

Blanket Bogs as an example of a UK habitat

Food Web and Species Adaptations



Today's Focus

- What are food chains and food webs?
- What are producers, consumers, detritivores decomposers?
- How 2 species are suited to life in blanket bog habitats?

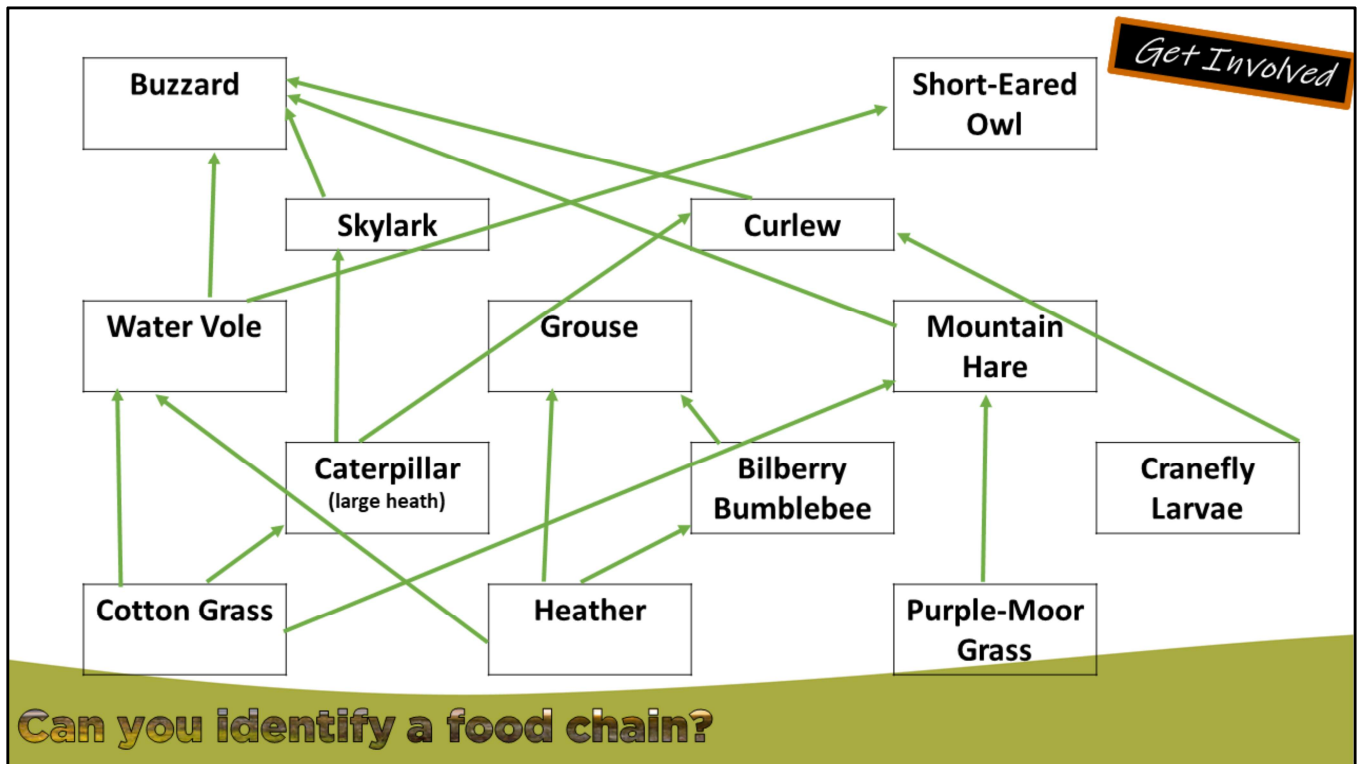
Food Chain?

