

## AGENCY UPDATE

Invasive Species Advisory Committee (ISAC) Virtual Meeting - March 6-8, 2023

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### **AGENCY'S MISSION RELATED TO INVASIVE SPECIES**

DOI manages one-fifth of the country's land area, 135,000 miles of coastline, hundreds of dams and reservoirs, and 1.76 billion acres of the Outer Continental Shelf. It honors the Nation's trust responsibilities or special commitments to American Indians, Alaska Natives, Native Hawaiians, and affiliated island communities, supplies water to more than 30 million people, protects the icons of our national heritage, and conserves fish, wildlife, and their habitats.

### **PRIORITIES / ACTIVITIES FOR FY2023**

DOI recognizes that invasive species pose one of the greatest threats to the ecological, economic, and cultural integrity of America's lands and waters. Invasive species can threaten human livelihoods, exacerbate the threat of wildland fire, impair the delivery of water and power, damage infrastructure, displace or extirpate native species, destroy private property, and degrade trust resources.

Examples of DOI-wide Priorities / Activities for Fiscal Year (FY) 2023

3 in 3 for the WIN: Advancing 3 invasive species initiatives in 3 years – Wildfire and invasive species; Islands and invasive species; and a National Early Detection and Rapid Response Framework:

DOI's "3 in 3 for the WIN" is an effort that bundles 3 strategic invasive species initiatives to advance in 3 years (2022-2024) that bolster climate adaptation and resilience: Wildfire and invasives; Islands and invasives; and a National Early Detection and Rapid Response (EDRR) Framework. DOI prioritized these 3 issues to raise awareness about and leverage resources toward because each has strong federal and non-federal partnerships in place; each has a solid foundation of science-informed solutions; and each has an opportunity for near-term conservation outcomes. Each initiative has its own DOI working group that is advising on priorities, implementation, and outcomes that build upon collaborative efforts underway with other federal agencies and partners. As examples, for Wildfire and invasive species, the team is working with the National Invasive Species Council and Wildland Fire Leadership Council to strengthen integration and coordination of wildland fire and integrated invasive species management efforts; for Islands and invasive species, the team is collaborating with partners to prevent the imminent extinction of Hawaiian forest birds, promote island biosecurity activities, and implement eradication projects with a high likelihood for success; for a National EDRR Framework, the team is advancing numerous projects to identify, enhance, and coordinate EDRR capacity, build new tools, undertake actions, and establish coordinated processes where needed to proactively find and eradicate new invasive species before they establish, spread, and cause harm.

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### **PRIORITIES / ACTIVITIES FOR FY2023** *(continued)*

#### **Bipartisan Infrastructure Law: Ecosystem Restoration Program Implementation:**

DOI's Office of the Secretary is collaborating with bureaus to implement Title 8 Section 40804 (Ecosystem Restoration Program) of the Bipartisan Infrastructure Law (BIL). This includes efforts for "invasive species detection, prevention, and eradication, including conducting research and providing resources to facilitate detection of invasive species at points of entry and awarding grants for eradication of invasive species on non-Federal land and on Federal land." DOI developed a framework outlining seven restoration and resilience goals that provides direction for investments through Section 40804. As part of this framework, DOI is prioritizing advancing implementation of a National EDRR Framework, one of the 3 in 3 for the WIN initiatives. A full list of projects funded by the Ecosystem Restoration Program in Fiscal Year 2022 is available here: <https://doi.gov/priorities/investing-americas-infrastructure/ecosystem-restoration/projects>.

#### **DOI Invasive Species Task Force:**

DOI regularly coordinates across 11 DOI bureaus and offices through its DOI Invasive Species Task Force, which is composed of national program leads, to advance a strategic, effective program of work for crosscutting invasive species policies, plans, and programs.

#### **DOI Invasive Species Strategic Plan, 2021-2025:**

DOI is in year 3 of implementing its Invasive Species Strategic Plan and is preparing a summary of highlights and accomplishments for work undertaken in Fiscal Years 2021 and 2022.

#### **Examples of Bureau Priorities and Activities for FY 2023**

##### **U.S. Fish and Wildlife Service (FWS)**

The National Wildlife Refuge System (NWRS) within FWS established two new invasive species strike teams in FY 2023, bringing the total number of teams to 21 across the NWRS.

Working with Island Conservation and a number of other partners, Midway Atoll National Wildlife Refuge will implement an invasive house mouse eradication on the Refuge in the summer of 2023. The mice are severely impacting biodiversity, including eating adult Laysan albatrosses alive as they incubate their eggs.

