LINNEO

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PLANT WORLD
DIGITAL TRAINING RESOURCE

Developed by Vilnius University – Botanical Garden

Vilnius University

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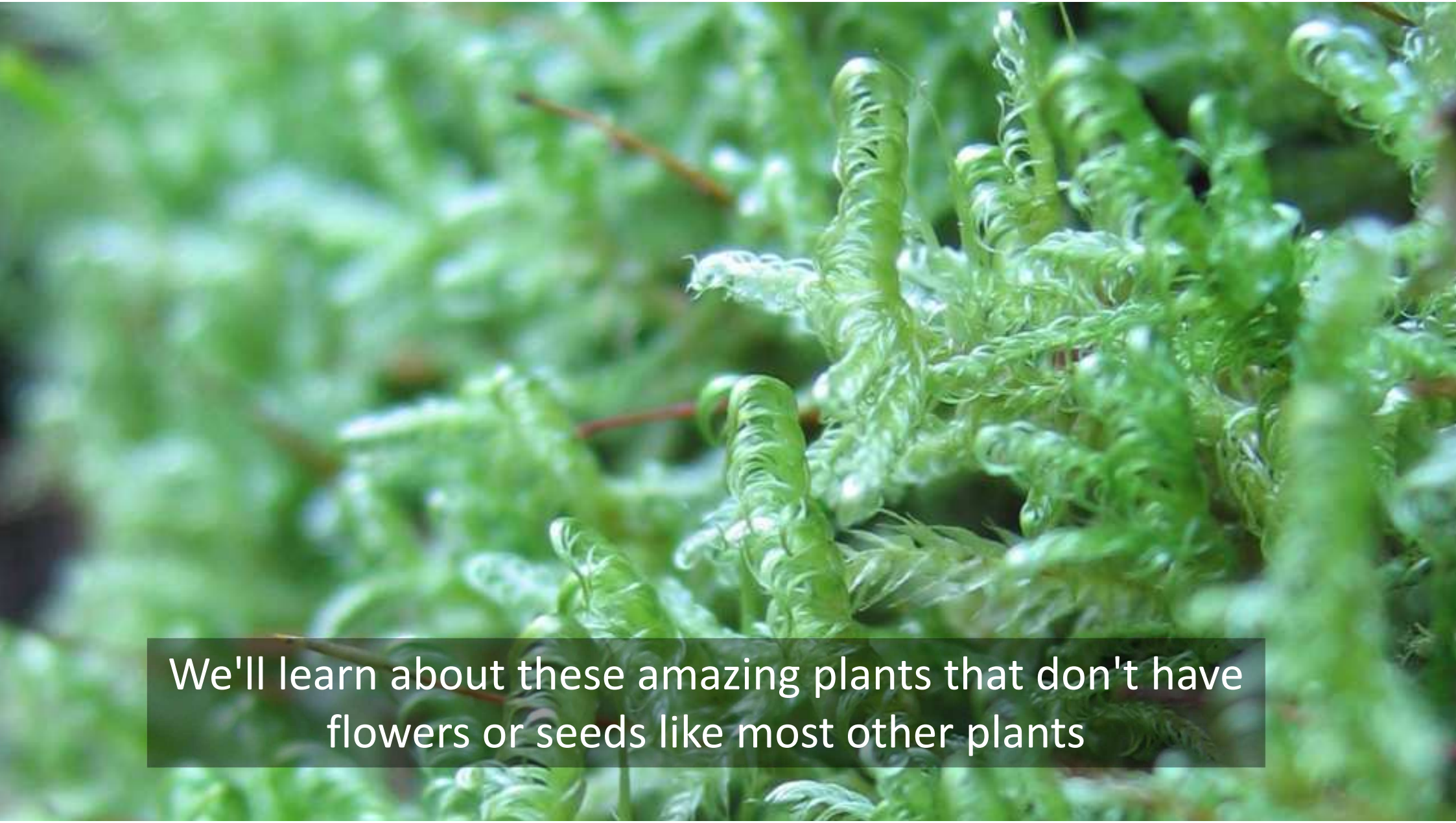
