

This is the **Higher Combined** version — includes Higher Tier content. Some Separate-only details are omitted.

Species extinction is occurring at an unprecedented rate due to human activities. Conservation efforts aim to halt and reverse this loss.

- Extinction: permanent loss of species. Causes: habitat destruction, hunting, climate change, invasive species, disease, pollution
- Conservation: nature reserves (protect habitat), breeding programmes (breed endangered species), seed banks (preserve genetic diversity), sustainable fishing (quotas)
- Importance of biodiversity: ecosystem stability, food security, medicines, materials, ethical value
- Eutrophication: fertiliser run-off → algal bloom → O<sub>2</sub> depletion → aquatic life dies
- Deforestation: CO<sub>2</sub> release, habitat loss, reduced water cycling, soil erosion

### Key Terms

<b>Extinction</b>	Permanent loss of a species — all individuals die
<b>Conservation</b>	Protection and sustainable management of species and habitats

■ **Exam Tip:** Evaluate conservation: benefits (protects species, preserves ecosystem services) vs limitations (expensive, difficult to enforce, climate change still threatens). Always both sides.