

DATE March 1, 2018
TO The National Invasive Species Council
FROM The Invasive Species Advisory Committee
SUBJECT Recommendations to NISC from the ISAC meeting held February 27–March 1, 2018

During the February 27–March 1 meeting held at the Smithsonian Institution National Museum of the American Indian, the Invasive Species Advisory Committee (ISAC) approved the white paper, *Reducing the Risk of Invasive Pathogens to Wildlife Health in the United States* and a memorandum of recommendations to NISC for consideration in the 2019–2021 NISC Management Plan.

Reducing the Risk of Invasive Pathogens to Wildlife Health in the United States

In general, federal agencies lack the clear authority, mandatory coordination, and accountability necessary to prevent and manage invasive pathogens of wildlife. Native wildlife is thus vulnerable, as are all the vital systems secondarily impacted. ISAC, therefore, recommends that NISC direct federal agencies to, in accordance with their mandates and authorities, implement the following actions as a matter of priority:

RECOMMENDATION 1

Conduct a comprehensive law and policy audit¹ for each relevant agency to determine their capacities and enactment practices to address invasive pathogens of wildlife. This audit should include a “real-world assessment” of how much of each agency’s respective authority is actually used and carried-out relative to invasive pathogens of wildlife that might be imported with shipments of wildlife and wildlife products or other shipments entering the United States. An assessment of areas in which traditional programmatic priorities might differ from full statutory authority should be included.

This comprehensive review will enable federal agencies to:

- a) Identify the existing gaps in coverage, protection, and response capability for addressing invasive pathogens that impact or are likely to impact native wildlife;
- b) Determine if gaps exist in statutory authority, budgetary capacity, or administrative discharge of existing authority, and develop strategies and tactics to resolve these gaps to reduce vulnerability and harm to native wildlife;
- c) Identify opportunities for current programs and practices to be more collaborative, effective, and efficient, including the generation of formal agreements amongst NISC members, and between federal agencies and state and local partners; and
- d) Create a publicly accessible directory that indicates which agency has the lead for addressing invasive pathogen threats to native wildlife, noting relevant authorities, regulations, and technical capacities.

RECOMMENDATION 2

- a) Ensure effectiveness and cost-efficiency by increasing institutional coordination and collaboration. This necessitates that federal wildlife health initiatives are integrated into a “One Health” approach backed by adequate informational, technical, and financial resources;
- b) Promote collaboration among federal, state, territorial, tribal, and local government entities to address issues

¹ To include statutory authority, regulations, legal mandate, and internal policies and priorities.

- involving invasive pathogens and wildlife disease. This includes coordination of activities and authorities,² the sharing of expertise and resources, and implementing a system and culture of cross-reporting for all relevant agencies to ensure that all potential threats and vulnerabilities are identified, assessed, and addressed;
- c) Establish port/border security procedures and protocols that are uniform across all agencies and all ports of entry, to facilitate coordination, sharing of facilities, equipment and personnel, and to optimize the effectiveness of government response strategies and tactics;
 - d) Re-establish regular multi-agency port meetings, trainings, and other effective strategies to ensure that relevant agencies (federal, state and local), custom brokers, transport companies, importers and other affected stakeholders are fully informed about priority wildlife disease issues in order to achieve full and effective compliance with regulations, procedures, and other processes. Emphasize how protecting wildlife protects public health, the environment, and agriculture;
 - e) Establish comprehensive, multi-agency training programs to ensure that all inspection personnel are cross-trained to recognize and respond to the full spectrum of risks, institute interagency response teams, regardless of which agency has primary responsibility for surveillance and response, and provide site-specific training at each point of entry to identify, isolate, and contain risk or threats until they are appropriately resolved; and
 - f) Foster inter-agency public education programs to increase public awareness of, and support for, the need to prevent the introduction of invasive pathogens that might harm native wildlife. Campaigns will need to be audience-targeted and employ traditional education and outreach approaches, as well as emerging social media technologies and platforms.

RECOMMENDATION 3

Develop and implement a risk-based early detection and rapid response strategy to identify, contain, and eradicate invasive pathogens that enter the United States, before they become established or cause extensive harm to wildlife populations.

- a) Create and implement risk-based response strategies and tactics to proactively scan for and respond to potential threats before invasive pathogens arrive at United States ports or become established within the United States. This should include federal action to establish the:
 - i) Capacity to implement emergency inspection or certification procedures prior to allowing exports bound for the United States to leave the country of origin, or to prioritize specific types of shipments, or shipments from targeted regions that arrive at United States borders.
 - ii) Authority to designate prohibited species or cargoes on an emergency basis, and to rapidly establish and implement surveillance and response strategies for any threat to wildlife health, as appropriate. If the extent of a threat might exceed the rapid response capabilities of a single agency, or overwhelm the resources in a particular location, action thresholds and contingency plans should be developed that could use the full range of biosecurity threat responses available to the federal government;
- b) Create the capacity and facilities at ports of entry to detain and effectively isolate or quarantine shipments that might contain invasive pathogens that may harm native wildlife; and
- c) Increase federal government support for research to identify appropriate risk management actions that can be taken to address invasion pathogen risk pre- and post-entry into the United States.

RECOMMENDATION 4

Identify, or create and deploy applied information tools, databases, and reference resources for use by inspectors and other stakeholders to ensure that the most current and comprehensive information related to invasive pathogens and wildlife health is available, and is being fully employed.

