



The Federal World of Invasive Species



What is an Invasive Species?

An invasive species is defined by Executive Order (EO) 13112 as:

- a species that are not native to the ecosystem under consideration
- a species whose introduction causes or is likely to cause economic or environmental harm or harm to human health.

Invasive species can be plants, animals, or microorganisms.



Hydrilla



Fire Ants



Invasive Plants Impact Example:

Downy brome (cheatgrass) is often described as a being in “disturbed areas,” but it is capable of establishing in a wide array of habitat types.

Where downy brome is dominant, there is a buildup fine fuels & wildfires increase.



Wildfires often favor an increased dominance of downy brome (Duncan & Clark 2005).



Invasive Plants Impact Example:

Invasive plants can depress shoreline property values (average decrease per property in VT study: **\$12,000**)

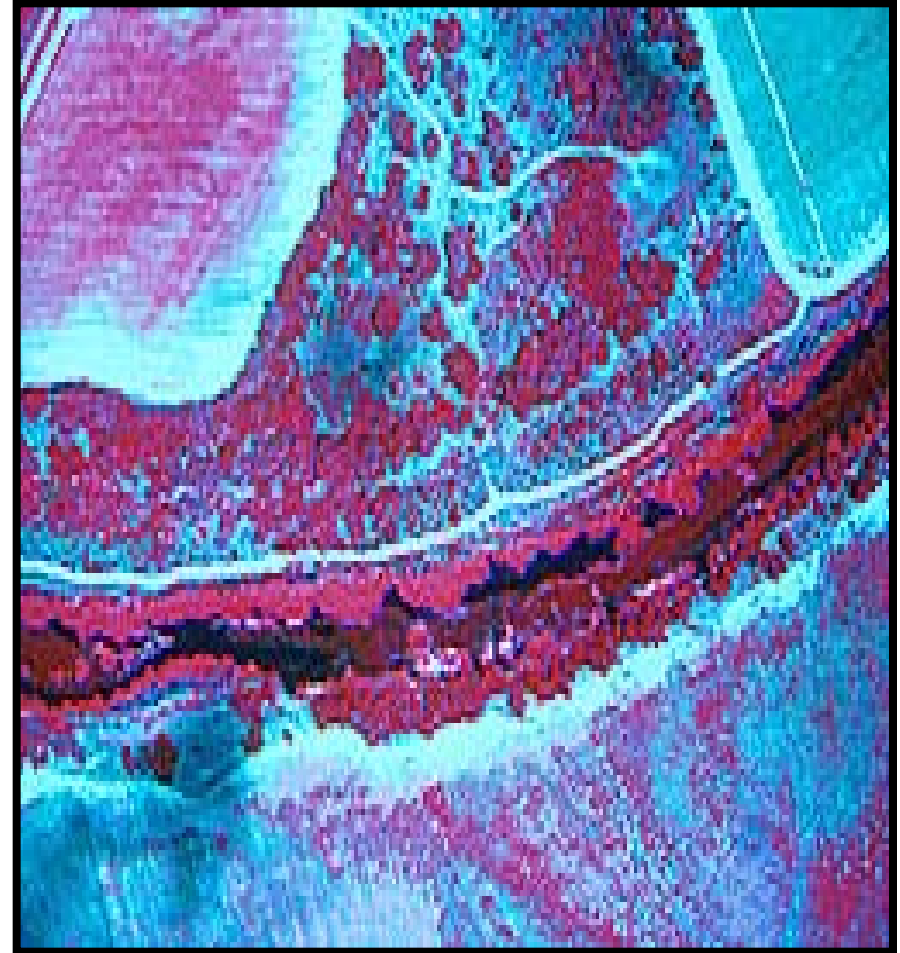




Invasive Plants Impact Example:

Invasive plants can dominate in important aquatic and riparian habitats.

In this aerial false-color image of a weed-infested portion of the Rio Grande, **water hyacinth** along the bank shows as bright red, the **hydrilla** along the lower banks as reddish brown, and open water is black (ARS Photo Gallery).





