

From Detection to Decision: Environmental DNA for Invasive Species Management

NAISMA Virtual Summit Agenda - DRAFT - Wednesday, September 9th, 2026

Agenda

- 11:00 -11:05 **Welcome**
Christie Trifone Millhouse, NAISMA Executive Director
- 11:05-11:30 **Environmental DNA and the Future of Invasive Species Management**
Adam Sepulveda, USGS
- 11:30-12:15 Session 1 - Aquatic Applications** - *This session will explore how environmental DNA is being used to detect, monitor, and inform management of aquatic invasive species, with case studies highlighting both established programs and emerging challenges.*
- 11:30-11:45 **Establishing Species Baselines and Monitoring Mexico's Inland Aquatic Systems Using Environmental DNA**
Manuel Elías Gutiérrez, ECOSUR
- 11:45-12:00 **Using eDNA for Invasive Northern Pike Detections in Southcentral Alaska**
Parker Bradley, Alaska Department of Fish and Game
- 12:00-12:15 **Lessons from the Golden Mussel Response: Using eDNA for Early Detection and Coordinated Monitoring**
Yale Passamaneck, Bureau of Reclamation
- 12:15-12:25 Question/Answer Period**
- 12:25-1:10 Session 2 - Terrestrial Applications** - *This session will highlight the expanding use of environmental DNA for terrestrial invasive species surveillance and management across a variety of ecosystems and taxa, demonstrating how eDNA is being applied beyond aquatic ecosystems.*
- 12:25-12:40 **Applying Environmental DNA to Terrestrial Invasive Species Detection and Management**
Toni Piaggio, USDA APHIS (Pre-recorded presentation)
- 12:40-12:55 **Development of multiplex digital PCR assays for eDNA monitoring of invasive reptiles in Florida, U.S.A.**
Melody Bloch, University of Florida
- 12:55-1:10 **Environmental DNA for Invasive Insect Surveillance**
Julie Lockwood, Rutgers University
- 1:10-1:20 Question/Answer Period**

1:20-1:35	Break
1:35-2:20	Session 3 - Research and Emerging Technologies - <i>This session will showcase new research, innovative technologies, and developing methodologies that are expanding the capabilities of environmental DNA and shaping the future of invasive species detection and monitoring.</i>
1:35-1:50	Airborne eDNA for Biosecurity and Shipping Container Surveillance <i>Stephen Spear, USGS</i>
1:50-2:05	Sample. Sense. Respond. – Autonomous Robotics for Real-Time eDNA Monitoring <i>Kristine Moody, Oak Ridge National Laboratory</i>
2:05-3:05	Session 4 - Implementation - <i>This session will examine how environmental DNA is being integrated into operational invasive species programs, including lessons learned, partnerships, and considerations for scaling these tools for broader operational use.</i>
2:05-2:20	eDNA 4.0: The Use of Targeted Capture for Species Detection <i>Joseph Craine, Jonah Ventures</i>
2:20-2:35	How Standards and Guidelines Can Build Trust and Reliability in eDNA Data <i>Katy Klymus, USGS</i>
2:35-3:05	From Detection to Decision: Managing New Zealand Mudsnaills with eDNA <i>Jennifer Graves, U.S. Fish and Wildlife Service</i>
3:05-3:30	Final Questions/Answer and Closing Remarks