

Workshop: Field surveys and assessments with environmental DNA (eDNA): A how-to for field biologists and managers

Dates: May 17-19th, 2019

Location: Cedar Bog Nature Reserve, Urbana, OH

Instructor: Dr. Stephen Spear, Director of Wildlife Ecology at The Wilds

Environmental DNA offers great potential for scientists and managers to survey for declining species, invasive species, and diseases in the environment. Yet eDNA survey and monitoring has its major challenges, from effective field collection and filtering of water to identifying laboratories to run field samples. This weekend workshop will use a field-portable eDNA detection system developed by Biomeme Inc. to demonstrate eDNA collection and detection in a platform that is accessible to any interested worker. We will focus on detecting multiple targets, including spotted turtles and amphibian chytrid fungus, but techniques will be applicable to many aquatic systems. The following topics will be included:

- Overview of eDNA case studies using both water and soil sampling
- Collection and filtering of water samples across wetlands at Cedar Bog
- How to design primers for species-specific amplification
- Extraction and amplification of eDNA samples using Biomeme qPCR equipment
- Interpreting results and analytical tools for using eDNA in monitoring programs.

This workshop is targeted toward both natural resource professionals and students with limited first-hand experience with eDNA that are looking to learn more about the method or develop their own eDNA projects. Biologists who conduct aquatic field surveys but lack access to traditional laboratory facilities are especially encouraged to attend.

The workshop will start Friday afternoon and continue through midday on Sunday. The course will be located at Cedar Bog Nature Reserve. For lodging, a group rate is available at the Econo Lodge Motel (1490 E. US Hwy 36, Urbana, Ohio); other lodging is available in the area. Additional details will be provided upon registration.

Workshop fees and costs: The fee for the workshop is \$150. Box lunches can be provided for lunch Saturday for \$7.50. Other food and lodging will be on your own.

To register for the workshop or to ask any questions, please contact Stephen Spear at sspear@thewilds.org.



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