

Species and Climate Change Factsheet

Leatherback turtle



The sex of sea turtle hatchlings is determined by the temperature at which the eggs are incubated in the nest. Cooler nests produce more males, and warmer nests produce more females. As climate change leads to increasing temperatures, more of the nests will produce females, causing an imbalance in the number of male and female sea turtles in the population.

Climate change can also lead to rising sea levels and an increase in the number of storms, which can damage sea turtle nesting beaches.

Staghorn corals



Climate change is one of the greatest threats to coral reefs. A rise in sea temperature is causing an increase in coral bleaching. Coral bleaching is a process which results in coral being unable to obtain enough nutrients, so it begins to starve. Climate change is also increasing the acidity of the oceans, which affects the coral's ability to produce its skeleton, leaving the species vulnerable to disease.

Emperor penguin



Parts of the Antarctic Peninsula are warming up faster than anywhere else on the planet, and a temperature increase of just two degrees Celsius would result in some areas of this region becoming ice free. Emperor penguins rely on sea ice as a platform on which to breed, and without it this species would struggle to survive.

The declining sea ice cover is also lowering the availability of certain prey species, such as krill, which feed under the ice.

Koala



Koalas get most of their energy from feeding on eucalyptus leaves. Increasing carbon dioxide levels due to climate change can cause the nutritional value of these leaves to decrease, meaning that the koalas are not taking in the nutrients they require to survive.

With their thick skin and warm fur, koalas do not cope well in extreme heat, and may descend to the ground in search of water. This puts them at risk of being taken by a predator. Koalas are slow-moving tree-dwellers, and so an increase in the number of bushfires leaves them vulnerable.

North Atlantic right whale



Increases in sea temperature and changes in ocean currents due to climate change are likely to cause the planktonic prey of the North Atlantic right whale to move location or reduce in abundance. This could have potentially devastating consequences for this already highly endangered species.

Arctic fox



Climate change is altering the Arctic fox's habitat. Due to changes in the climate, new plants can now grow in the tundra where the Arctic fox lives. These new plants are changing the tundra habitat, making it unsuitable for the Arctic fox. This problem is made worse as the new habitat is allowing the red fox, a species which competes with the Arctic fox, to move northwards into the tundra.

Clown fish



Clownfish are dependent on sea anemones for protection. Sea anemones are mainly found on coral reefs, which are declining due to climate change. A decrease in sea anemones will result in a decrease in the number of clownfish.

Golden toad



The extinction of the golden toad is thought to have been caused mainly by climate change and disease. Amphibians are sensitive to even small changes in temperature and moisture, so changes in climate can alter breeding behaviour and reproductive success.

Quiver tree



Climate change is leading to rising temperatures and a decrease in rainfall, which causes some species such as the quiver tree to suffer from drought stress.

Some species can adapt by shifting their range and moving to more suitable areas, but the speed at which plants like the quiver tree are able to colonise new areas may not be fast enough to cope with the rapidly changing climate.

Beluga whale



Climate change is altering patterns of human activity, which may have an indirect effect on the beluga whale. The extensive ice cover in the Arctic meant that many areas were once inaccessible to humans. However, as the ice cover declines, humans are now able to enter areas which were once pristine refuges for belugas.

More vessels are now sailing through the Arctic, which increases the risk of belugas being hit by boats and being injured or killed. Noise pollution in the area may also negatively impact the communication and foraging abilities of this unusual species.