



Tackling the Challenge of Invasive Species to Reduce Agricultural Impacts

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Agricultural and Food Law Consortium Webinar Series

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THE UNIVERSITY OF
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What are Invasive Species?

- Transplants causing Harm!!
- Species that are not native to the ecosystem in question which become established in the new environment and cause environmental, economic, and other problems.
 - Disrupt Ecosystems – alter food webs, reduce native biodiversity, affect water quality.
 - Cost Money – damage to crops, farmland, natural resource-based businesses, eradication and control costs.

Why Care?

- Invasive weeds and plant pests reduce crop and livestock production.
- Invasive animals, like feral pigs, can spread diseases and destroy fields and fences.
- Control and eradication is expensive.
- Some researchers estimate invasive species cost the U.S. more than a \$120 billion per year (Pimental et al. 2005)

Who's to Blame?



What can be done?

- Prevention – Stop the Introduction!
 - Import, Sale, and Transport Restrictions
 - Vector Management
 - Public Outreach and Education
- Eradication – Kill them all! (rarely works)
- Management and Control – Stop the Spread!

Major Federal Players

- U.S. Department of Agriculture's Animal and Plant Health Inspection Service (APHIS)
 - Responsible for protecting U.S. agriculture from domestic and foreign pests and diseases.
 - Plant Health Protection Act, Animal Health Protection Act
- U.S. Fish and Wildlife Service
 - Responsible for protecting U.S. wildlife resources
 - Lacey Act

Role of State Departments of Agriculture

- Regulating noxious weeds and plant pests in partnership with USDA.
 - Conducting inspections of shipments and facilities.
 - Issuing certifications necessary for sale/transport of plants and other products (e.g., aquaculture).
 - Monitoring for invasive species and quarantine declarations.
 - Implementing management and control programs for pests (insects) and weeds.
- Cooperating with state fish and wildlife or natural resource agencies to regulate and control invasive animals and aquatic invasive species.

Challenges: Federal Level

- Lack of coordination among federal agencies.
- Reductions in funding for research, control, and grant programs.
- Gaps in authority with respect to species or vectors.

U.S. Association of Reptile Keepers v. Zinke (D.C. Cir. 2017)

- The Lacey Act prohibits importation of listed injurious species into the U.S. and “any shipment” of those species “between the continental United States, the District of Columbia, Hawaii, the Commonwealth of Puerto Rico, or any possession of the United States.” (18 U.S.C. 42(a)(1)).
- In 2012, FWS listed several species of constrictor snakes as injurious species. Rule stated that all interstate shipments were prohibited.
- D.C. Circuit disagreed with FWS’s interpretation. Held that clause only prohibits shipments between the continental U.S. and the listed jurisdictions.

Challenges: State Level

- Lack of intrastate coordination and cooperation of state agencies, non-government entities, and stakeholders.
- Inconsistency and gaps in state laws, regulations, policies, and enforcement (interstate).
- Management, control, and enforcement efforts are expensive and funding is limited.
- Lack of public awareness and knowledge of invasive species threats reduces effectiveness of prevention programs.
- Management and control efforts often require the cooperation of private property owners.

Intrastate Efforts: Councils

INVASIVE SPECIES COUNCIL OF CALIFORNIA

HISAWW
Hawaii Invasive Species Awareness Week | February 27 - MARCH 3, 2017
INVASIVE SPECIES ARE EVERYONE'S KULEANA

Vote DISC 2016!
Delaware Invasive Species Council
Annual Meeting and Conference
October 19, 2016

OISC
OREGON INVASIVE SPECIES COUNCIL

Intrastate Efforts: Outreach

We Can Make The Difference
Help Prevent The Spread Of Invasive Plants And Animals.
Washing your gear, boots, and clothes is the best way to prevent the spread of invasive species.
www.playcleango.org

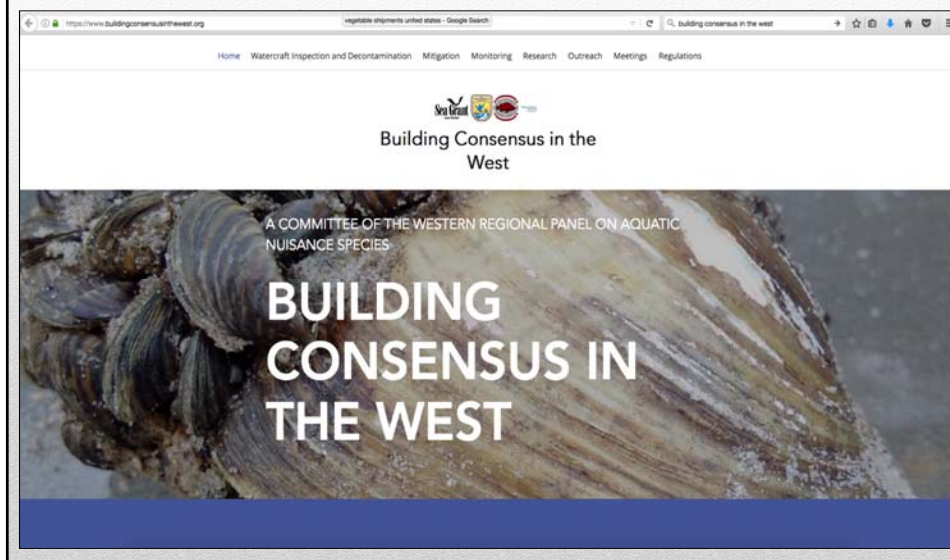
WEED FREE RIDE.
Help Prevent The Spread Of Invasive Plants And Animals.
Washing your gear, boots, and clothes is the best way to prevent the spread of invasive species.
www.playcleango.org

