Discover

Mosses and Liverworts

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What's a moss?

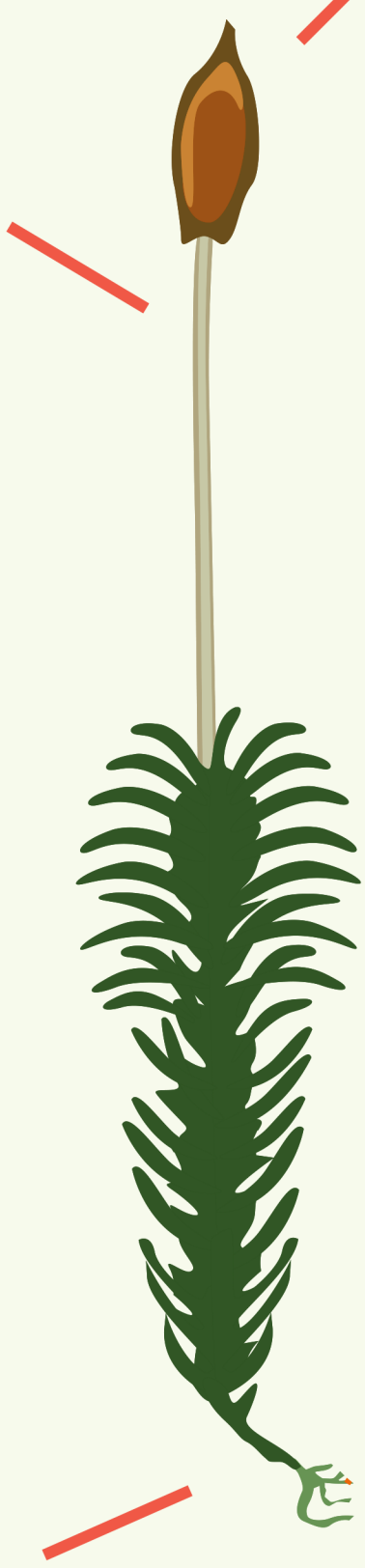
Mosses can absorb huge amounts of water relative to their size, just like a bath sponge. This helps keep the woodland damp which is important for a lot of the wildlife that lives there.

Sporophyte (spore-o-fight)

Mosses don't have flowers or seeds. They reproduce by **microscopic spores**. When the moss is ready to produce spores it grows a sporophyte made up from a capsule and seta.

Spore capsule & seta (see-tuh)

Spores develop in special capsules on the end of a long stem called a **seta**. These are taller than the rest of the plant so that spores can be blown through the woods by the wind.



Rhiziods (rhy-zoyds)

These are not roots as they don't draw up water from the soil, they absorb it directly through their stems and leaves. In fact, **mosses don't really need soil to be able to grow**. The rhizoids enable the moss to anchor itself to rocks, bark and bare earth.

Gametophyte (gam-ee-toe-fight)

When moss spores land somewhere damp, they first develop the leafy part of the moss which is called the **gametophyte**. This is made up of the moss's stem, leaves and rhizoids.

What's a liverwort?

Some liverworts look a lot like mosses with stems and leaves. These are the **LEAFY LIVERWORTS**. They tend to be very small and delicate looking, with see through leaves that are arranged in two rows either side of the stem.

Liverworts are thought to be even more ancient than mosses, and just like mosses they reproduce using spores rather than seeds.

