

# FY 2012 USFWS R4 AIS Program: Collaboration, Coordination, and Cooperation on AIS Issues



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Jeffrey Herod

U.S. Fish and Wildlife Service  
Southeast Regional Office

1875 Century Boulevard, Ste 250  
Atlanta, Georgia 30345



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# OBJECTIVES

- \* Communication, Cooperation, and Collaboration
- \* Opportunities and Partnerships (e.g., Asian Carp)
- \* Future Directions



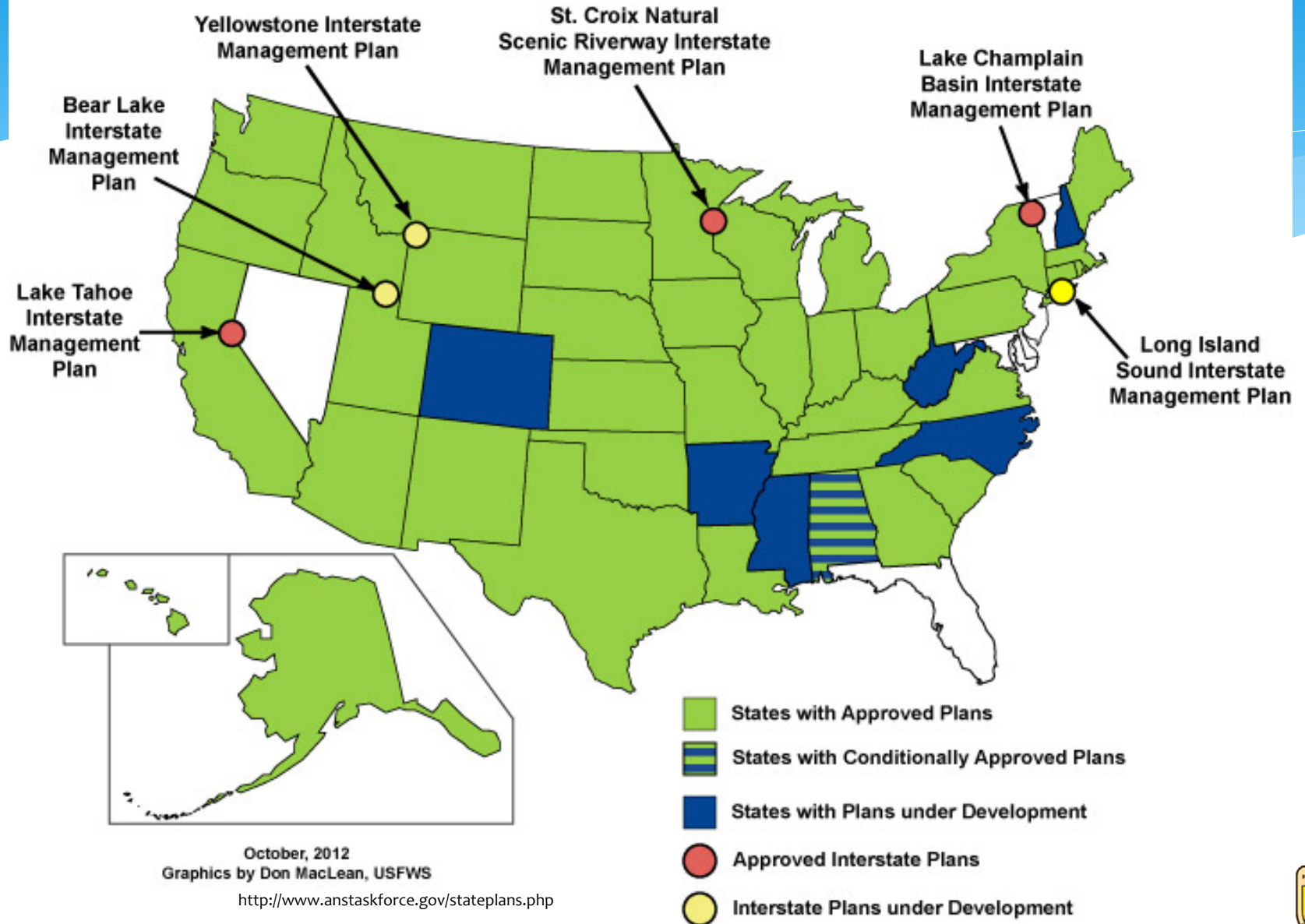
Eric Engbretson, US Fish and Wildlife Service, Bugwood.org

A large school of fish, likely snappers, are captured in mid-leap from a shallow, sandy beach. The fish are silvery with a hint of brown on their heads. In the background, a dense line of green mangrove trees stretches across the horizon under a clear blue sky. The water is shallow and clear, showing the sandy bottom.

# **Communication, Cooperation, and Collaboration**

# Status of State ANS Management Plans

(41 Approved Plans - 38 State, and 3 Interstate)





# SARP Science and Data Committee



Aquatic Nuisance Species Work Group

# Summary of Partnerships

- \* 5 state ANS plans received support
- \* Total of 12 projects in FY12: Universities, Federal Partners and States working on projects...
  - \* Specific species/ Risk Assessments/ Physiological Tolerances
  - \* Prevention and Detection
  - \* Trainings
  - \* Control strategies
  - \* Outreach/ Education



# NAS Database Report

## \* New to Region 4 Since 2000

Category	new species	established
* FW fish	19	7
* Marine fish	19	1
* Crustaceans	9	1
* Mollusks	6	2
* Amphibians	7	0
* Reptiles	11	0

- \* Many species have unknown as the status, meaning we don't know yet if they are established or failed. So the number of new established species is a minimum.

