

# *Traveling Trunk of Invasive Species*



Herb Kumpf and Heidi Vestrem

# Traveling Trunk of Invasive Species

Produced by

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For

Gulf and South Atlantic Regional Panel for Invasive Species

2011

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## INTRODUCTION

- ❖ It is because of our concern about the alarming numbers and impact of invasive species that we have compiled information and produced this "Traveling Trunk" for the Gulf and South Atlantic Regional Panel on Invasive Species.
- ❖ The "Trunk" is intended to serve as outreach and an educational resource from the Panel.
- ❖ The "Trunk" consists of three sections:
  1. This manual of informative talking points.
  2. A compact disk (CD) of illustrations and talking points for visual presentation.
  3. Actual samples of embedded and laminated invasive species specimens for "hands-on" use.
- ❖ We suggest you review the check list of contents, preview the talking points, test the CD for projection, and familiarize yourself with the included examples.
- ❖ The material is appropriate for interested lay people, secondary school students and gifted programs.
- ❖ Suggestions and ideas will be very much appreciated. Your comments may be emailed to the Regional Panel at <http://nis.gsmfc.org>.

# Invasive Species

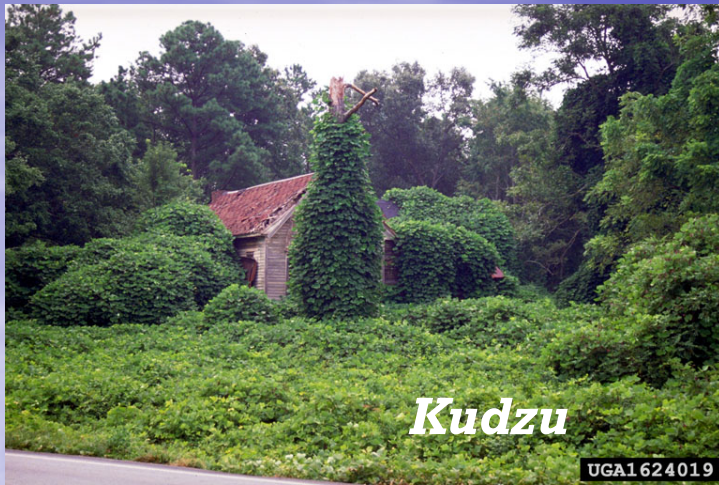


# Pathways/Sources of Invasives:

- Intentional:
  - Stocking
  - Food Importation
  - Aquaria / Pet Stores
  - Personal Releases
  - Property Development
- Non-Intentional:
  - Shipping
  - Boat Movement
  - Ballast Water
  - Aquaculture

# Invasive Species Impacts:

- Ecological:
  - Habitat Degradation
  - Food Chain Alteration
  - Compete With Native Species
- Economic:
  - Increased Management Costs
  - Economic Losses
  - Reduced Natural Productivity

