

## Virtual Pesticide Credit Clinic 6

### Hour 1: Aquatic Vegetation Management – *John Stone, MSU PSEP*

**Session description:** Vegetation types, application rates, formulations, water body volume determination and permitting.

**Speaker bio:** John Stone is an Academic Specialist at Michigan State University. He is the Coordinator and Instructor of the MSU Pesticide Safety Education Program, within MSU's Institute of Agricultural Technology. As Pesticide Safety Education Program coordinator, John works on developing and presenting training programs for new and experienced applicators, and the revision and rewriting of the pesticide applicator certification manuals.

### Hour 2: MSU Entomology Bark beetles, Oak wilt ecology and Spotted Lanternfly – *Dr. Deb McCullough, MSU*

**Session description:**

**Speaker bio:** Dr. Deb. McCullough, a native of Flagstaff, Arizona, holds graduate degrees in Forestry (M.S., Northern Arizona University) and Entomology (Ph.D., University of Minnesota). She is a Professor with a joint appointment in the Dept. of Entomology and Dept. of Forestry at Michigan State University, with research, extension and teaching responsibilities. Dr. McCullough's research focuses on the ecology, impacts and management of forest insects, including invasive pests such as Emerald Ash Borer, Beech Bark Disease, and most recently, Hemlock Woolly Adelgid. She works with forest managers, regulatory officials, arborists and private landowners to develop sustainable management strategies to protect forests from damaging populations of forest insects. McCullough has published more than 100 papers about forest insect ecology and management in scientific journals, along with more than 200 extension bulletins and articles. She is a member of the national Forest Research Advisory Committee to USDA, the Michigan Interagency Forest Invasives Committee and frequently provides advice on forest insect management to state, municipal and private landowners.

### Hour 3: Invasive vegetation species priorities and management in NW Michigan – *Katie Grzesiak, MW MI Invasive Species Network*

**Session description:** Katie will discuss her work as Coordinator of the Invasive Species Network, and the current invasive plant focus in Michigan.

**Speaker bio:** Katie is originally from DeWitt, Michigan (near Lansing), but she would rather talk with you about the time she has spent in Michigan's Upper Peninsula. She graduated from Northern Michigan University with a Bachelor of Arts in Ecology, and worked for the National Parks Service at Pictured Rocks National Lakeshore on invasive species management for six summers. Katie went on to incorporate this employment into her study for a Master of Science at the University of Michigan's School of Environment and Sustainability (formerly SNRE). Katie has been with Invasive Species Network since 2013, has been the Coordinator since 2014, and oversees the overall efforts of the organization. In concert with her work at ISN, Grzesiak helps wider invasive species efforts shine through service on the [Michigan Invasive Species Coalition](#) Core Team, the Midwest Invasive Plant Network's [Woody Invasives of the Great Lakes Collaborative](#), and the tri-national steering committee for the [Play Clean Go™](#) campaign.

#### **Hour 4: Monarch Butterfly Habitat Needs – *Nate Haan, MSU Entomology***

**Session description:** This session will specifically cover the services that right-of-way habitats offer monarch butterflies.

**Speaker bio:** Nate Haan is an ecologist and conservation biologist interested in species interactions, especially those involving insects and plants. He is a post-doctoral research associate in the Landis lab at Michigan State University. Some of Nate's interests include the ecology of early-instar caterpillars, the role of plant chemistry in trophic interactions, and the ecology of hemiparasitic plants. Nate tries to design his research projects so they assist or inform on-the-ground conservation. During his PhD work, he collaborated with several conservation agencies and organizations to help inform grassland management and recovery of threatened and endangered species. He is involved in two projects in the Landis lab at Michigan State University: First, as part of the Great Lakes Bioenergy Research Center, they are forecasting effects of bioenergy cropping on insect communities and the ecosystem services they provide in the Midwest US, with special interest in how changes to landscape composition and configuration will affect biocontrol services. Second, they are testing how ecological disturbance in grasslands influences monarch butterflies via their interactions with milkweed host plants and with other arthropods.