

Communities and ecosystems

Species: a group of organisms that can potentially interbreed and produce fertile offspring; members of a species may be reproductively isolated in separate populations, and feed **autotrophically** or **heterotrophically** (a few species have both methods).

Habitat: a place where an organism lives; there are many habitats within an ecosystem, e.g. oak tree leaf canopy for blue tits, decaying log for woodlice, stream for water beetles.

- **Microhabitat** – a smaller habitat within a habitat, each with its own microclimate, e.g. blood worms live in the mud at the bottom of the stream, lichen live in crevices on bark.

Population: a group of organisms of the same species occupying the same habitat at the same time.

Community: a group of populations living and interacting with each other in an area, e.g. in an oak woodland, a community might include oak trees, hazel shrubs, bluebells, nettles, sparrowhawks, blue tits, ladybirds, aphids, woodlice, earthworms, fungi and bacteria.

Ecosystem: a community interacting with its **abiotic** (non-living, e.g. temperature, soil/water pH) environment; within an ecosystem there are two major processes to consider:

- the flow of energy through the system.
- the cycling of nutrients within the system.

Ecology: the study of relationships between living organisms and between organisms and their environment.