INTRODUCTION TO BRYOPHYTE




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OUTLINE

- What is Bryophyte?
- Structure of Bryophyte
- Bryophyte sister group within embryophyte
- Bryophyte vs algae

What is Bryophyte

Traditional Classification

Bryophyte as Division of Non-vascular plants

3 Classes:

- **Bryopsida**
- **Hepatopsida**
- **Anthoceropsida**

Modern classification

Bryophytes is a generic name of non-vascular plant

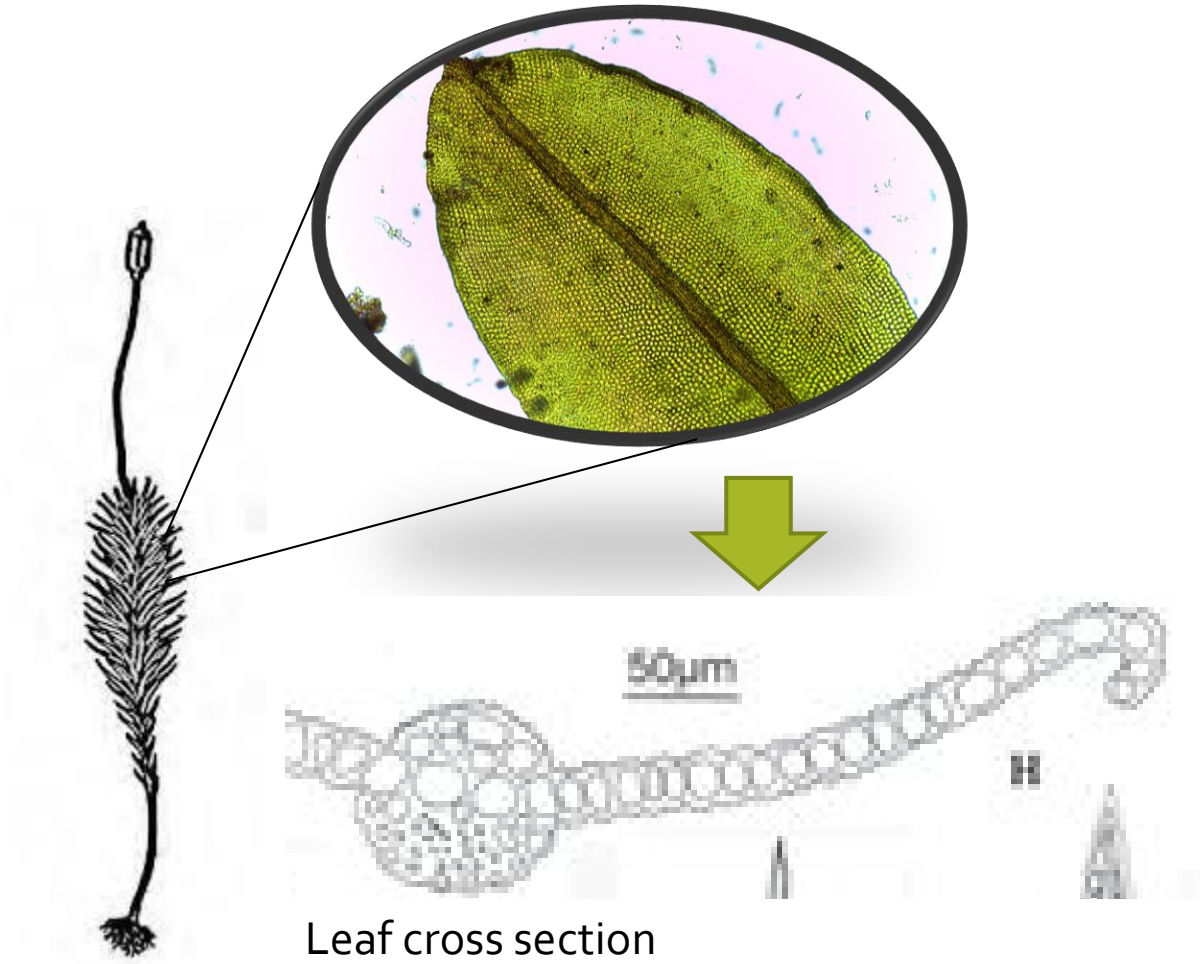
3 Division of Bryophyte:

