

Report
to the Midwest Association of Fish and Wildlife Agencies
and the Western Association of Fish and Wildlife Agencies

Meeting the Conservation Decision-Making Needs of State Fish and Wildlife Agencies
Jen Mock Schaeffer, Independent Contractor for the Wildlife Management Institute

Project purpose: to discover what State fish and wildlife agencies need, individually and collectively, to meet the current and forthcoming adaptive management and conservation decision-making challenges of today and tomorrow.

Background: Many federal data management and synthesis efforts that are intended to benefit state fish and wildlife agencies and the conservation community have attempted to incorporate state agency data to inform conservation actions and decisions, but these efforts have not gone as planned for primarily two reasons: 1) failure to appropriately consider and integrate state privacy laws and data confidentiality agreements with private land owners into the architecture, and 2) the well-intentioned design of a database or data management system that was created without the direct input of states or without states identifying it as an important need for their agencies. The conservation decisions that State fish and wildlife agencies (states) must make are growing in number, volume, and complexity. Adaptive management decisions from species' status and management regimes to strategic investments in conservation planning, research, data management, conservation actions, and capacity will continue to grow.

As a starting point, can we combine Regional Association efforts to help states and partners? The compatibility of the data files and components of the Nature's Network, SECAS, and CHAT were compared, and it was determined that these regional efforts cannot easily be combined into a single, national data system due to underlying incompatibilities in data architecture. The CRU personnel verified this assessment. At the time of review, the MLI wasn't as advanced as the other regional efforts and does not yet have a web-based data platform to include in the comparison. However, the State Wildlife Action Plans (SWAP) database developed by USGS holds promise because it standardized naming conventions across states and provides a user interface to identify species reported in SWAPs in 2005 and 2015, providing important information and insights at state and national levels. Further, the Northeast, Southeast, and Midwest used the same contractor to develop a Regional State Species of Greatest Conservation Need (RSGCN) framework, each of which were intended to be a single, comprehensive SWAP database for the respective region. While there still appears to be some usage challenges, these RSGCN databases have similar architecture, data fields, standardizations, metrics, and construction and may be a better starting point for identifying regional linkages, needs, and common conservation opportunities. The project was realigned to focus on identifying state priority needs first and then identifying solutions to those needs second, before proposing to create any type of new or amalgamated data management system(s). This will ensure that actions taken because of this project and its discoveries are priority investments that will be used by the states and their partners.

Important observations to date

- Some states have expressed an interest and willingness to share the expertise of their CRU scientists with other states and collaborative landscape level conservation efforts. Some wish to add an additional scientist to their CRU. However, what expertise lies within which CRU to facilitate such conversations isn't readily available. This gap is being addressed.
- The CRU team helped gather information about CRU scientists' work with the states and the developed tools, technologies, processes, etc., that have been designed to facilitate state decision-making. This information and examples can be shared with other states, which may also facilitate technology transfer or tool expansion, if appropriate.
- Some states expressed a need or desire to improve their data collection processes and establish new protocols for the collection and management of new data sets that are deliberately consistent and facilitate easier cross-boundary and range-wide conservation and collaboration. Others have expressed a need to revamp their existing data management systems and improve cross-agency communication. Additionally, there is an interest in identifying potential paths for taking unique state data on population assessments or trends across the range of a species and generating a range-wide population estimate. For some states this will require the adoption and integration of new data management processes, some standardization, application of best management practices for data management, and more – all of which must be well informed to be fruitful. It will be important for state leaders to know enough about data management, data standardization, and best practices to hire or contract the right skill sets to help integrate current/future/desired data sets and systems that create the opportunity to engage in collaborative conservation more easily across divisions, borders, ranges, and landscapes.
- Several states have indicated a need for establishing internal processes to help prioritize where to invest in conservation actions/capacity/landscapes that will yield priority outcomes, particularly in the context of potential new revenues to expand state-led species conservation efforts.
- To assess the outcomes of past actions, plan future investments in capacity/actions/landscapes, report actions and fiscal information more easily to multiple grantors for a single project, manage an increase in staff turnover, and track progress toward desired future conditions some states described needing a robust information management system that integrates geospatially referenced information and actions, species data, past and planned actions, and fiscal/reporting tools.
- Several states are interested and willing to work across borders on range-wide issues, particularly if RAWA is enacted. They recognize that dedicated capacity and expertise outside of the agency is required to spearhead cross-border and regional conversations and efforts to create shared priorities, actions, and goals and then successfully implement the jointly crafted strategy.
- Some regional associations are wrestling with how best to identify, invest, and most effectively engage in region-wide or landscape level conservation efforts that benefit the states, the FWS, and their partners.
- In multiple states, there are capacity gaps that are hindering habitat restoration work. Some states are challenged to meet the habitat restoration requirements of current projects, let

alone if RAWA is enacted. *This appears to be a critical workforce shortage that must be addressed, and some ideas are forthcoming.*

A few questions for you and your team leaders to consider when speaking with Jen

- Do your current data and information management systems do what you need and want them to do? Do they:
 - Answer your questions and provide well-informed decision information?
 - Provide streamlined workflow and reporting to meet current and future needs?
 - Provide important information to the public?
 - Track your past, current and future actions?
 - Incorporate modeling to assess cumulative impacts of conservation actions, impacts from development, or to help identify lands/waters of high ecological value?
 - Inform and support decisions/actions by various divisions across the agency?
- What are your biggest challenges to successfully implementing RAWA if enacted? What about with the bipartisan infrastructure law or increased renewable energy development?
- Do you have a process for identifying your priority species, habitats, landscapes, and outcomes?
- Do you have challenges with the conservation of a species/habitat that is shared with an adjoining state? What are they? What would you like to see improved or changed?
- What are the impediments or challenges to successful cross-border and/or regional conservation? What do you think the solutions are?
- How does your agency use the Midwest Landscape Initiative/CHAT/SECAS/Nature's Network in its decision-making or planning processes?

Contact information

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The AFWA Strategist

Update for Members and Partners of the Association of Fish & Wildlife Agencies

Summer 2022

AFWA Government Affairs

FY23 Appropriations Update: House Appropriations Subcommittees released and approved draft FY23 spending bills throughout June, including for the Interior, Environment, and Related Agencies and Agriculture, Rural Development, Food and Drug Administration, and Related Agencies. Overall DOI funding totals \$6.8 billion, an 18% increase over current funding, including \$1.9B for USFWS, a \$230M increase. However, several priority programs fell short of both the President's budget and AFWA's requested levels, including State and Tribal Wildlife Grants at \$74.362M and the North American Wetlands Conservation Fund at \$50M. These bills now await action by the full House Appropriations Committee, and AFWA will continue to engage with appropriators to pursue funding levels in line with our [FY23 Interior testimony](#) and [Agriculture/FDA testimony](#).