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U.S. Fish and Wildlife Service (FWS) con't

Fish and Aquatic Conservation (FAC) Program / Aquatic Invasive Species Branch:

In the American Rescue Plan Act (ARPA), Congress instructed FWS to strengthen inspections and interdictions of risky animal imports and to use title 18 (injurious wildlife) of the Lacey Act to prohibit the importation of species that pose a risk to human health. It also appropriated \$10 million to leverage this authority as an important step in preventing the next pandemic. FAC received \$6.5M of this funding. FAC funded the Smithsonian Institution (SI) to conduct a global horizon scan and risk analysis of foreign wildlife species that may carry zoonotic pathogens and parasites. Smithsonian is focusing on zoonoses not yet found in the United States or with the potential to demonstrate significantly increased impacts within the United States while also evaluating both risk and management options to mitigate risk. We expect to obtain a prioritized list of host wild mammals and wild birds in calendar year 2023, and a prioritized list of host fishes, mollusks, crustaceans, reptiles, and amphibians later in calendar year 2023-2024. Because title 18 does not authorize USFWS to list pathogens and parasites as injurious, these prioritized lists will serve as the basis for listing carrier species as injurious wildlife, thus prohibiting their importation, and reducing the risk of a future pandemic. Staff are currently working to establish further access for SI scientists to some of the necessary wildlife trade data in Law Enforcement Management Information System (LEMIS) that will provide a basis for this body of research. The new injurious wildlife listing team is also working with our colleagues from SI as they develop and refine a database of zoonotic pathogens of global concern. This data will inform later stages of their risk analysis process.

Recently the U.S. Geological Survey conducted a Global Horizon Scan to help identify nonnative vertebrate species in trade that pose the most significant risk of entering the country, establishing populations, and becoming invasive. Experts reviewed over 25,000 species identified in LEMIS in trade and narrowed the list to 759 taxa to be reviewed for potential risk screening. Preliminary results indicate many species, particularly reptile and fish species, that may pose the most immediate threat. Staff will be using this information, in part, as they look to evaluate species for Injurious Species listing.

As part of advancing a National EDRR Framework, FAC developed a Model Process to pilot a Rapid Response Fund for aquatic invasive species under the auspices of the Aquatic Nuisance Species (ANS) Task Force. A Rapid Response Fund Workgroup was established under the Early Detection Rapid Response Subcommittee of the ANS Task Force, consisting of representatives from federal and state agencies as well as interstate commissions. The workgroup completed a draft document to define the circumstances and activities that qualify for funding and addresses eligibility of applicants, application process, evaluation criteria, and expectation of those funded by a Rapid Response Fund. The draft was presented to the ANS Task Force during the January meeting. The document is currently in review by the ANS Task Force and regional panels. The workgroup will reconvene in March 2023 to review the comments and incorporate any necessary changes into the document. A final document will be submitted for approval at the next ANS Task Force meeting. Congress has expressed interest and has been briefed on how a fund could be structured, funded, and metrics to trigger a response.

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#### Bureau of Indian Affairs (BIA)

BIA prioritizes the removal of feral horses and livestock from tribal lands. Feral horses are negatively impacting broad expanses of fish and wildlife habitat on tribal lands and cause rangelands to be degraded and unproductive. BIA prioritizes surveys, planning, and removal actions conducted by tribal land managers. BIA also prioritizes management, control, and eradication of Northern pike in the headwaters of the Columbia River where they threaten important tribal Treaty and subsistence resources (salmon) in the lower Columbia River. BIA prioritizes invasive species management efforts at the Miccosukee and Seminole Tribes in Florida's Everglades as these tribes attempt to preserve important cultural species and ecological connections that are threatened by changing climatic conditions and concurrent invasions of numerous invasive species, including constrictor snakes. BIA will work with the Confederated Salish and Kootenai Tribes to implement an aquatic invasive species prevention program protecting tribal and public waters from quagga/zebra mussels and other aquatic invaders. BIA is partnering with the Native American Fish and Wildlife Society on a project building tribal capacity to manage invasive species. Goals are to develop individual tribal invasive species programs including equipment, training, and personnel. This allows tribal land managers to manage tribal lands according to tribal goals and vision, while also having the internal capacity to collaborate on broad, landscape level efforts requiring coordination across geographic boundaries.

#### Office of Insular Affairs (OIA)

In FY 2023, OIA will prioritize funding invasive species projects through its competitive grant programs. OIA priorities for this funding are invasive species projects (including aquatic and terrestrial plant, insect, and animal species) that include the following actions:

- Eradication
- Suppression and control
- Rapid response
- Public education and outreach
- Projects identified in local strategic invasive species action plans

In addition, OIA is planning to use Bipartisan Infrastructure Law Ecosystem Restoration FY 2023 funding to hold a regional biosecurity training for the four Territories where OIA has jurisdiction (American Samoa, Commonwealth of the Northern Mariana Islands, Guam, and the US Virgin Islands), as well as hold on-island trainings in each of the four Territories that are specific to their priorities. Each Territory will receive funding to develop biosecurity plans and/or implement on-the-ground biosecurity related projects.