- **Bryophyta**
- **Marchantiophyta**
- **Anthocerophyta**



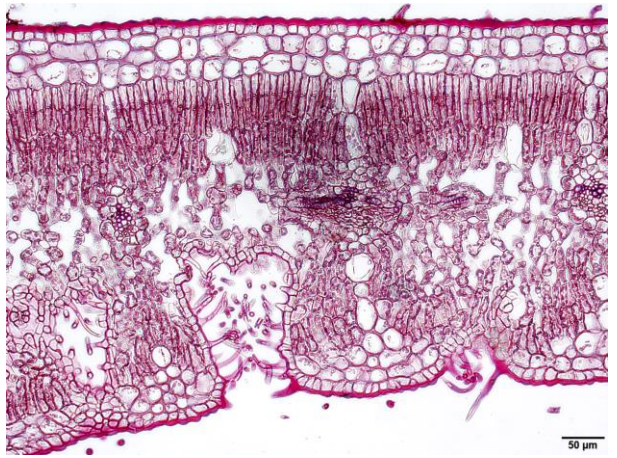


Bryophytes have a simple structure → one-layer leaf cells



Leaf cross section

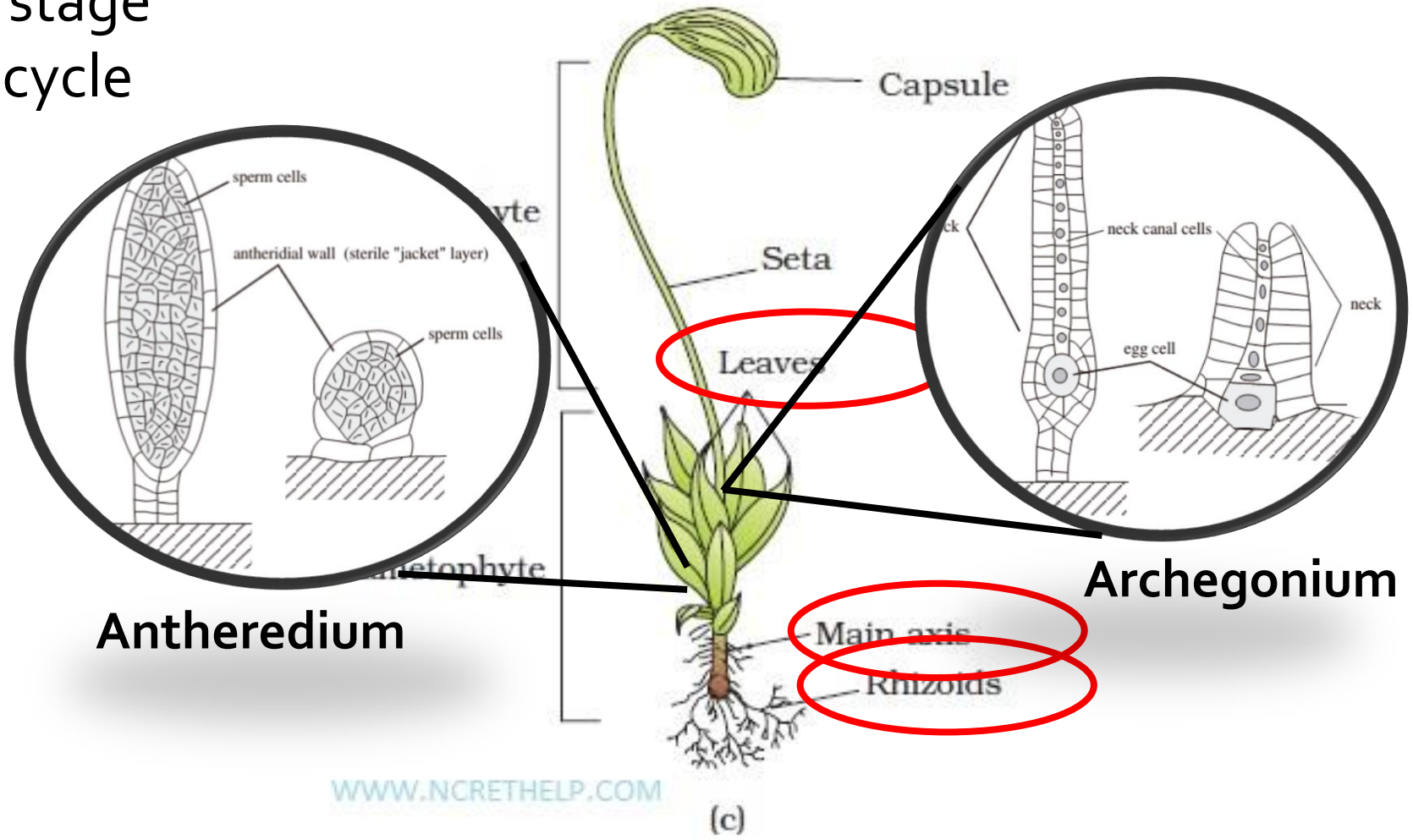
Vascular plants have a complex structure → more than onelayer leaf cells



