FREE ONLINE SYMPOSIUM: Insect pollinator eDNA

WHEN: February 13, 2026 11:30 am to 3:30 pm Eastern Standard Time

LINK TO REGISTER: https://nmsu.zoom.us/j/88163900346

DESCRIPTION:

Environmental DNA as a tool for inferring insect species presence and characterizing communities

Insects are declining around the world, and lack of information about their ranges and ecologies impedes management efforts. Environmental DNA (eDNA) detection methods may help provide an efficient and effective monitoring tool for insect communities. Join us for a review of the cutting edge developments in eDNA methods to non-invasively detect and monitor insects.

SCHEDULED TALKS:

11:30 - 11:35 Introduction to the symposium

Jeffrey Everett, U.S. Fish and Wildlife Service

11:35 - 11:50 Introduction to environmental DNA (eDNA) and its uses for terrestrial arthropods

Stephen Spear and David Pilliod, U.S. Geological Survey

11:50 - 12:05 Effects of environmental factors on pollinator eDNA under laboratory and field conditions

Murulee Byappanhalli, U.S. Geological Survey

12:05 - 12:20 Development and validation of an eDNA assay for detection of the endangered Franklin's bumble bee (*Bombus franklini*)

Michaela Grossklaus, U.S. Geological Survey

12:20 - 12:35 Detection of the threatened Dakota Skipper (*Hesperia dacotae*) from flower-derived eDNA

David Pilliod, U.S. Geological Survey

12:35 - 12:50 qPCR lessons learned in the laboratory

Marissa Kaminski, U.S. Geological Survey

12:50 - 1:05 Similar detection possible using flower-derived eDNA and visual observation for western and rusty patched bumble bees

Eliza Stein, U.S. Geological Survey

1:05 - 1:15 Break

1:15 - 1:30 Utilizing pollinator eDNA from midwestern prairie forbs to reveal plant-pollinator networks and arthropod interactions

Sara Merkelz, University of Illinois Urbana-Champaign

1:30 - 1:45 Combining eDNA and vane traps to characterize pollinator communities and their interactions with at-risk and invasive flora

Aron Katz, U.S. Army Engineer Research and Development Center

1:45 - 2:00 Testing the capacity of eDNA for sampling bee communities

Nevin Cullen, Oregon State University

2:00 - 2:15 Resurveying bees at Indiana Dunes National Park using traditional and eDNA methods

Ralph Grundel, U.S. Geological Survey

2:15 - 2:30 Environmental DNA elucidates avian and arthropod pollinator networks on threatened and endangered Hawaiian native plants

Mark Johnson, U.S. Army Engineer Research and Development Center

2:30 - 2:40 Break

2:40 - 2:55 Environmental RNA as an emerging tool in pollinator biodiversity monitoring and conservation

Mark Davis, Illinois Natural History Survey

2:55 - 3:10 Sample designs and analytical methods to understand the effect of management treatments on insect communities and species of concern

Gavin Cotterill, U.S. Geological Survey

3:10 - 3:25 The state of the science of flower-derived environmental DNA for pollinator biodiversity monitoring, ecological research, and conservation

Ashley Rohde, New Mexico State University

3:25 - 3:40 Moderated question period

Tabitha Graves, U.S. Geological Survey