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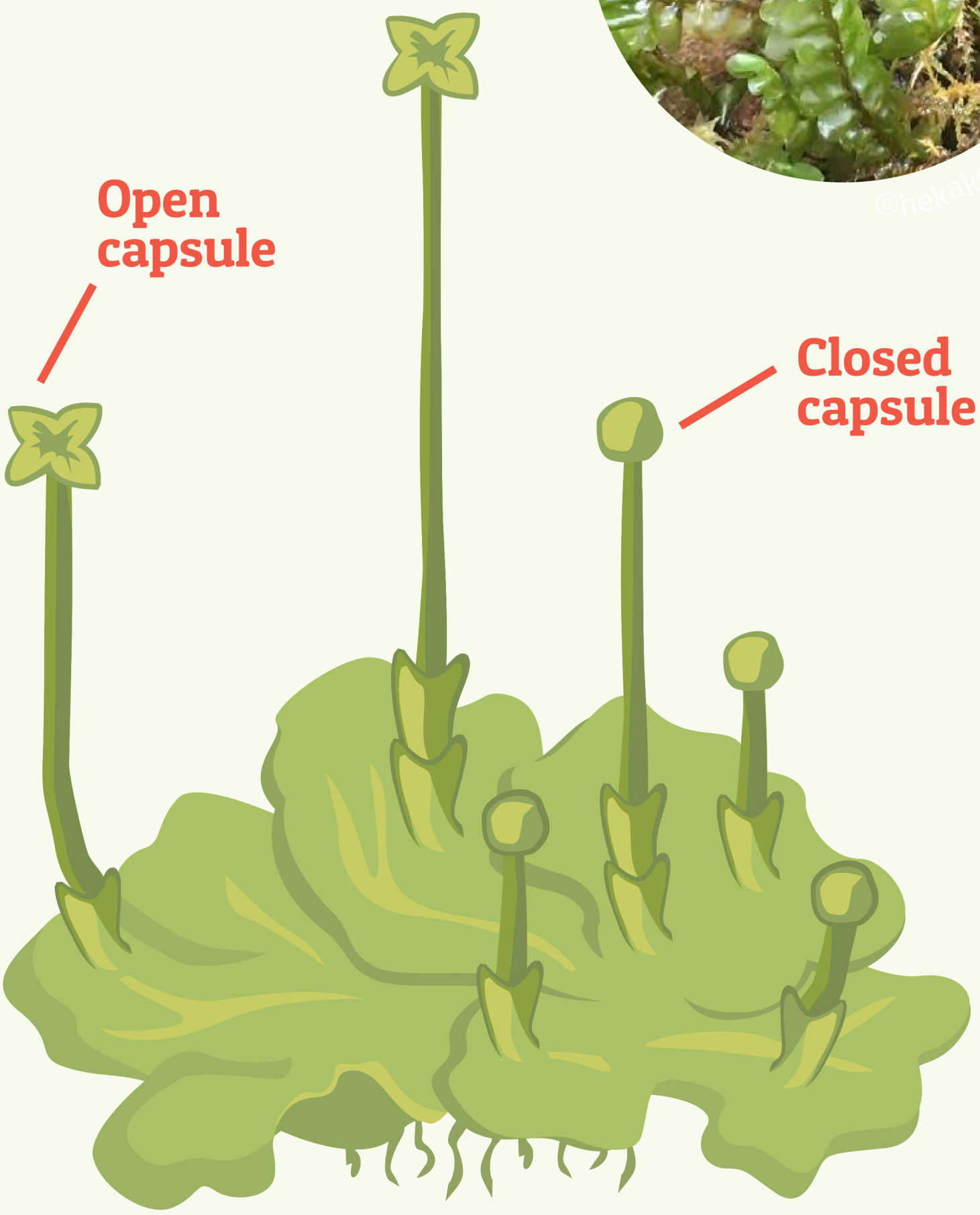
Leafy liverwort



Rhizoids

Grow on the underside of the plant and help the liverwort grip onto the surface it is growing on.

What's a liverwort?

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Other liverworts look quite different. Instead of leaves and stems they have green rounded lobes that grow in a creeping mat. These are the **THALLOSE LIVERWORTS.**

