2020 Eagle Hill Institute
Online Natural History Seminars

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Identification of Lepidoptera Through Micro-dissection

Paul Dennehy July 27th – 31st, 2020

Lepidoptera (butterflies and moths) are one of the most diverse groups of insects, contributing to a substantial portion of the biodiversity of most of the world's terrestrial ecosystems. Identification of Lepidoptera to the species level frequently requires microdissection of specimens to compare features in the male and female genitalia. Whether one is professionally employed to identify Lepidoptera specimens, or is a dedicated amateur interested in Lepidoptera diversity, microdissection is an essential tool to have at one's disposal to identify specimens to the species level, especially when working with microlepidoptera.

In this seminar, you will observe and participate in microdissection of several North American moth species, and identify them to the species level using the resources provided. A $35 lab fee will cover the equipment and chemicals necessary to perform these dissections, and the equipment, chemicals, and moth specimens needed for the seminar will be mailed to you prior to the seminar.

You will also need a dissecting microscope with at least 20x zoom to participate in the dissections. If you do not have access to one, this is the recommended (relatively inexpensive) option that is ideal for this work: https://www.ebay.com/itm/AmScope-20X-40X-Dissecting-Stereo-Microscope-Multi-Use-Students-Hobbyists/190806742793?hash=item2c6cf7d709:g:o10AAOSwed9dwx2u).

By the end of this seminar, you will be familiar with the scientific articles, books, and online resources most useful to North American moth identification through microdissection, you will have experience performing dissections on both male and female moth specimens to identify them to the species level, you will have the equipment you need to continue performing dissections on your own, and you will know where to go to purchase any additional materials and equipment you may find necessary in your future work.

Evenings, July 27th – July 31st, 6:30 – 8:30pm

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

About the Instructor

Paul Dennehy (dennepj10@gmail.com) is a lifelong Lepidoptera enthusiast who has collected moths and butterflies throughout the continental United States and Canada. A graduate of Juniata College, he currently teaches zoology and chemistry in Pennsylvania and spends the summers traveling around the country collecting Lepidoptera. He has performed Lepidoptera pest survey work for the Pennsylvania Department of Agriculture and a Lepidoptera biodiversity inventory at a Pennsylvania military base.