



National Early Detection and Rapid Response Framework: Strengthening Federal and Non-federal Collaboration to Combat Invasive Species

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US Department of the Interior Invasive Species Task Force: National Bureau Representatives

Project Leads: Bureau Representatives



National Invasive Species Council (NISC)

- Established in 1999 by Executive Order 13112 and tasked with coordinating work on invasive species across the executive branch of the United States government. Amended by EO 13751 in 2016.



NISC Members

Secretary of the Interior* (DOI)	Administrator of the Environmental Protection Agency (EPA)
Secretary of Defense (DOD)	
Secretary of Agriculture* (USDA)	Administrator of the U.S. Agency for International Development (USAID)
Secretary of Commerce* (DOC)	Office of the U.S. Trade Representative (USTR)**
Secretary of State (DOS)	Office of Science and Technology Policy (OSTP)**
Secretary of Homeland Security	Council of Environmental Quality (CEQ)**
Secretary of the Treasury	Office of Management and Budget (OMB)**
Secretary of Health and Human Services (HHS)	
Secretary of Transportation (DOT)	
Administrator of National Aeronautics and Space Administration (NASA)	

*NISC Co-Chair ** White House Office

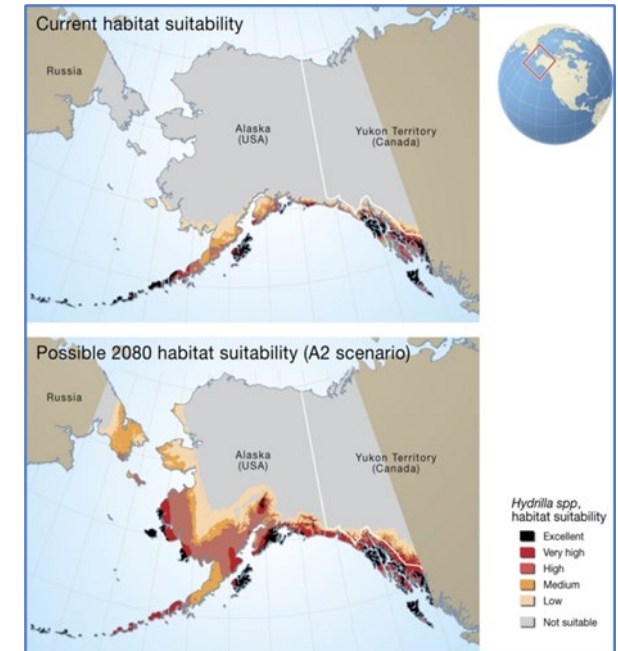
FY2024 Annual Work Plan Priorities

Core Coordination Activities

- Crosscut budget
- Co-Chair and Senior Adviser meetings
- Coordination with other interagency committees
- Informational updates and materials
- Workshops and webinars
- Response to agency requests
- Stakeholder engagement

Thematic Priority Activities

- Climate Change
- **Early Detection and Rapid Response**
- Wildland Fire
- Information Management
- Outreach and Engagement
- Interagency Dialogues



See the **FY 2024 NISC Work Plan** at <https://doi.gov/invasivespecies/guidance-documents>

WHY IS A NATIONAL EDRR FRAMEWORK IMPORTANT?

Global annual costs of biological invasions are estimated to exceed \$423 billion.*