Predator Contest Prohibition Bill Moving: On June 16, the House Natural Resources Subcommittee on Water, Oceans, and Wildlife held a [legislative hearing](#) on a series of bills including the *Prohibit Wildlife Killing Contests Act of 2022* ([H.R. 7398](#)). This bill would make it unlawful for any person to organize, sponsor, conduct, or participate in a wildlife killing contest on public land, with exceptions for field trials, contests that target ungulates, Galliformes or Anatidae (e.g., turkeys, ducks, respectively) or lethal control actions by State or Federal agencies targeting invasive species. Public land is defined as any land owned by the U.S. and managed by a public land agency, specifically defined as NPS, USFWS, BLM, BOR, and USFS. AFWA will be submitting a statement for the record acknowledging the challenging issues involved with these types of activities, but still pointing to concerns regarding state authority. We will continue to advocate for retaining state agency management authority in setting these type of regulations.

SCDNR's Dep. Dir. Cope Testifies to Senate EPW: On June 15, the Senate Environment and Public Works Committee held a legislative hearing on a series of bills including the *Coastal Habitat Conservation Act of 2021* (S2194), for which Emily Cope, SCDNR Deputy Director for the Wildlife and Freshwater Fisheries Division, provided supporting testimony at the request of the bill's co-sponsor, Sen. Graham. She received universal acclaim from Committee members and staff and her testimony and the full hearing are available [here](#). We were glad to host her at the AFWA offices and as always stand ready to provide support and assistance to members visiting D.C.

AFWA Developing Comments, August 8 Deadlines: CWA 401, ESA 10J, and Hunt/Fish Refuge Rule: EPA has developed a [proposed rule](#) revising and replacing the Agency's 2020 regulatory requirements for water quality certification under Clean Water Act (CWA) section 401. The EPA is also proposing conforming amendments to the water quality certification regulations for EPA-issued National Pollutant Discharge Elimination System permits. AFWA submitted comments on the proposed 2020 rule, and will be updating our comments for submission. We will be holding a webinar in early July to give an overview of the rule and seek feedback to inform AFWA comments. We will also be holding a webinar in early July with members of the AFWA Legal Committee and the Threatened and Endangered Species Policy Committee to inform AFWAs comments on [the proposed ESA 10\(j\) rule](#) regarding the proposal to expand experimental populations outside of historic range to anticipate and account for climate.

On June 9, USFWS published the [proposed 2022–2023 Station-Specific Hunting and Sport Fishing Regulations](#). While the rule provides modest expansions of opportunity at refuges currently open for other hunting and fishing activities, it more importantly signals the intent to prohibit lead fishing tackle and hunting ammo in the 2027 rule at a number of refuges. AFWA will be submitting comments recommending that lead tackle and ammunition decisions be informed by discussions with state fish and wildlife agencies. The comment deadline for all of these is August 8.

IJA Implementation Update: July 18-20, USFWS, AFWA, and NFHP will be co-hosting a workshop with partner Federal Agencies, Tribes, and NGO's to collaborate on implementation of Aquatic Organism Passage funding in the IJA. While FY22 funds were mainly directed to projects already in federal agency queues, all partners share the goal of establishing collaborative frameworks for project priorities, selection, and funding direction moving forward. AFWA is coordinating closely with the regional associations and NFHP to ensure the limited seats are filled by state staff covering all necessary areas of expertise and representing the full suite of states' interests and perspectives.



Recovering America's Wildlife Act- Update

On the historic 14th day in June, the *Recovering America's Wildlife Act* ([H.R.2773](#)) passed on the House floor with a final passage vote of 231-190. This is a significant victory for wildlife, for our many partners, and for all those across the country that we hope to serve with this funding. Congratulations and thank you for all your hard work! The continued commitment and perseverance from states and many partners has gotten us to this point, and we will need to remain steadfast as we still have more work to do. This is both a marathon and a sprint to the finish. It will be important to remember as we chart the successful path to the Senate, and to the end goal of enactment, that we'll need all members, cosponsors, and champions, on both sides of the aisle, to get to the goal line (that may or may not involve another stop in the House). So please join us in thanking the House offices that [voted yes for the bill's passage](#) and encourage contacts to Senators to hunker down and get this pivotal legislation passed in the Senate as soon as possible. You can refer advocates to the [Alliance for America's Fish & Wildlife website](#) to send a letter to Senators encouraging swift action in the Senate. For your awareness, the administration also recently released a strong statement of support for the goals of the bill that you can view [here](#). Feel free to reach out with any questions to Sean Saville, AFWA's Campaign Manager at ssaville@fishwildlife.org; 202-838-2561.

JOIN US FOR THE 112TH AFWA ANNUAL MEETING

Omni Hotel
Forth Worth, Texas
September 18-21, 2022



Registration is now OPEN for
AFWA's 2022 Annual Meeting at
www.afwaannualmeeting.org

WELCOME New Employees!



New Employee!

We are pleased to announce that Meaghan Gade has joined the AFWA family as our new Energy and Wildlife Program Manager.



New Employee!

We are pleased to announce that Jacob Blandford has joined the AFWA family as our new Climate Adaptation Program Manager.



New Employee!

We are pleased to announce that Jeff Yattaw has joined the AFWA family as our new Sr. Accounting Manager.



New Employee!

We are pleased to announce that Kalina Vatave has joined the AFWA family as our new Agriculture Policy Program Manager.

Association of Fish & Wildlife Agencies
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Southern Wings Webinars

A [Webinar](#) for State Fish & Wildlife Agency Leadership: **August 3rd, 1:00–2:00pm EDT**

Join Director Sara Parker Pauley and other state agency staff to learn more about Southern Wings, why this program is critical to successful migratory bird conservation in your state and how it can help you be RAWA-ready! Speakers include: Sara Parker Pauley, MDC; Craig Thompson, WI DNR; Edwin Juarez, AZ GFD; Sarah Kendrick, USFWS.

[Zoom Link](#), +1 646 558 8656, Meeting ID: 832 5518 6224; Passcode: 442056
Find your local number [here](#).

Your Invited to a webinar about grassland bird conservation in northern Mexico: **August 9th, 1:00-2:00pm EDT**

Southern Wings provides state agencies such as Montana, Iowa, Kansas, South Dakota and more the ability to complement their in-state investment for Species of Greatest Conservation Need, including Baird's sparrow, Sprague's pipit, and long-billed curlew with the protection and improvement of wintering habitat for these same species. Full annual-cycle conservation is the only way to have successful long-term conservation. Find out how supporting conservation work in Mexico can help your state meet the objectives of your SWAPs.

[Zoom Link](#), +1 312 626 6799; Meeting ID: 838 4451 0839; Passcode: 907440
Find your local number [here](#).

2021 AFWA Annual Report



The Association recently released its 2021 Annual Report in which we focus on building resilience and the power of adaptation.

Download at www.fishwildlife.org



Federal Partners Session

U.S. Geological Survey Updates

Mark Gaikowski, Center Director
Upper Midwest Environmental Sciences Center

U.S. Geological Survey

Preserving America's Natural Heritage through Research

Science Strategy:

USGS is focused on some of the most significant issues society faces, in which natural science can make a substantial contribution to the well-being of the Nation and the world.

