What are the 5 key components of Improving Invasive Species Management?

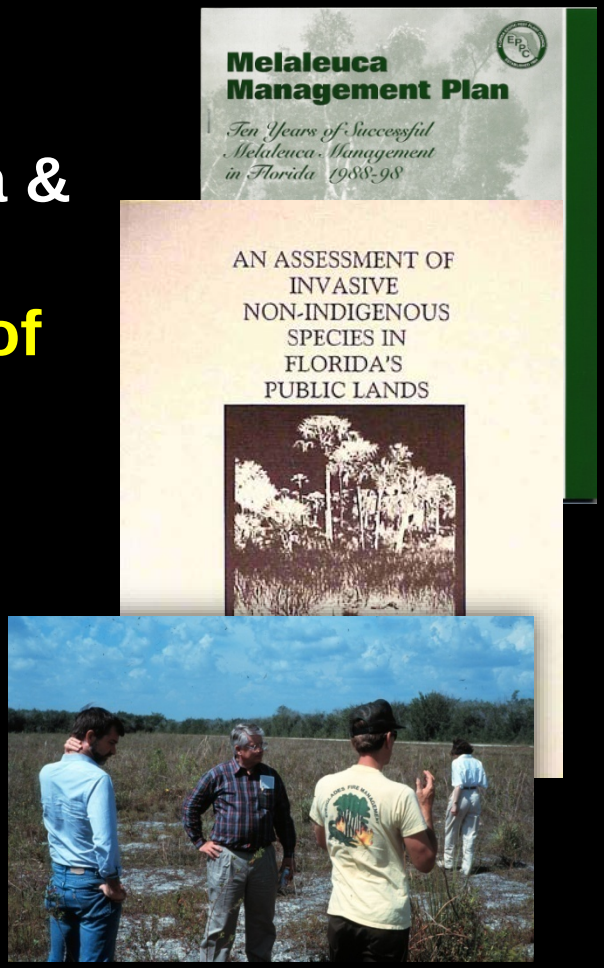
1. Define the Problem

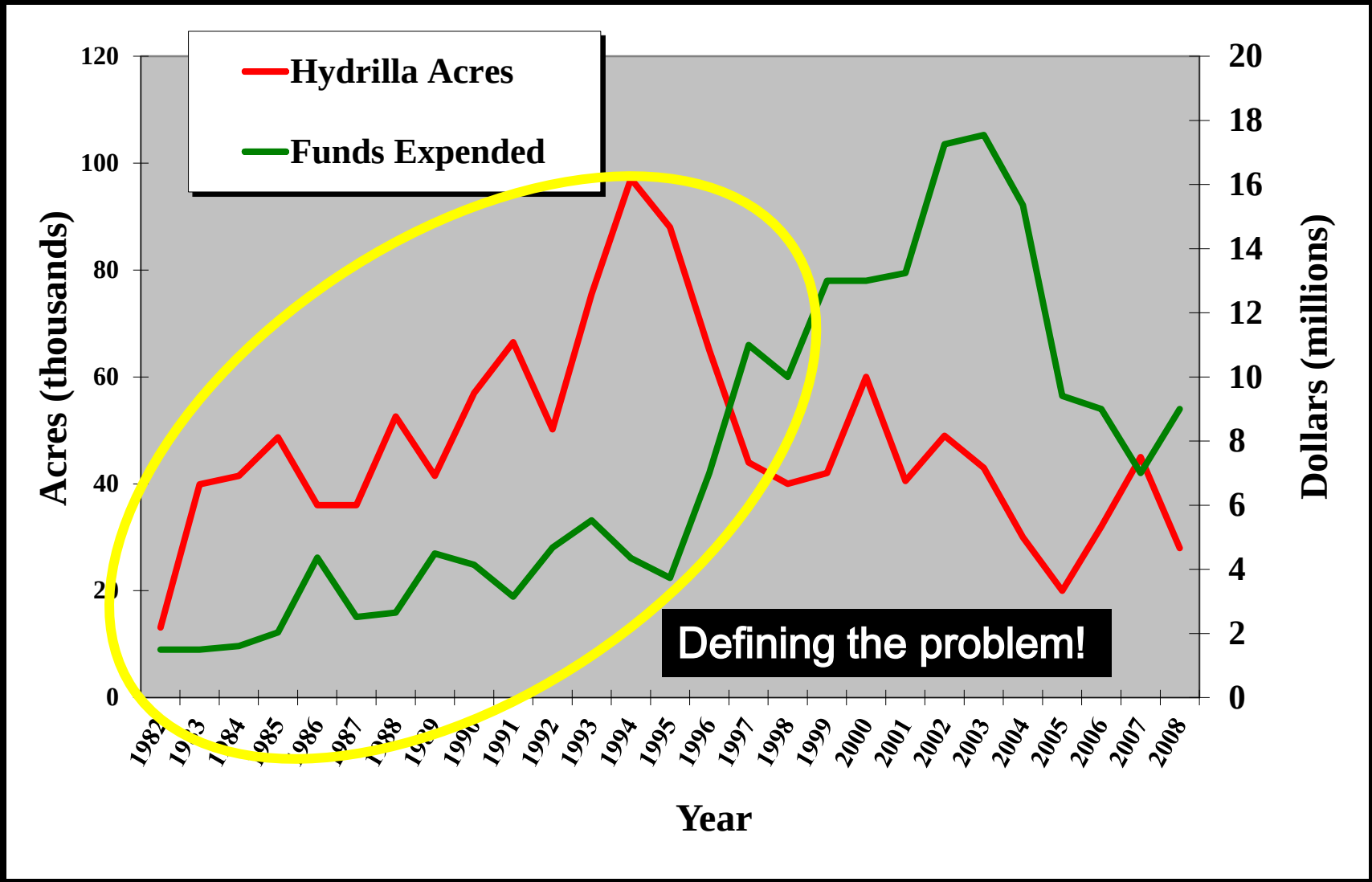
In Florida we defined the problem for invasive plants in the 1990s:

1. Grassroots public education campaign targeted the news media & policy-makers **(>200 stories about invasive plants in Florida, dozens of field trips with elected officials)**

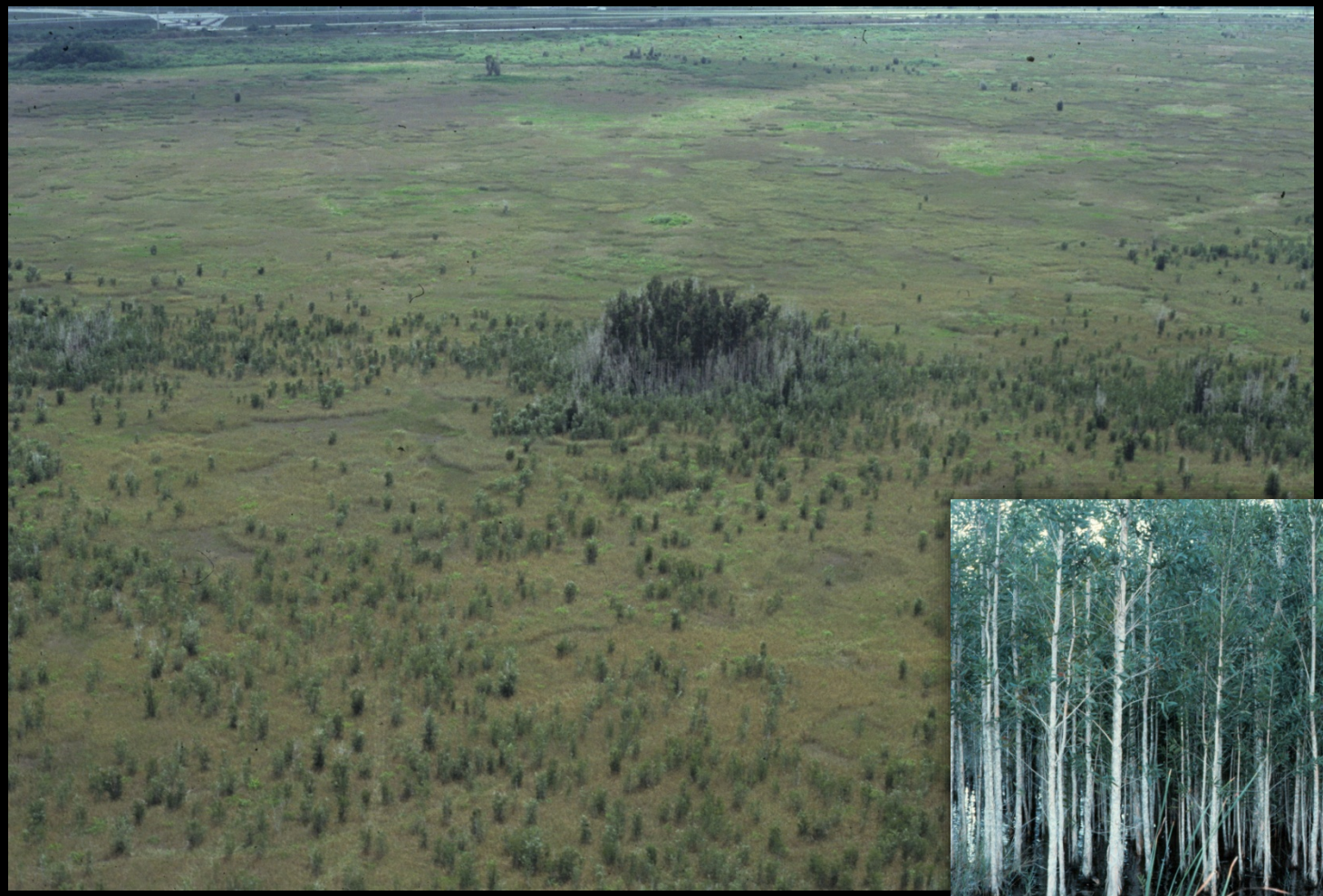
2. Statewide assessment & invasive plant management plans