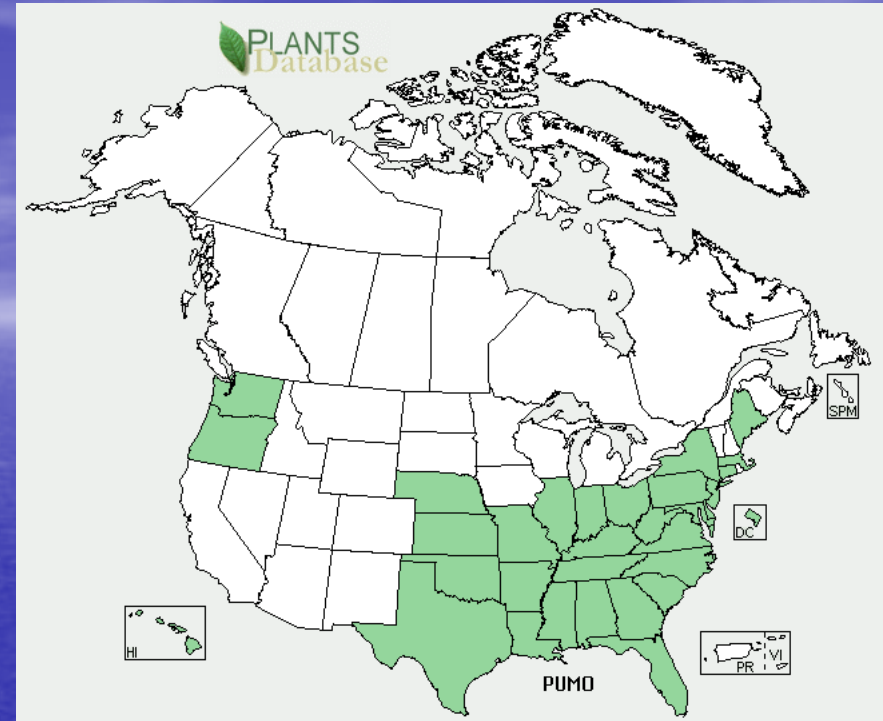


# Invasive Plants



# Kudzu

(*Pueraria montana*)



- Native Range
- Route of Introduction
- Purpose/ Use
- Brief Life History
- Impacts
  - Ecological
  - Economic

# Chinese Tallowtree

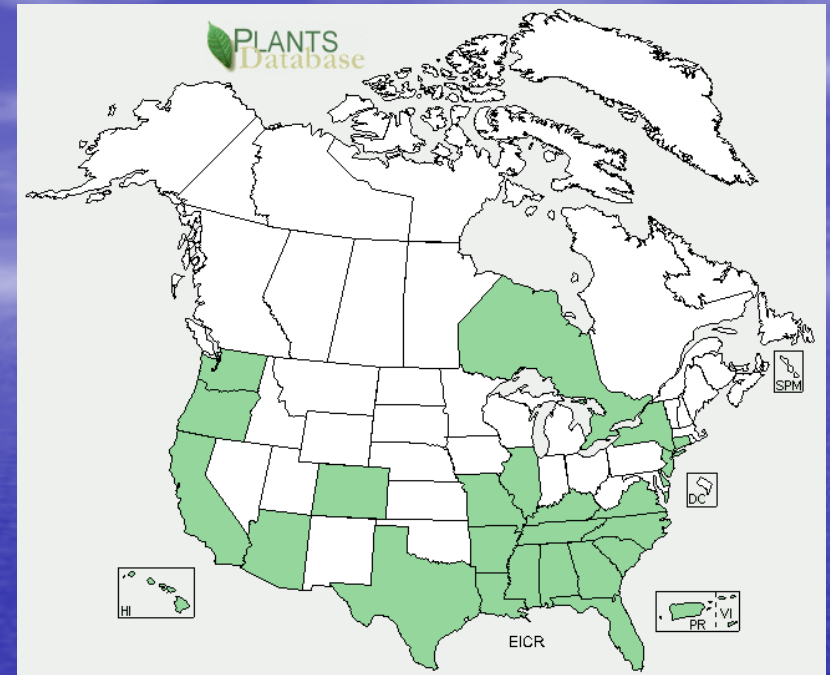
(*Triadica sebifera*)



- Native Range
- Route of Introduction
- Purpose/ Use
- Brief Life History
- Impacts
  - Ecological
  - Economic

