

Blanket Bogs as an example of a UK habitat

The Blanket Bog Ecosystem



Watch the Bogtastic film on this page <https://bit.ly/2RhtPxD>

There's also some other great videos on there about the work of Moors for the Future.

Today's Focus

- Blanket Bogs – Why?
- What is an ecosystem?
- What are abiotic and biotic factors?
- One example of an interaction between abiotic and biotic factors – the non-cycle of nutrients!

Why bogs?

- Largest natural terrestrial carbon store – Peatlands
- These habitats cover 15% of the UK - Peatlands
- The UK has 13% of the global Blanket Bog Habitat – and less than 1% of it's landmass



Because they are so important!

Look at this “What’s so special about peatlands?” leaflet from the IUCN to learn more about how globally important they are.

https://www.iucn-uk-peatlandprogramme.org/sites/default/files/2019-06/Peatland_Leaflet_ONLINE_V2.pdf

Blanket bog characteristics

Vegetation (plants)

A range of species (no/few trees) bog mosses (sphagnum) plants are key in healthy blanket bog

Soil

Low pH - (acidic conditions)

Water

Water table around 5cm below surface for much of the year

Nutrients

Low levels available to plants



Inputs

Water input is from rainfall

Soil

Peat 40cm+ in depth
Low nutrient levels

Climate

Cool and wet (high precipitation)

Key Definition

Water Table - The level below which, the ground is saturated with water

Research question – Can you find a link between geology and blanket bog distribution in the UK? – key words to help your search would be distribution of blanket bog habitat and a UK geological map.

Ecosystem

A community of living things (plants, animals, bacteria) interacting with each other and with their physical environment.

Key Definition



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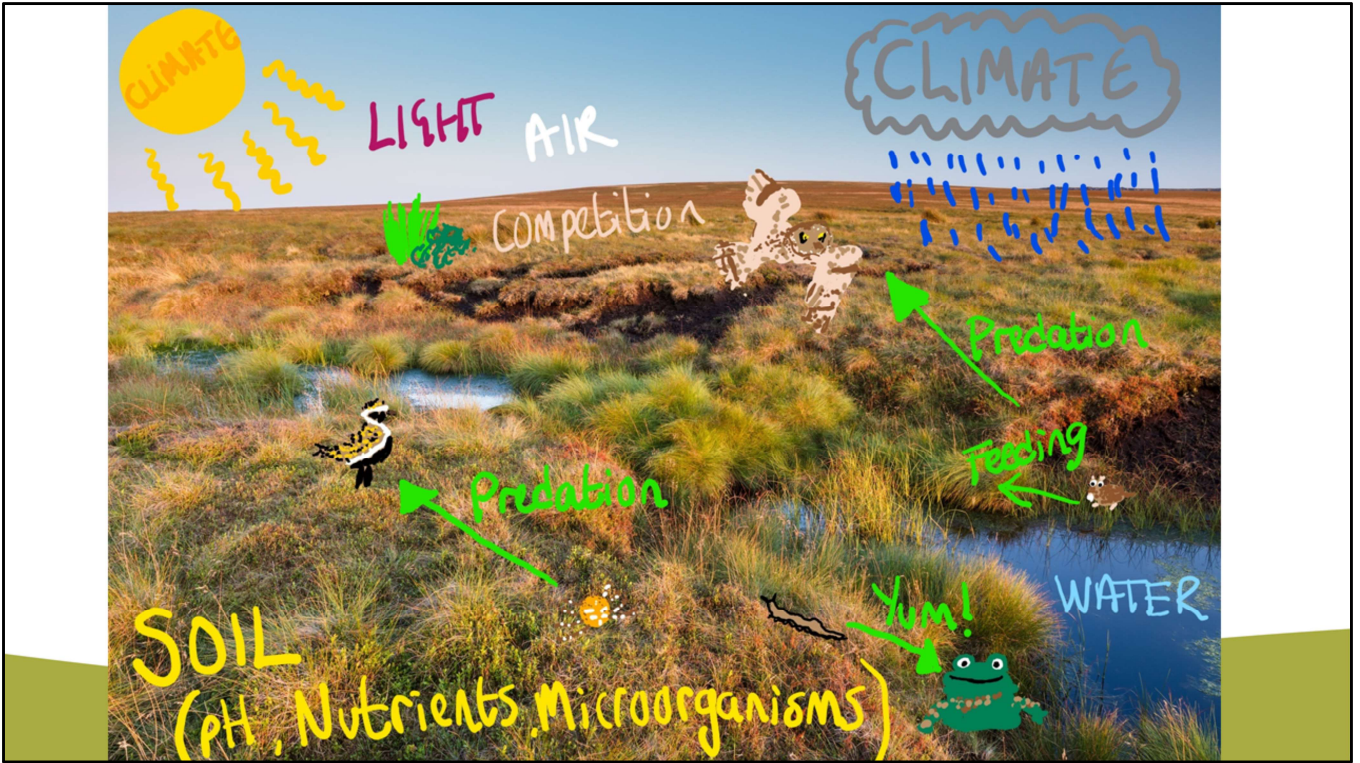
Activity – research a species that lives on or uses the blanket bog habitats in the UK. What are its special adaptations? What does it eat? Is it rare? What other species is it related to? Any interesting facts about it?