Invasive Carp



Whitenose Syndrome



Cheatgrass



Quagga/Zebra Mussels



Burmese Python



Feral Swine



Brown Treesnake



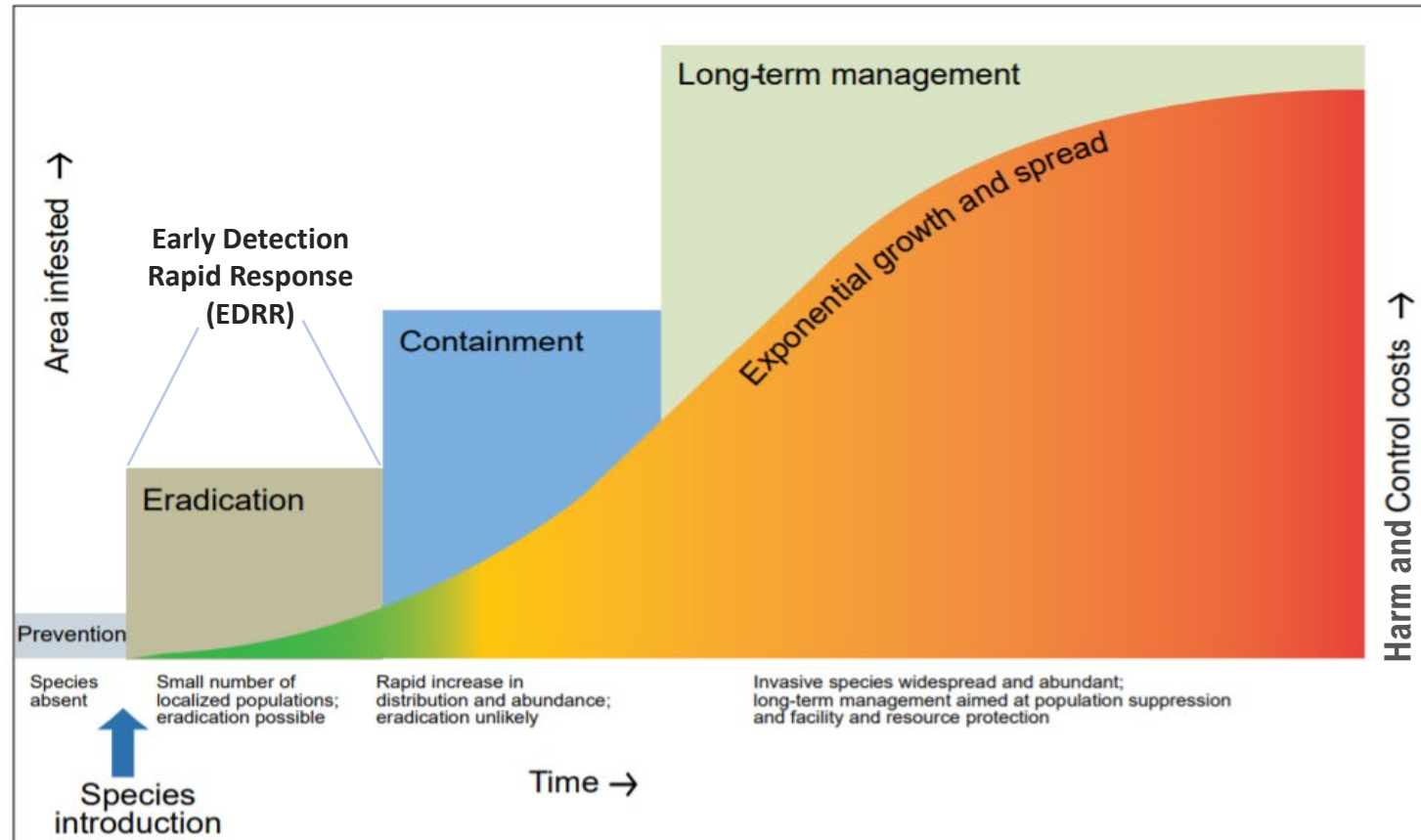
Lionfish

**PBES (2023). Summary for Policymakers of the Thematic Assessment Report on Invasive Alien Species and their Control Intergovernmental Science-Policy Platform on Biodiversity and Ecosystem Services. Roy et al.*

We can avoid impacts, management burdens, and costs by early and effective response to invasive species.