3. Directly correlated a lack of funding with invasive species expansions





IPM Survey data versus funding



Melaleuca spreading at a rate of 50 acres a day in the Everglades – Defined the problem!

It Worked!!

- State IPM funding 1980s, 90s, - $11 million
- State IPM funding 2001 to 2009 - >$40 million

Accomplishments

- Hydrilla suppression statewide
- Water hyacinths < 5,000 acres statewide
- 531,000 acres of invasive upland plants controlled
- Research – about 40-50 projects, $2 million

Pennsuco Wetlands – Miami-Dade County

April 1998

October 2003

Australian Melaleuca trees in Florida – more than 1,000,000 acres under maintenance control

Invasive Species - We haven't defined the problem to the American Public

Most folks just don't connect the dots between pythons, plant invasions, and zebra mussels

Invasive Species Network - Establish a National Public Awareness Campaign

Define the problem - Dollar Impact

"Invading non-indigenous species in the United States cause major environmental damages and losses adding up to almost $120 billion per year"

Source: David Pimentel et al. 2004 - Questionable information

"More comprehensive analysis of the economic impacts of invasive species would better inform decision makers"

Source: Invasive Species: Clearer Focus and Greater Commitment Needed to Effectively Manage the Problem, GAO Report 2002

Invasive Species Network – Define the Problem:

- **Begin to Track Invasive Species Expenditures by Each State (Florida ~ $762 million/year)**

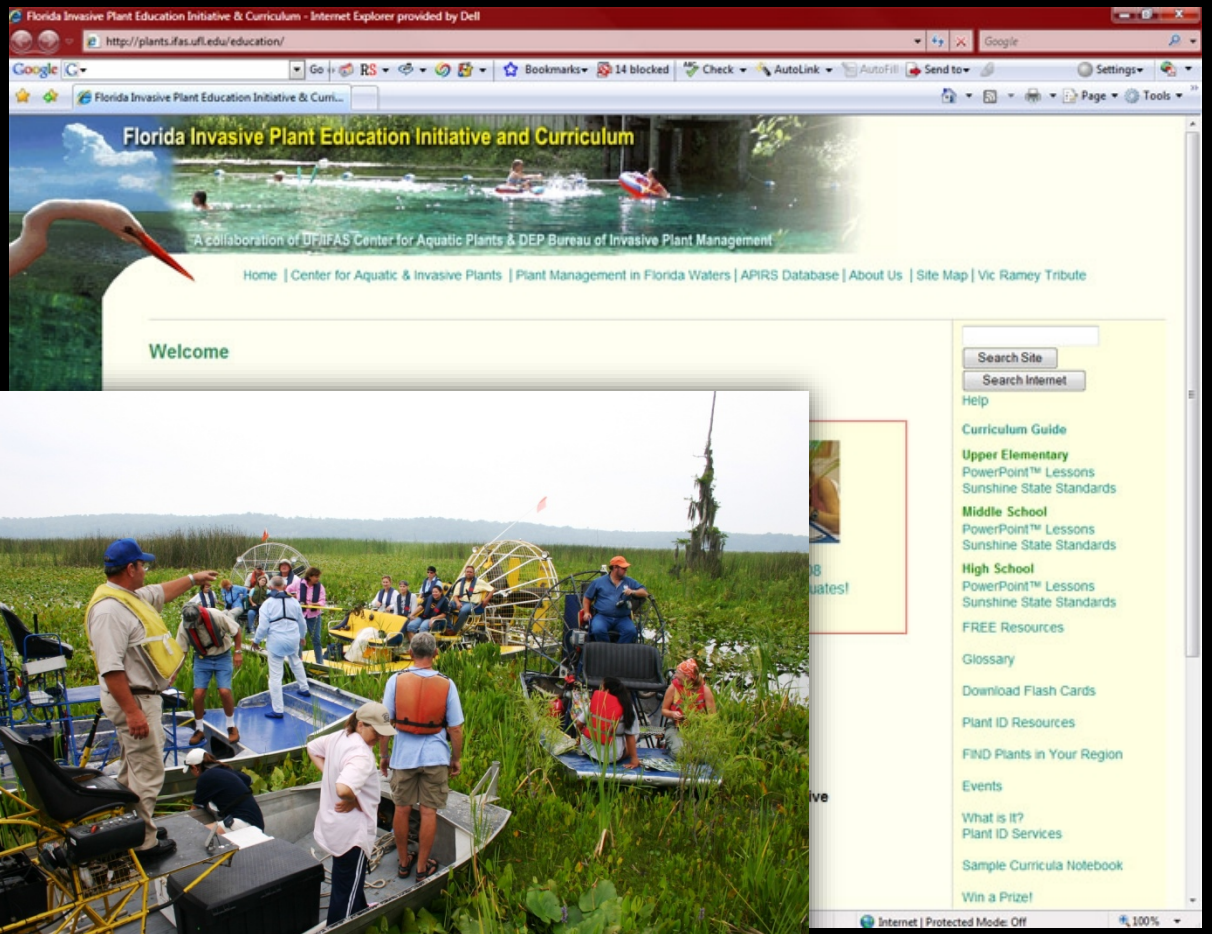
- **Conduct, Fund, Track, and Coordinate Economic Impact Studies Nationwide**

