

Tundra biome



Quick summary



The tundra biome is a cold and treeless area where harsh conditions make it hard for plants and animals to survive. The word 'tundra' comes from the Finnish word *tunturia*, which means treeless land. There are two types of tundra: arctic and alpine. The arctic tundra is located within the Arctic Circle, while the alpine tundra is the area high in the mountains above trees. Around 20 per cent of the Earth's land surface is tundra.



Vocabulary

permafrost: soil that is permanently frozen

ecosystems: all the conditions, plants and animals that exist in a particular area

hibernate: lie dormant (asleep) through winter

migrate: travel to another area

clusters: groups



Location



The arctic biome is the land to the south of the Arctic Ocean in the northern hemisphere. This biome stretches across northern Canada and Alaska, Siberia and northern Scandinavia. Alpine tundra can be found in mountainous areas such as the Rockies, Sierra Nevada and Cascade mountains in North America, the Andes in South America, the Himalayas in Asia, the Alps and Pyrenees in Europe, and the Eastern Rift mountains of Africa.



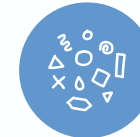
Physical features

The tundra biome mainly consists of grassy, flat plains. It cannot support trees because of its cold climate and harsh growing conditions. The winters are extremely cold with temperatures typically below -34°C . The summers last only about two months and the temperatures are still very cold, ranging from 3° to 12°C . Permafrost means very few species can survive in this biome.



Human processes

Oil spills can kill wildlife and damage tundra ecosystems. Buildings and roads put heat and pressure on the permafrost, causing it to melt.



Diversity

This biome sustains life even though it experiences extremely low temperatures. There are about 400 varieties of flowers and 48 different animals. Animal populations fluctuate throughout the seasons in the tundra biome. Some animals hibernate during the winter and others migrate to warmer temperatures. The largest animal living in the tundra biome is the polar bear. They eat fatty meats to give them enough energy to live through the harsh winters. Other animals include the arctic fox, caribou and snowy owl. The plants that grow in the tundra biome often grow in clusters to help protect themselves from the severe winter winds.



Location



Physical features



Human features



Diversity



Physical processes



Human processes



Techniques