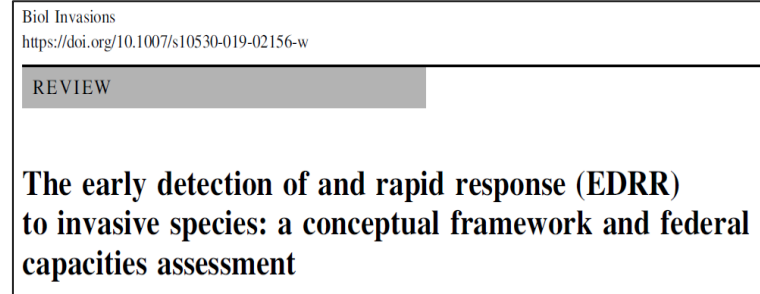
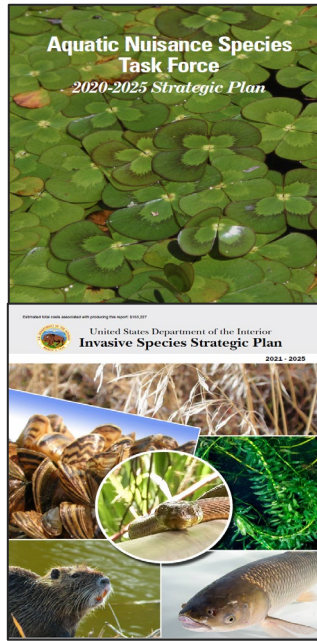
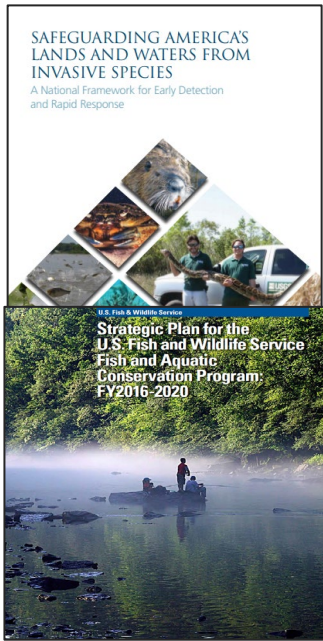
Wels catfish



Zebra and Quagga Mussels

Adapted from Rodgers. 2010. Invasive Plants and Animals Policy Framework. State of Victoria, Department of Primary Industries

The National Early Detection and Rapid Response Framework is supported in plans and the scientific literature.



**12 papers published in
Biological Invasions (2020)
"A blueprint for a national program
for the EDRR to invasive species"**



**"Work with tribes, states, and
other partners to implement a
National EDRR Framework"**

National EDRR Framework

DOI Primary Programs and Activities

Siren: the National EDRR Information System

- ✓ Knit local, regional, and national EDRR efforts into one accessible online tool

National EDRR Framework Coordinator

- ✓ Facilitate Framework planning and implementation

Rapid Response Funding and Capacity

- ✓ Rapid Response Fund for Aquatic Invasive Species
- ✓ DOI Interjurisdictional Invasive Species Rapid Response Team pilot program

Reporting

- ✓ Utilize existing national, regional, and local occurrence reporting databases
 - E.g., Nonindigenous Aquatic Species (NAS), EDDMaps, iMapinvasives, Wild Spotter
 - NAS metabarcoding



Priority Species: Horizon Scans and Watch Lists

- ✓ Global, Regional, Assets
- ✓ Invertebrates, vertebrates, and plants

Priority Places: Identification of Invasion Hotspots

- ✓ Streams, Lakes, Terrestrial tools
- ✓ Invasive Species Habitat Tool (INHABIT)