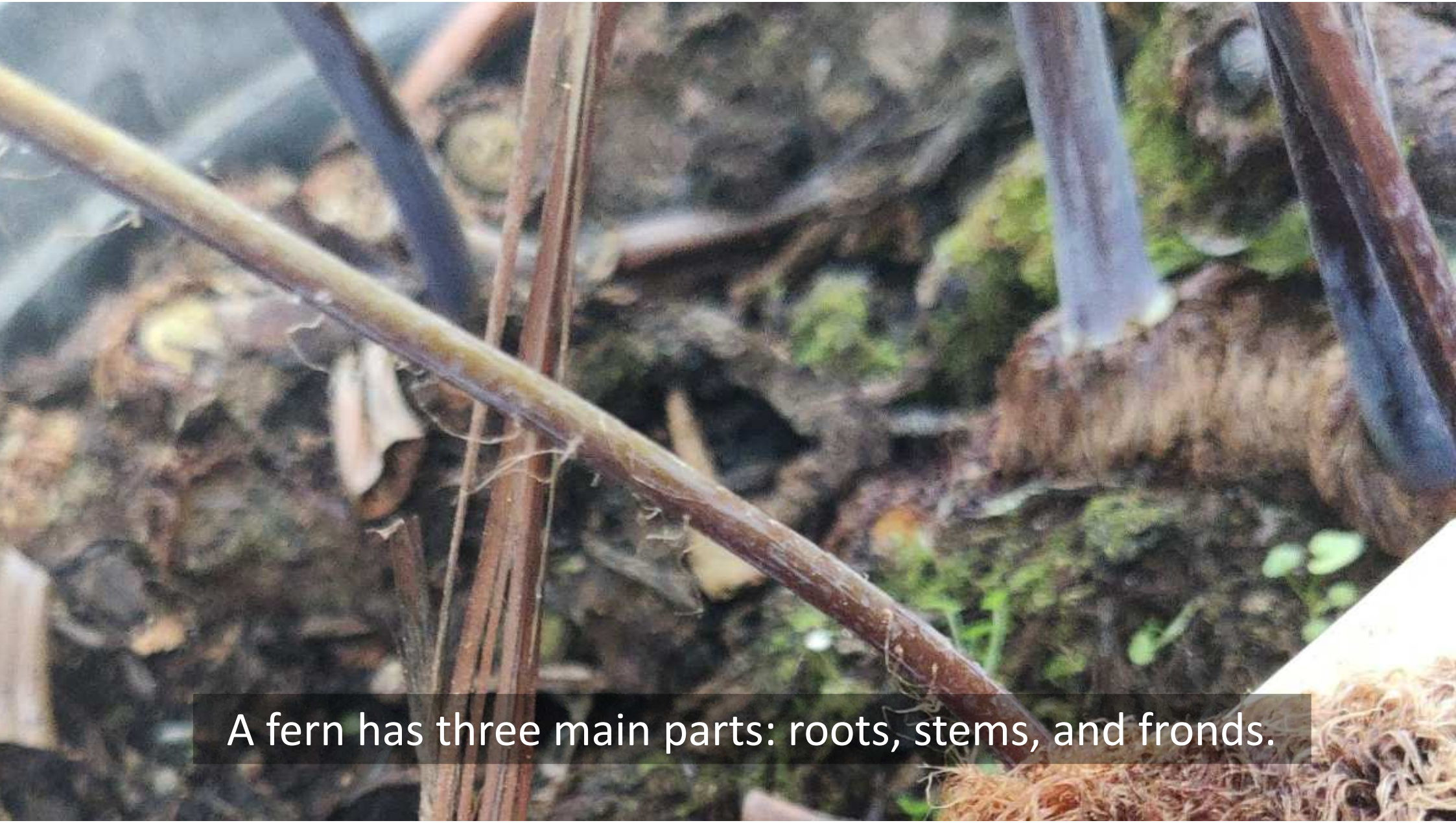
Ferns and mosses


We'll learn about these amazing plants that don't have
flowers or seeds like most other plants


Ferns are green plants that have feathery leaves called fronds.


