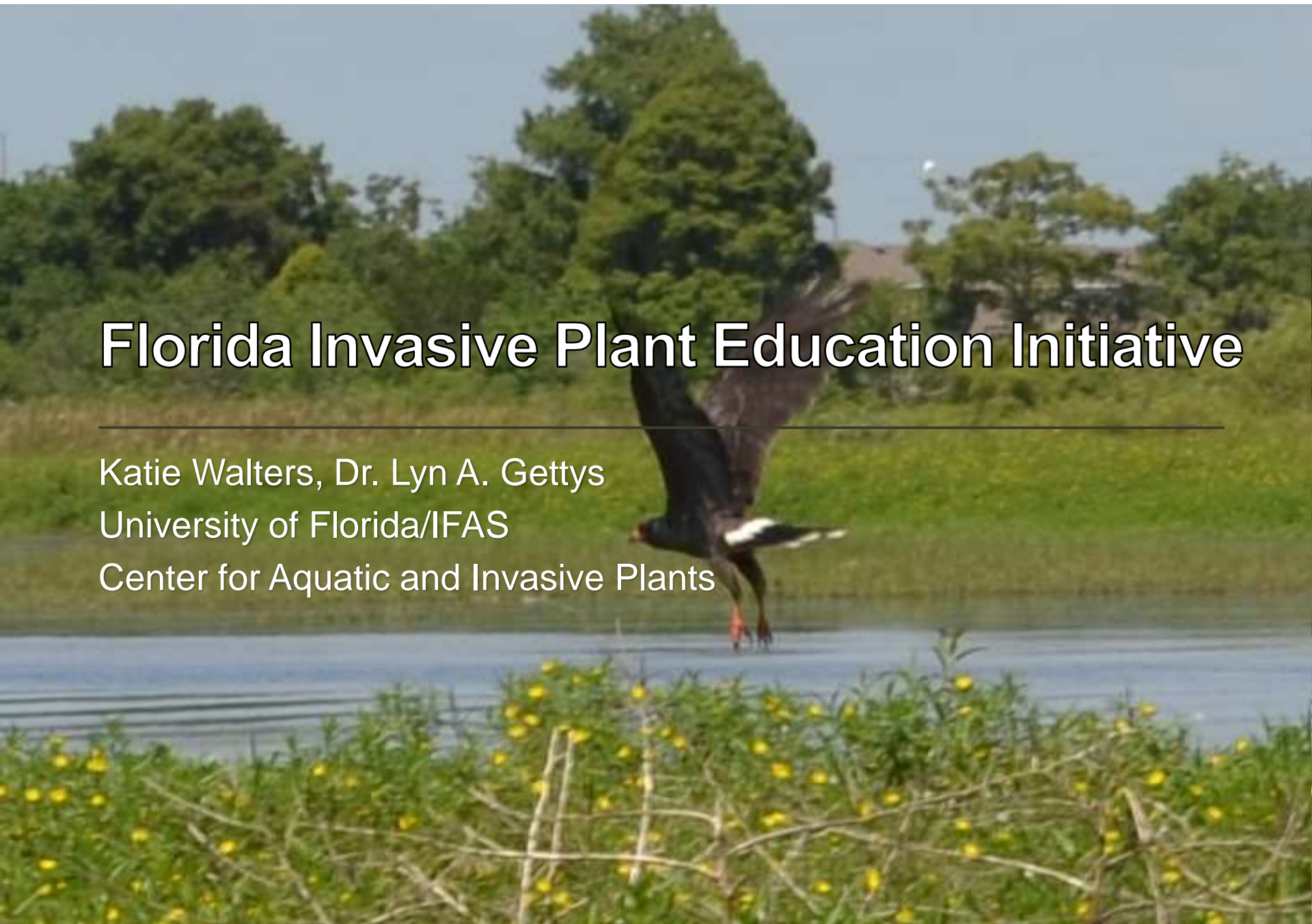


Florida Invasive Plant Education Initiative

Katie Walters, Dr. Lyn A. Gettys
University of Florida/IFAS
Center for Aquatic and Invasive Plants



Florida Invasive Plant Education Initiative

An 11 year outreach and education partnership between UF/IFAS CAIP and the Florida Fish and Wildlife Conservation Commission (FWC), Invasive Plant Management Section



The goals of the education initiative are to...