Mission Areas:

- **Ecosystems**
- **Energy and Minerals**
- **Natural Hazards**
- **Water**
- **Core Science Systems**



- DOI - 12 Unified Regions
- USGS - 7 Regions
 - > 300 Office Locations
 - 16 Ecosystem centers
 - 40 Cooperative Research Units

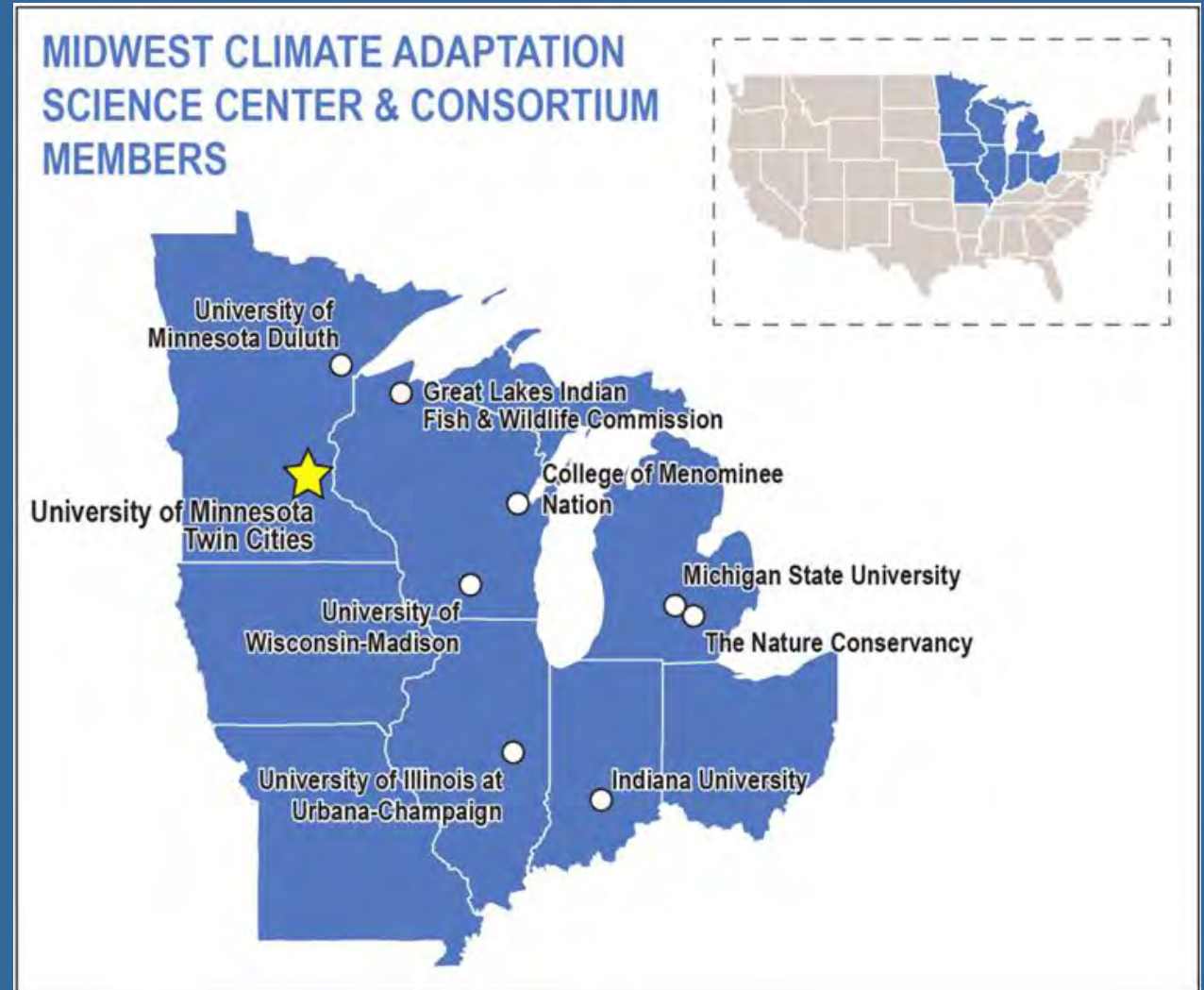


Science founded on Science Quality and Integrity



Midwest CASC Established

- **Focal areas**
 - Climate adaptation
 - Tribal Engagement
- **Key activities**
 - Synthesis research
 - Communities of practice
 - Student training
 - Annual gathering



Public Acceptance of Climate Adaptation

David Fulton (USGS MN CRU), Olivia LeDee (USGS MW CASC), Chad Kooistra (USGS MN CRU)

Study to gauge public values, attitudes, perceptions of risk, and preferences associated with climate change and climate adaptation strategies with a focus on fish and wildlife management.

Two study components: virtual workshops and web-based surveys. Engaged with MAFWA Committees in workshops and design: Human Dimensions, Climate Change, and Wildlife Diversity

Results can identify future adaptation activities that are supported by hunters, anglers, and viewers who value and benefit from fish and wildlife.

