



2024 Eagle Hill Institute Online Natural History Seminars

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Introduction to Entomology

Dr. Ron Butler

May 6th – May 20th, 2024

The late E.O. Wilson described insects as “the little things that run the world”, and this five-session course will serve as an introduction to the biology of this essential group of animals. Ancient and evolutionarily diverse, insects exhibit a wide variety of lifestyles ranging from free-living herbivores and predators to parasites or parasitoids. While some insects are human or livestock parasites, disease vectors, or agricultural pests, most insect species (99+%) play significant roles in both freshwater and terrestrial food webs and critically important ecosystem services including pollination and decomposition. Insects are not just fascinating animals, they are also cultural icons, sources of food, and key contributors to advances in genetics and medical treatments. Studying insect biomechanics has inspired innovative robot designs, and understanding their sensory processing is shaping the development of cutting-edge artificial intelligence algorithms. We will explore topics including an overview of the insect orders, evolution, external morphology and internal anatomy, reproduction and mating strategies, social behavior, ecological services, and conservation. The course will also include some simple methods and resources for beginning the study of insect identification. Participants will be invited (as time allows) to share their own insect images for group consideration. No previous background in entomology is required for this course - only an interest in insects.

Scheduling Details

May 6, 8, 13, 15, and 20
7:00 to 9:00 PM EDT

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

Dr. Ron Butler (butler@maine.edu) is a broadly experienced animal ecologist and Professor Emeritus at the University of Maine at Farmington, where he taught courses in Zoology, Entomology, Ornithology, Ecology, and Conservation Biology. He also co-taught a snorkeling-intensive field course focused on coral reef fishes on St John (USVI) for a number of years. While Ron spent the first part of his career conducting research with seabirds in Maine, Newfoundland, and Antarctica, for the past several decades his work has focused on ecologically important groups of insects. He helped plan and coordinate several state-wide citizen science initiatives including the Maine Damselfly and Dragonfly Survey (mdds.umf.maine.edu), the Maine Butterfly Survey (mbs.umf.maine.edu), and the Maine Bumble Bee Atlas (mainebumblebeeatlas.umf.maine.edu). Ron has co-authored over 50 peer-reviewed publications and technical reports, *Butterflies of Maine and the Canadian Maritime Provinces* (2023), and *Damselflies and Dragonflies of Maine and the Canadian Maritime Provinces* (in preparation). Ron lives in the western mountains of Maine where he continues to collaborate with the Maine Department of Inland Fisheries and Wildlife on regional conservation initiatives.