Detection Tools and Services

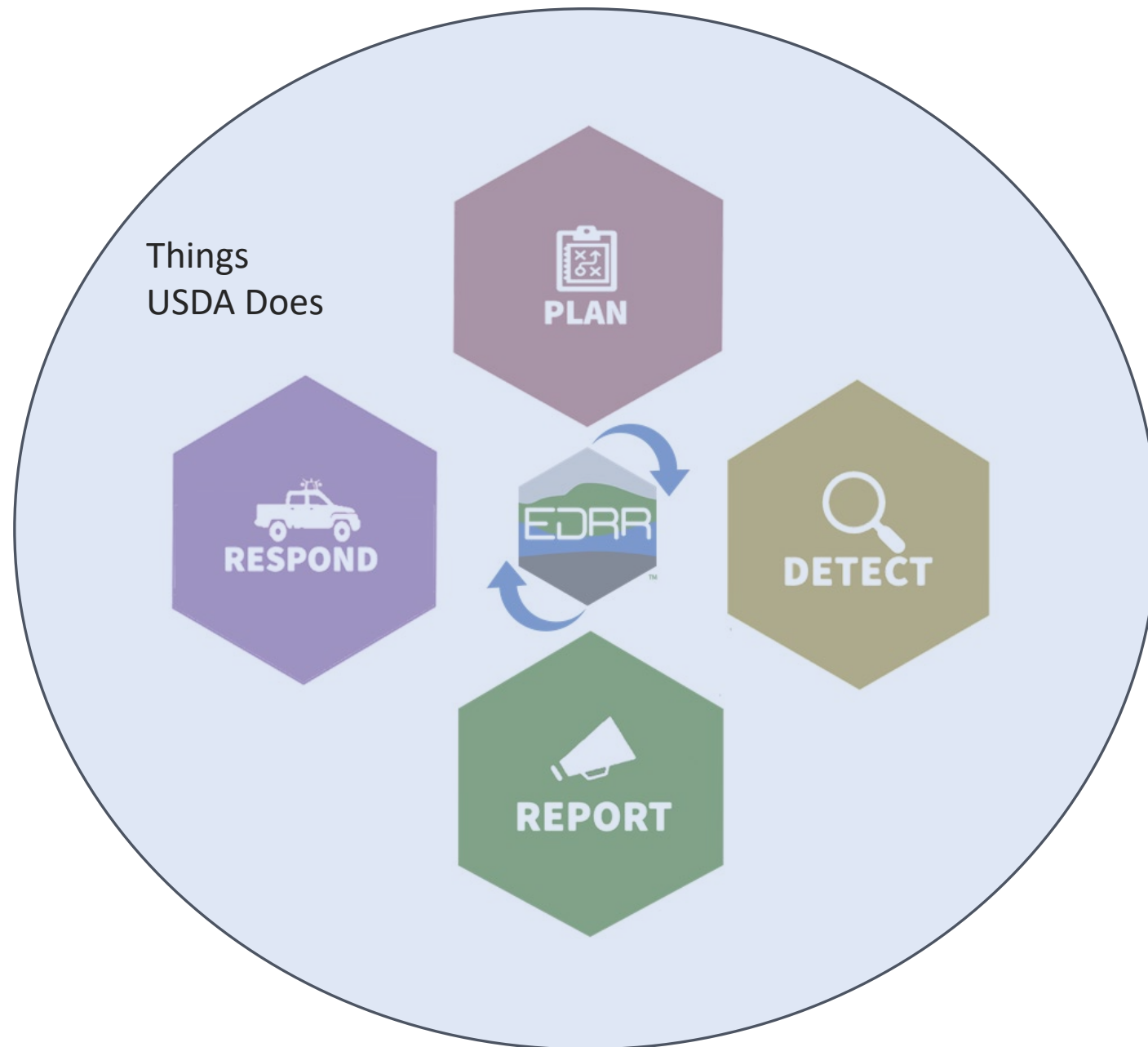
- ✓ Genetic Repository and Sharing Network
- ✓ Genetic marker development
- ✓ Managers eDNA Toolbox
- ✓ Point-of-use eDNA detection tools
- ✓ Automated eDNA sampling
- ✓ Molecular Lab Network (MLN) including Science Support, Lab Info Management System (LIMS)