- provide teachers the knowledge and resources needed to implement lessons on invasive plants in their classrooms, nature centers, and after-school programs
- provide students with an awareness and understanding of the economic and ecological effects of invasive plants, and inspire them to take action

Teachers → Students → Community

Services Provided: Focus on Teachers



- Lesson plans, worksheets, activity booklets, and educational games
- Loaner kits (materials)



- Annual 5-day workshop for educators with field and laboratory experiences



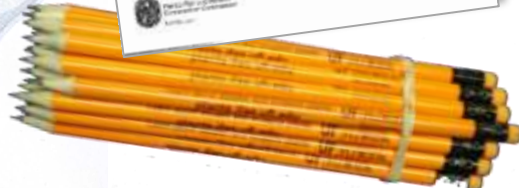
- Additional resources including text, data-sets, image and videos
- Request free materials

plants.ifas.ufl.edu/education

Invasive Plant Materials + Distribution



- Pr



In addition to our website,

- Facebook: UF/IFAS Invasive Plant Education Initiative
- Twitter: @PLANT_CAMP
- YouTube: UFINvasivePlantsEDU
- List-serv
- #UFPlantCamp

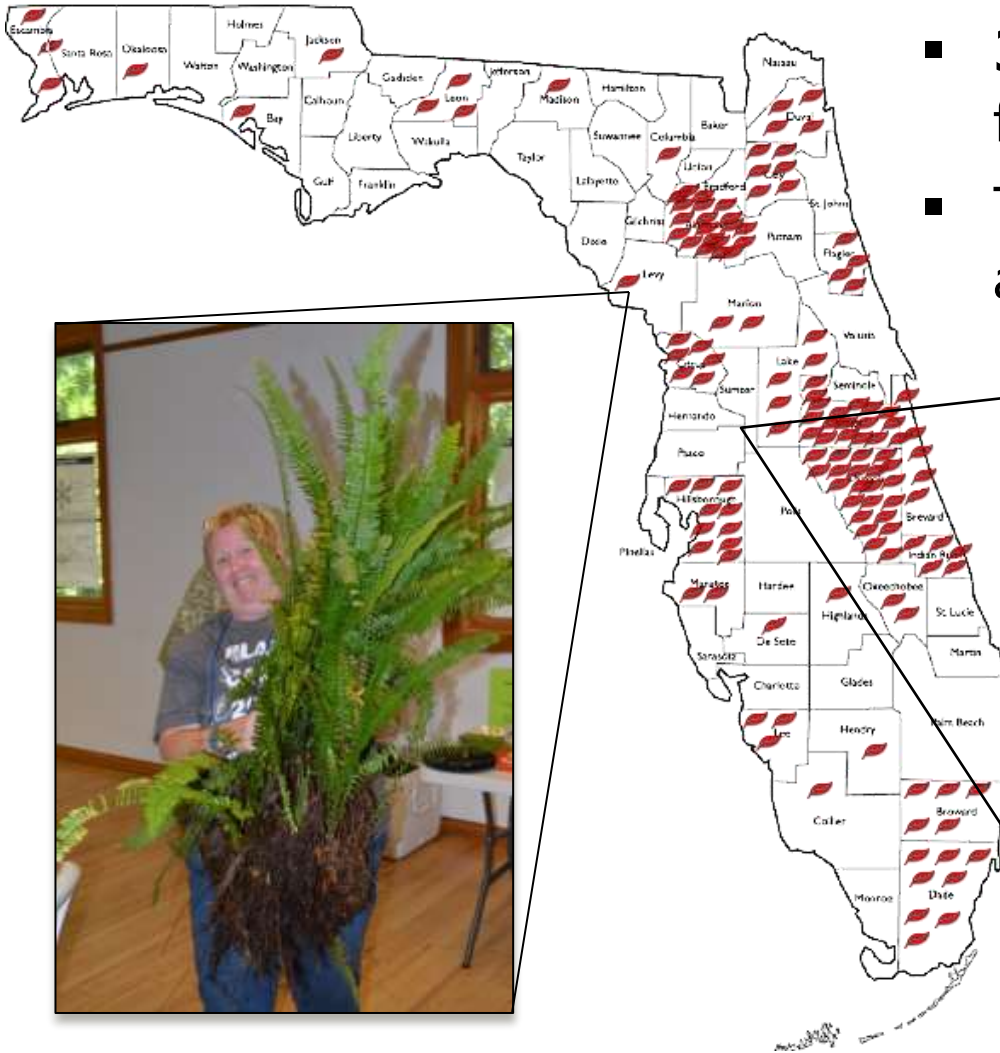


Plant Camp – For Teachers Only!

