



# LEAF AND STEM MINING INSECTS

**Instructor: Charley Eiseman**

**When: August 4th - August 10th, 2024**



2024 Eagle Hill  
Natural History  
Science Seminars  
on the coast of  
eastern Maine

Leaf and stem miners are insect larvae that feed within the tissues of plants for at least part of their development, forming externally visible feeding patterns (mines). In North America, they include well over 2000 species of moths, flies, beetles, and sawflies. They tend to be highly host-specific, feeding on one or a few closely related plant genera, and each miner leaves a species-specific pattern as it feeds. It is therefore generally possible to identify these insects by noting the host plant and studying the mine characteristics. This course will introduce students to the identification and biology of leaf and stem miners. On field trips, we will visit a variety of habitats to observe and collect mines from as many different plant species as possible. In the lab, we will use the hostplant-based keys in *Leafminers of North America* to identify what we have found. Slideshow presentations will give overviews of the many groups of leaf and stem mining insects and their natural history. We will also discuss how to rear leaf and stem miners to adults, with a brief introduction to the various types of parasitoid wasps that inevitably emerge in the process.

**GENERAL INFO**

**CALENDAR**

**APPLY**



## about the instructor

**Charley Eiseman** ([ceiseman@gmail.com](mailto:ceiseman@gmail.com)) is a freelance naturalist based in western Massachusetts. He has been conducting plant and wildlife surveys and natural resource inventories throughout New England for over twenty years. He holds an MS in Botany (Field Naturalist) from the University of Vermont and a BS in Wildlife and Fisheries Conservation and Management from the University of Massachusetts. Charley is the lead author of *Tracks & Sign of Insects and Other Invertebrates* and has published over sixty scientific papers describing new insect species or documenting new natural history information for known species. He also writes an insect-themed blog, "BugTracks," and is currently self-publishing the third edition of *Leafminers of North America*, a serial e-book of which the second edition was completed in 2022.