# Water Hyacinth

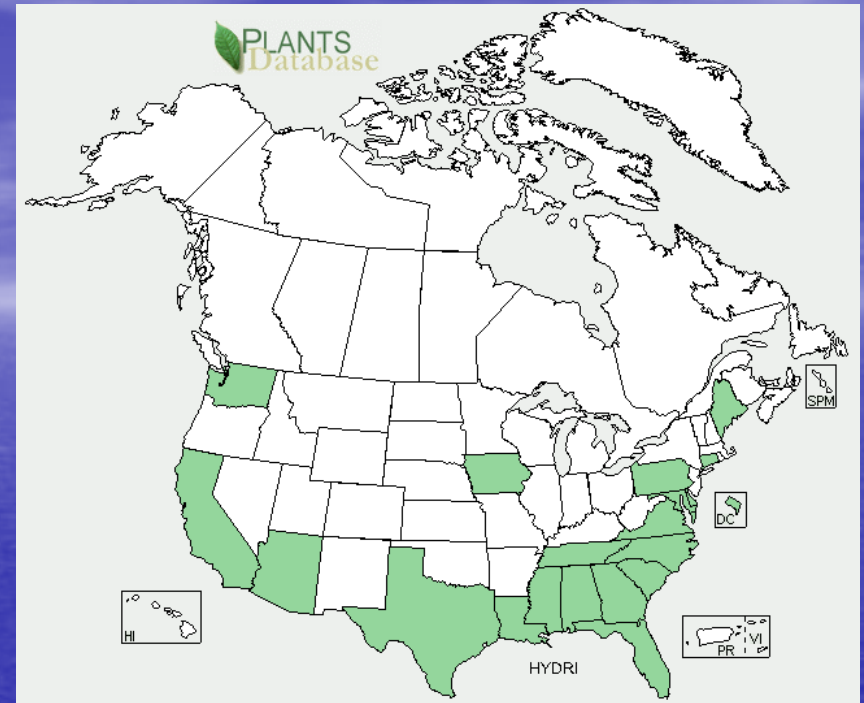
(*Eichhornia crassipes*)



- Native Range
- Route of Introduction
- Purpose/ Use
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  - Ecological
  - Economic

# Hydrilla

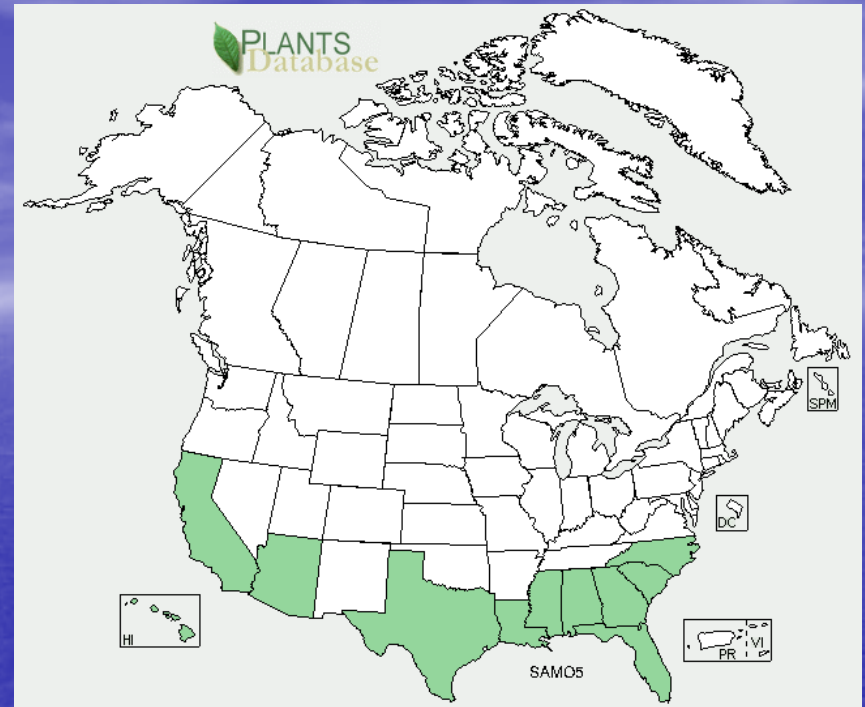
(*Hydrilla spp.*)



- Native Range
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  - Economic

# Salvinia

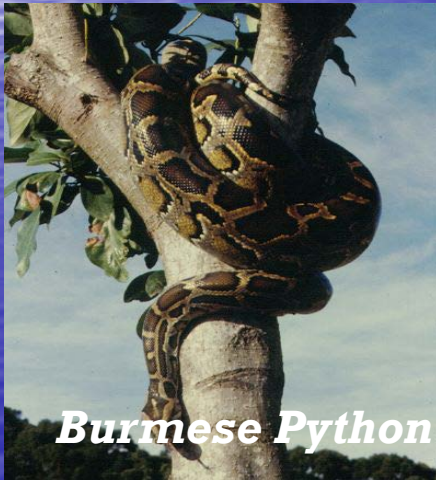
(*Salvinia molesta*)