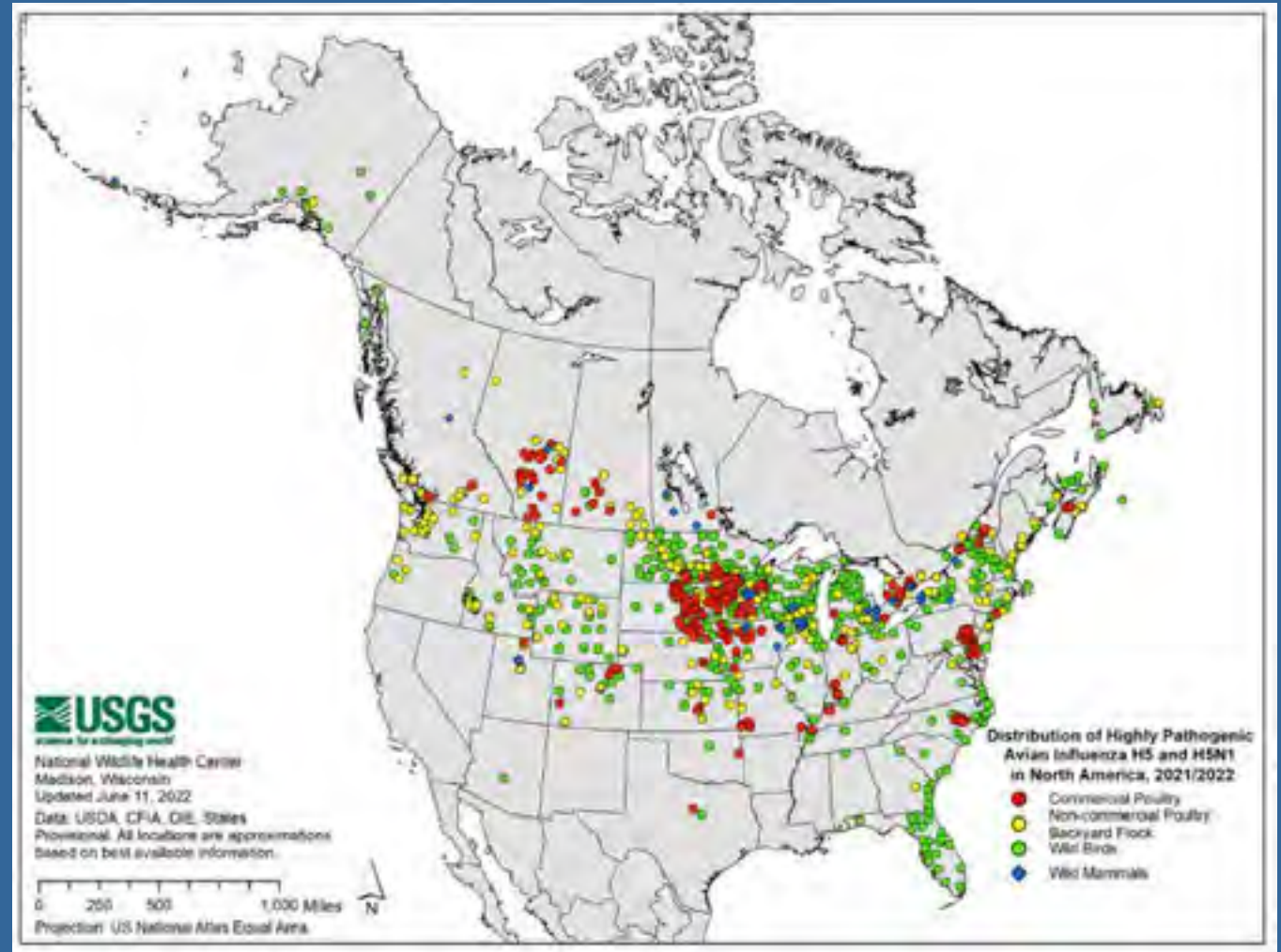


Wildlife disease – Highly Pathogenic Avian Influenza

NWHC: Bryan Richards

- Surveillance

- Interagency HPAI Surveillance Steering Committee
- Strategy: monitor morbidity/mortality in wild birds and mammals
- Test/monitor/track/serve

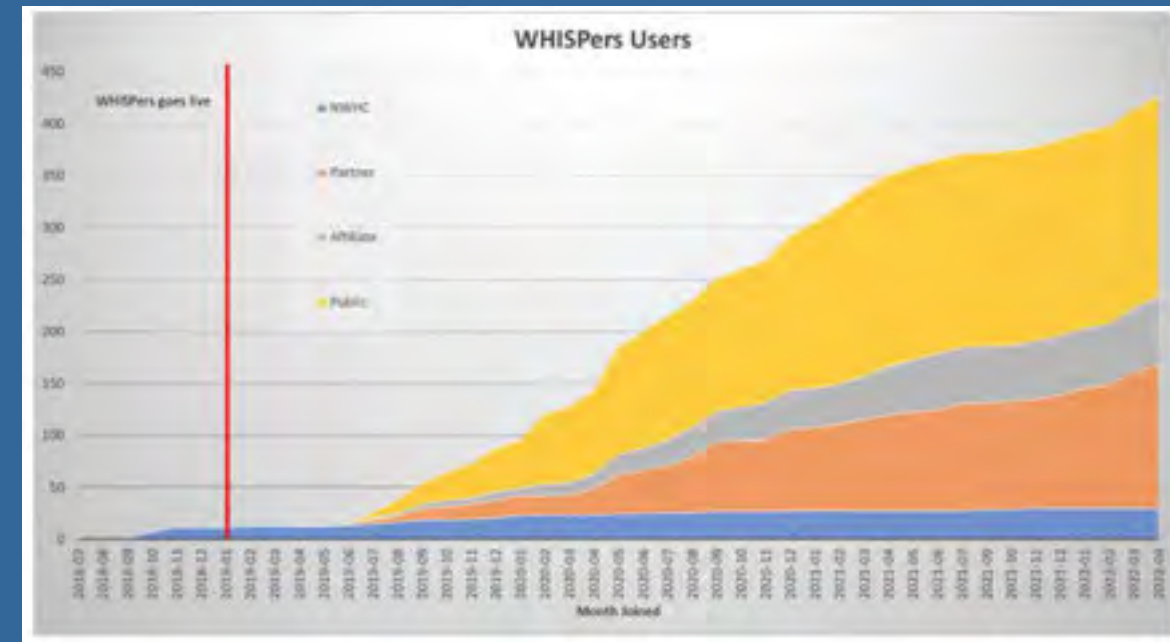


<https://www.usgs.gov/centers/nwhc/science/distribution-highly-pathogenic-avian-influenza-north-america-20212022>

Wildlife disease - WHISPers

NWHC: Bryan Richards

- **WHISPers 2.0 Deployed**
 - Substantial partner agency engagement
 - Majority of MAFWA states onboarded
 - HPAI outbreak highlighted capabilities/benefits
- **WHISPers 3.0 development**
 - Substantial system upgrade:
 - Usability, active surveillance, porting
 - FWS grant: “national wildlife disease database”
 - System scoping – MAFWA Wildlife Health Committee

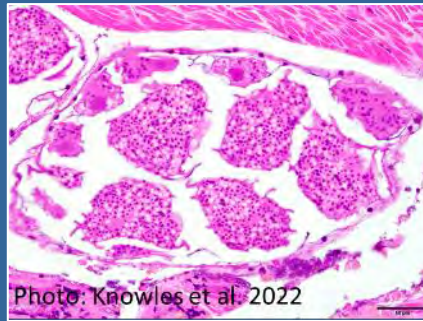


Native freshwater mussels

UMESC: Diane Waller; NWHC: Suzan Knowles

Investigating Declines and Mass Mortality

- Multi-agency (USGS, FWS, University, States) effort to investigate disease agents associated with mass mortality events and streams in decline across U.S.
- Comprehensive approach, using traditional and – omics based diagnostic tools to identify agents
- Establishing methods for monitoring native mussel health in wild and in propagation facilities
- Broadening a network to monitor mussel status and report die-offs is critical to understanding causal agents of mortality



USGS Strategic Science Vision for Native Mussel Research in the US

UMESC: Teresa Newton; WARC: Nate Johnson;
Ecosystems Mission Area: Dave Hu

- Drafted by the USGS Native Mussel Collaborative
- Sets a strategic direction for USGS science
- Identifies focal research themes, research goals, and objectives
- Collaborations across the full spectrum of resource partners, including MAFWA member agencies, will be critical to achieved shared vision
- Draft sent to >500 individuals from 151 organizations across 49 states
- The Science Vision is in final internal edits, shared as final later this year

