



## ENVIRONMENT ISSUES: Protection of Ecosystems

### What is an ecosystem?

An ecosystem is an area where organisms (e.g. humans, animals, bacteria, plants) live and interact with each other and their environment. Ecosystems are all connected and therefore our actions affect all the living things on the planet – today and in the future. The Earth's ecosystems are an example of biodiversity, which means they host a rich variety of living things, and this balance of different forms of life is necessary to keep the ecosystem stable.

### What affects an ecosystem?

An ecosystem and the types of organisms that live there are determined by different factors, such as climate. Even the smallest change to an ecosystem affects the things that live within it. The changes sometimes occur through natural disasters like floods or earthquakes, but humans also directly affect the environment.

For example:

- **Pollution and waste disposal** – Litter, oil or sewage dumped in the sea or waterways affects the water quality and can be harmful to fish and other creatures that live there.
- **Killing species** – Whether intentionally or indirectly through pollution, killing species interferes with the entire ecosystem. For example, if a particular plant species is reduced in number, less food is available for animals that eat it. Their numbers may also dwindle, affecting animals that prey on them.
- **Introducing new species** - If a new species is introduced to an ecosystem, as with the grey squirrel in the UK, this can also have a damaging effect on the native organisms.
- **Deforestation and development** - Cutting down trees for wood and paper and the clearing of land for industrial/residential development and agriculture can wipe out entire ecosystems.
- **Tourism** – Tourists visiting an area can also affect ecosystems. This may be through an increase in pollution, littering, eroding the landscape by walking in an area, or by 'scaring' wildlife away.



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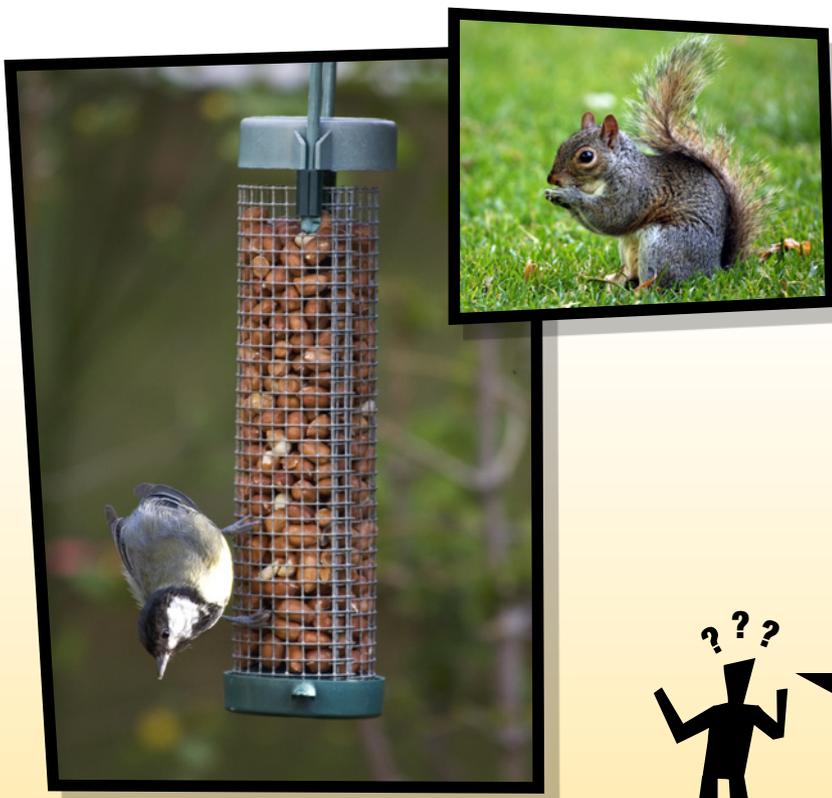


## ENVIRONMENT ISSUES: Protection of Ecosystems cont'd

### Protecting ecosystems

Certain types of plants and animals are only found in particular areas and may become endangered if their ecosystems are affected. There are many ways that residents can try to protect their community's ecosystem. Some examples include:

- **Protected areas** – Some areas are protected by the Government (e.g. National Parks), which may limit human activity in the area.
- **Protected species** – Certain organisations protect species that are endangered by monitoring their numbers, preserving their habitat or organising breeding programmes.
- **Obeying the Countryside Code** – This is a set of rules to show members of the public how to respect and protect Britain's countryside (e.g. by taking litter home or not removing anything from the natural environment).
- **Local conservation** – Individuals and groups can work towards protecting a natural area within their community (e.g. cleaning up a park).
- **Developing the garden** – People can even create and maintain an ecosystem in their own garden - planting trees and plants, or installing a bird feeder, bug box or pond.



### Did you know?

- The introduction of the American grey squirrel in England in the late 19th century disrupted the ecosystem and wiped out the native red squirrel in many parts of the country.