Simple feeding relationship linking one organism to the next in one pathway

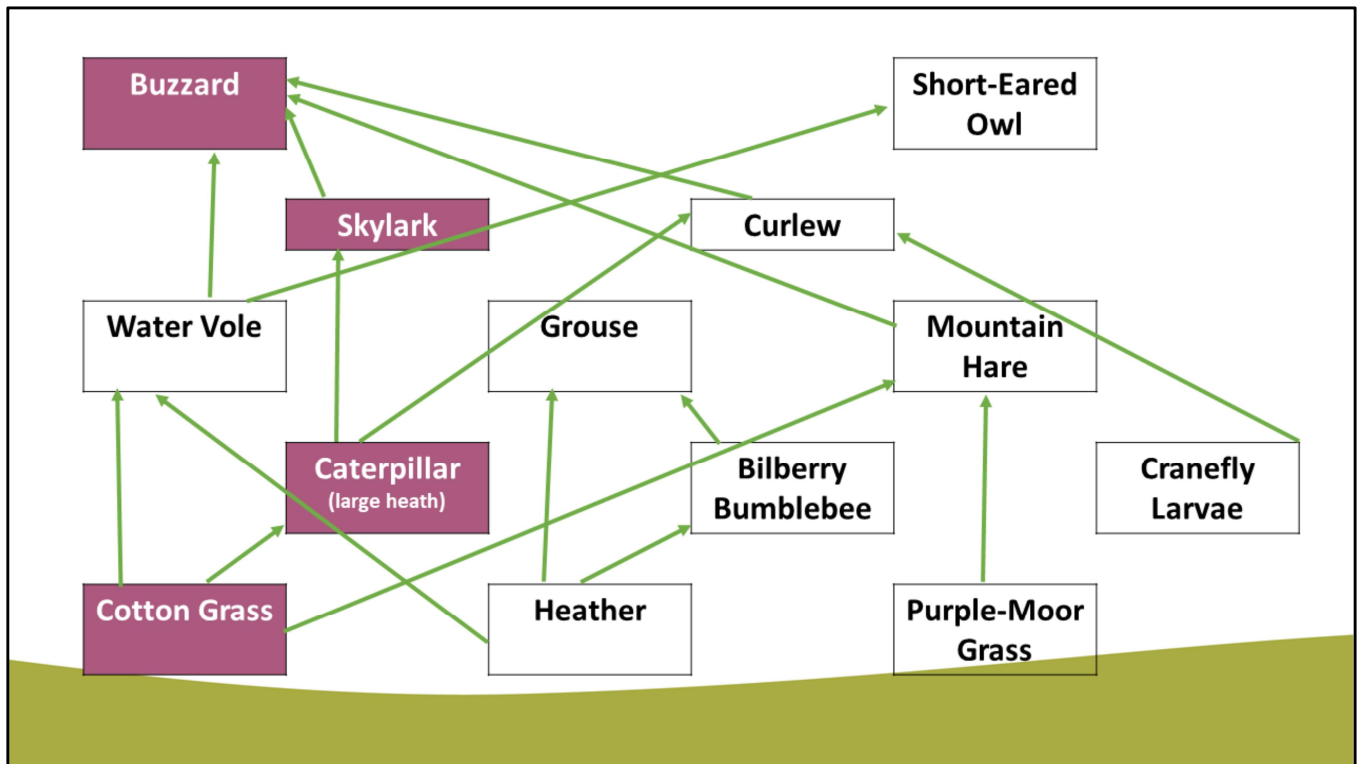
Food Web?

Feeding relationship of the whole community in an ecosystem including all the food chains

Key Definitions



Activity – Research some other species that use blanket bog, moorland habitat, where would they fit in this food web? Draw your own version out on paper or create another one on the computer.



Questions

How would the rest of the species be affected if:

- The buzzard population increased?
- The buzzard population decreased?

How would the Skylark, Mountain Hare and Curlew be affected if the Water Vole numbers decreased?

Blanket Bog Food Web Game!

MOORS
FOR THE FUTURE
PARTNERSHIP



Heather



Curlew



Bilberry
Bumblebee



Humans!



Common Lizard



Green
Hairstreak
Butterfly



Ring Ouzel



Mountain Hare



Bilberry



Buzzard



Climate – temperature
and rainfall



Adder

Activity: Print this slide out or add lines electronically which show how the different species and factors are connected. You can add text to the lines if you want or just add lines as you think about or research a connection. Can you see the species interdependence connecting the species and the factors?

Note: remember, not all these species live in blanket bogs but might visit them from nearby habitats to hunt/forage for food.

Flashback to
webcast 1!

Get Involved

**Where does
the energy
come from?**



Key Definitions

Producers – organisms in the food web (or chain) which are capable of manufacturing their own food e.g. plants

Consumers – organisms that get all their energy by consuming other organisms

Detritivores – animal organisms that consume dead organic matter e.g. slugs, woodlice