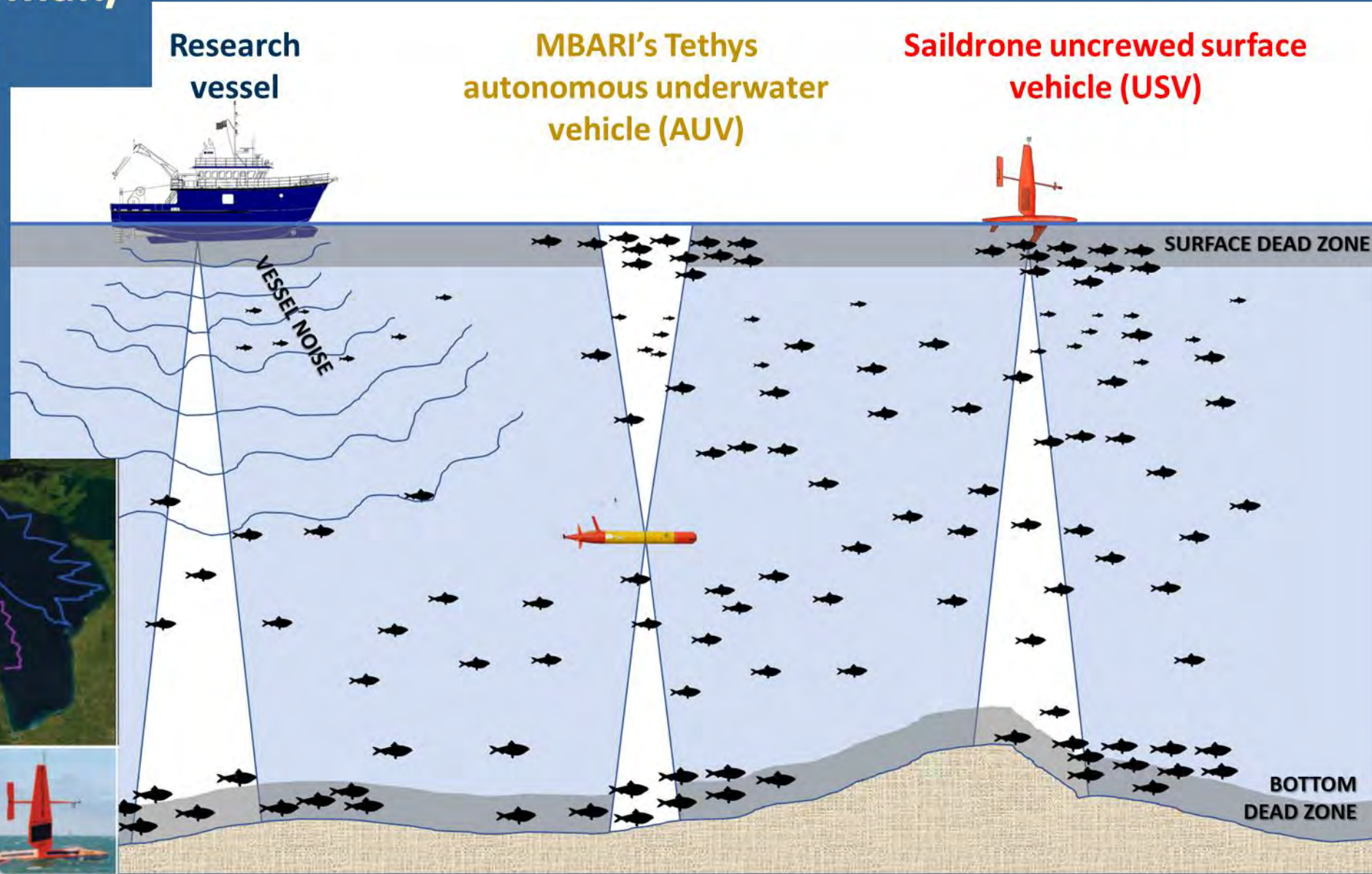


Photo: Chris Barnhart, MO State Univ

Advanced Technologies in Great Lakes Fisheries

GLSC: Dr. Kurt Newman/
Dr. Peter Esselman

- Lake Superior off Ashland, WI
- August 2022



Summer 2021
Saildrone mission



Mississippi River Science

MCR: JC Nelson; UMESC: Jeff Houser Science Forum

- Fall/winter 2022/2023
 - Likely virtual
- USGS developing invitee list
 - Agendas sent with invitations
- Focal topics of the forum will be:
 - Improving **water quality**,
 - restoring **habitat and natural systems**,
 - improving **navigation**,
 - eliminating **aquatic invasive species**,
 - building local **resilience to natural disasters**.
- Purpose – to identify
 - current science, gaps (Research, Data, Policy) and next steps.



Ecological Status and Trends of the Upper Mississippi and Illinois rivers (3rd edition)

- High flows became more frequent and lasted longer
- Concentrations of nitrogen and phosphorus, remained high; Total phosphorus declined in many of the studied river areas; total nitrogen did not
- Widespread increase in water clarity; in some areas associated with a major increase in aquatic vegetation
- Floodplain forest coverage has declined in most of the system.
- Where invasive carps have proliferated, they have changed the ecosystem





Agricultural Practices and Wildlife in the Prairie Pothole Region

NPWRC: Robert Gleason

- Grassland's economic impacts on honeybees (Otto et al. 2022)

- Role of grassland landcover in duck nest survival (Pearse et al. 2022)

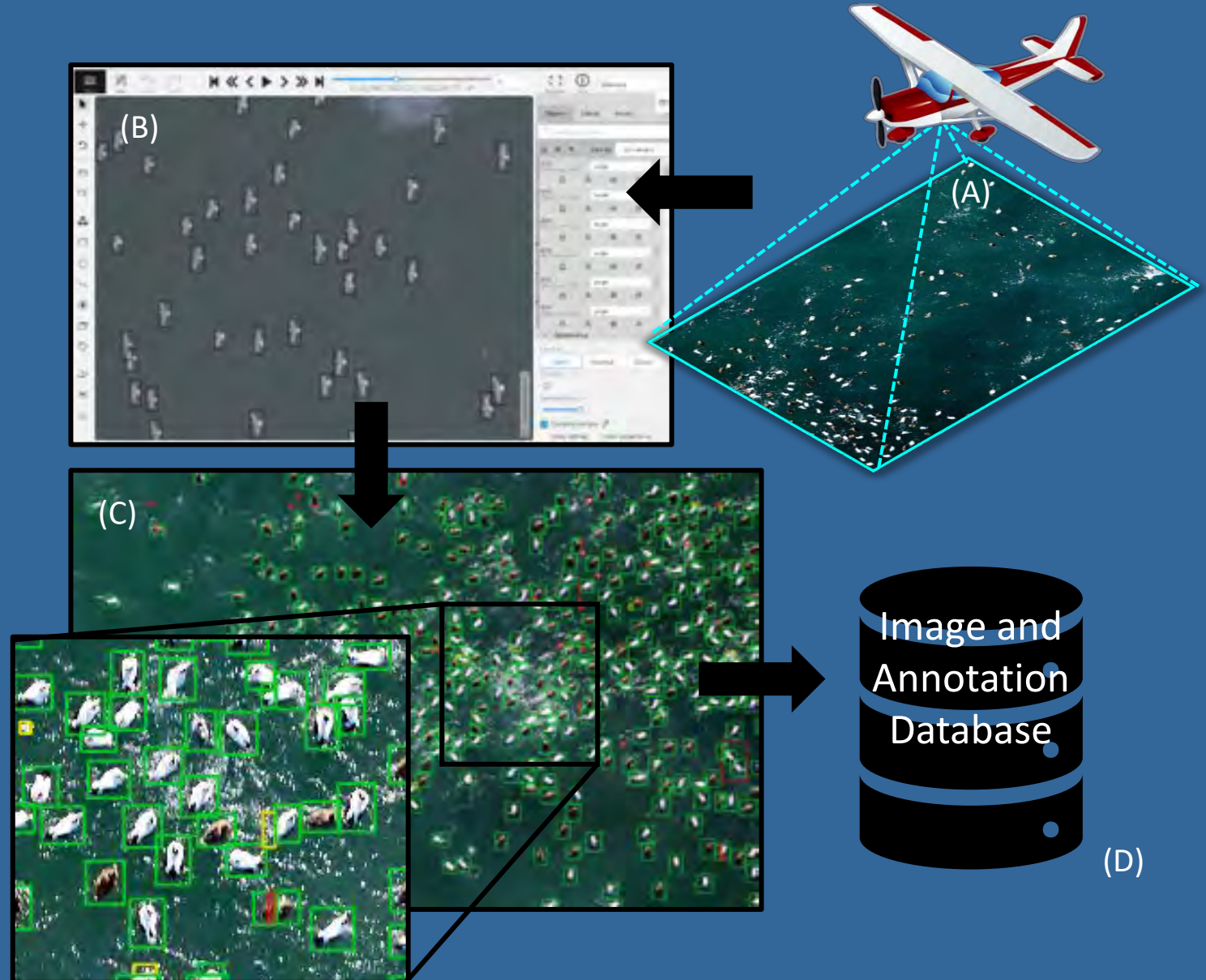
- Assess economic, ecological, and social implications of farming within wetlands (Toy et al.)