They reproduce by spores instead of seeds.

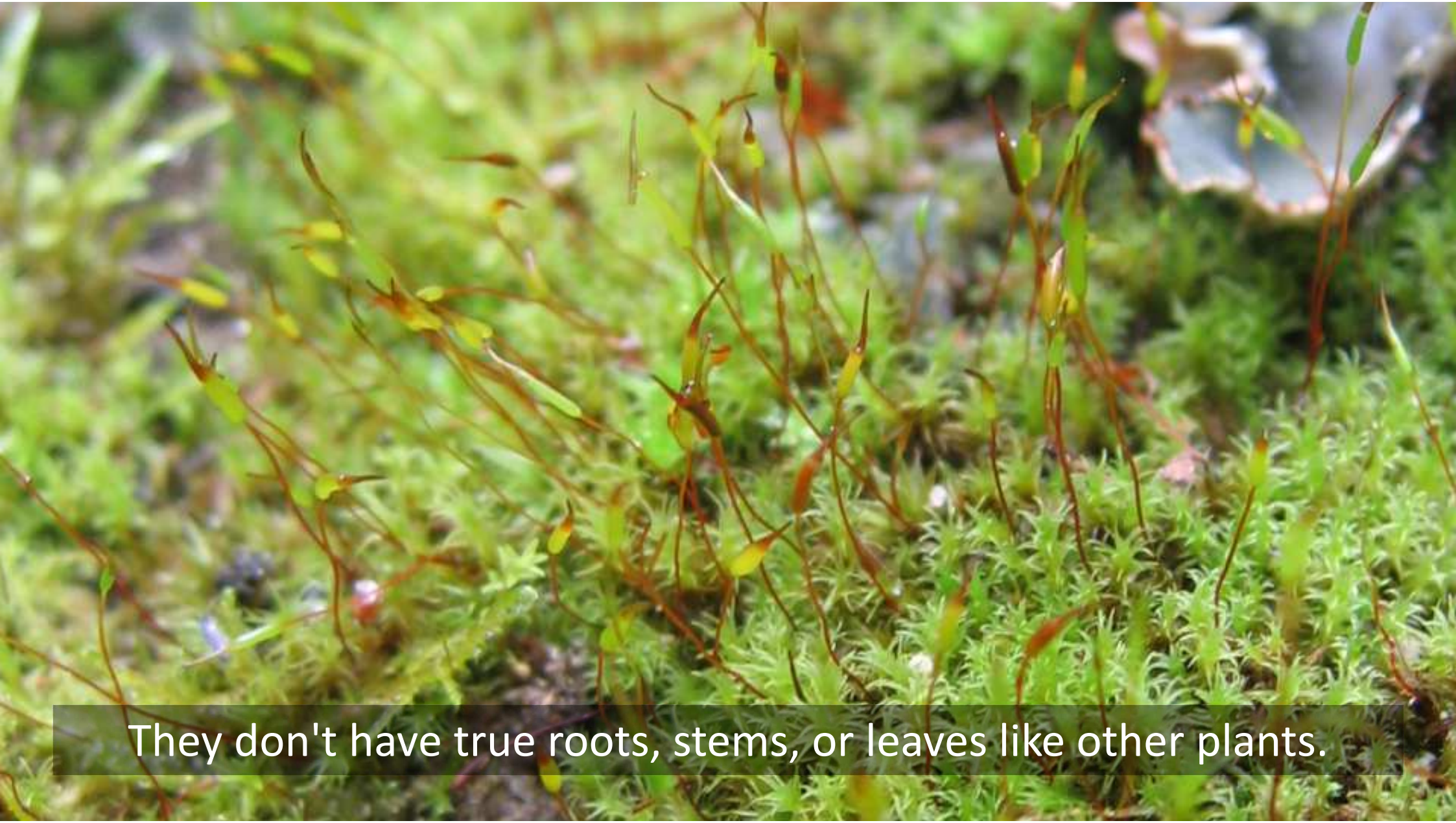

A fern has three main parts: roots, stems, and fronds.