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#### **Bureau of Land Management (BLM)**

BLM will continue to manage noxious weeds and invasive species to achieve the goals of the DOI Invasive Species Strategic Plan and has been applying Bipartisan Infrastructure Law Ecosystem Restoration funding to advance its efforts to improve ecosystem resilience and restoration across 247 million acres of public lands. BLM is also developing a Programmatic Environmental Impact Statement (EIS) to review and potentially add seven herbicide active ingredients, including indaziflam, to its available tools for noxious weeds and invasive plant management and expects to publish a Draft EIS by this spring.

#### **Bureau of Reclamation (Reclamation)**

Reclamation will use FY 2023 appropriations to support various zebra and quagga mussel management activities across the West, as well as continue to implement previous years' multi-year activities and projects. Reclamation will also continue mussel monitoring and continue to engage in research on control technologies and early detection methodologies for mussels. Additionally, in FY 2023 Reclamation will continue the process of updating how it reports to the Government Performance and Results Act – Percent of Baseline Acres Infested with Target Invasive Plant Species that are Under Control and continue to focus on controlling invasive and nuisance plant species in habitats where their growth may affect the delivery of water and/or production of hydroelectric power.

#### **National Park Service (NPS)**

NPS manages noxious weeds and invasive species consistent with the DOI's Invasive Species Strategic Plan. In FY 2023, both Bipartisan Infrastructure Law Ecosystem Restoration and Inflation Reduction Act funding will be used to increase prevention and eradication efforts within NPS units. The geographic scope of the NPS Aquatic Invasive Species Quagga/Zebra Mussel competitive fund source was expanded from two western regions to nationwide. As a result, beginning in FY 2023, NPS will be funding a project to contain a recently detected infestation of zebra mussels in Rainy Lake in Voyageurs National Park. Project proposals from parks in other regions of the country are anticipated. In FY 2023, the NPS Invasive Plant Program (IPP) and 17 Invasive Plant Management Teams (IPMTs) will continue providing invasive plant management and restoration support to units of the NPS in collaboration with internal and external partners. The IPP will finalize the budget scenario planning process that was designed to proactively identify alternatives for how the program should operate under a variety of budget scenarios. The IPP intends to finalize a report on the results and analysis of a 20-year program review with recommendations to adjust the program to increase the efficiency and effectiveness of invasive plant management service.

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U.S. Geological Survey (USGS)

In addition to an emphasis on research addressing the elements of the 3 in 3 for the WIN initiative noted above, USGS priorities for invasive species science activities in FY 2023 include:

**Invasive Carps:** In 2023, USGS in collaboration with the US Army Corps of Engineers, will complete the initial 2-year pilot evaluation of the underwater acoustic deterrent system to reduce the risk of passage of invasive carps through the lock chamber at Lock and Dam 19 on the Mississippi River. This system was co-designed by USGS and the University of Minnesota to selectively target invasive carps by using engineered sounds that elicited avoidance behavior. Lock 19 was chosen for this evaluation because the lock chamber is the only way invasive carp can pass upstream because of the water elevation difference created by the dam. Testing includes using acoustic telemetry to monitor movements of invasive carp and several native species to determine the effectiveness of the deterrent and side effects on native species throughout the year and under different operational conditions. USGS is also partnering with USFWS and a private company to test the effectiveness of the company's proprietary system at Barkley Dam on the Cumberland River.

USGS also continues to research pesticides, baits and attractants, genetic controls, and other deterrent technologies for control of invasive carps in the Mississippi River and its sub-basins and for grass carp in Lake Erie and its tributaries that support spawning.

**Burmese Pythons:** USGS scientists recently published the first comprehensive synthesis of Burmese python biology, impacts, and management tools in Florida, and continue to conduct studies critical for determining population demographics and estimating efficacy of control efforts. Bureau research also is expediting new approaches to detecting traces of environmental DNA from Burmese pythons, a particularly important advancement given the low success of visually spotting these invasive snakes in the Everglades and other natural areas.

**Climate Change Nexus:** USGS is supporting research to help managers better understand how changing climate affects invasive species distributions and impacts (e.g., changing phenology of invasive annual grasses), and associated opportunities to adapt prevention, detection, and control tactics. USGS continues to provide direct support to the growing array of Regional Invasive Species and Climate Change (RISCC) networks to increase collaboration and information transfer with invasive species practitioners.