The species I've tried to draw here are: Golden Plover, 4-Spot Orb Weaver, Toad, Short-Eared Owl and a general slug!

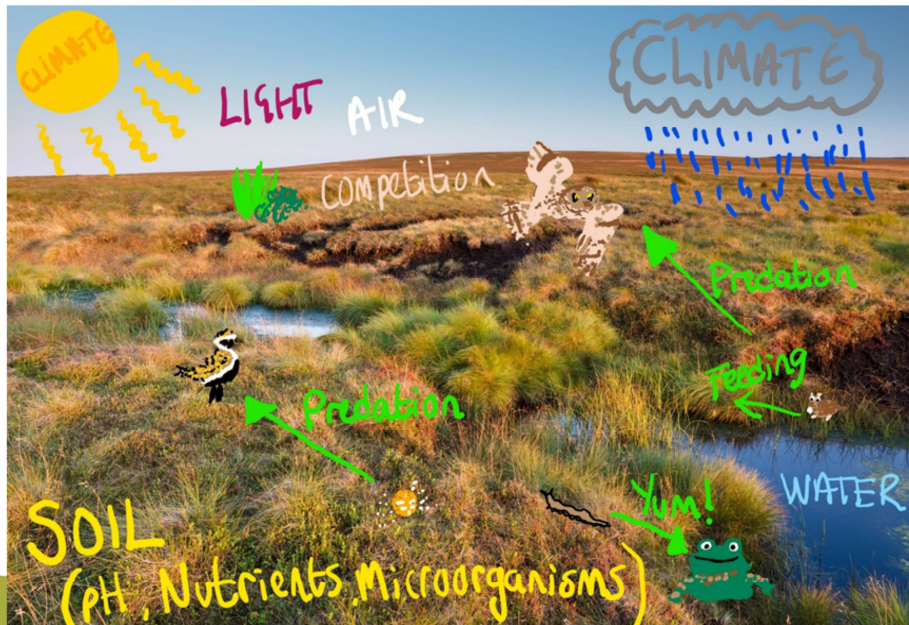
What factors are affecting this ecosystem?