Leaf cross section XS

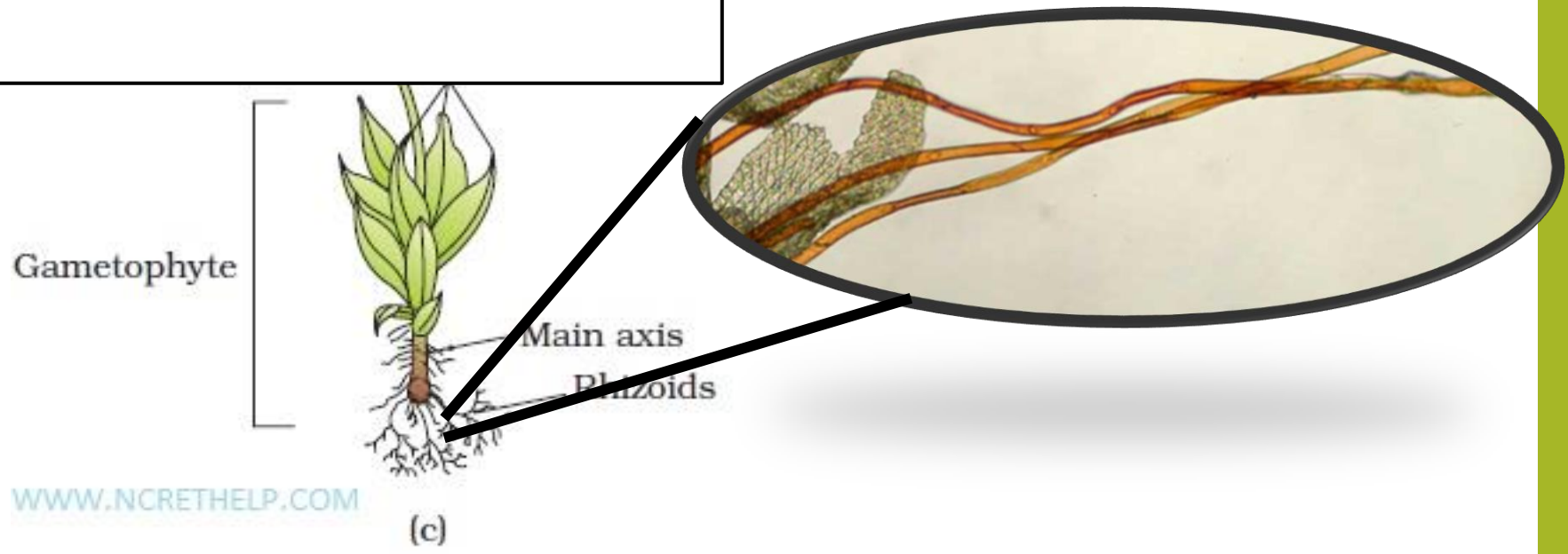
Structure of Bryophyte: Gametophyte

Dominant stage
within life cycle



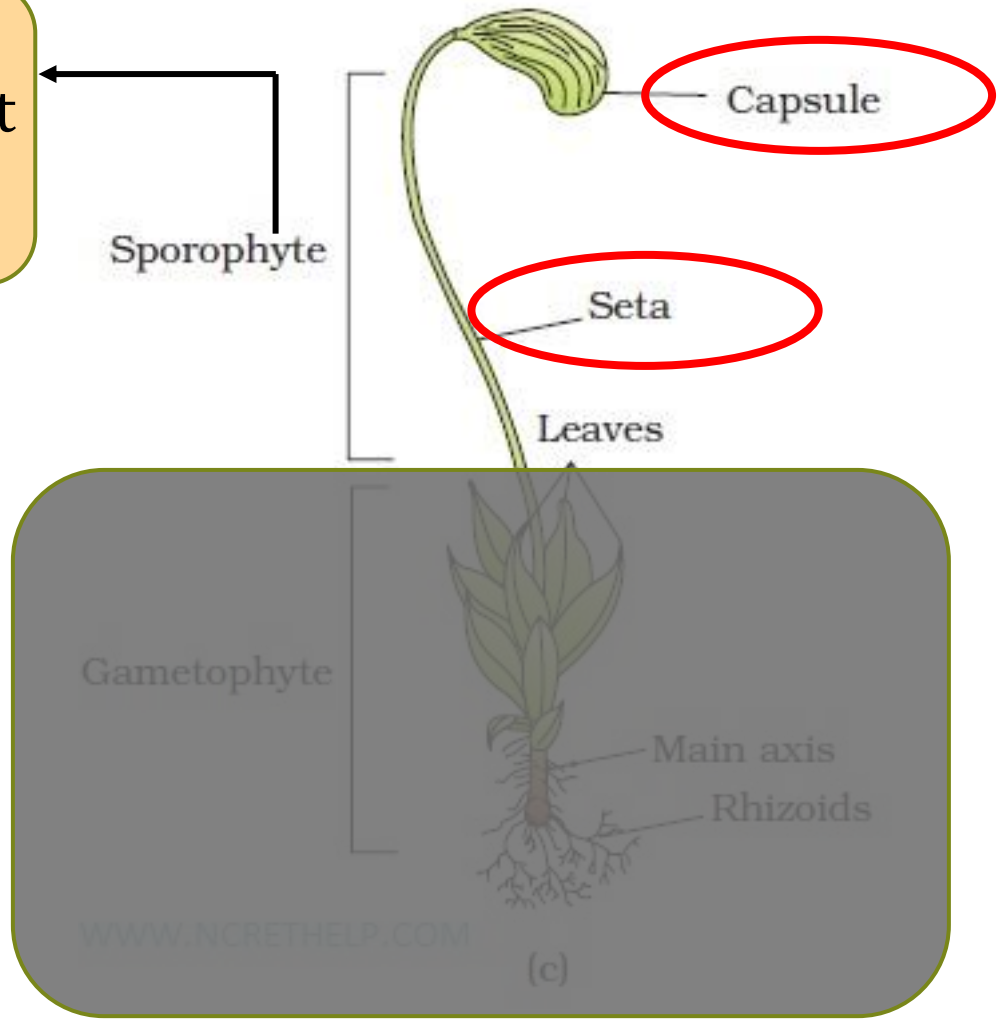
Structure of Bryophyte: Gametophyte

- Rhizoid → root like
- Filament like structure
- Multicelullar or unicellular
- Function: anchoring to the substrate

