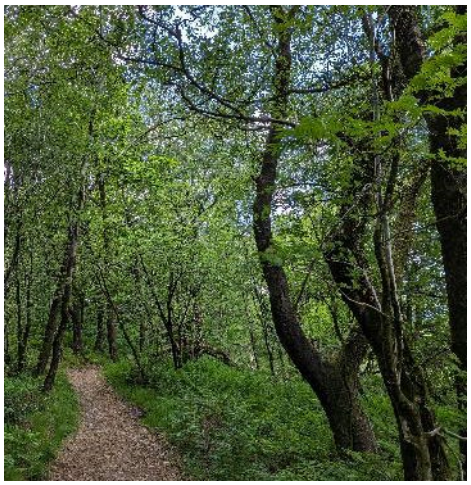
National Education Nature Park

Habitat profiles: Woodlands

Deciduous woodland



Significant abiotic factors
- enough soil moisture to support trees
- mild winters with less snow accumulation

Plant community:
- broadleaved trees, spring flowers

The seasonal cycle of deciduous trees allows sunlight to reach the forest floor in spring. Plants take advantage of this short window for growth.

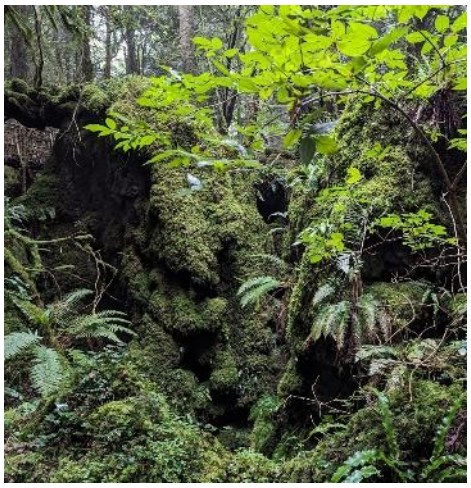
Evergreen woodland

Significant abiotic factors
- enough soil moisture to support trees
- freezing winters often with heavier snowfall

Plant community:
- evergreen or coniferous trees

In the UK, many evergreen woodlands were planted by humans as timber plantations.

Temperate rainforest



Significant abiotic factors
- High rainfall and humidity
- Mild winters and cool summers

Plant community:
- Mixed woodland
- High moss diversity covering the ground and trees

Usually found along the west coast of the UK, where temperatures are milder and moisture from the Atlantic falls as rain.

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Habitat profiles: Grasslands

Lawn

Significant abiotic factors
- any soil structure or chemistry
- any climate

Plant community
- annual meadowgrass, dandelion, plantains, clovers

These habitats are maintained by human activity. Mowing, herbicides targeting broad-leaved plants or manual 'weed' removal maintain dominance of a small number of grass species.

Calcareous grassland

Significant abiotic factors
- high soil pH (alkaline)
- soil formed on chalk or limestone

Plant community
- grasses, salad burnet, cinquefoils, horseshoe vetch

Soils tend to be thin and quick-draining, but calcium and other ions are replaced by the chalk in the soil. Soil chemistry and structure support a variety of specialist plants.

Acid grassland

Significant abiotic factors
- low soil pH (acidic)
- soil often forms on granite or other insoluble rocks

Plant community
- grasses, sheep sorrel, clovers

These often have sandy soils where water leaches calcium ions deeper into the ground, leaving the surface soils more acidic.

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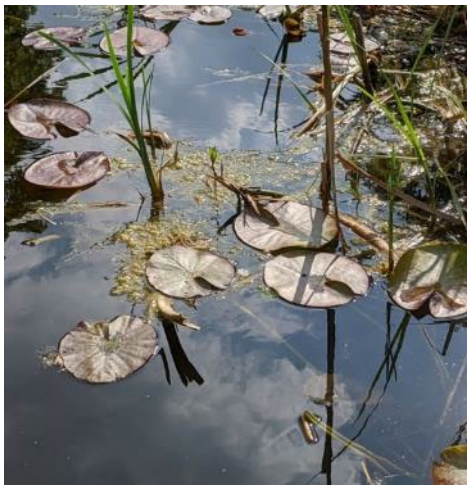
Habitat profiles: Wetlands

Pond



Significant abiotic factors
- standing water
- water usually fresh, occasionally brackish

Plant community
- reeds, pond weeds, duckweeds

Some ponds are seasonal, appearing in wetter weather and drying out at other times.

