LIGHT TRAPPING AND LEPIDOPTERA: HOW TO COLLECT AND IDENTIFY NEW ENGLAND MOTHS AND THEIR CATERPILLARS

2025 EAGLE HILL NATURAL HISTORY SCIENCE SEMINARS ON THE COAST OF EASTERN MAINE

Instructors: Avalon Owens & Michael LaScaleia
When: June 22–28, 2025

Moths (order: Lepidoptera) and their caterpillars provide crucial ecosystem services such as herbivory and pollination while comprising a primary food source for birds and other animals. Although often overlooked, moths are far more diverse and abundant than are butterflies, with remarkably variable life histories and species traits. In this seminar, we will use modern methods of moth and caterpillar collection to uncover the lepidopteran wonders hidden all around us.

Afternoon lectures will cover caterpillar and moth anatomy, classification, behavior, and ecology. Evening field expeditions will supply caterpillars and moths to be identified in the laboratory. As part of the seminar, participants can expect to gain a comprehensive understanding of how best to use artificial light to collect both moths and caterpillars, including the history and theory behind the entomological light trap, as well as the basic tree identification skills needed to associate species with their host plants. As a capstone project, participants will be encouraged to curate and present themed collections.

GENERAL INFO　　CALENDAR　　APPLY

about the instructors

Dr. Avalon C.S. Owens (aowens@fas.harvard.edu) runs a research group at the Rowland Institute at Harvard that studies how insects cope with anthropogenic light pollution, currently focused on the ecological costs and evolutionary consequences of moth flight-to-light behavior. She received her Ph.D. in Biology from Tufts University in spring 2022, where she studied the impact of artificial light on bioluminescent fireflies.

Dr. Michael LaScaleia (mlascaleia@fas.harvard.edu) is a postdoctoral fellow at the Arnold Arboretum at Harvard University who researches plant-herbivore interactions. Currently, he is researching how invasive exotic plants avoid herbivory from native caterpillars. He received his Ph.D. in Ecology and Evolutionary Biology from UConn in 2024 after completing his dissertation investigating the role invasive plants play in native food webs.