Emerging AI for wildlife detection and classification

UMESC: Jennifer Dieck

- Training computer algorithms to detect and classify wildlife in imagery
- Objectives
 - Acquire imagery (A)
 - Annotating through human-built identification (B)
 - Train and deploy machine learning models (C)
 - Build image & annotation database (D)



Invasive Mussels

UMESC: Diane Waller



- Federal, state, provincial, tribal, & NGOs
 - Recent Work Group Products:
 - Dreissenid Project Mapper
 - Research Prioritization Ranking
 - "Best practices" guidance for Lab-based Toxicity and Open water control studies
 - Decision-Support Tool to identify candidate sites for management actions
 - New Planning & Implementation Work Group
 - To oversee future applied research actions
 - <https://invasivemusselcollaborative.net>



USGS Dreissenid Control Research

- Refining strategies for open water controls
 - Assessing short- and long-term effects of low dose copper on settlement and native communities will evaluate economic and ecological trade-offs
- Expanded Use of Carbon Dioxide-Carp
 - Demonstrated effective to prevent biofouling in closed raw water systems
 - Designing systems for open water applications in localized areas



Invasive Carps

Ecosystems Mission Area: Patrick Kočovský

Innovative research for management of bighead, black, grass, silver carp

- Development and Implementation of Early Detection
- Development/Evaluation of Deterrents
- Development/Improvement of Control and Removal
- Modeling and Data Management



Bipartisan Infrastructure Law project highlights

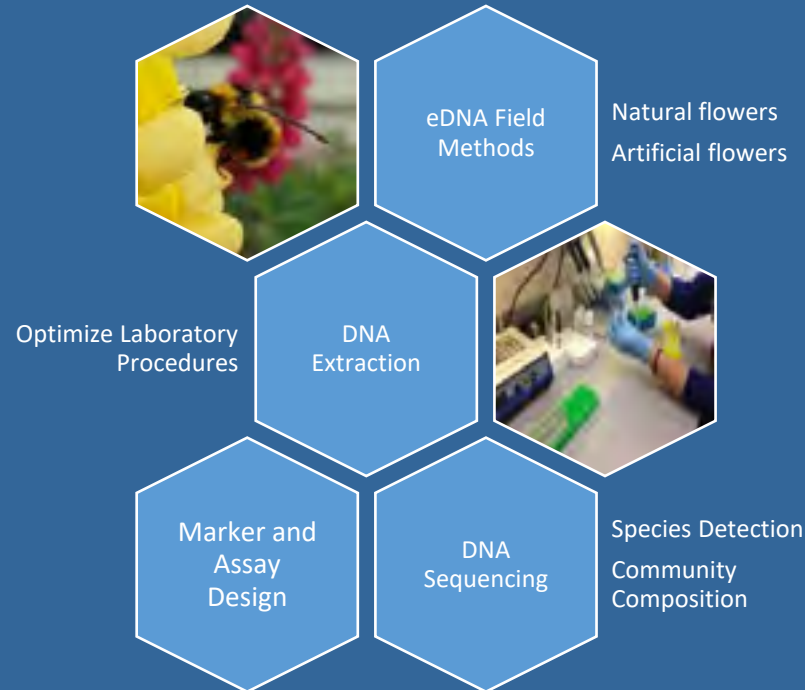
Using Pollinator eDNA to Assess Ecological Resilience of Restored Grasslands

FRESC: David Pilliod

• Goals:

- Develop and test eDNA methods for detecting bee species and determining bee communities in America's grasslands
- Assess outcomes and measures of ecological resilience associated with grassland restoration using bee eDNA collected from flowers

Research & Development



Field Applications

Grasslands sampled in 2022

- Compare netting/trapping with eDNA
- 10 study sites in 8 states



BIL Investments National Early Detection and Rapid Response Framework

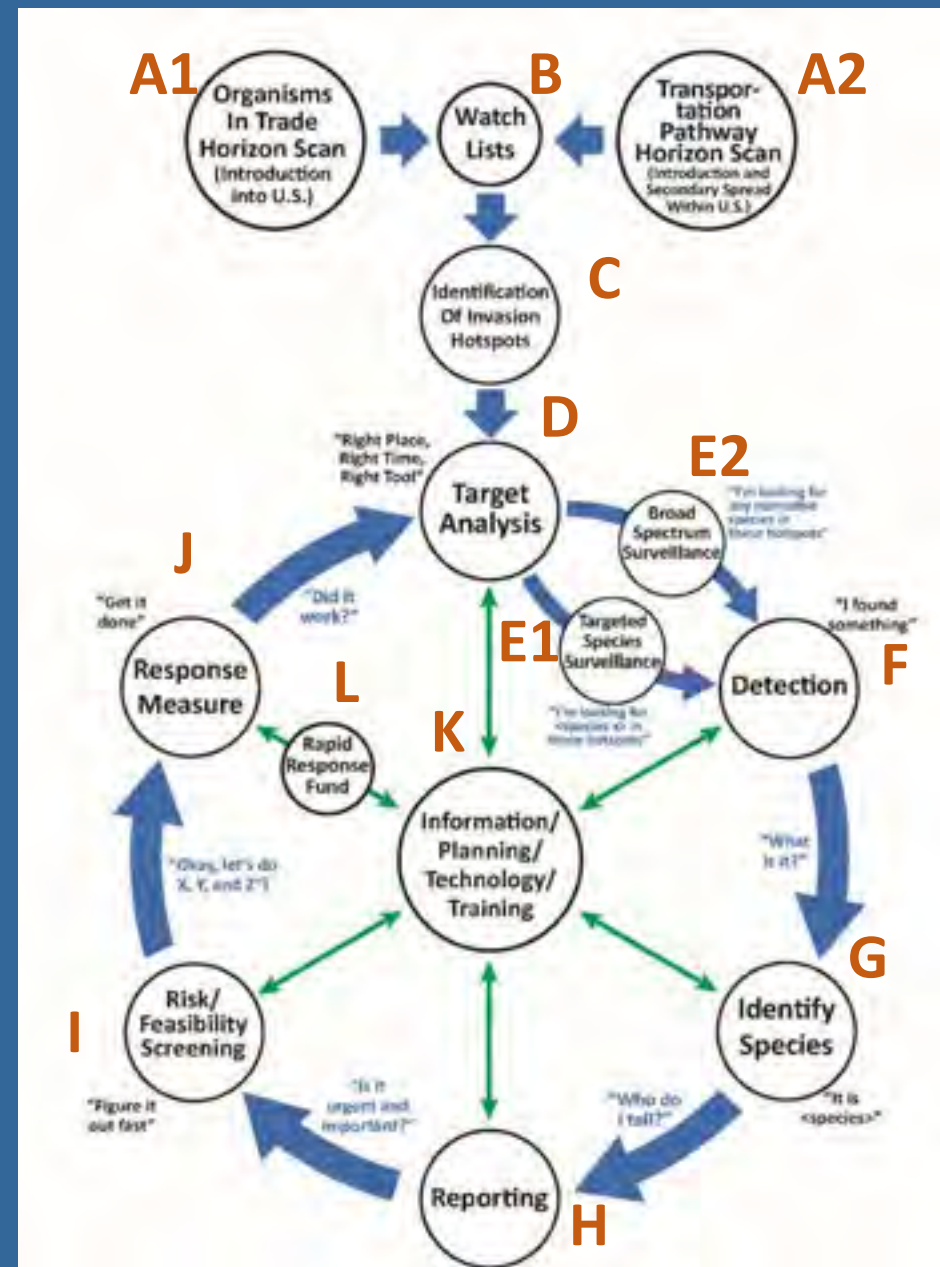
Invasive Species, Cindy Tam, Ecosystems MA