Stream

Significant abiotic factors
- flowing water
- water usually shallow and fordable (able to be crossed on foot)

Plant community
- long-beaked water feather-moss, algae, reeds

The substrate at the bottom of a stream, muddy and organic or sand and gravel, can have a significant impact on animal communities.

Bog

Significant abiotic factors
- waterlogged soil or shallow standing water
- anoxic and acidic water or soil

Plant community
- sphagnum mosses, cotton grasses, butterworts, sundews

Anoxic and acidic conditions greatly slow decomposition of dead plant matter, leading to the formation of peat. These conditions are also low in nutrients such as nitrogen.

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Animal community 1

Goldcrest
(Regulus regulus)

Specialise in feeding on spiders and small insects sheltering between pine needles.

Photo by Лариса Артемьева. From iNaturalist. CC0

18-spotted ladybird
(Myrrha octodecimguttata)

Specialise in feeding on insects which feed on pine trees

Photo by Victor Heng. From iNaturalist. CC0

Bordered white moth
(Bupalus piniaria)

Caterpillars feed on pine needles. Overwinters as a pupa in the ground or under leaf litter.

Photo by Thomas Hirsch. From iNaturalist. CC0

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Animal community 2

Hazel dormouse
(Muscardinus avellanarius)

Eat nuts, seeds, fruit, and flowers. This dormouse rarely moves about on the ground, so it requires habitats where they can move about from branch to branch.

Photo by Francesco Cecere. From iNaturalist. CC0

Blackcap
(Sylvia atricapilla)

These birds have a varied diet across the year but need areas of dense undergrowth for nesting.

Photo by Victor Heng. From iNaturalist. CC0

Blotch-winged whitebelt
(Leucozona lucorum)

A species of hoverfly found mainly early in the year. Their larvae eat aphids and other insects which feed on spring flowers.

Photo by Jessica Alvey. From iNaturalist. CC0

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Animal community 3

Yellow Meadow Ant
(Lasius flavus)

These ants have long-lived colonies which build large anthills. However, in areas that are not well-drained or prone to flooding, colonies can quickly drown.

Photo by Иван Пристрем. From iNaturalist. CC0

Meadow pipit
(Anthus pratensis)

Feed on a variety of invertebrates and build their nests on the ground, sheltered by vegetation. Mixed vegetation types and heights provided by anthills can help with nesting sites and food availability.

Photo by Margit Kildevang. From iNaturalist. CC0

Essex skipper
(Thymelicus lineola)

Caterpillars feed on a variety of grasses which grow in dry grassland habitats.

Photo by Victor Heng. From iNaturalist. CC0

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Animal community 4

Striped snail
(Cernuella virgata)

Many snails benefit from the greater availability of calcium in these habitats because it is crucial for shell growth.

Photo by Ben Mapp. From iNaturalist. CC0

Sheep
(Ovis aries)

Grazing keeps the level of vegetation low. Trees are often cut down to create pasture for sheep and other livestock to graze.

Photo by Jason Leduc. From iNaturalist. CC0

Adonis blue butterfly
(Polyommatus bellargus)

One of many butterfly species that depend on a single plant species for food. In this case, they are dependent on the horseshoe vetch, which only grows in alkaline soils.

Photo by Richard Fuller. From iNaturalist. CC0

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Animal community 5

Magpie
(Pica pica)

Generalist feeders which will eat anything, including fruit, seeds, invertebrates, and roadkill.

Photo by Victor Heng. From iNaturalist. CC0

Peacock butterfly
(Aglais io)

Caterpillars are dependent on common and small stinging nettle as a food plant. However, nettles are quick to grow and spread easily to newly disturbed ground.

Photo by Victor Heng. From iNaturalist. CC0

Grey squirrel
(Sciurus carolinensis)

Bold and not as easily disturbed by human activity as many other species, meaning they are adaptable to human disturbance.

Photo by Victor Heng. From iNaturalist. CC0

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Animal community 6

Beautiful demoiselle
(Calopteryx virgo)

A type of damselfly, relatives of dragonflies. They are associated with sandy or gravelly substrates. Their cousin, the banded demoiselle, is associated with muddy substrate.

Photo by John Potter. From iNaturalist. CC0

Dipper
(Cinclus cinclus)

Forage for food by running underwater in search of small invertebrates.

Photo by pillarboxcottage. From iNaturalist. CC0

Stonefly
(Diura bicaudata)

Young stonefly nymphs have flattened bodies to reduce drag from water and strong legs to grip onto stones.

Photo by bulatik. From iNaturalist. CC0