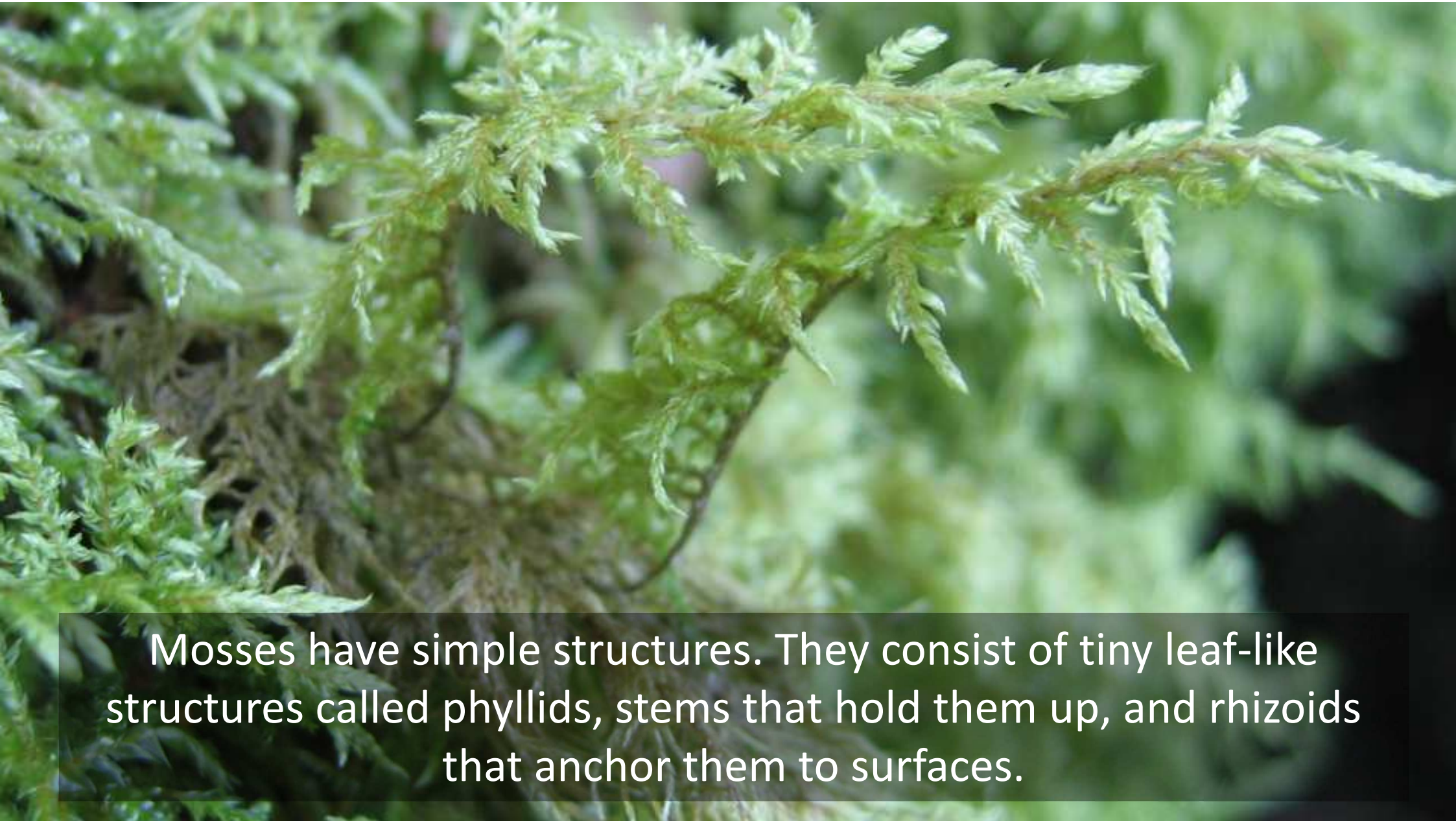
Katarzyna Goller, Jan Rybczyński. Gametophyte and sporophyte of tree ferns in vitro culture. 2007