Surveillance Capacity

- ✓ Asset-based protection
- ✓ Invasion hotspot surveillance pilot efforts

Supported in large part by Bipartisan Infrastructure Law Funding





Invasive
Mammals

Aquatic
Invasive
Species

Forest Pests

Animal
Pathogens

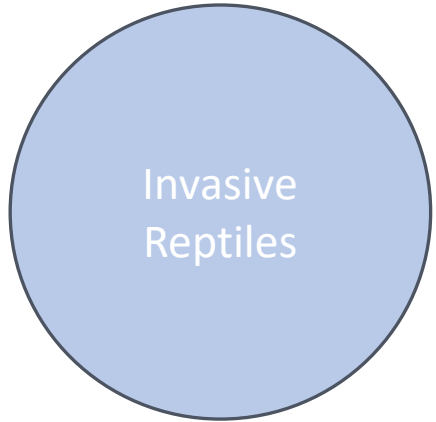
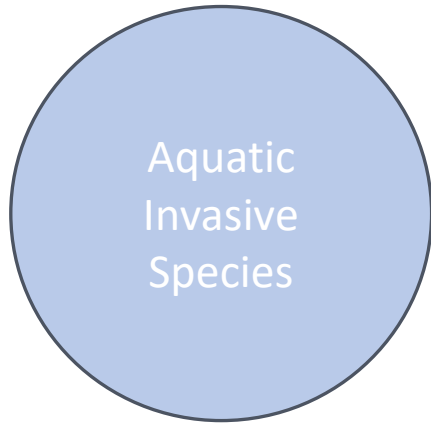
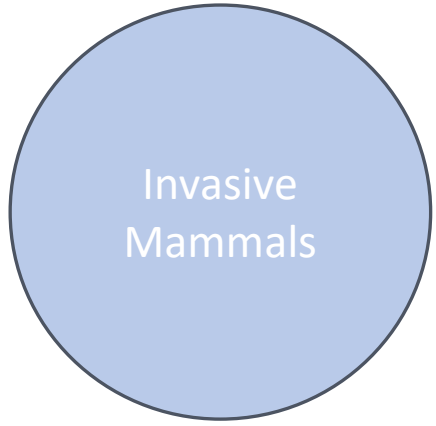
Invasive
Reptiles

Invasive
Plants

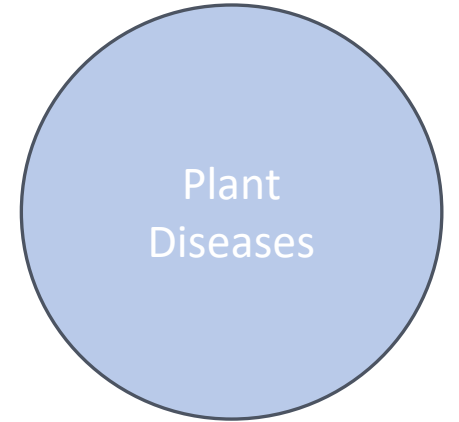
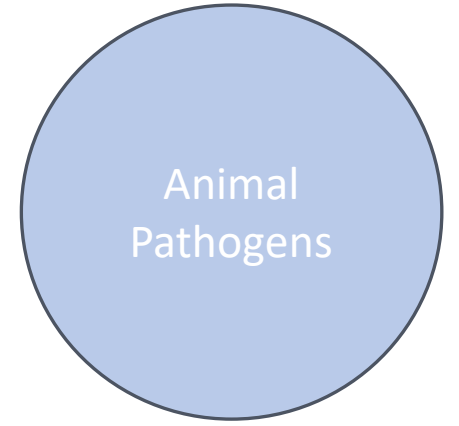
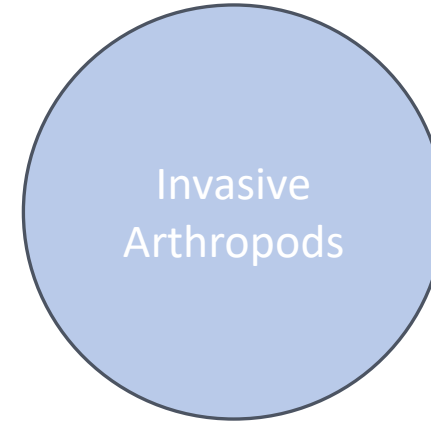
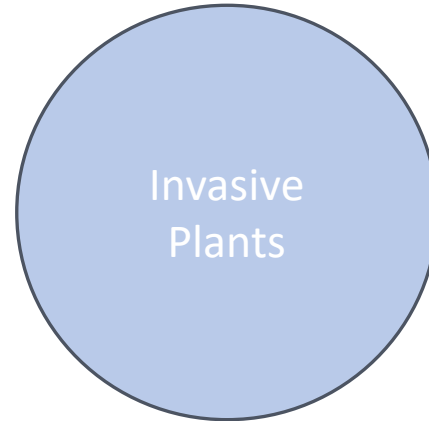
Invasive
Arthropods