- Native Range
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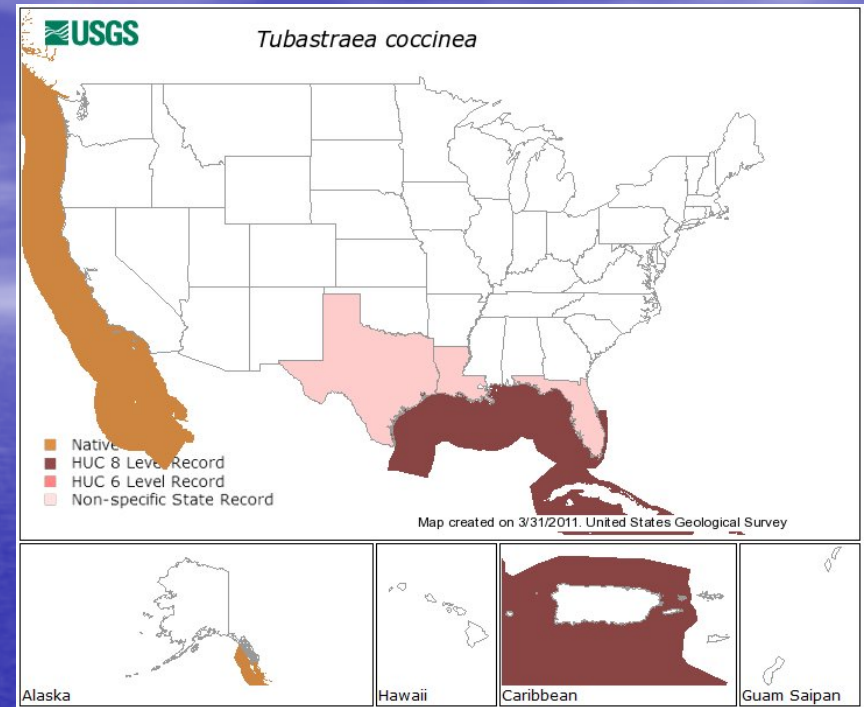
# Invasive Animals



# Invasive Invertebrates

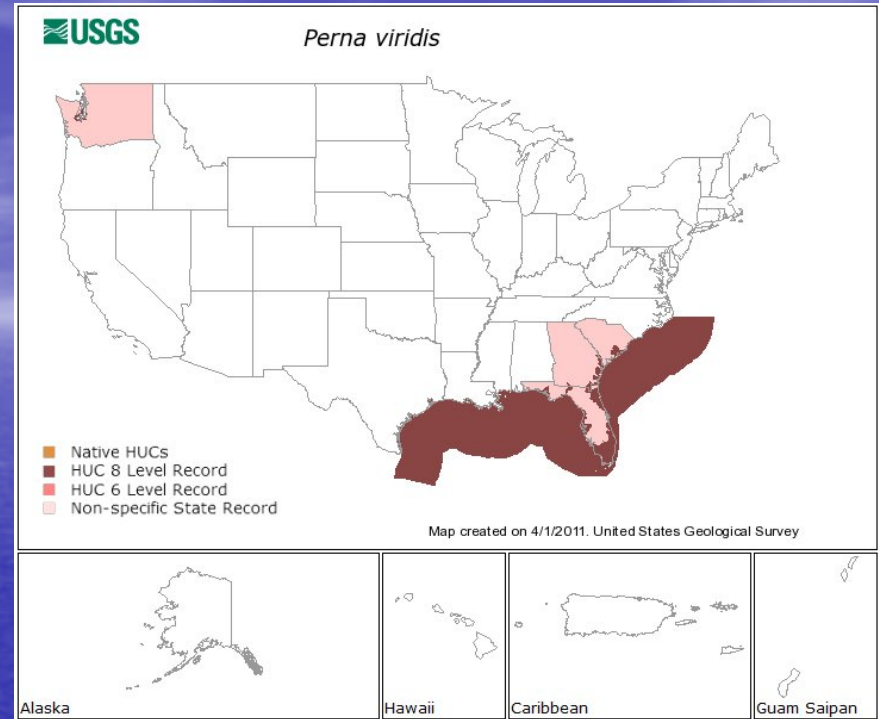
- Orange Cup Coral
- Green Mussel
- Zebra Mussel