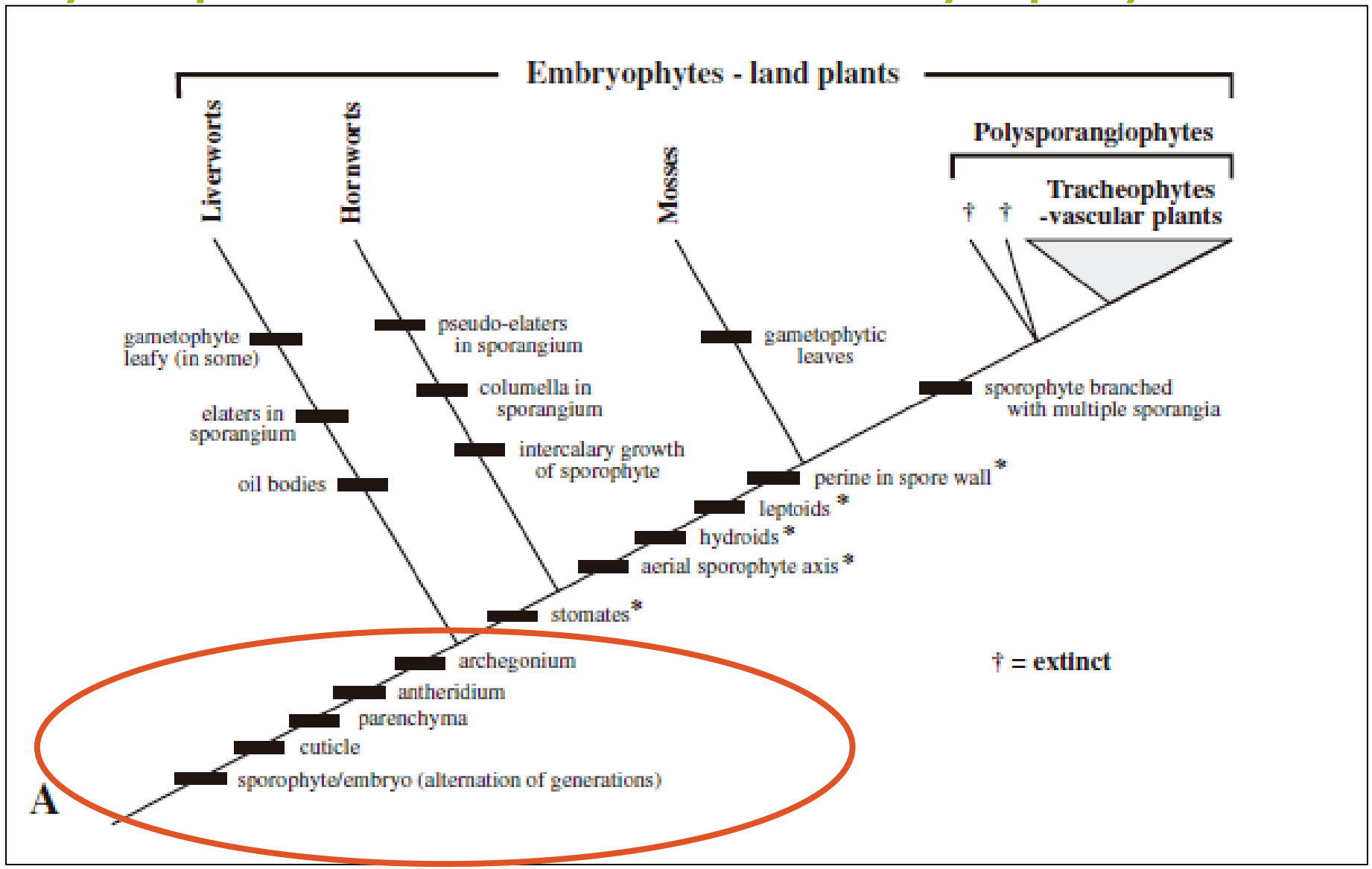


Structure of Bryophyte: Sporophyte

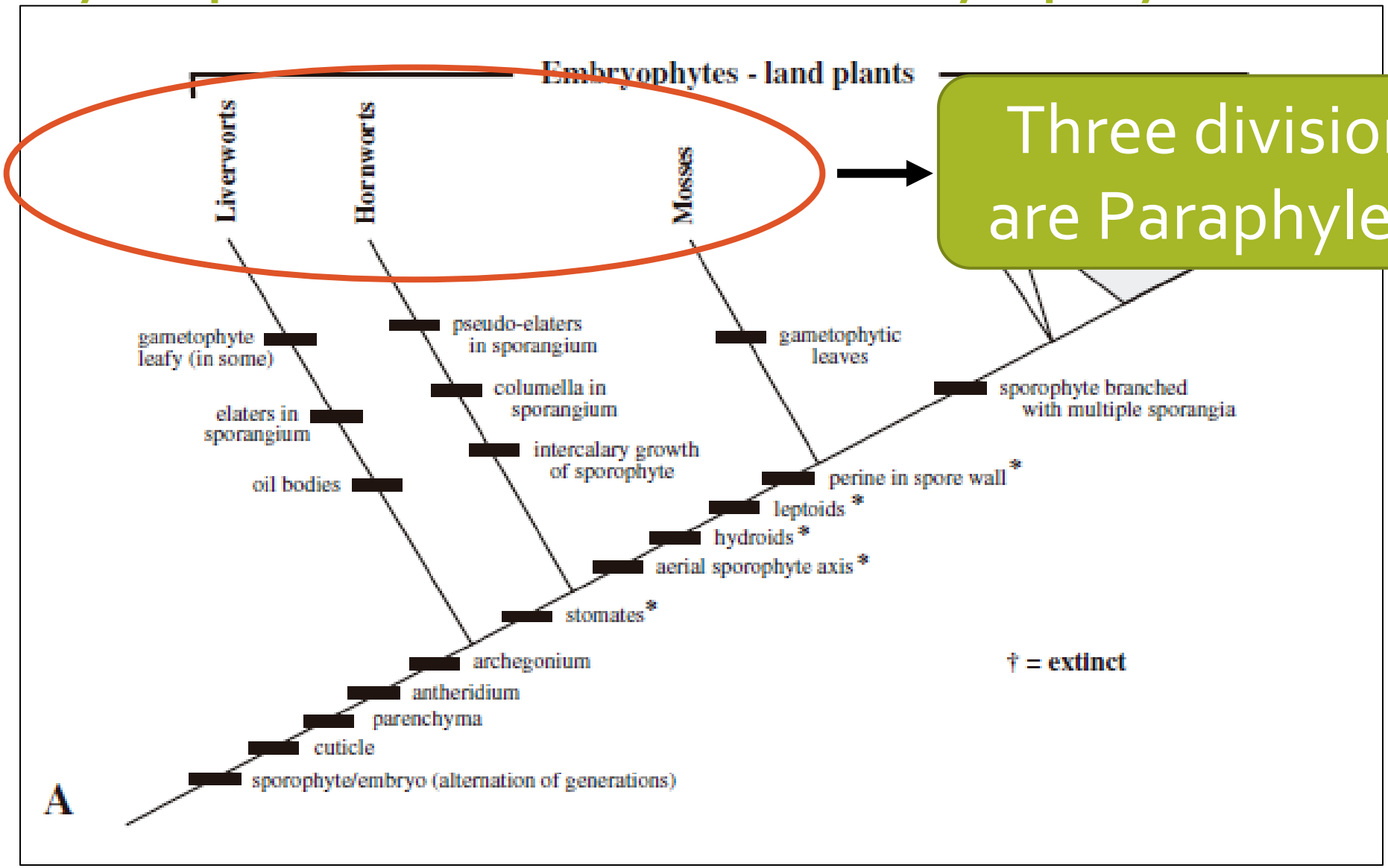
Attached to and nutritionally dependent upon the gametophyte



