

# Climate Change and Biodiversity

Biodiversity is about living things

and their relationships with each other



This includes **species**, **ecosystems** and the **ecological processes** of which they are a part

The **earlier arrival** of spring changes the **life cycles** of many plants that provide food and habitat for other species

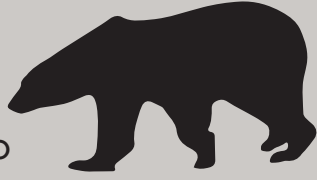


Many species won't be able to

**adapt**

quickly enough to changes in their

**environment**



**Habitat fragmentation**



happens when natural landscapes are broken up by development such as river dams and highways, which can interrupt migration routes

**Phenological mismatches**

happen when the life cycles of dependent species change and no longer match up

**E.g.**, migratory species arrive at a site after their prey has passed

**Northern ecosystems** are vulnerable to habitat loss and could see an influx of new species and diseases from the south



**More CO<sub>2</sub>** in the atmosphere and higher temperatures could lead to **longer growing seasons** for forests

**Habitat destruction**

In **prairie ecosystems**, more droughts will likely harm the growth of natural grasslands



**Extreme storms** and **rising sea levels** can cause coastal squeeze

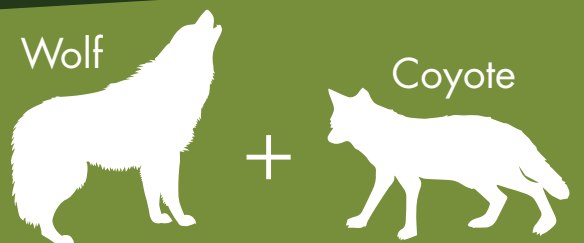


Climate change can cause **Range contraction**

when already limited habitats change and shrink further



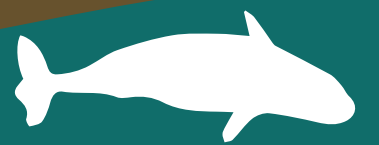
**Climate change** can lead to competition for resources among species, as well as bigger and more frequent **infestation outbreaks**



**Hybridization**

is the mixing of different but similar species, and can drive rare species to extinction or increase adaptability

**Preservation through adaptation**



Climate change causes harmful algae growth in **marine ecosystems**, which are also at risk of pollution, commercial fishing and wetland drainage



**Protect** - nature reserves and marine sanctuaries  
**Connect** - wildlife crossings, bridges and corridors  
**Restore** - selective fishing, animal breeding programs