- Horizon scans (A1, A2) to develop Watch Lists (B)
- Hot spot analyses (C)
- **Molecular detection tools at points of entry (E, F, G)**
- Genetic material repository and network (E, F, G)
- **Natural resource manager's eDNA toolbox (D-K)**
- **READI-Net – eDNA surveillance network (D-K)**
- Invasive species habitat tool – terrestrial plant forecasting (D, E, F, K)
- National EDRR information system (K)



National EDRR Framework

Adapted from Reaser et al. 2020
Graphic by Don Maclean, USFWS



Bipartisan Infrastructure Law project highlights

Point-of-entry screening UMESC, Steve Spear

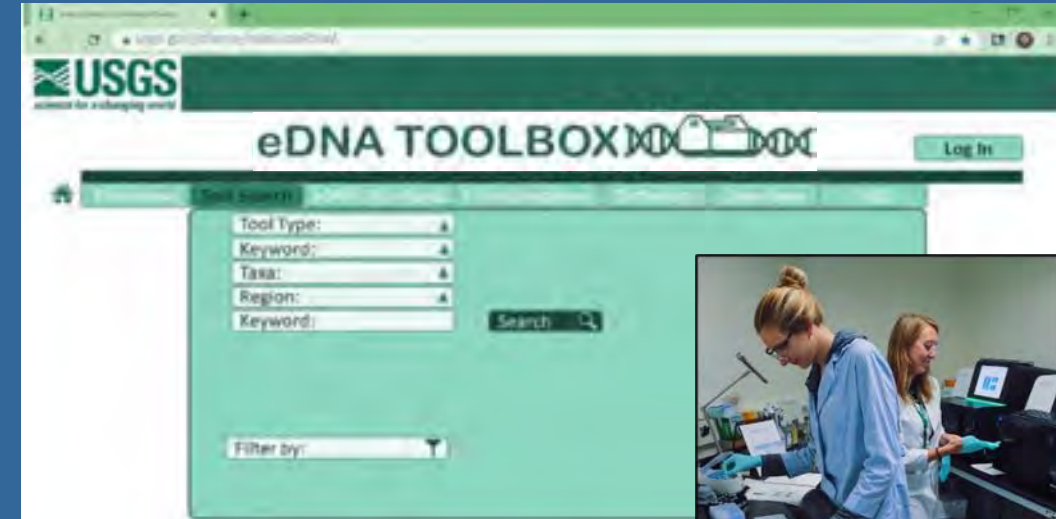
- Preventing invasive species spread through points of entry - detection is key
 - eDNA is an extremely sensitive tool
 - Need to adapt lab protocols to field protocols
- Objective: develop and optimize eDNA workflows for point of entry eDNA detection
 - Important criteria
 - Be portable and rapid, and
 - Maintain the high sensitivity and reliability of lab-based tests
 - Stakeholder team representing multiple points of entry to guide process and facilitate field testing



Bipartisan Infrastructure Law project highlights

eDNA tool kit: UMESC, Jon Amberg

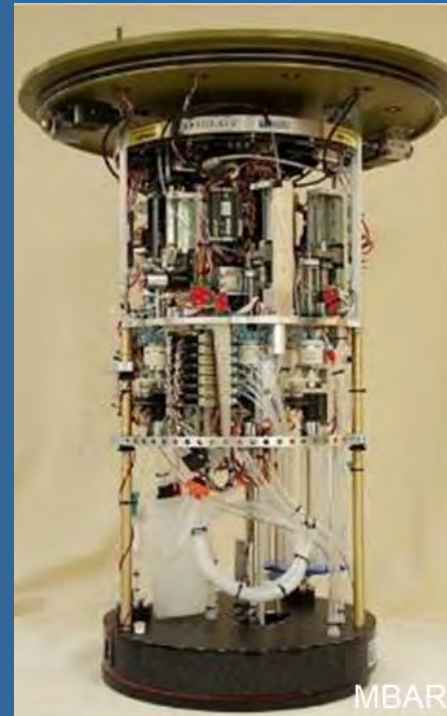
- Allow managers to access available approaches, markers, validation techniques and communication strategies
 - Glossary of common terms
 - Guidance on standards and validation
 - Templates for communication
 - Graphical interface to identify available markers by species
 - Interactive map to identify available markers by region/watershed



Bipartisan Infrastructure Law project highlights

rapid eDNA assessment and deployment initiative and network (READI-Net): NOROCK, Adam Sepulveda

- **Need:** Improved early detection tools that enable rapid response
- **Solution:** Automated eDNA samplers (robots) that can be distributed across space and sample across time
- **Timeline:**
 - Alpha prototype: Summer 2023
 - Beta prototype: Summer 2024
 - Release version: Summer 2025



Thank you!