Plant
Diseases

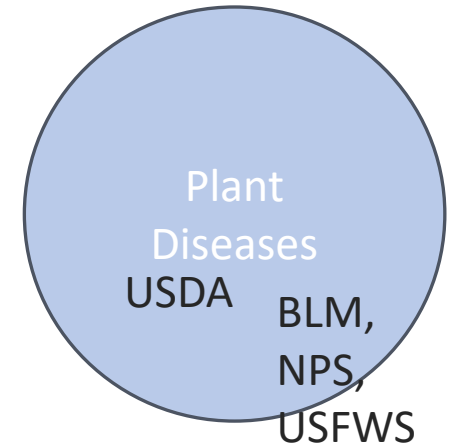
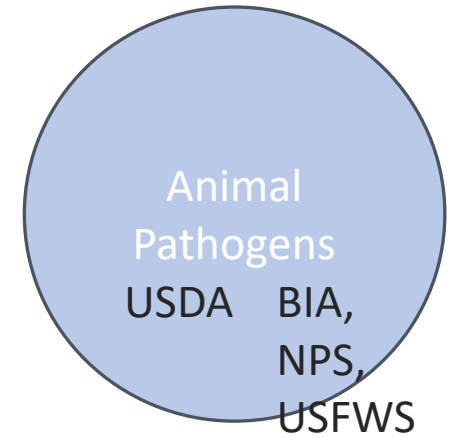
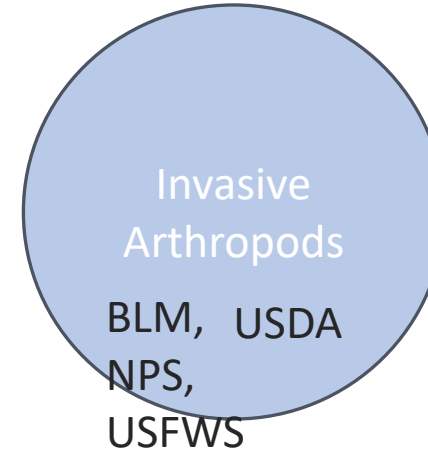
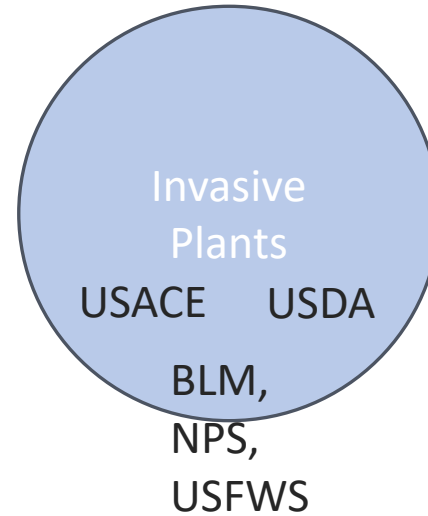
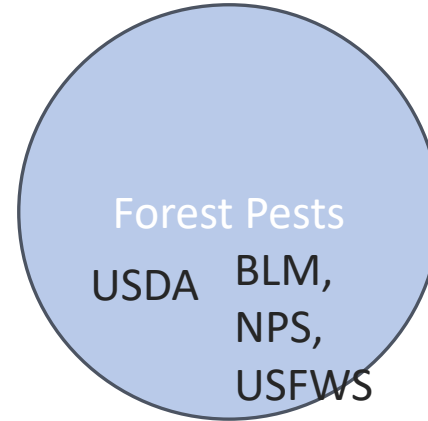
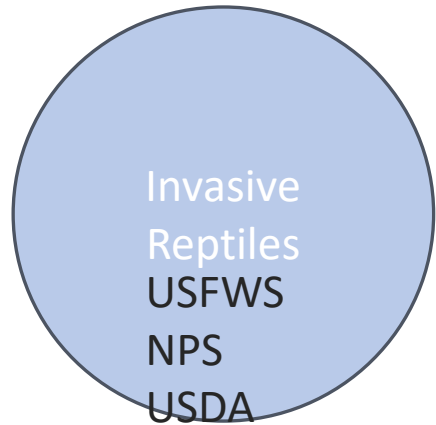
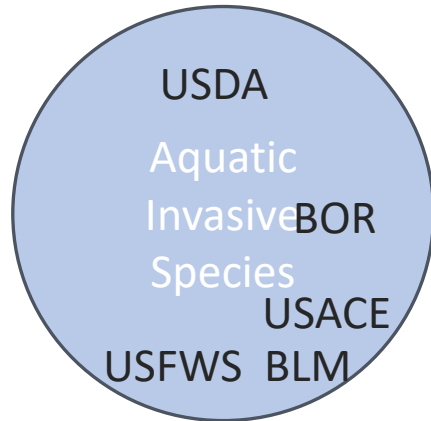
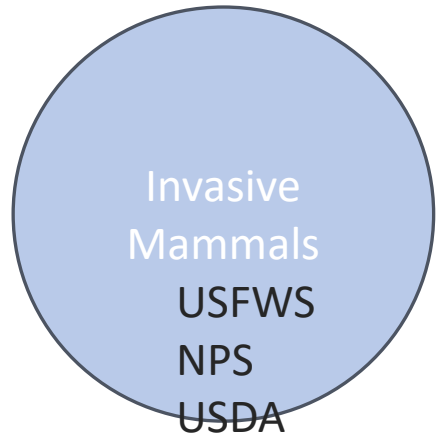
Not USDA