Bryophyte position within embryophyte

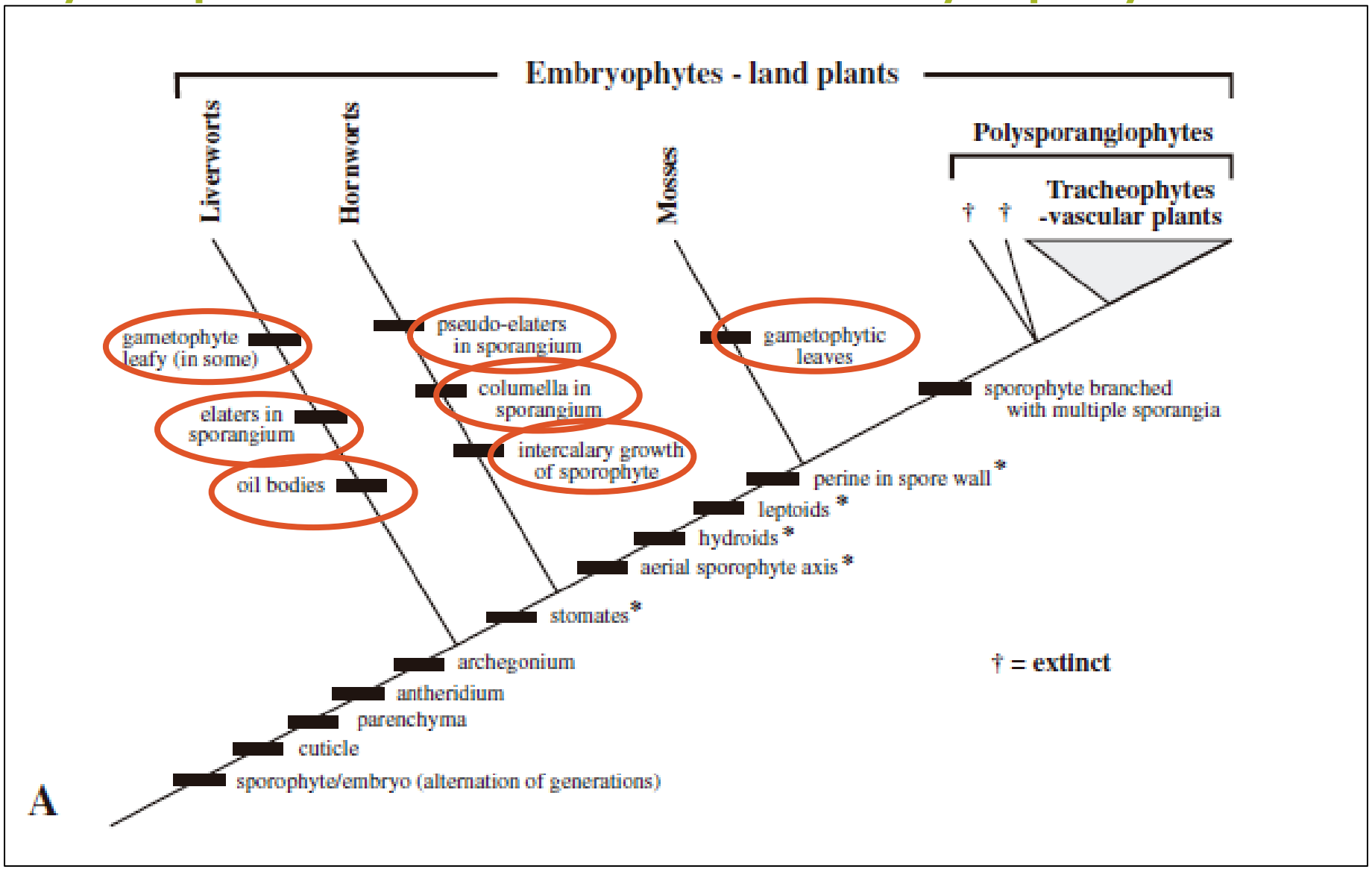


Bryophyte position within embryophyte