# Orange Cup Coral (*Tubastraea coccinea*)



- Native Range
- Route of Introduction
- Purpose/ Use
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- Impacts
  - Ecological
  - Economic

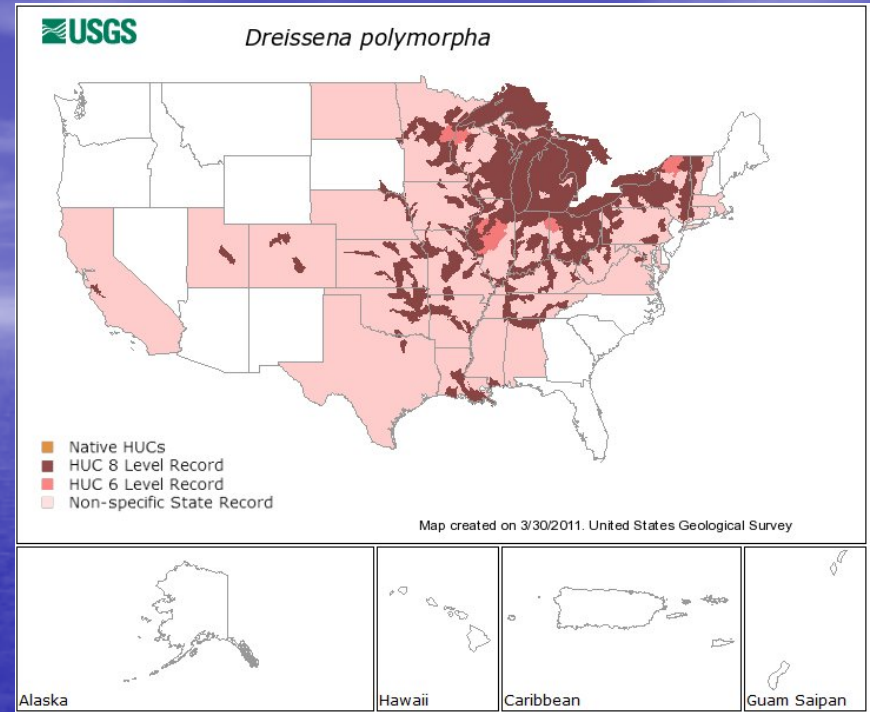
# Green Mussel (*Perna viridis*)



- Native Range
- Route of Introduction
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  - Ecological
  - Economic

# Zebra Mussel

(*Dreissena polymorpha*)

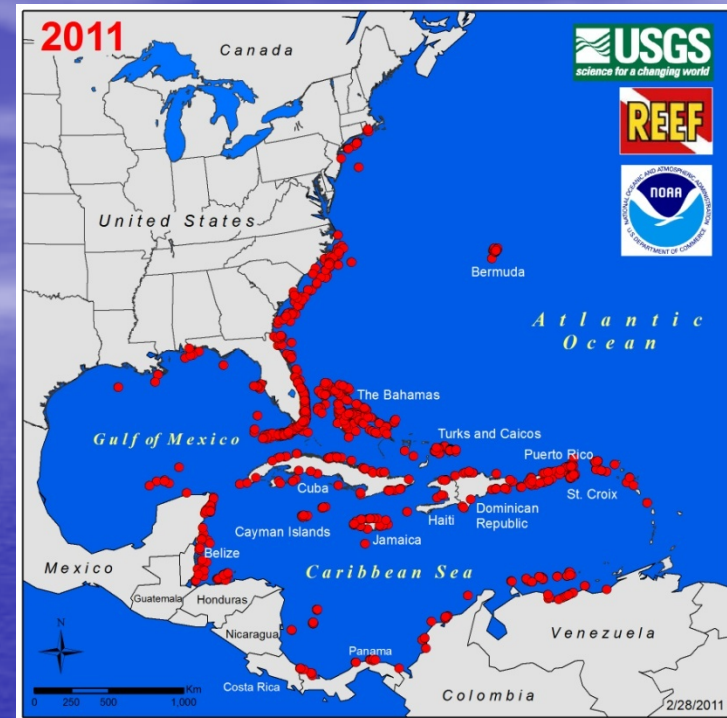


- Native Range
- Route of Introduction
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# Invasive Vertebrates