Invasive Species Network: Educate our children in our public schools

Establish Nationwide:

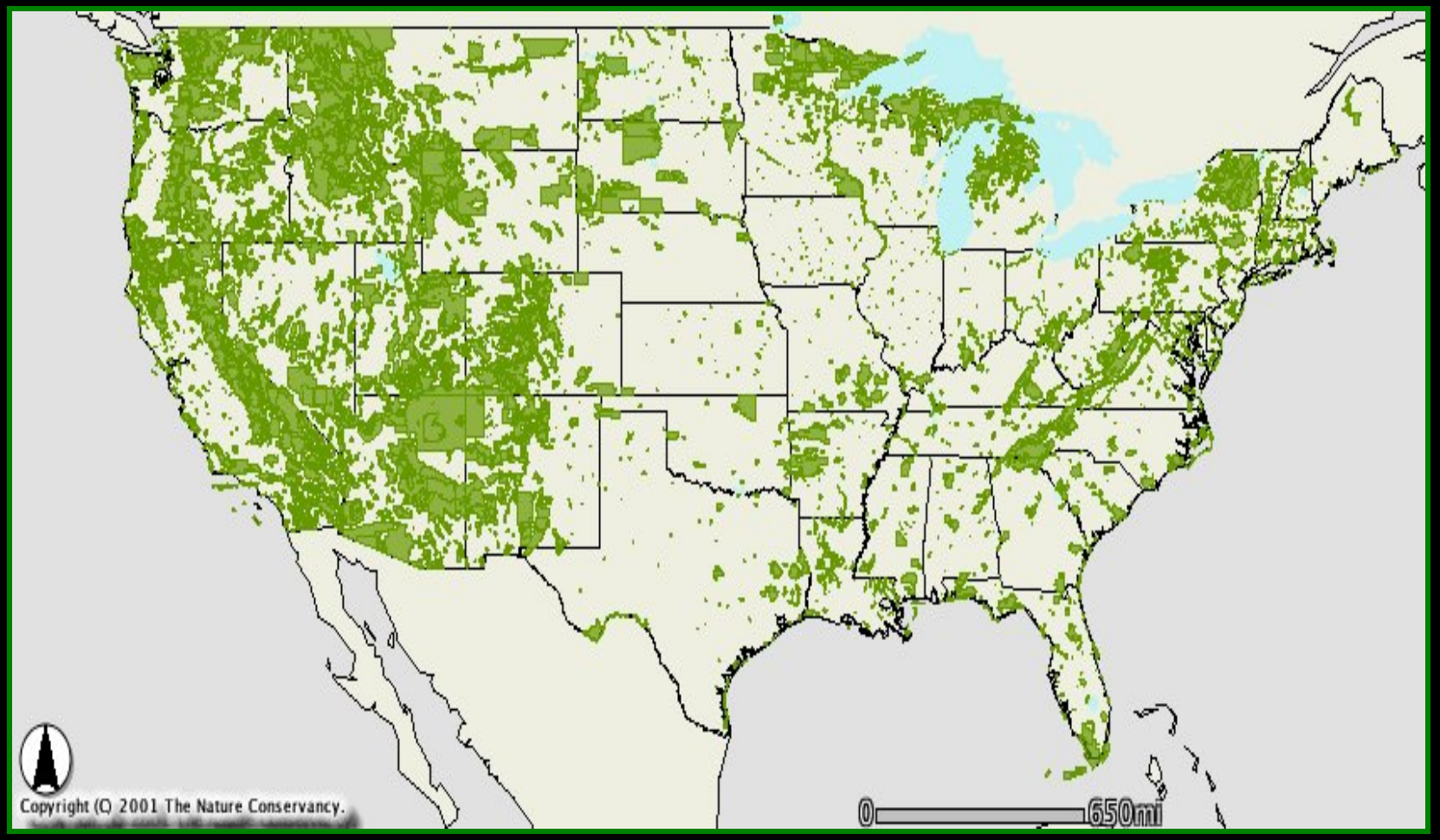
Student lessons, activities, ed. materials

