plant and animal wildlife**.

Flora

The flora is represented mainly by the plants making up the tundra which covers the permafrost. Such frozen ground would prevent tree roots from reaching deep enough to draw the elements they need for growth. This explains the absence of trees from these regions. The boundary line here between regions with tree cover and those without is the treeline. Ecologists often use it as a defining frontier between the Arctic and the Subarctic regions.

Plankton and krill

The fact that north-south ocean currents meet in the Arctic seas creates waters that are extremely rich in micro-organisms (plankton and krill), the staple food for Invertebrates and Vertebrate. A huge number of these concentrate around the polynyas (area of unfrozen sea within the pack of sea-ice), channels, ice-free coasts and margins of sea-ice.

Mammals

The Mammals, whether terrestrial or marine, are remarkably well adapted  **to the Arctic world.** They have developed characteristics such as hollow hairs, a thick layer of fat or increase in size, which provide them with insulation against cold.

The main **land mammals** are: polar bear, reindeer (or caribou), musk ox, Arctic fox, wolverine, lemming, and so on.

Marine mammals are represented by 6 species of seal, 2 species of sea lion and walrus (Pinnipedia); 11 species of toothed whales (Odontoceti) (Cetacea) such as beluga and narwhal and 8 species of baleen whales (Mysticeti) such as the humpback and the blue whale which feeds on abundant krill it finds in Arctic waters.

Birds



More than 100 species of bird live in the Arctic regions, but permanent residents are rare (gyre falcon, snowy owl, ptarmigan, common raven, ivory gull, etc.). **There are no penguins in the Arctic!** They should not be confused with auks like *Alca torda* (razorbill) which live in the North Atlantic zones: all of them can fly (since the extinction of *Pinguinis impennis* (great auk!) which was the only flightless species).