Project contacts:

- MWCASC: Olivia LeDee, oledee@usgs.gov
- Public Acceptance of Climate Adaptation: David Fulton, dcf@usgs.gov
- Wildlife Disease: LeAnn White, clwhite@usgs.gov; Bryan Richards, brichards@usgs.gov; Tonie Rocke, trocke@usgs.gov; Anne Ballmann, aballmann@usgs.gov
- Native mussels: David Hu, dhu@usgs.gov, Teresa Newton, tnewton@usgs.gov, Diane Waller, dwaller@usgs.gov
- Great Lakes science: Kurt Newman, knewman@usgs.gov, Pete Esselman, pesselman@usgs.gov
- Mississippi River Science: JC Nelson, jcnelson@usgs.gov, Jeff Houser, jhouser@usgs.gov

Project contacts:

- Invasive Mussel Collaborative: Diane Waller, dwaller@usgs.gov
- Invasive Carps: Patrick Kocovsky, pkocovsky@usgs.gov
- AI for imagery acquisition: Jennifer Dieck, jdieck@usgs.gov
- Bipartisan Infrastructure Law investments
 - Pollinators: David Pilliod, dpilliod@usgs.gov
 - Cindy Tam EMA Biothreats and Disease Program Manager, ctam@usgs.gov
 - Port of entry screening: Stephen Spear, sfspear@usgs.gov
 - Biosurveillance network: Adam Sepulveda, asepulveda@usgs.gov
 - eDNA Toolkit: Jon Amberg, jamberg@usgs.gov

Midwest Association of Fish and Wildlife Agencies: Climate Change Technical Working Committee Report

June 2022

Meeting Time and Place

Committee met by conference call on February 18, 2022.

Attendance:

There were 8 states in attendance: MI: Chris Hoving; MO: Jacob Westoff; NE: Caroline Jezierski; SD: Eileen Dowd Stukel; IL: Leon Hinz; MN: Jim Leach, Michael Larson; IA: Katy Reeder; WI: Tara Bergeson.

Executive Summary:

The committee met once over the past year, to address a request by Midwest Climate Adaptation Science Center (CASC) to prioritize research needs.

Director Action Items:

1. none

Director Information Items:

1. The MAFWA Climate Change Technical Working Committee was asked by the Midwest Climate Adaptation Science Center (CASC) to prioritize the list of research needs that were developed last year for the AFWA Science and Research Committee. The CASC continues to be very responsive to the needs of state agencies, both in proactively asking us what we need, as well as funding research projects to address those needs. Below are the highest priorities identified by the Midwest states.

Time and Place of Next Meeting:

In 2022-2023, the committee will meet at least twice by conference call.

MAFWA Climate Priorities: June 2022

In response to Midwest Climate Adaptation Science Center (CASC) request for prioritizing science and research management needs, the MAFWA Climate Change Committee submits the following high priority research / management needs:

Priority Level	Science Priority	Category
High	5.9. Inform the design of monitoring programs to detect and respond to climate change	Barriers to and opportunities for adaptation
	1.6. Evaluate the potential of natural lands to moderate extreme rainfall and flooding	Heavy precipitation events and drought
	5.2. Advance climate-informed optimization of protected lands for fish, wildlife, and ecosystems	Barriers to and opportunities for adaptation
	3.5. Assess the effects changes in connectivity on wetland/aquatic ecosystems	Altered hydrological regimes
	3.8. Evaluate the efficacy of in-lake, landscape, and watershed management to protect fish communities	Altered hydrological regimes
	4.6. Identify optimal future habitat for at-risk or priority species	Novel terrestrial landscapes
Medium High	5.1. Assess the feasibility of current and potential ecological restoration goals under future conditions	Barriers to and opportunities for adaptation
	2.5. Assess the effects of phenological mismatch and false springs on at-risk terrestrial species	Loss of winter
	2.7. Identify and evaluate management strategies to facilitate short-term (e.g., microclimate) or long-term refugia	Loss of winter
	1.7. Identify and evaluate management strategies to prepare refuges and parks for extreme rainfall and flooding	Heavy precipitation events and drought
	1.3. Assess potential impacts of extreme rainfall on fish and wildlife management infrastructure	Heavy precipitation events and drought

2021 Proceedings
45th Annual Meeting
Midwest Deer & Wild Turkey Study Group Meeting
August 18th, 2021



Compiled by Luke Meduna and Kylie Sinclair

Nebraska Game and Parks Commission

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Background

The Midwest Deer and Wild Turkey Study Group (MDWTSG) meeting is an annual gathering of wildlife managers sanctioned by and affiliated with the Midwest Association of Fish and Wildlife Agencies. Primary objectives of the meeting include dissemination of deer and wild turkey management strategies, discussion of emerging or existing issues associated with deer and wild turkey management, and coordination of regional deer and wild turkey management or research efforts. The meeting location rotates among the Midwestern states that are active within the group.

Forums such as the MDWTSG meeting provide valuable opportunities for state deer and turkey biologists to become acquainted with emerging issues and exchange information and ideas related to deer and turkey research and management. The need for state fish and wildlife agencies to establish and maintain deer and turkey biologist positions and support travel of these biologists to the annual MDWTSG meeting is imperative for exchanging information to promote quality wildlife management and research in each state. It is more important than ever that state agencies are at the forefront of issues related to deer and turkey management in order to protect the heritage and recreational opportunities of hunting for future sportsmen and sportswomen.

Meeting Summary

The Nebraska Game and Parks Commission, Wildlife Division organized and moderated the 2021 MDWTSG meeting via Zoom on August 18, 2021. A total of 34 state deer and wild turkey biologists from 13 of the 14 Midwest member states/provinces, as well as four invited speakers, joined the virtual meeting. Due to the unusual circumstances of 2020, the schedule was shortened to include a brief session including 3 presentations, the business meeting and separate deer/turkey breakout discussions.

Business Meeting

The business meeting was called to order by L. Meduna (NE) at approximately 10:10 CST on Wednesday, August 18. The following items were discussed:

1. Location of the 2022 Meeting
 - a. Rock Springs, Kansas
2. MDWTSG Funds
 - a. Still held by NWTF, will continue with that rather than transfer between states each year
3. Proceedings from 2020 meeting to host site.

Director Action Items

Due to the consolidated nature of this meeting, the MDWTSG does not have any action items for directors to report from this meeting.

Director Information Items

Due to the consolidated nature of this meeting, the MDWTSG does not have any information items for directors to report from this meeting.

Appendix 1. Attendance List

Agency/Organization	Name
Illinois	Luke Garver
Illinois	Dan Skinner
Illinois	Peter Schlichting
Indiana	Moriah Boggess
Indiana	Steve Backs
Iowa	James Coffey
Iowa	Tyler Harms
Iowa	Dan Kaminski
Kansas	Levi Jaster
Kansas	Kent Fricke
Kentucky	Zak Danks
Kentucky	Kyle Sams
Kentucky	Gabe Jenkins
Kentucky	David Yancy
Michigan	Chad Stewart
Michigan	Adam Bump
Minnesota	Brian Haroldson
Minnesota	Barb Keller
Minnesota	Todd Froberg
Missouri	Kevyn Wiskirchen
Missouri	Jason Isabelle
Missouri	Jason Sumners
Nebraska	Luke Meduna
Nebraska	Kylie Sinclair
North Dakota	Rodney Gross
Ohio	Mark Wiley
Ohio	Clint McCoy
Ohio	Mike Tonkovich
Ontario	Chris Godwin
Wisconsin	Daniel Storm
Wisconsin	Jeff Pritzl
Wisconsin	Alaina Gerrits
Wisconsin	Chris Pollentier
National Deer Association	Matt Ross
National Deer Association	Kip Adams
Purdue University	Jonathan Brooks
University of Nebraska	Matt Gruntorad
University of Nebraska	Hunter Ellsworth
University of Nebraska	John Benson