Conduct invasive "Plant & Animal Camps" for Science teachers



Education Initiative UF-CAIP

2. Form Cooperative Partnerships



Green areas – public lands in the U.S.
(Note there is a lot of private lands in the U.S.)

We must partner with private landowners to manage invasive species

Challenges

Public land managers

Limited funds and staff

Little or no authority to cross the “fence line”

Little ability to help the neighbors with invasive species control

Private managers and landowners

Not receiving all the available information and options (incentive programs)

They often lose interest

Invasive Species Network: Establish and help form partnerships or CISMAs within states:

1. Reach out and collaborate with all stake holders, including private landowners.

2. Focus on prevention as well as management.

3. Establish a website(s) that identifies private landowner incentive programs (federal, state, and local programs) for each state

CISMA workday

Example:

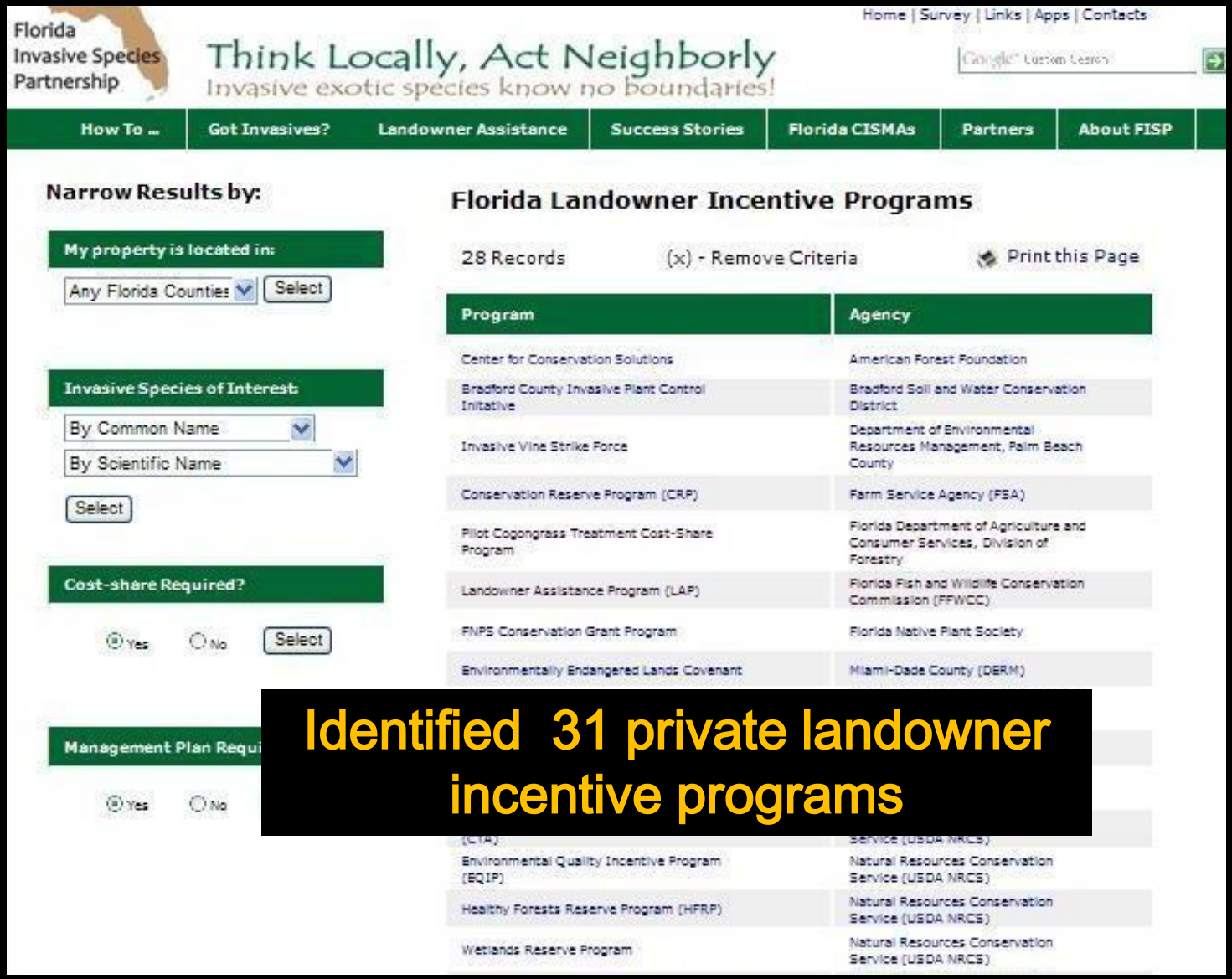
Florida CISMAs

(Cooperative Invasive Species Management Areas)

14 CISMAs –

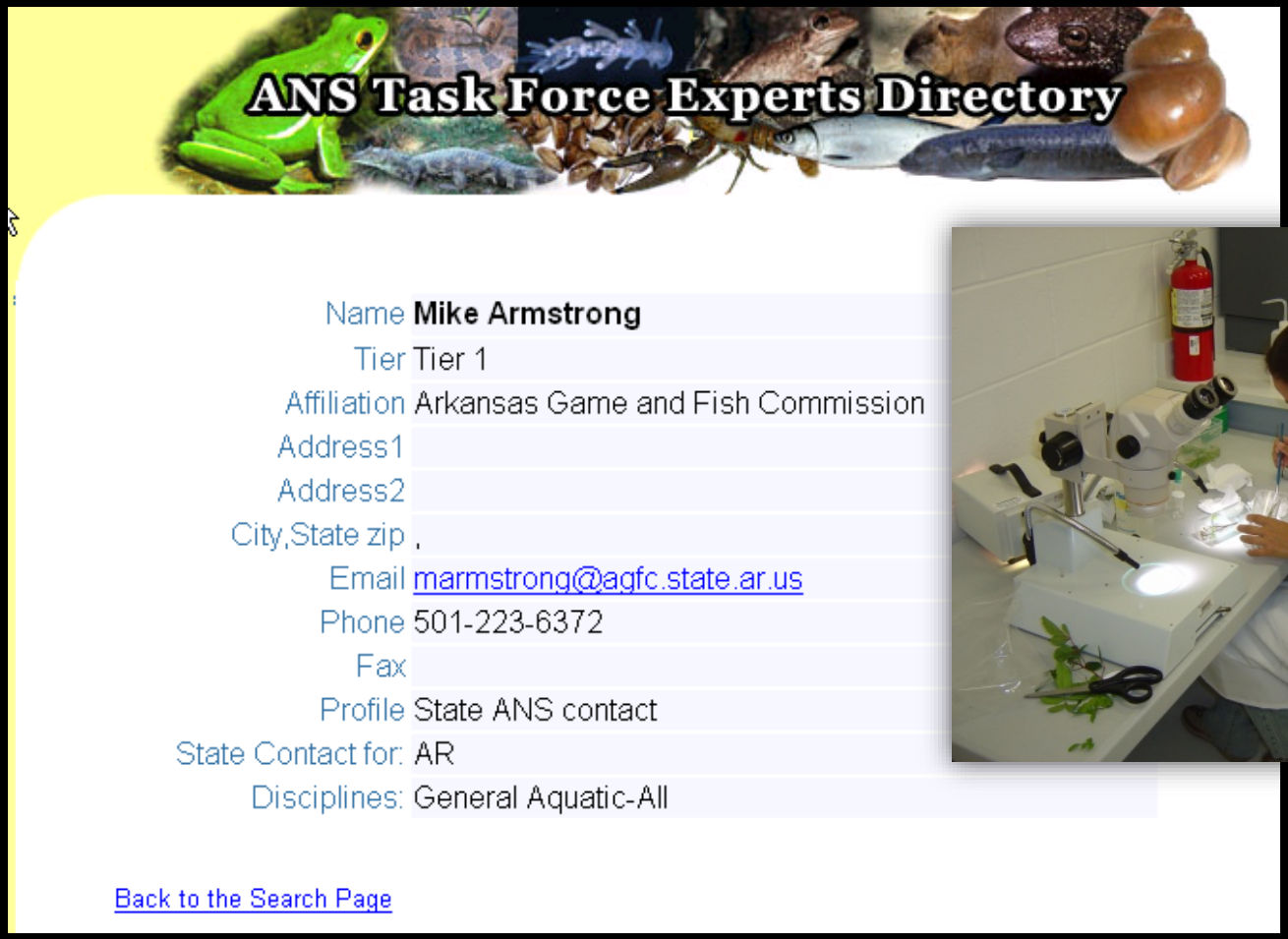
- CISMA workdays
- Distribution maps
- Early warning system
- Species information
- Tools, BMPs
- News

