

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 CO₂ 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

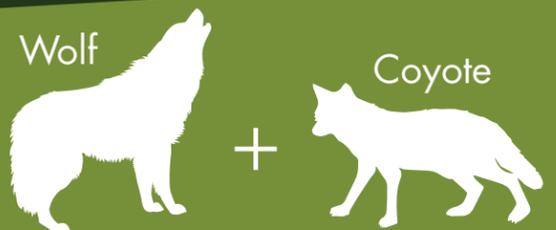


Climate change can cause **Range contraction**

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

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



Preservation through adaptation



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