

Cincinnati Museum Center's Edge of Appalachia Preserve System
2015 Advanced Naturalist Workshops-Series 11

April 24-26, 2015

Crustose Lichens

Dr. James Lendemer, Post-Doctoral Researcher, New York Botanical Garden

Crustose lichens are common and diverse yet also the most difficult to identify for even the most seasoned lichenologist. They grow on rocks, trees and soil, tightly appressed to, or even growing within the substrate. They can live in some of the most exposed, inhospitable environments on earth from mountain tops to tidal flats. Identifications can be difficult, involving careful microscope work often together with thin layer chromatography to extract and identify secondary compounds. With these challenges experts in crustose lichens are few and far between but Dr. Lendemer is one of these scientists. His research record is vast and his experience with this difficult group is extensive. There is no better person to bring the world of crustose lichens to the preserve. The preserve has recorded 159 species of macrolichens (the highest in the state) but the microlichens (crustose) have never been attempted. Learn their growth forms from areolate to leprose, rimose to placodoid. Learn about their important roles in the eastern forest ecosystem and what their presence or absence can tell us about the health of our environment. Join Dr. Lendemer for this landmark workshop to begin the first-ever collection of crustose lichens at EOA and to learn the finer points of crustose lichen identification with one of the country's great lichenologists.

ONE DAY RUBUS PRACTICUM

Saturday, June 20, 2015

Ohio's Rubus

Dr. Mark Widrlechner, Iowa State University

Rubus is a diverse genus in the Rose Family (Rosaceae) which occurs on every continent except Antarctica. The economic importance of this genus as a fruit crop cannot be overstated, and its value for wildlife is well known. Yet, very few people attempt to understand this group of (mostly prickly) plants and simply lump them together as blackberries, dewberries and raspberries. Getting beyond their multifarious prickles, the genus *Rubus* is very complex with confusing growth habits, much environmental plasticity, and unusual variation in breeding systems. The group is a fitting challenge for all botanists and working naturalists who are willing to take it on. This practicum should be considered a rare opportunity to study with one man who's willing to sort them out, Mark Widrlechner. Are you up for the challenge? Bring along some sturdy gloves, put all preconceived notions aside, and dig into a group that may surprise and delight.

June 26-28, 2015

Bobcats & The Art of Remote Monitoring

Dr. Suzie Prange, Wildlife Research Biologist, ODNR Division of Wildlife

Tim Prange, Environmental Educator, Rural Action

Eric Householder, Wildlife Technician, USDA, APHIS Wildlife Services

Laura & David Hughes, avid remote monitoring practitioners

Bobcats have never been photographically documented on the preserve although the preserve receives occasional unconfirmed reports. That's about to change thanks to this amazing team of instructors. Dr. Suzie Prange will head up the team along with her right hand man, and husband, Tim Prange. Her work on bobcats in Ohio is well known and deeply respected. One of her primary tools in her research is the use of remote monitoring with game cameras and scent posts. Understanding bobcat habits, travel routes and their use of the eastern forest is critical and Dr. Prange will share this knowledge she's gained over 8 years of working with these cats. Land managers interested in detecting these elusive nocturnal cats on lands they manage will especially benefit from this workshop. Suzie will be joined by one of her collaborators, Eric Householder with USDA APHIS arguably one of state's greatest trackers and trappers, and Laura and David Hughes whose trail camera work is nearly legendary in Ohio. The Hughes' otter, beaver, bobcat and grouse videos are remarkable and their work to push the bounds of game cameras is evolving daily. Participants will be trained in setting up effective detection stations for bobcats and other species, given the opportunity to apply what they learn by setting up their own stations and learn pertinent life history/ecology of bobcats and other species needed for remote monitoring work. Make history this June by capturing the first-ever bobcat image for the preserve with this celebrated team of instructors.

July 24-26, 2015

Bumble Bees & Pollination Ecology

Mike Arduser, Retired Biologist, Missouri Department of Conservation

The world's scientists, food producers and citizens are concerned about declining pollinators at risk from habitat loss, pesticide use and introduced diseases. As pollinators are responsible for the reproduction of 85 percent of the world's flowering plants, including more than two thirds of the world's crops, their health and well being should be a concern for everyone. Yet, with these staggering statistics very few people know one bee from another or which common foods that they eat that depend on pollinators. It's imperative that people better understand the bonds between plants and their pollinators and the first step in doing this is to learn how to identify the players in the pollination game. Join retired conservation biologist and respected bee authority, Mike Arduser for this workshop to learn bumble bee identification, ecology and life history. Participants will learn to recognize the 17 species of bumble bee in Ohio, how to recognize a male from a female and seasonally when to look for each. The workshop will also cover pollination ecology, the intimate association between the pollinators and the plants they service. This fascinating science will surely boggle the minds of the uninitiated with bewildering pollen delivery systems and a myriad of pollinators, each with their own unique story to be told. The workshop will be a mix of lab and field work with plenty of opportunities to slow down and crouch amongst the flowers for one of the greatest, yet often overlooked, shows on earth.

September 18-20, 2015

Stoneflies

Dr. R. Edward Dewalt, Aquatic Entomologist, Illinois Natural History Survey

Dr. Scott A. Grubbs, Associate Professor, Western Kentucky University

Stoneflies are among the most sensitive of aquatic insects with many species in danger of extinction and severe range reduction. Many species are extremely sensitive to changes in water and habitat quality and are the "P" in the EPT Index (Ephemeroptera-Plecoptera-Trichoptera) used the world over to measure stream quality. This workshop is intended for water quality practitioners who use the EPT Index and that need that next level of identification training with stoneflies. Stonefly identification can be challenging and with 713 species in North America and 103 species recorded for Ohio, quality identification training with this group is a necessity. Dr. DeWalt's extensive collection will be used to teach stonefly identification to family, genera and species with opportunities for assistance with personal collections brought to the workshop. DeWalt and Grubb have collaborated on a large Midwest, USA stonefly project that documented regional species richness patterns, predicted past and future (climate related) distributions, included revisions of genera, and described new species. They are currently preparing an Atlas of Ohio Stoneflies and are the perfect pair to lead this workshop on Ohio stonefly identification and ecology. Don't miss this opportunity to study with these undeniable Ohio stonefly authorities.

October 9-11, 2015

Land Snails

Dan Dourson, Senior Wildlife Biologist, Copperhead Consulting

Land snail shells are some of the most beautiful natural forms on earth. Their sinuous shapes are wildly pleasing and their species diversity surprising to the uninformed. The preserve is an Ohio hotspot for land snails (68 species) owing to the many miles of exposed carbonate cliffs which the snails use for calcium in shell production. Some of Ohio's land snails can be quite small (1/8 inch) so be prepared for some up close work. Microscope and hand lens work will be necessary. Natural area managers need to become familiar with these creatures as they can be used as indicators for habitat quality and need to be considered when planning land management activities. Learn the fascinating biology of these shell-bearing creatures such as their unusual hermaphroditic reproductive strategy. Learn shell morphology and terminology to make use of scientific keys to identify snails to species with an authority on eastern land snails, Dan Dourson. Dan has authored books on the land snails of The Smokey Mountains, Kentucky and most recently West Virginia. Discover a miniature world that few naturalists have ever seen. Be the first to discover new land snail records for the preserve and maybe even Ohio!