Florida Landowner Incentive Programs

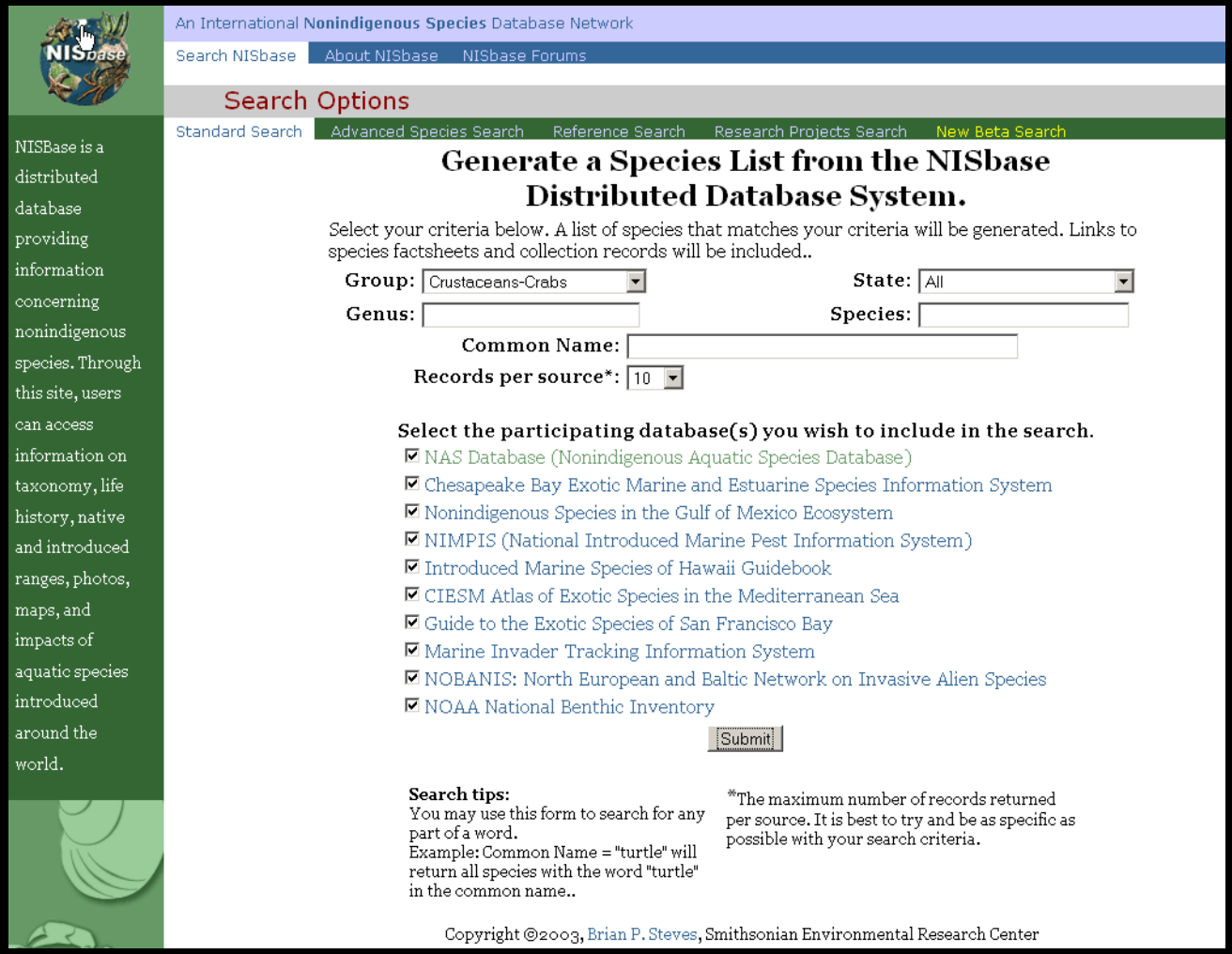


3. Establish & Expand Regional Information Hubs & Connect Databases

Establish regional experts directories for all taxa - especially taxonomic experts



