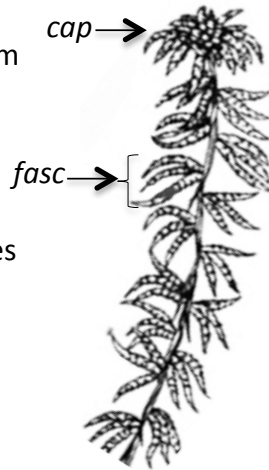


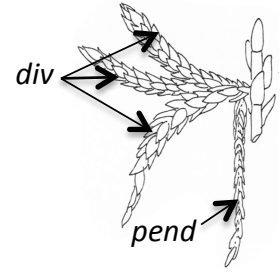
Sphagnum – Roadmap for Biology 321

A. General plant structure:

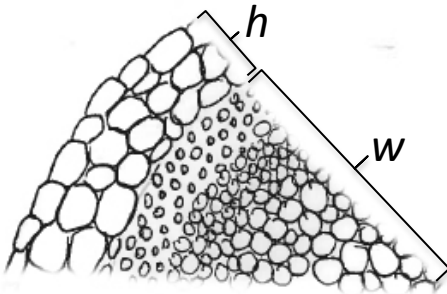
main stem has a cluster of branches on the top called a capitulum (cap). Branches are clustered into fascicles (fasc).



B. Fascicle showing divergent (div) and pendent (pend) branches

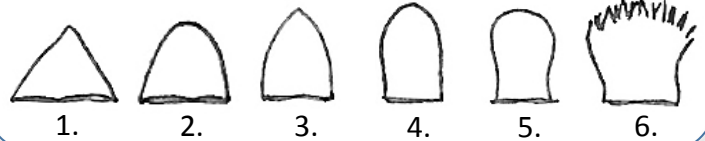


C. Stem cross-section showing cortical cells (=hyloclerm, h) and central cylinder (=wood, w). Note: number of layers hyloclerm varies with species

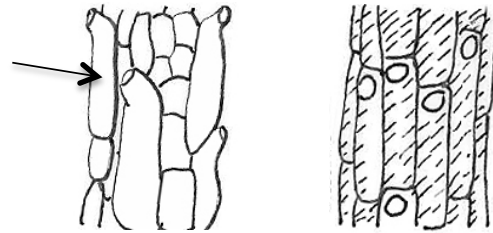


D. Stem leaf types:

1. triangular; 2. ovate-triangular; 3. lingulate-triangular; 4. lingulate; 5. spatulate; 6. fimbriate

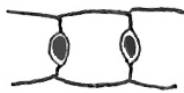


E. Branch stems with retort cells (left) and without retort cells (right)



G. Branch leaf chlorophyllose cell variation (leaf cross-sections)

1. Completely immersed (e.g. *S. magellanicum*)



2. Triangular with widest exposure on convex side (e.g. *S. angustifolium*)



3. Triangular with widest exposure on concave side (e.g. *S. capillifolium*)



4. Trapezoidal with widest exposure on convex side (e.g. *S. cuspidatum*)



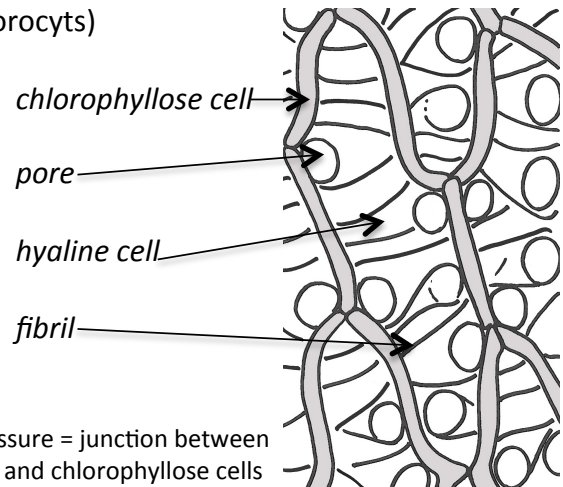
5. Oval to barrel shaped (e.g. *S. papillosum*)



F. Branch leaf types:



H. Leaf Cells: each hyaline cell (= hyalocyt) is surrounded by a ring of chlorophyllose cells (= chlorocysts)



Commissure = junction between hyaline and chlorophyllose cells