- a) Promote uniform, compatible, and publicly accessible databases related to wildlife health by all relevant

² Execute appropriate agreements (MOUs) to share authority, responsibility, personnel, and resources.

federal and state agencies, including information on all regulated activities associated with invasion pathways (e.g., scientific research, scientific collection permits, wildlife rehabilitation, educational use and display, captive breeding, incidental take);

- b) Facilitate efficient sharing of information related to invasive pathogens and wildlife disease among member agencies and entities, and between the federal government and states, territories, tribes, and other wildlife and health agencies at the international, national, regional, or local level;
- c) Create applied information tools for invasive species of concern, using existing resources (e.g., World Organization for Animal Health [OIE], APHIS, National Association of State Health Veterinarians, Wildlife Disease Association, National List of Reportable Animal Diseases, ProMed, WILD-ONE) that can assist personnel in the field (e.g., biologists at deer check stations, wildlife veterinarians and rehabilitators, resource managers) identify and respond to invasive pathogens; and
- d) Promote implementation of an eDocs system for submitting Declarations for Importation or Exportation of Fish or Wildlife (3-177), health certifications, and permits to assist with the identification of wildlife health risks.

RECOMMENDATION 5

Develop and deploy advanced technologies needed to facilitate identification and eradication of invasive pathogens that might harm native wildlife (e.g., molecular-based surveillance, thermal scans, eDNA, rapid screening, and other new and emerging technologies).

- a) New technologies must be developed, evaluated, and validated before use in a regulatory environment;
- b) Methods of destruction of invasive pathogens without harming the animals or products imported should be developed and after proper training, applied; and
- c) Ensure that these technologies are known, available, and fully used at all inspection facilities, and that personnel from all agencies are able to access them.

When considering these recommendations, NISC is encouraged to recognize the cost-efficiencies of preparedness and early response. A cost-benefit analysis of the actions recommended herein would help identify and prioritize those measures that can be implemented with existing resources, as well as make the case for those that will require new or additional funds.

Considerations for the 2019–2021 NISC Management Plan

To strengthen the biosecurity of the United States, including its territories and possessions, against the introduction and spread of invasive species, ISAC recommends that NISC consider the following recommendations when developing the *2019–2021 NISC Management Plan*:

1. Meet regularly and provide coordinated leadership for the prevention, eradication, and control of invasive species across respective agencies, including via relevant authorities, capacities, programmatic priorities, and actions. This includes ensuring continued support for the NISC Secretariat and the Invasive Species Advisory Committee.
2. Enhance the effectiveness of federal response capacities by streamlining federal regulatory and administrative processes (e.g., National Environmental Policy Act; Endangered Species Act; Federal Insecticide, Fungicide, And Rodenticide Act). For example, create a centralized mechanism for sharing risk assessments among agencies and apply exemptions (categorical and programmatic) for pesticides, biocontrol^{1,2}, and emerging technologies.⁶
3. Facilitate open access to and sharing of invasive species data to improve decision support capacities at all levels of government^{4,5,8} and in the private sector, including public and private universities and colleges.
4. Identify, apply, and participate in existing state and local cooperative agreements (e.g., cooperative weed

management areas, cooperative invasive species management areas, coordinated resource management approaches, partnerships for regional invasive species management) to increase the capacity of government agencies to respond to local and regional invasive species issues.

5. Identify and expand use of Good Neighbor Authority and cooperative agreements with local, state, territorial, and tribal invasive species management agencies.
6. Establish a rapid-response funding mechanism, taking into consideration third party administrative options (e.g., the National Fish and Wildlife Foundation). The fund should have the flexibility to address first time introductions to the United States, as well as the eradication or containment of species already established in the country.^{3,4}
7. Strengthen coordination between federal agencies, states, territories, and federally-recognized tribes to prevent the introduction and spread of invasive species. This include by, for example, establishing a Federal-State-Tribal Invasive Species Coordinating Committee, designating a full-time staff member to serve as chairperson of the Coordinating Committee, and enhancing on-the-ground implementation of federal-state-tribal invasive species efforts.^{4,5}
8. Support regional and international coordination efforts of federal agencies, states, territories and federally-recognized tribes to prevent the introduction and spread of invasive species, including negotiation of relevant international agreements, information sharing, research collaboration, and providing development assistance.^{4,5}
9. Promote the development and application of innovative tools and technologies for prompt and effective prevention, eradication, and control of invasive species.^{6,8}
10. Improve public engagement on the invasive species issue by supporting and expanding existing education and outreach efforts, emphasizing unified messaging and the application of social media platforms.
11. Review and address recommendations from the previous ISAC White Papers¹⁻⁸, reporting progress to ISAC on at least an annual basis.

1 https://www.doi.gov/sites/doi.gov/files/uploads/isac_biocontrols_white_paper_rev.pdf

2 https://www.doi.gov/sites/doi.gov/files/uploads/isac_biocontrols2016_white_paper_rev.pdf

3 https://www.doi.gov/sites/doi.gov/files/uploads/isac_infrastructure_white_paper.pdf

4 https://www.doi.gov/sites/doi.gov/files/uploads/isac_federal-state_white_paper.pdf

5 https://www.doi.gov/sites/doi.gov/files/uploads/isac_federal-tribal_white_paper.pdf

6 https://www.doi.gov/sites/doi.gov/files/uploads/isac_advanced_biotechnology_white_paper.pdf

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