Expand the ANS distributed database system for all taxa (everyone retains ownership - like Expedia.com)



4. Coordinate Rapid Response

Invasive Species Network: Rapid Response

1. Help integrate planning to encourage partnerships

2. Help coordinate funding and develop response priorities - **CISMAs**

3. Provide technical assistance and other resources

4. Provide guidance on effective response measures

5. Work with the public & develop easy web based ID tools to ID new arrivals (more citizens than biologists)

Invasive Species Network: Administer an interstate emergency insurance response fund

Targets:

- Ecologically and/or economically significant new invasive species
- Invasive species infestations outside the control or means of a single jurisdiction
- Destructive invasive species of concern to other states, if allowed to spread; and
- Infestations of a size that containment or eradication can be achieved.

5. Track & Coordinate Research

Invasive Species Network: Coordinate Invasive Species Research in North America

- Encourage research on IS pathways
- Encourage “proactive research” or developing exclusion technology
- Work to develop a **Global Watch List** (by region) for North America

Invasive Species Network: Help bridge the gap between researchers and resource managers

- Host regional Research Reviews
- Establish electronic regional research newsletters
- Increase and host more webinars aimed at dispersing current research

Invasive Plant Management Section
Research Program Newsletter
Division of Habitat and Species Conservation

FEBRUARY 13, 2009 VOLUME 1, NUMBER 1

Why a new newsletter? During the past 400 years, Florida's natural areas have been invaded with mostly tropical and subtropical non-native plants and these invasions increased during the twentieth century with the rise of the ornamental plant industry and through unintentional contaminants of imported commodities. Recognizing that research is the basis of environmentally and economically sound invasive plant management programs, the State of Florida, through the Florida Department of Natural Resources and later the Department of Environmental Protection, began funding invasive plant research in 1970. The Florida Fish and Wildlife Conservation Commission (FWC) now has the responsibility to manage invasive plant species on public conservation lands and waterways as of July 2008.

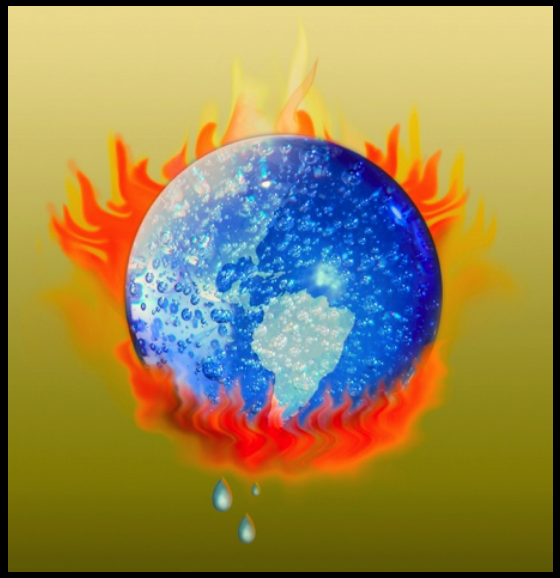
Dr. Bill Overholt conducting biocontrol research at UF's Ft. Pierce Quarantine facility

FWC photo

During its 39 years, Florida's invasive plant management program has contracted for over 190 research projects at a cost of $19.8 million. These research projects have led to better management techniques and insights into invasive plant control in Florida. However, cutting edge research takes time to filter down to the resource manager's level and this research newsletter hopes to help bridge the information gap between research scientists and resource managers in Florida.

And this research newsletter has become even more relevant because, until recently, resource managers relied upon instate scientific meetings to learn about the latest research news and information from our contracted scientists. But with travel restrictions because of the poor economy, many of Florida's resource managers will not be able to attend these scientific meetings this year.

FWC's Invasive Plant Management Section, along with the Division of Habitat and



Climate Shift – a wildcard for invasive species

Climate Shift – Adaptation Strategies

- Many ecosystems will depend on early detection and rapid response to invasive species as the climate warms
- We must reduce, minimize, or eliminate the potential for the introduction, establishment, spread, and impact of invasive species (stressors of ecosystems making them less resilient to climate change)
- This will call for more cooperation and coordination that exists today – IS Network?

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