USDA



Federal Engagement



National Early
Detection and
Rapid Response
Framework

Invasive
Mammals

Forest Pests

Animal
Pathogens

Aquatic
Invasive
Species

Invasive
Arthropods

Invasive
Reptiles

Invasive
Plants

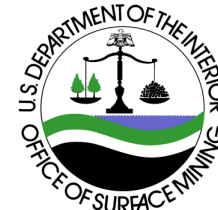
Plant
Diseases



Strengthening coordination and capacity across jurisdictional boundaries to efficiently detect and respond to new invasive species throughout the nation



We All Benefit from Collaboration and Partnership



— BUREAU OF —
RECLAMATION



US Army Corps
of Engineers®

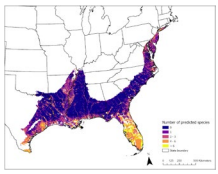




Partnerships

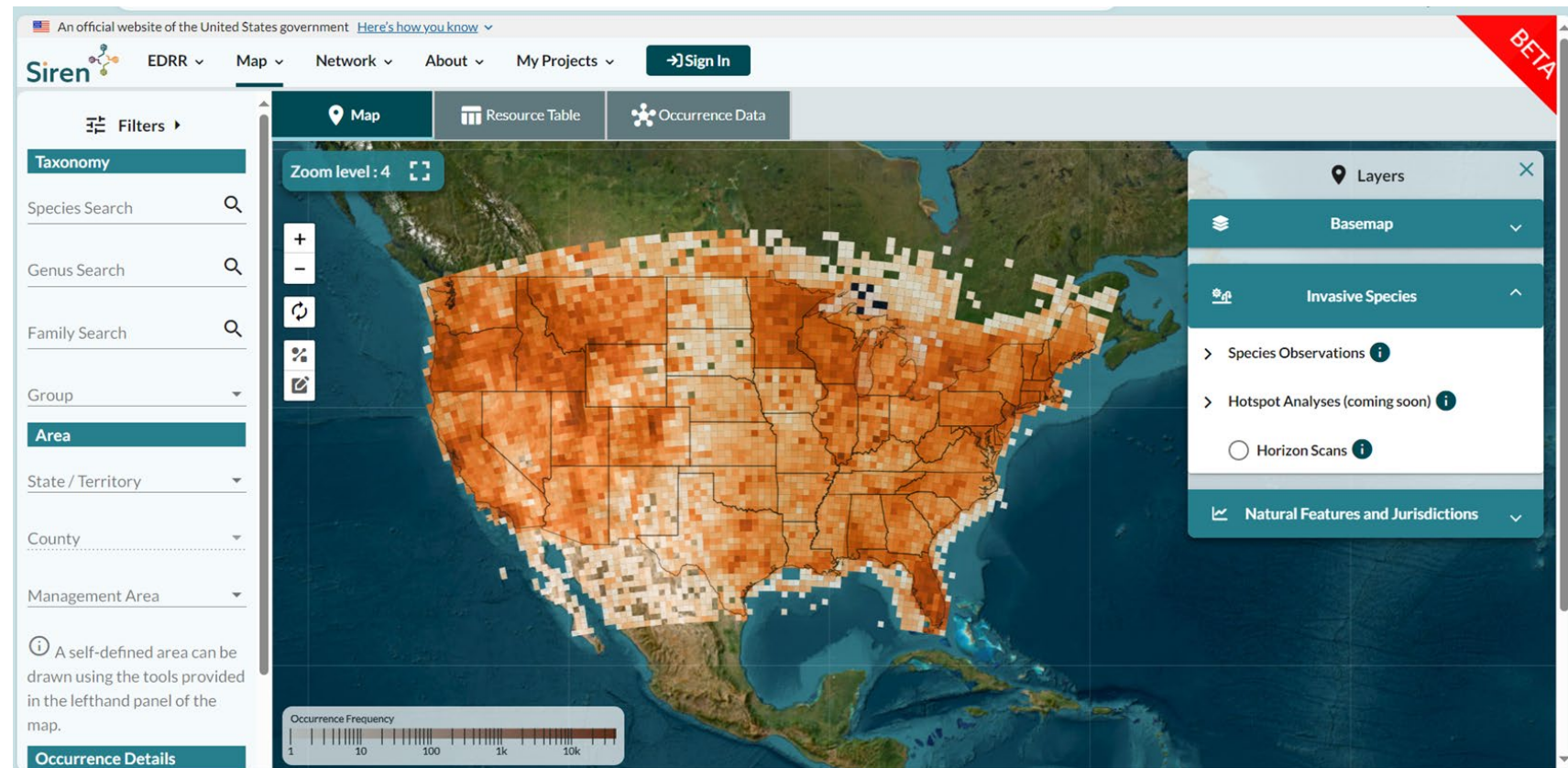


Siren



Collating and sharing early detection and rapid response information

Can USDA
contribute data
and benefit from
this collation of
invasive species
information?



Benefits of a National EDRR Framework At-A-Glance

Invasive Species Manager Access To

Tools and Technology

EDRR Information

Rapid Response Funding

Surveillance and Response Capacity

A National Network

How does the framework complement USDA efforts?

Species not in US or limited distribution

Tools to feds, states, tribes, territories, ...

Enhance preparedness & response abilities

More surveillance of emerging threats

Addressing additional species

What benefits does USDA get from the framework?

More boots on the ground looking

More personnel trained in ICS

Strengthen interagency EDRR network

Amplify importance of invasive species

Shared information and tools

Potential Additional Areas of Collaboration/Coordination



- Joint projects on species of mutual concern
- Data contributions to Siren
- Molecular Lab Network
- DOI Interjurisdictional Invasive Species Rapid Response Team
- Others

Questions?

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www.invasivespecies.gov