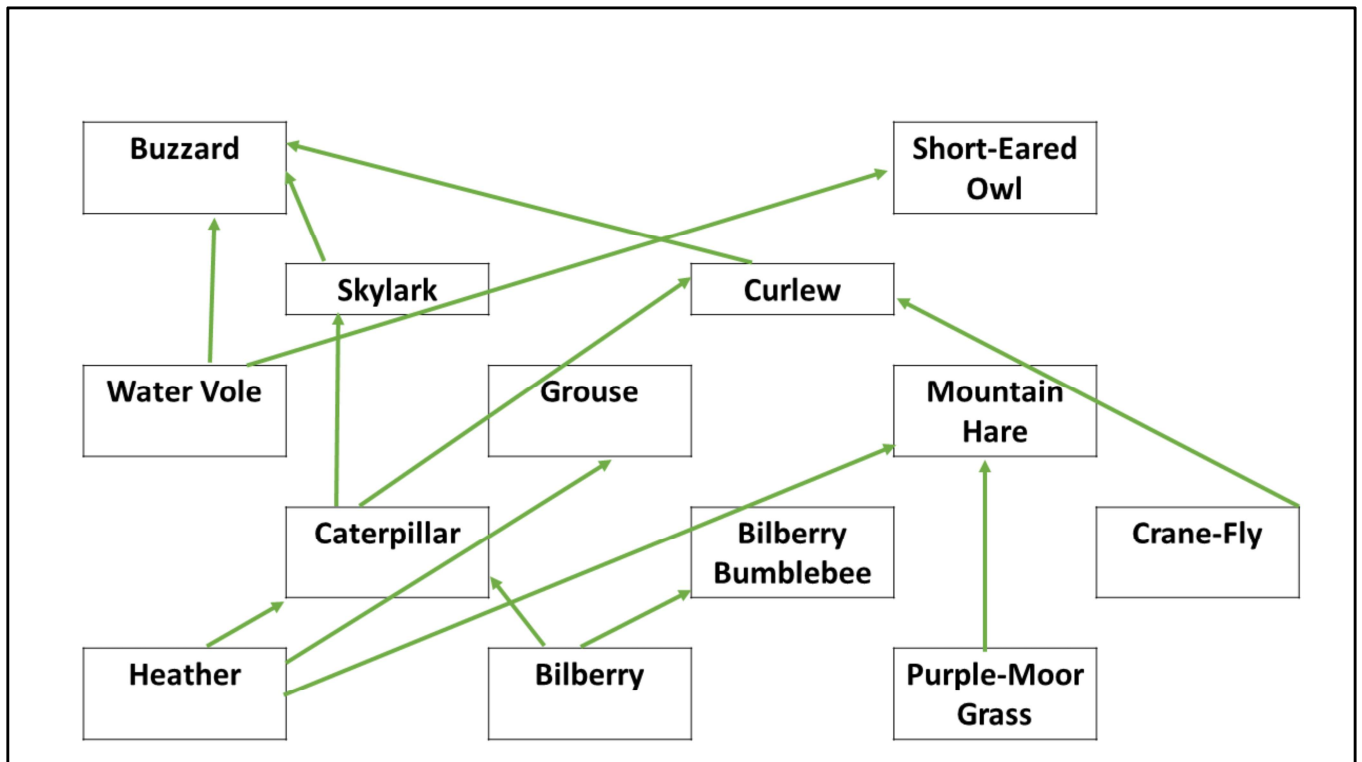
Decomposers – bacteria and fungi involved in the breakdown of dead organic matter

Can you spot?

- Producers
- Consumers
- Detritivores
- Decomposers

Get Involved





Activity

Read about categorising these organism further on GCSE Bitesize -

<https://www.bbc.co.uk/bitesize/guides/zpw3jty/revision/5>

Can you create a colour code or label all the species in this foodweb, you might need to do some research to decide which category some of them fall into.

The Blanket Bog Life is the Hard Life

Low Nutrients

Upland - exposed

Acidic
Conditions



Waterlogged
soils

High temperature
range

Species Adaptations

Round-leaved Sundew—
Drosera rotundifolia



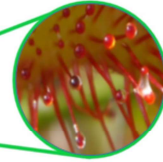
Sphagnum Moss – *Sphagnum*
sp.



The Deadly Sundew

Reflexes!
Receptors send signals when touched, causing the tentacles and leaf to curl in to snare the prey

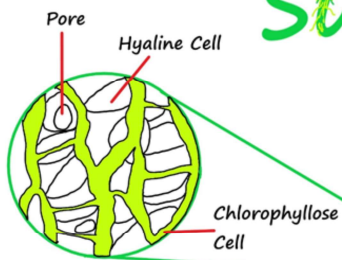
Enzymatic juices are secreted to digest the insect



Up to 200 'tentacles' coated in sweet sticky 'dew'

Activity – are there any other carnivorous plants that live in blanket bog habitats? Do they work in the same way as sundew?

Super Sphagnum



Water storage 💧

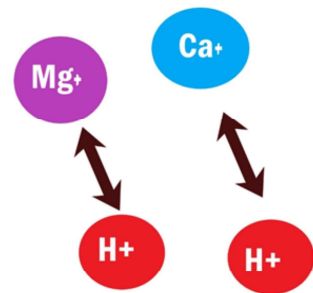
Large cells called hyaline cells have pores and can store huge volumes of water. Estimated 20x the volume of the plant in total.

Versatile Reproduction

Sphagnum can reproduce both sexually (through spores) and asexually from plant segments that break off

Engineering the abiotics

Exchanges mineral nutrients for Hydrogen ions lowering the pH of surrounding environment



Activity – What minerals do mosses like sphagnum need to absorb from their surroundings? Make a list.

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Question Time!

Activity – Research how another species associated with blanket bogs is adapted to suit its habitat. Draw and label a diagram or make some notes – you could even add a slide to this presentation about it.

What about the short-eared owl or the four-spot orb-weaver spider?