- Pacific Lionfish
- Burmese Python
- Nutria

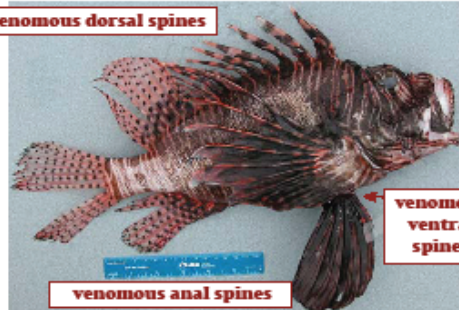
# Pacific Lionfish (*Pterois volitans*)



- Native Range
- Route of Introduction
- Purpose/ Use
- Brief Life History
- Impacts
  - Ecological
  - Economic

# Have You Seen Me?

venomous dorsal spines



venomous ventral spines

venomous anal spines

The venomous Indo-Pacific 'Lionfish' is regularly observed in habitats within the southeast region (Florida to North Carolina) and the Bahamas. These fish are not native to Atlantic waters and may have a negative impact on native fish populations. **All of their spines are venomous and can cause extreme pain!** If stung, immerse wound in hot water and seek medical attention as soon as possible.

## Identification:

- Lionfish have distinctive red, maroon, and white vertical stripes;
- Fleshy tentacles above eyes and below mouth;
- Fan-like pectoral fins;
- 13 long separated dorsal spines;
- 10-11 dorsal soft rays;
- 3 anal spines;
- and 6-7 anal soft rays;
- An adult lionfish can grow as large as 18"

## Geographic Location and Habitat:

Lionfish are native to Indo-Pacific waters and are now being reported primarily by Scuba divers from the Bahamas to Cape Hatteras NC in water depths from 5 to 300 ft on hard bottom, coral reef and artificial substrates. Lionfish can also be caught by hook and line. NOAA requests information about all Lionfish collected by hook and line. Location information such as lat/long, depth and type of bait and tackle are encouraged.



**Recommendation:** If you catch a lionfish be extremely careful, do not come in contact with the dorsal, anal or ventral spines. If fish must be handled, thick PVC gloves or a gaff is recommended. Please do not throw lionfish back in the water! NOAA is interested in all lionfish specimens and reports. Put lionfish on ice and report any lionfish catches to NOAA at (252) 728-8714 or email [reportlionfish@noaa.gov](mailto:reportlionfish@noaa.gov)

Report online at <http://www8.nos.noaa.gov/nccos/ccfhr/lionfishreport.aspx>

For more information and to print out additional flyers go to:

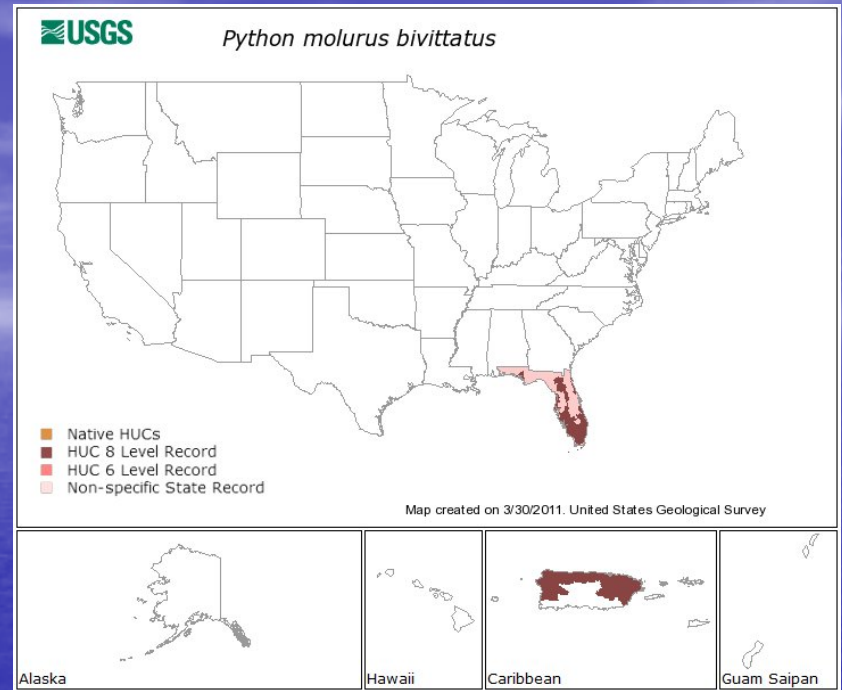
<http://coastalscience.noaa.gov/education/lionfish.html>