COME CLEAN. LEAVE CLEAN
Give Invasive Species The Brush Off.
STOP INVASIVE SPECIES IN YOUR TRACKS.
www.playcleango.org

BUY IT WHERE YOU BURN IT.
dontmovefirewood.org

WANTED DEAD NOT ALIVE!
ZEBRA MUSSELS
For washing boats on equipment and gear, destroying spawning habitat, encrusting boats and docks, and reducing fish populations.
Stop Aquatic Hitchhikers!
Clean • Drain • Dry

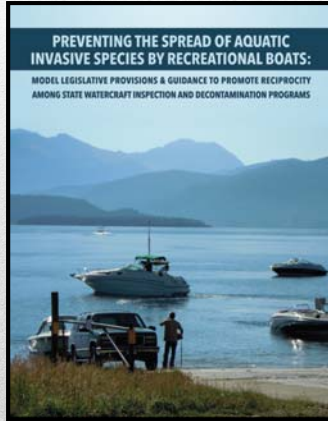
Interstate Efforts: Harmonization



“Building Consensus” Model

- Assess “state of the science” through synthesis documents
- Gather information on existing legal framework and the barriers (real and perceived) to interstate cooperation
- Facilitate face-to-face meetings to develop policy consensus.
 - Convene AIS Coordinators, Assistant Attorneys General, Law Enforcement Officials in the same room. WRP Building Consensus Meetings include:
 - Phoenix, Arizona – August 22-23, 2012
 - Denver, Colorado – August 13-15, 2013, February 11-13, 2014, April 19-20, 2016
 - Albuquerque, New Mexico – April 5-6, 2017

Translating Consensus Policy into Law



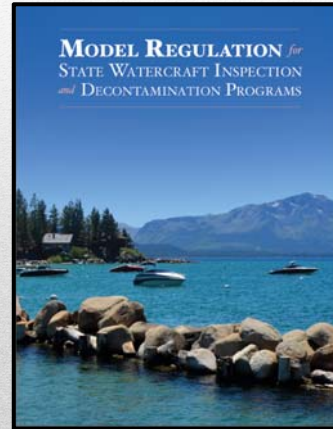
Model Legislation (2014)

Gap Analysis (2014)

Model Regulation (2016)

Gap Analysis Update (2017)

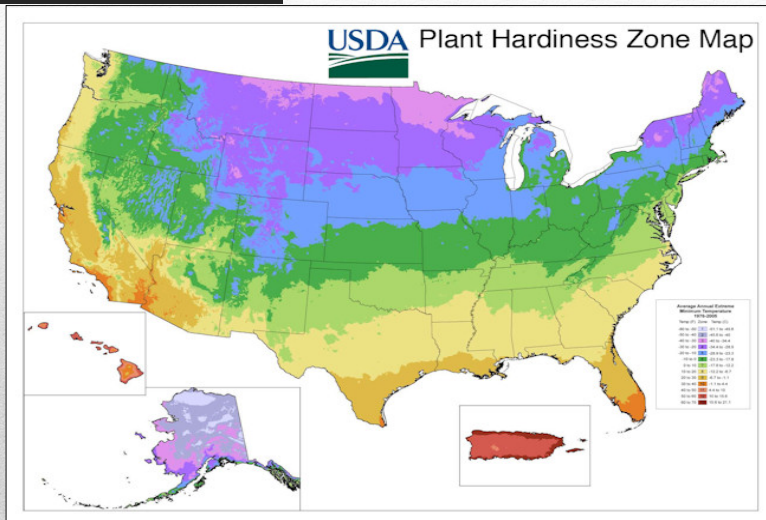
Model MOU (2017)



Potential Agricultural Candidates



Emerging Challenge: Changing Invasion Risks



Climate change could enlarge potential habitat for invasive species

An invasive species in south Florida, Burmese pythons would find conditions suitable in a larger area of the United States under climate projections based on global warming models for the end of the century.

Climate similarity to pythons' native range in Asia: ■ Yes ■ Maybe ■ No

CURRENT CLIMATE



PROJECTED CLIMATE IN THE YEAR 2100



Source: USGS

TODD TRUMBULL / The Chronicle

Resources

- National Invasive Species Information Center - <https://www.invasivespeciesinfo.gov/>
- National Agricultural Law Center - <http://nationalaglawcenter.org/>
- National Sea Grant Law Center - <http://nsglc.olemiss.edu/>
- Environmental Law Institute - <https://www.eli.org/>

Questions? Comments?

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