Ferns have a unique life cycle. They start as spores, which grow into tiny heart-shaped plants called gametophytes. These gametophytes produce eggs and sperm, which combine to form a new fern plant.

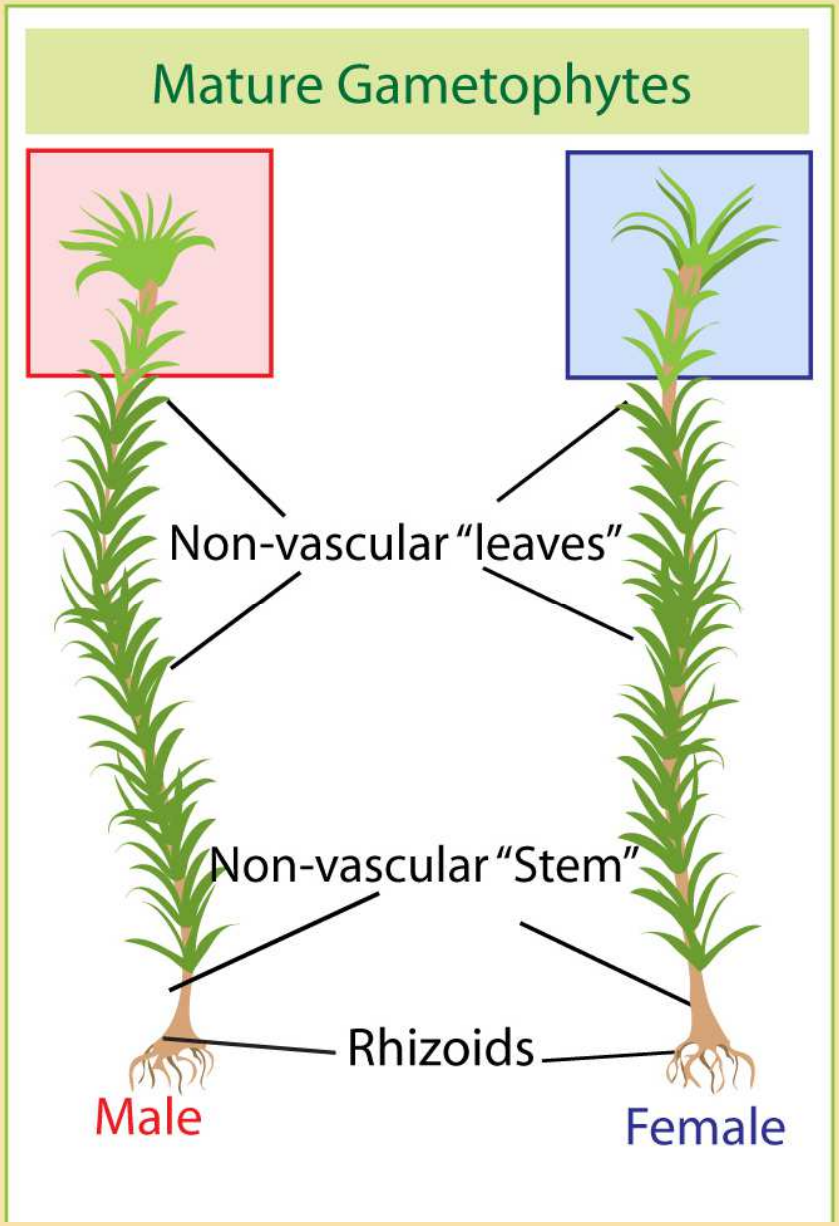

Ferns play an essential role in ecosystems. They provide habitat for animals, prevent soil erosion, and contribute to the health of forests. Some ferns are also used in medicine and gardening.

