



2021 Eagle Hill Institute
 Online Natural History Seminars
 office@eaglehill.us 207.546.2821 www.eaglehill.us

Leaf and Stem Mining Insects of the Southern USA

Charley Eiseman

April 29th – May 27th, 2021



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 through five online video conferences, which will complement independent work done by participants between meetings. The first session will include a slide show / lecture providing an introduction to leaf and stem mining and other modes of herbivory; an overview of mine classification; and a discussion of methods for photographing, collecting, and rearing miners. In between meetings, participants will photograph and/or collect leaf and stem mines and attempt to identify them using the hostplant-based keys in *Leafminers of North America* (available for purchase at <http://charleyeiseman.com/leafminers>). At each subsequent meeting, we will discuss what people have found, sharing digital photographs and working through the keys together for any mines that have caused difficulty. Shortly after each meeting, the instructor will provide a list of relevant passages in *Leafminers of North America* to read that will reinforce what we have covered together. Although there is no strict geographic cutoff for participation in this course, hunting leafminers in May will be more productive the farther south one goes.



Scheduling Details

Apr 29, May 6, May 13, May 20, and May 27
 8PM–10PMET

Participants need to have a Zoom account (<https://zoom.us> sign up for zoom is free). You will receive a secure link to join the instructor before each class. Classes will be recorded so participants can review them or make up missed ones.

For more information regarding seminar costs and registration please visit:
<https://www.eaglehill.us/programs/sems-online/general-info.shtml>

About the Instructor

Charley Eiseman (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 the past 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 forty 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 second edition of *Leafminers of North America*, a serial e-book of which the first edition was completed in June 2019.