<http://lionfish.eisf.org>

or google "lionfish outreach"



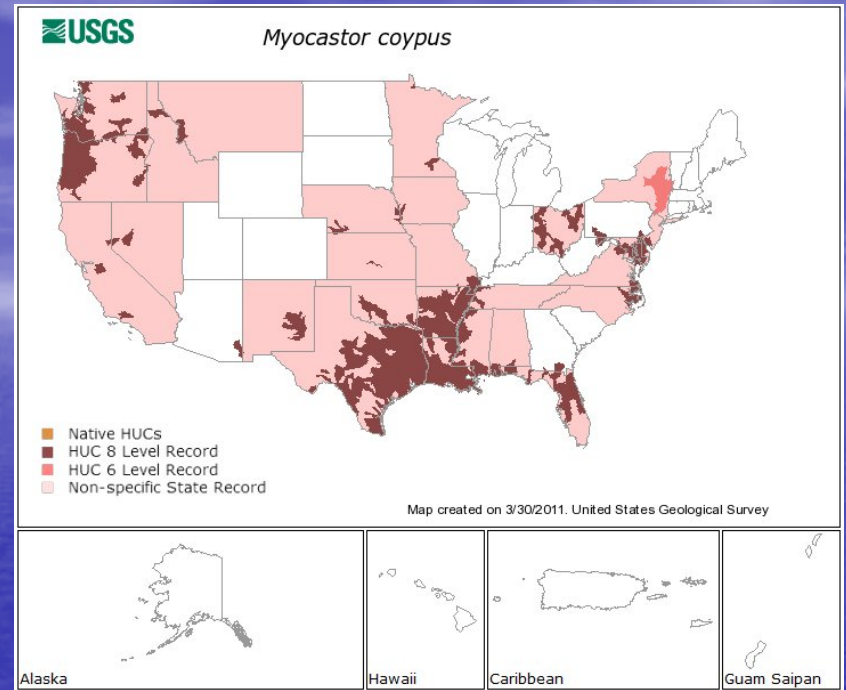
# Burmese Python (*Python molurus bivittatus*)



- Native Range
- Route of Introduction
- Purpose/ Use
- Brief Life History
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  - Ecological
  - Economic

# Nutria

(*Myocastor coypus*)



- Native Range
- Route of Introduction
- Purpose/ Use
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  - Ecological
  - Economic

# What can WE do?

- Prevention
- Educate Ourselves
- Observe & Report

# Web Sites:

Regional Panel:

[www.gsarp.org](http://www.gsarp.org)

National Invasive Species Council

[www.invasivespecies.gov](http://www.invasivespecies.gov)

US Geological Survey:

[www.nas.er.usgs.gov](http://www.nas.er.usgs.gov)

NOAA Sea Grant:

[www.iiseagrant.org/NabInvader](http://www.iiseagrant.org/NabInvader)

US Dept. Agriculture:

[www.eddmaps.org](http://www.eddmaps.org)

Center for Invasive Species:

[www.invasives.org](http://www.invasives.org)

University of Georgia

[www.bugwood.org](http://www.bugwood.org)

Federal/State/Industry/University Joint site

[www.habitattitude.net](http://www.habitattitude.net)

# Acknowledgements