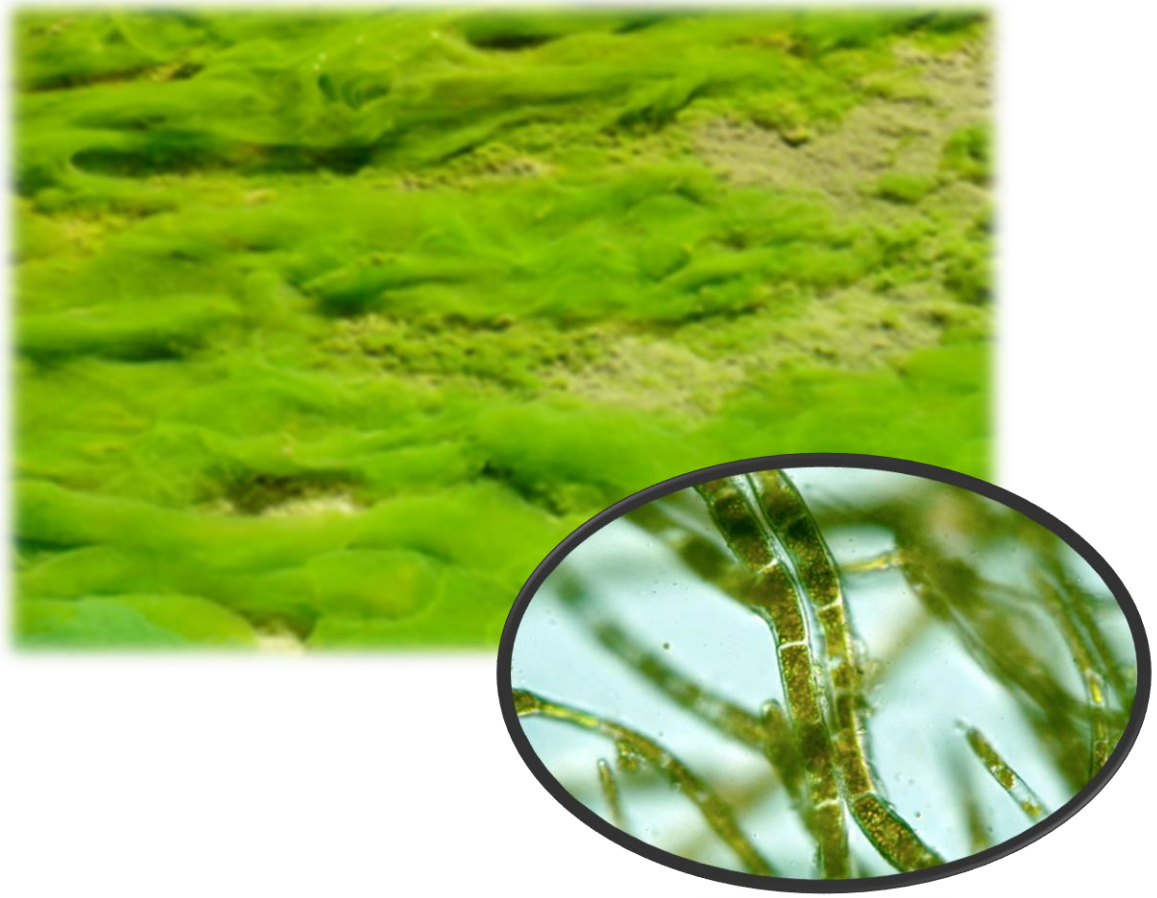


Three divisions are Paraphyletic

Bryophyte position within embryophyte

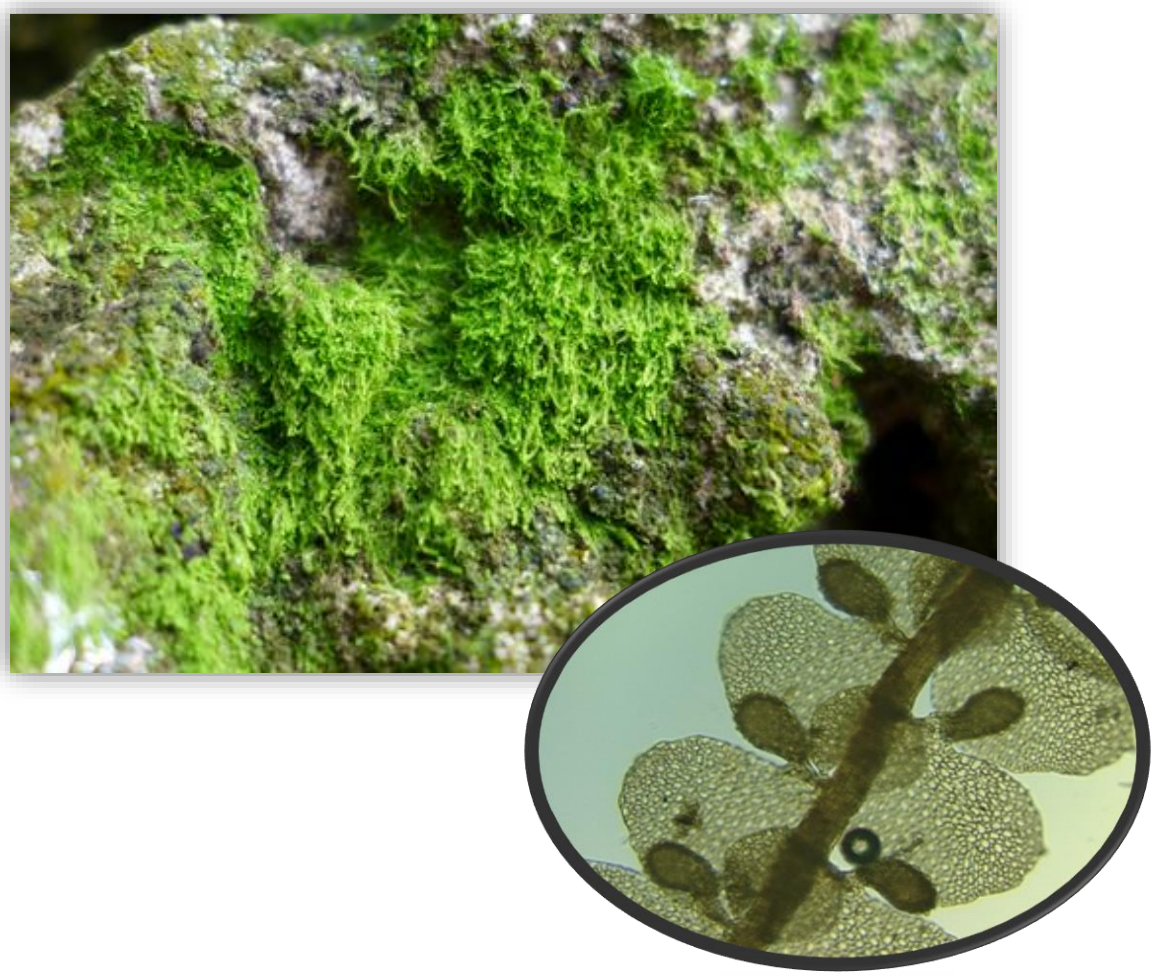