## \* Overview of Region 4 Introductions Since 2000

- \* **Forty-nine new species were introduced to Region 4 since 2000.** These are species that had never been collected from any of the states in Region 4. **One hundred and sixty species were recorded as new to a particular state since 2000.** These are species that have been present somewhere in the southeast region, but were recorded in a state where they had not been previously documented – indicating either spread of an established population, or new introductions. **Two territories experienced the largest proportional increases, Puerto Rico (69%) and Virgin Islands (60%).** In terms of total numbers of species, the two highest were Florida (47) and Puerto Rico (36).

# Early Detection and Planning

- \* Development and Enhancement of Molecular Detection and Surveillance Tools for Invasive Fishes in Freshwater Habitats in the Southeast
- \* "Quantifying detection sensitivity of eDNA for northern snakehead"
- \* Refinement of NAS data for SARP use
- \* Expanding USFWS eDNA monitoring capabilities for aquatic invasive species in Region 4
- \* Movement and Habitat Selection by Invasive Asian Carps in the St. Catherine Creek National Wildlife Refuge
- \* Distribution of the Invasive Crayfish *ORCONECTES PALMERI* *CREOLANUS* in the Flint River Basin





# Control and Research

- \* Baseline Life History of Native Bowfin and Comparative Feeding Ecology with Non-Native Bullseye Snakehead in South Florida
- \* Mississippi Bight Lionfish Response Unit: A joint taskforce to combat Lionfish populations in the Gulf of Mexico
- \* Phylogeographic analyses to identify dispersing, reproducing and founding populations of Asian tiger shrimp
- \* Non-native and Invasive *Murdannia keisak* Control Techniques Experiment
- \* Investigating management of invasive apple snail *Pomacea insularum* using chemical and biological control methods
- \* Biology and ecology of non-native aquatic species in Florida



A large school of fish, likely snappers, are captured mid-jump, creating a dynamic scene of splashing water. The fish are silvery with some darker markings. In the background, a dense line of green mangrove trees stretches across the horizon under a clear blue sky.

# **Opportunities and Partnerships**

**Think Regionally...**

# National Management Plan



Bighead carp



Silver carp

## **Management and Control Plan for Bighead, Black, Grass, and Silver Carps in the United States**

*Submitted to the Aquatic Nuisance Species Task Force  
Prepared by the Asian Carp Working Group*

October 2007



Black carp



Grass carp

# National Asian Carp Surveillance Plan



## **Asian Carp Surveillance and Response Plan for Areas Outside of the Great Lakes**



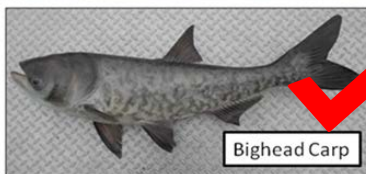
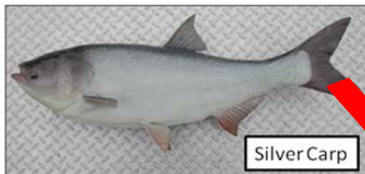
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# Early Detection: eDNA



Florida Fish and Wildlife Conservation Commission  
Archive, Bugwood.org



<http://www.lakescientist.com/2012/asian-carp>





# A Regional Biosecurity Framework

- \* EDRR plan
- \* ICS Training
- \* Regional perspective on National issues (i.e., ANSTF species specific plans)
- \* Surveys (i.e., traditional and new technologies)
- \* Control plans and pilot projects (e.g., Lionfish)
- \* Species specific risk assessments/ management (e.g., ERSS)
- \* Pathway risk assessments/ management
- \* GSARP priority species and science needs



A large school of fish, likely mullet, is captured in mid-leap, creating a dynamic scene of white water and splashing. The fish are silvery with a hint of brown on their heads. The background shows a dense line of green trees under a clear blue sky.

# **Future Directions**

# FY13-14: capacity in Southeast

- \* WIT Training
  - \* VOLUNTEERS: request 4 States interested in hosting Spring 2014
- \* Lionfish workshops
- \* Asian Carp impacts and potential spread
- \* eDNA
- \* National Invasive Lionfish PMP
- \* Snakehead NMP
- \* National Asian Carp Surveillance plan



# CARP



<http://www.activistangler.com/journal/tag/asian-carp>

# Conclusion

- \* There is a need for continued support of these strategies:
  - \* State ANS Coordinators and Invasive Species Plans/ Strategies
  - \* Prevention of AIS introductions Regionally through RA/RM focused on pathways
  - \* Providing resources and education to develop capacity in the Region for prevention, detection, and control
  - \* Test all Biosecurity elements on a suite of species
  - \* Capacity building for ED (eDNA and WIT)
  - \* Complete EDRR plan and find resources to run drills

