

UNIT 1
Lectures 1 and 2: Land Ho!
- Life on Land and Introduction to Embryophytes

Reading:

Nov. 7: pages 335 – 340 (should be review); Figure 16-4
Nov. 9: pages 345 – 351

Outline:

- A. Introduction – Moi and my lecture style
- B. Bryophyte Project
- C. Meet the Bryophytes
- D. Taxonomy and the Tree of Life – Where Bryophytes fit in
- E. Looking for Ancestors
- F. Being and Embryophyte
- G. Challenges of Terrestrial Life
- H. Bryophytes vs Tracheophytes

Learning Objectives:

By the end of this unit you should be able to:

1. Explain what the bryophyte section of Biology 209 will cover and what we will be discussing in the first unit.
2. Start your Bryophyte Project.
3. Find a bryophyte.
4. Explain why taxonomy should reflect evolutionary relationships.
5. Label a phylogenetic tree with the following: chlorophytes, Charales, embryophytes, hornworts, liverworts, mosses, streptophyte, tracheophytes, vascular plants, viridiplantae,
6. Explain why *tracheophyte* is a more appropriate term than *vascular plant*.
7. Identify the ancestors of the embryophytes.
8. Compare and contrast the main features of the Charales with the embryophytes.
9. Give an example of an organism from each lineage of embryophyte.
10. Using the following terms outline (explain or draw) the life cycle of embryophytes: antheridium, archegonium, diploid (2N), egg, embryo, gametophyte, haploid (1N), meiosis, meiospore, mitosis, neck, sperm, spore, sporophyte, syngamy, venter, zygote
11. Identify the challenges for plants living on land.
12. Compare and contrast the adaptive strategies to terrestrial life of bryophytes and tracheophytes.
13. Explain structural adaptations associated with life on land.