

Planting Bryophytes in the Biology Lab Curriculum

Linda Fuselier

University of Louisville, Biology, Louisville KY 40214 USA
(linda.fuselier@louisville.edu)

Bryophytes (mosses, liverworts and hornworts) are small plants that are often overlooked as model organisms in biology labs. Bryophytes are easy to obtain, culture and maintain and bryophytes can be used to teach skills and content in several areas of the laboratory curriculum. This mini workshop will introduce participants to several ways to incorporate mosses and liverworts into the biology laboratory. The workshop leader has successfully used bryophytes to teach plant evolution and experimental design in introductory biology, plant anatomy and life histories in botany labs, and basic molecular forensics in molecular ecology labs and to involve undergraduate students in field and lab research. The workshop will include an introduction to bryophytes, examples of several species that are easy to culture and maintain, culturing methods and inexpensive, tested lab activities that use readily obtained bryophytes. Participants will identify common mosses and liverworts, complete portions of lab exercises and harvest gemmae for starting their own cultures. All activities are meant to increase knowledge about bryophytes, their biology and ecology, and encourage participants to use bryophytes as model organisms in their labs and research.

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