Brown Treesnake

- Introduced to Guam from Australia after WWII.
- Has extirpated 9 of 12 indigenous birds
- Causes hundreds of power outages every year
- Up to 10,000 snakes per square mile
- Requires \$5 million per year to keep it from spreading to other islands (like Hawaii)
- Picture descriptions
 - Main – Snake hunting (nocturnal – fences work as well as trees).
 - Left – A handful of snakes removed from traps; 10,000 snakes per year are trapped and removed
 - Right – BTS, 12 feet in length, eating a Pacific Plover





Emerald Ash Borer

- Infesting thousands of acres in Michigan, Indiana and Ohio
- Infestation probably arrived in solid wood packing material
- **KILLS** every Ash tree
- Federal and State governments are spending millions each year pruning dead trees, doing quarantine and other efforts to halt the spread





Executive Order 13112 (Issued in February of 1999)

Establishes the National Invasive Species Council (NISC) to ensure that Federal activities are coordinated, complimentary, cost-efficient and effective.

Council's Co-Chairs: Secretaries of Interior, Agriculture & Commerce

Members: DOT, DOD, Treasury, DOS, EPA, HHS, USAID; USTR, DHS, & NASA.

- About 45 Federal agencies share the responsibility and authority for invasive species as well as all states, tribes, local governments, and territories.



The Executive Order (EO) directs the Council to:

- 1) Implement the EO.
- 2) Promote **Action** at **Local, State, Tribal** & Ecosystem levels.
- 3) Recommend measures to **enhance** international **cooperation**.
- 4) Facilitate documentation of invasive species impacts.
- 5) Develop a web-based **Information Network** on invasive species.
- 6) Develop **National Environmental Policy Act Guidance** to federal agencies related to invasive species.
- 7) Draft and update a *National Invasive Species Management Plan* (NISC Plan) every two years.

Council Members

Secretaries of the Departments & Administrators

Co-Chair Principals

Agriculture, Commerce & Interior

Policy Liaisons

1 per Dept.-Agency

Agency Reps
In each agency

Agency Reps
In each agency

Agency Reps
In each agency

Agency Reps
In each agency

Agency Reps
In each agency

Agency Reps
In each agency

ISAC

Work Groups

“TAXA Teams”