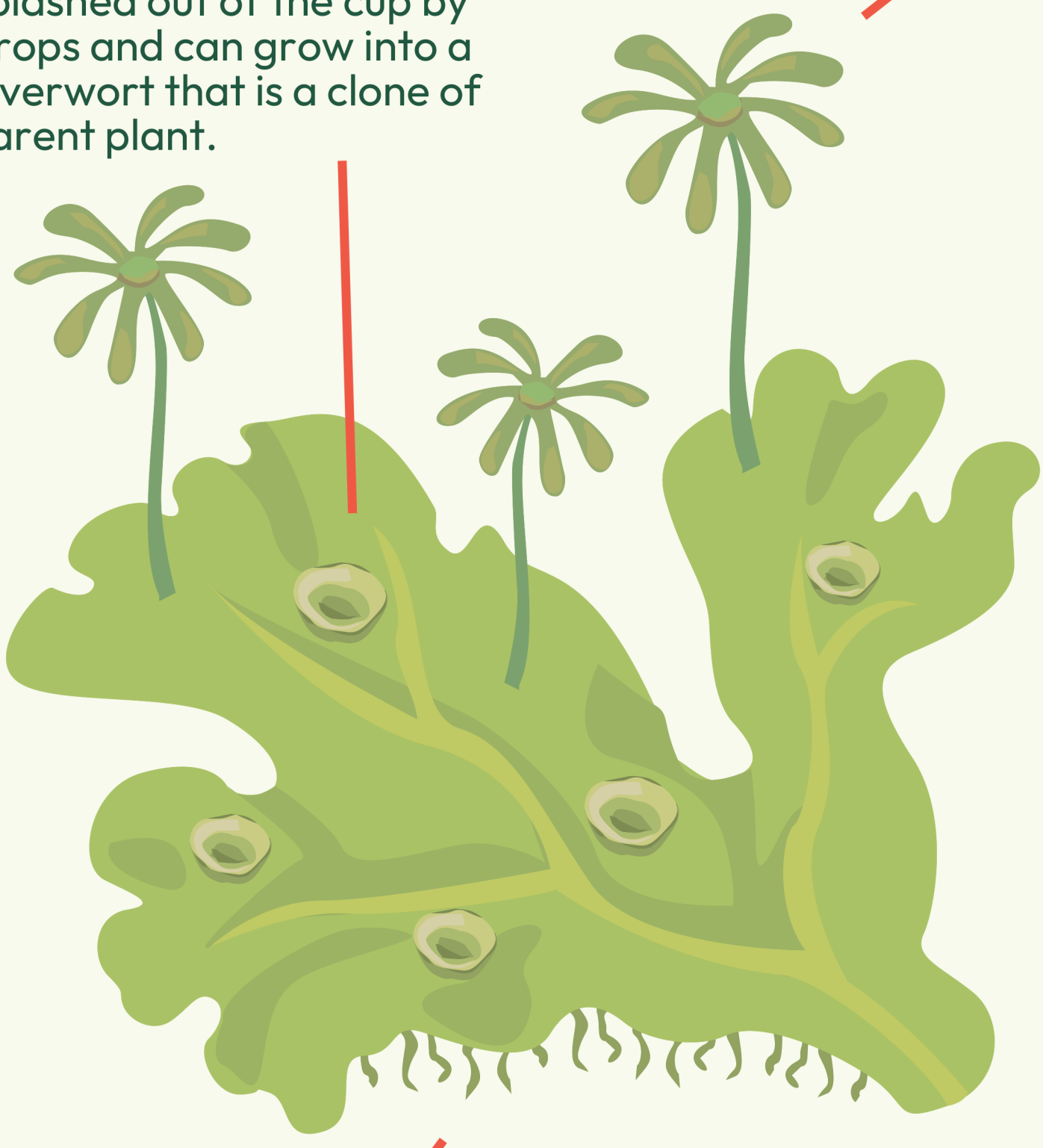
Thallose liverwort

Gemmae cup (Jem-ee)

Some thallose liverworts have small cups on the surface which contain special cells in them called **gemmae**. These are splashed out of the cup by raindrops and can grow into a new liverwort that is a clone of the parent plant.

Gametophores

These umbrella-like growths contain the male and female parts of the liverwort that **produce its spores.**



Rhizoids

Grow on the underside of the plant and help the liverwort **grip onto the surface** it is growing on.

Identify some common temperature rainforest mosses

Bank Haircap
Polytrichastrum formosum

In Latin Poly means ‘many’ and tricho means ‘hair’, describing the many narrow leaves this moss has.

IDENTIFICATION GUIDE

- The individual shoots look like tiny pine trees. They grow upright in groups, just like a miniature pine forest.
- Its needle-like leaves are opaque and lie close up against the stem when they dry out
- Common on drier banks and on the ground in woodland.

Greater fork-moss
Dicranum majus

Dicranum comes from the a Greek word meaning two-headed. These mosses sometimes have forked shoots with two ‘heads’ or tips.

IDENTIFICATION GUIDE

- This is a big moss with upright shoots often over 10 cm tall.
- Leaves are narrow, pointed, and curve
- strongly over to one side
- Large patches of this moss can tell us we’re in a healthy temperate rainforest.

Slender mouse-tail moss
Isothecium myosuroides

Myo means mouse and oides means tail. When this moss is dry the end of it curls over much like the end of a mouse’s tail

IDENTIFICATION GUIDE

- This is one of the commonest mosses in temperate rainforests and grows on the bases of tree trunks and boulders.
- Individual shoots are ‘tree-like’ with a single lower stem and bushily branched upper stem.
- This ‘tree-like’ shape can be hard to see as the plants grow together in very dense mats.

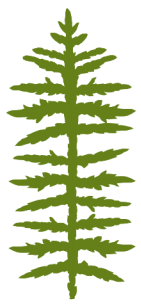
Close up image

Red-stemmed feather-moss
Pleurozium schreberi

Pleuro is from the latin for ‘ribs’, which describes the neat branching pattern of this moss.

IDENTIFICATION GUIDE

- A neat moss with Individual branches coming from either side of the stem.
- Glossy yellow-green leaves with a red stem.
- Found growing on the ground in open woodland and heathy areas.



Close up image

Common Tamarisk Moss
Thuidium tamariscinum

This moss is named after the tamarisk shrub, which also has fine, feathery leaves.

IDENTIFICATION GUIDE

- Shoots are very branched, giving them a feathery appearance.
- Yellow-green in colour, turning brown with age.
- Forms large loose mats covering banks, boulders and soil.

Close up image

Little shaggy-moss
Rhytidiadelphus loreus

The name describes this moss well. It has a shaggy appearance due to its irregular, wiry branches.

IDENTIFICATION GUIDE

- A large, scruffy looking with moss with a red stem that looks a bit like pipe cleaners.
- Shoots are 15-20 cm long and it grows in big springy mats on the forest floor, bases of trees and boulders.
- Large patches of this moss, especially with Greater fork-moss, can tell us we are in a healthy temperate rainforest.