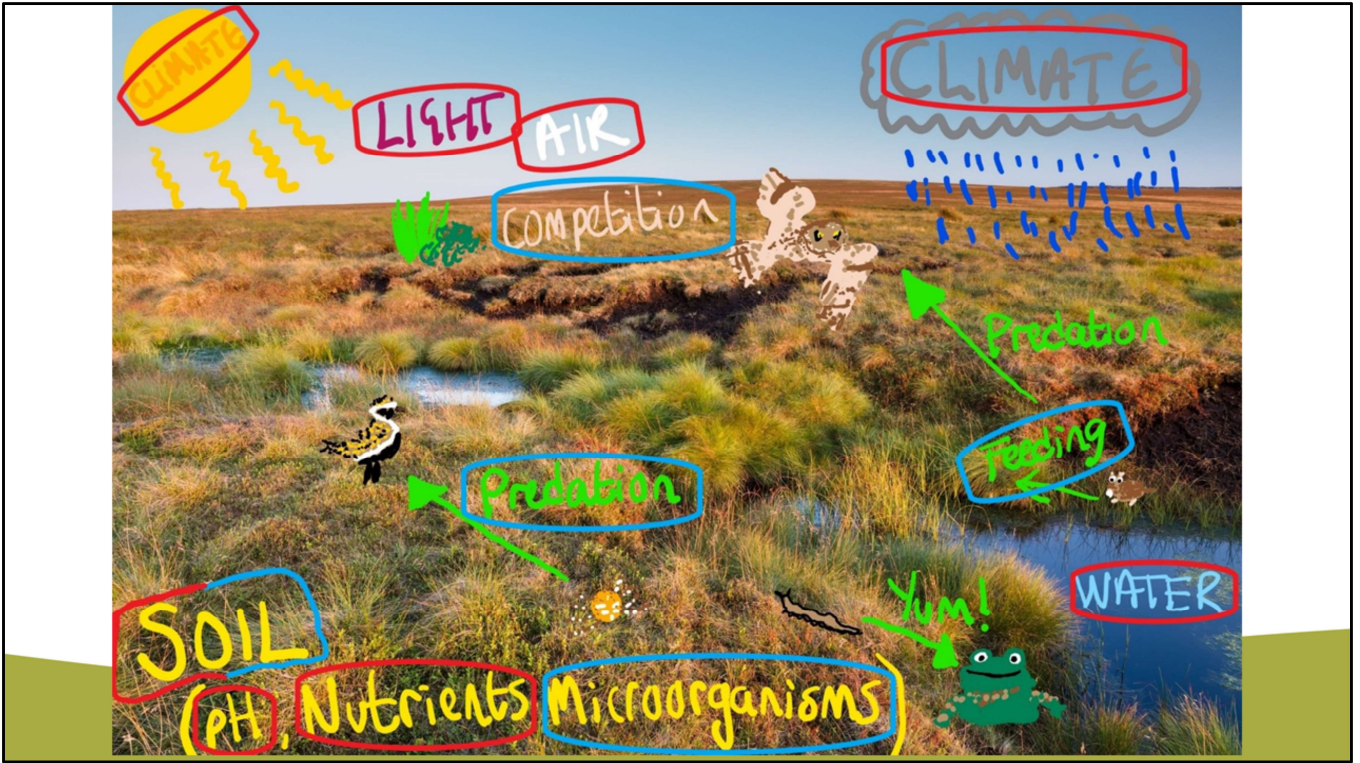
Take Part





Which factors are living? Which are non-living?



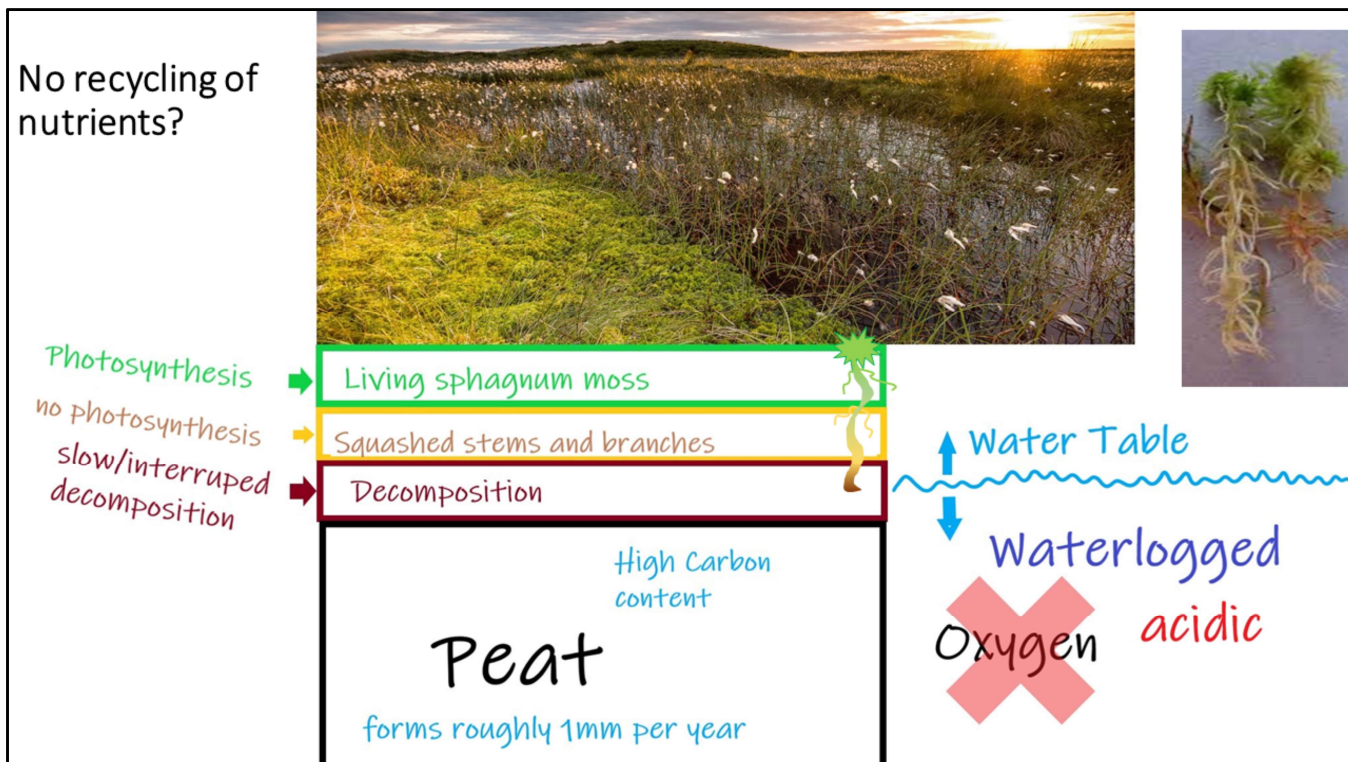


Biotic factors

Related to the living (e.g. plants or animals) parts of the ecosystem

Abiotic factors

Related to the non-living (e.g. climate or rocks) parts of the ecosystem



Extension activity – The first 3 layers may take up between 10 – 30cm and then the peat layer below could be as deep as 6m in a blanket bog in the UK. Sketch what you think a line graph would look like showing the oxygen levels as the depth increases from the surface to 6m. Depth can be on the x axis (horizontal line) and don't worry about actual figures for oxygen. What about the same for light levels?

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Question Time!

Is there anything you would like to find out about blanket bog habitats? Make a note of some questions here and you can try and find out some answers through research.