Bryophyte vs Algae



Filamentous Algae:

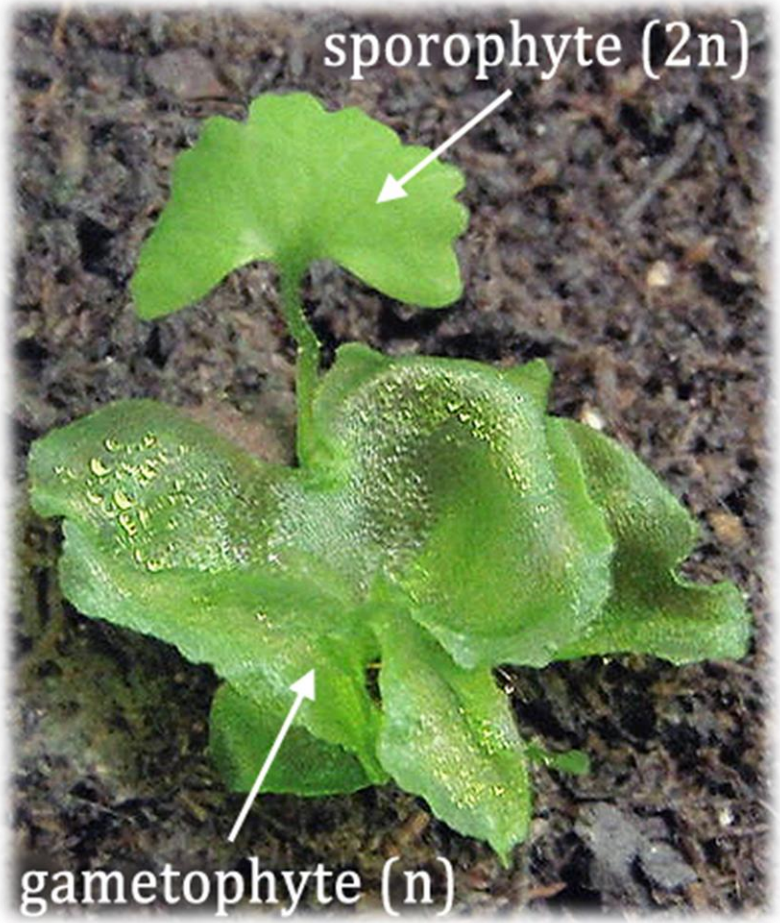
- Filament like body
- Rhizoid or root absent