Nonfederal -FACA

Council Staff

ANSTF, FICMNEW & ITAP

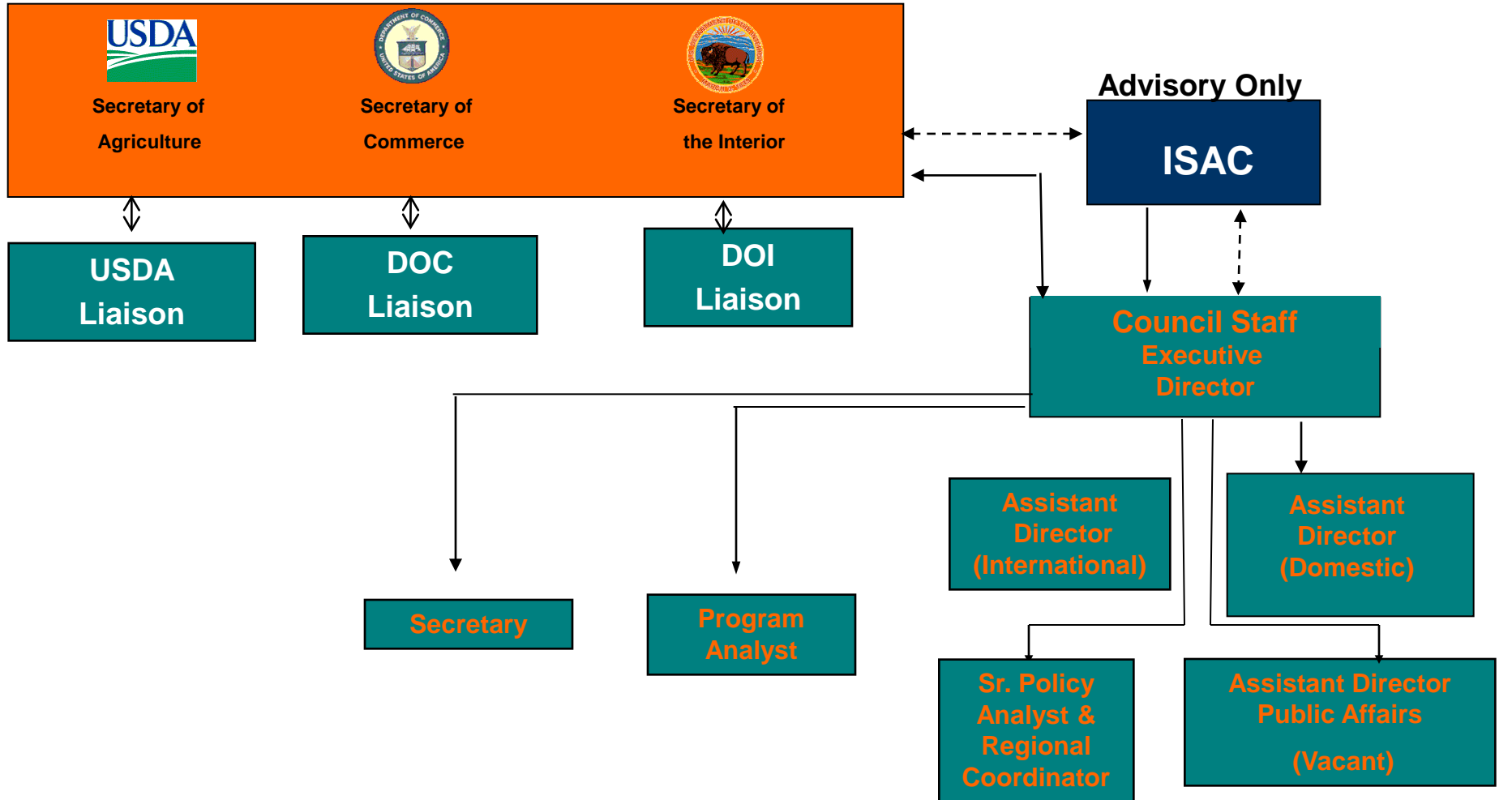
NON-FEDERAL 

FEDERAL 

ADMINISTRATION 
Political Appointees



NISC Organizational Outline





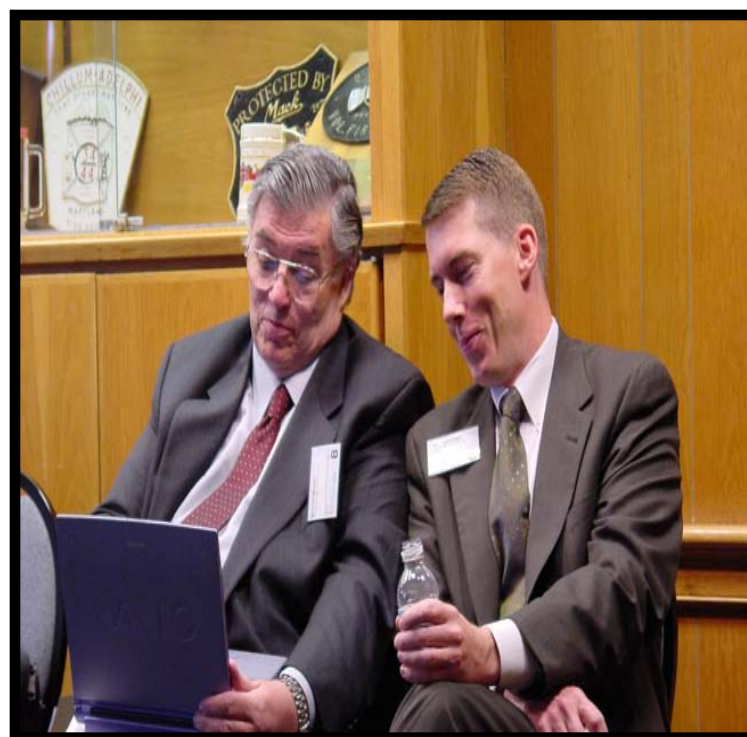
THE INVASIVE SPECIES ADVISORY COMMITTEE (ISAC):

- FACA-chartered and established under EO 13112 to provide information and stakeholder input for consideration by NISC.
- Represents a range of non-Federal expertise, constituencies, localities, and stakeholder interests.
- Members come from academia, industry and non-governmental organizations