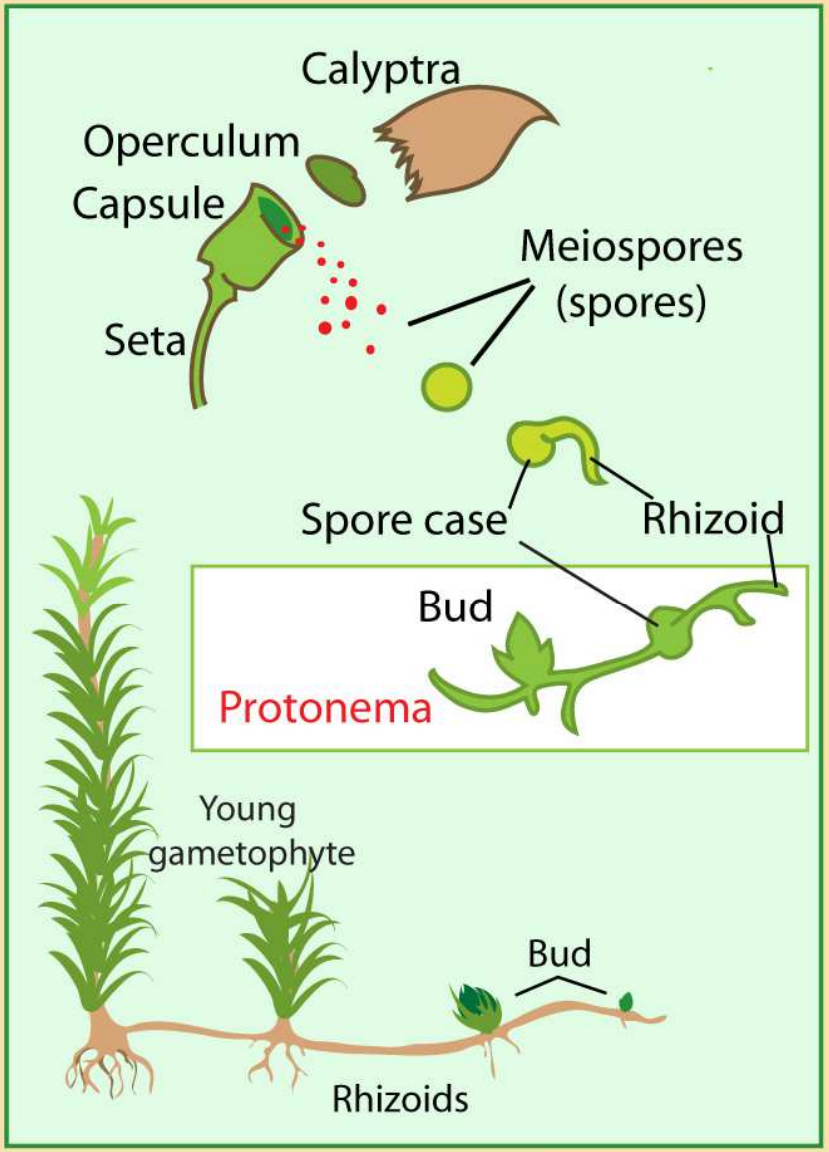

Mosses are small green plants that grow close together in clumps or mats.


They don't have true roots, stems, or leaves like other plants.



Mosses have simple structures. They consist of tiny leaf-like structures called phyllids, stems that hold them up, and rhizoids that anchor them to surfaces.