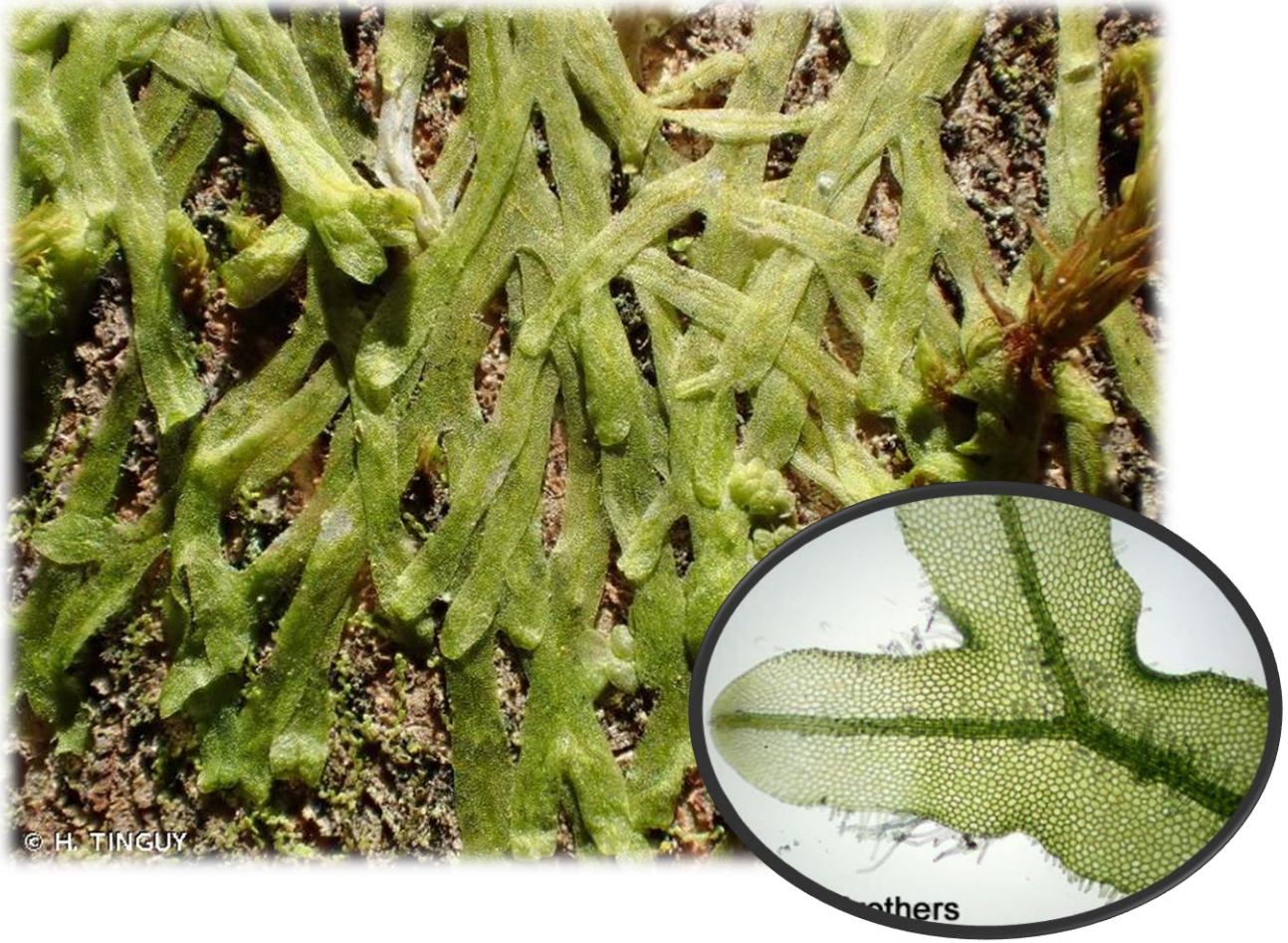
Bryophyte:

Structure: like root, stem, and leaf.

Fern prothallium vs Simple thalloid liverworts



Fern Prothallium with young sporophyte



Metzgeria → simple thalloid liverworts


Thank you