NISC / ISAC FACA-chartered Task Teams/Subcommittees

1. Organizational Collaboration
2. Prevention (*Joint with ANSTF*)
 - a. Pathways
 - b. Screening
 - c. Risk Analysis
3. Early Detection and Rapid Response
4. Control and Management
5. Research and Information Management
6. Communication, Education and Outreach





ISAC Products

- Specific and targeted recommendations to federal agencies on invasive species issues
- White Paper on the definition of invasive species
- Paper on biofuels, cultivating energy, not invasive species
- Paper on invasive species and public investment in the green economy



Federal Activities On Invasive Species

Over 45 Federal agencies deal with invasive species

- **National Oceanic and Atmospheric Administration (NOAA)**
 - aquatic invasive species issues in oceanic, coastal and river waters
- **Department of the Interior (DOI)**
 - invasive species issues in public lands, (national parks and wildlife refuges), regulates fish or wildlife species determined to be injurious
- **US Department of Agriculture (USDA)**
 - plant pests, noxious weeds, and invasive species that harm forests, agriculture, livestock and poultry (quarantine regulations)



USDA Agencies

Animal and Plant Health Inspection Service (APHIS) –
Regulates invasive species, conducts applied research ,
safeguards plants and animals

Agricultural Research Service (ARS) – Conducts research on
agricultural pests and develops biological controls for selected
invasives.

Economic Research Service (ERS) - Conducts economic
research on impacts of invasives. Advises USDA on the most cost
effective programs for invasives.

National Institute for Food and Agriculture (NIFA) – Provides
funds to land-grant universities for research, technical assistance
and extension services related to invasives.



USDA Agencies

US Forest Service (USFS) – Manages invasives in 193 million acres of national forests, conducts research and provides grants and technical assistance to state forests and private land owners

Natural Resources Conservation Service (NRCS) – Provides technical assistance to ranchers and farmers to manage and control invasive species on their lands.

Farm Services Administration (FSA) – Funds activities approved by NRCS on private lands to manage invasive species.

Foreign Agricultural Service (FAS) – Promotes the sale of American agricultural products in the world that are free of invasive species.



Federal Activities On Invasive Species *(cont'd.)*

- **Department of Defense (DOD)**
 - manages military lands, transports personnel and equipment, conducts operations overseas
- **Environmental Protection Agency (EPA)**
 - regulates water quality, pesticides and herbicides, and conducts research
- **US Agency of International Development (USAID), US Trade Representative (USTR), and the US State Department (DOS)**
 - international issues related to invasive species
- **Department of Homeland Security (DHS)**
 - conducts inspections in 585 ports and airports



National Invasive Species Management Plan

First plan published 2001

Second plan published 2008

Incorporates multi-agency and coordinated actions to deal with invasive species in the following areas:

- Prevention (Prevent introduction and establishment of invasive species to reduce their impact on the environment, economy and health of the US)
- Early Detection and Rapid Response (Develop and enhance the capacity to identify, report and effectively respond to newly discovered/localized invasive species)



National Invasive Species Management Plan

- Control and Management (Contain and reduce the spread and populations of established invasive species to minimize their harmful impacts)
- Restoration (Restore native species habitat conditions and rehabilitate high-value ecosystems and key ecological processes that have been impacted by invasive species to meet the desired future conditions)
- Organizational Collaboration (Maximize organizational effectiveness and collaboration on invasive species issues among international, federal, state, local and tribal governments, private organizations and individuals.



National Invasive Species Council

www.invasivespecies.gov

www.invasivespeciesinfo.gov



NISC Coordinates with

Federal Interagency Technical Experts on Invasives:

- ANSTF – Aquatic Species
- FICMNEW - Weeds
- ITAP – Plant and animal pathogens and vertebrate species

States:

- New York, California, Florida, Maryland, New Jersey, and Oregon, have state invasive species councils.

Tribes

International Organizations:

- NAPPO
- CEC (US, Canada, Mexico)
- IMO



Hilda Diaz-Soltero
USDA Senior Invasive Species Coordinator

202-354-1880
hdiazsoltero@fs.fed.us