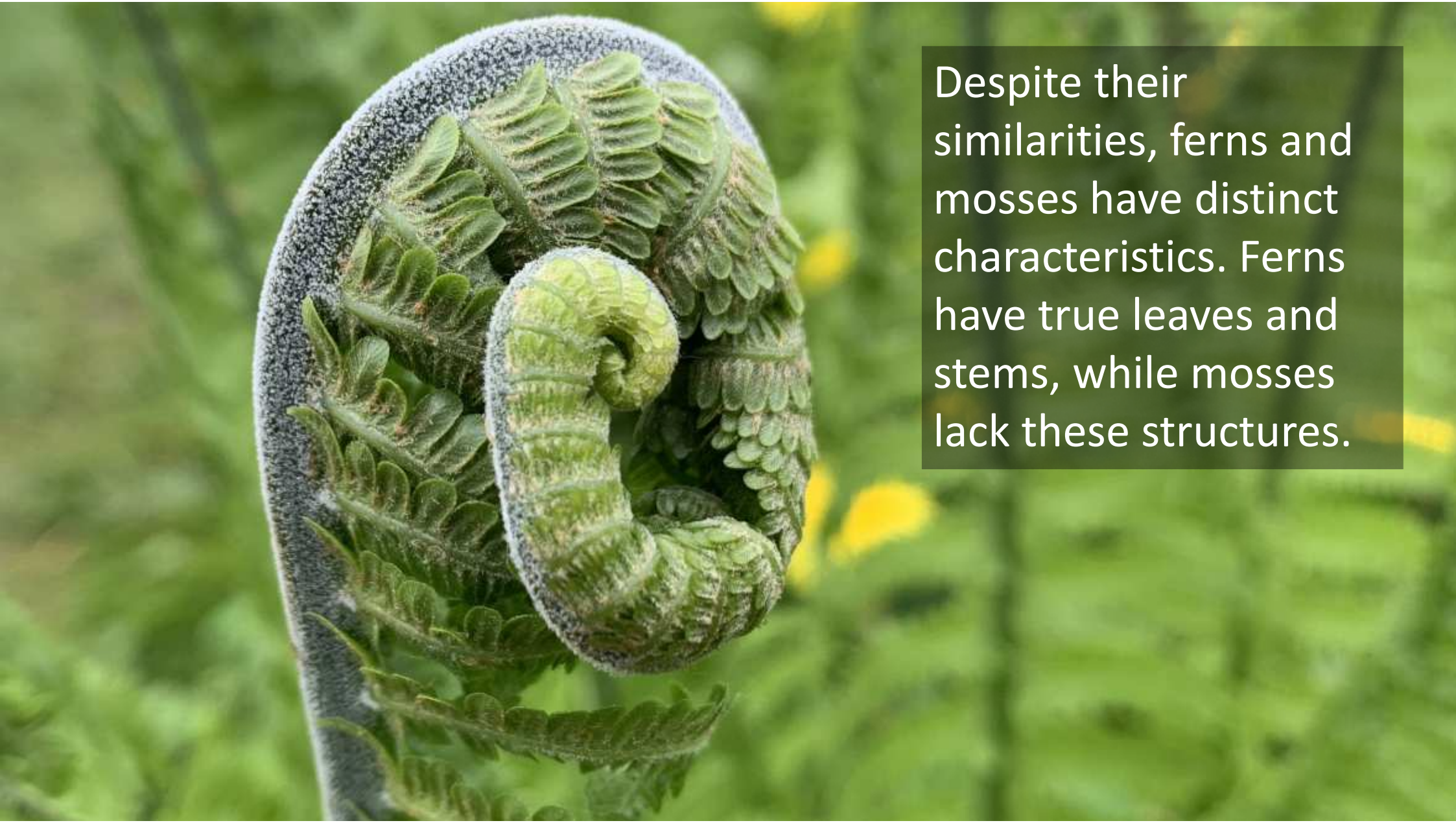




The life cycle of mosses


Mosses are crucial for the environment. They help retain moisture in the soil, provide habitat for insects and small animals, and contribute to the nutrient cycle.


Moss sporangia (the capsule & the stalk/seta)
Although ferns and mosses are different, they share some similarities. Both reproduce using spores, prefer moist environments.


Despite their similarities, ferns and mosses have distinct characteristics. Ferns have true leaves and stems, while mosses lack these structures.