Day 5: Lakeville curriculum unit + graduation



Plant Camp: Results

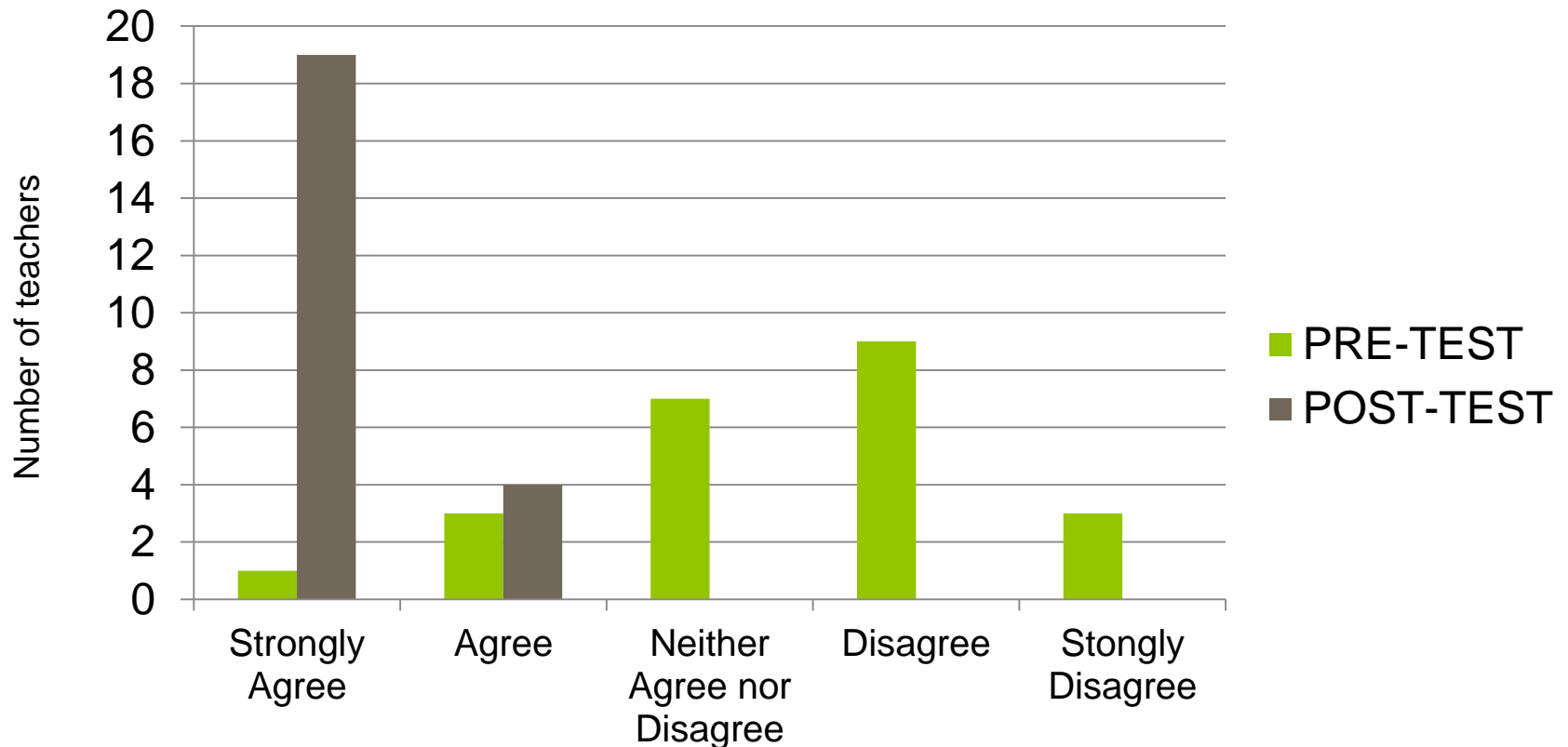


- **300+** PLANT CAMP graduates from across the state
- Teachers provide feedback, ideas, and help spread the word!



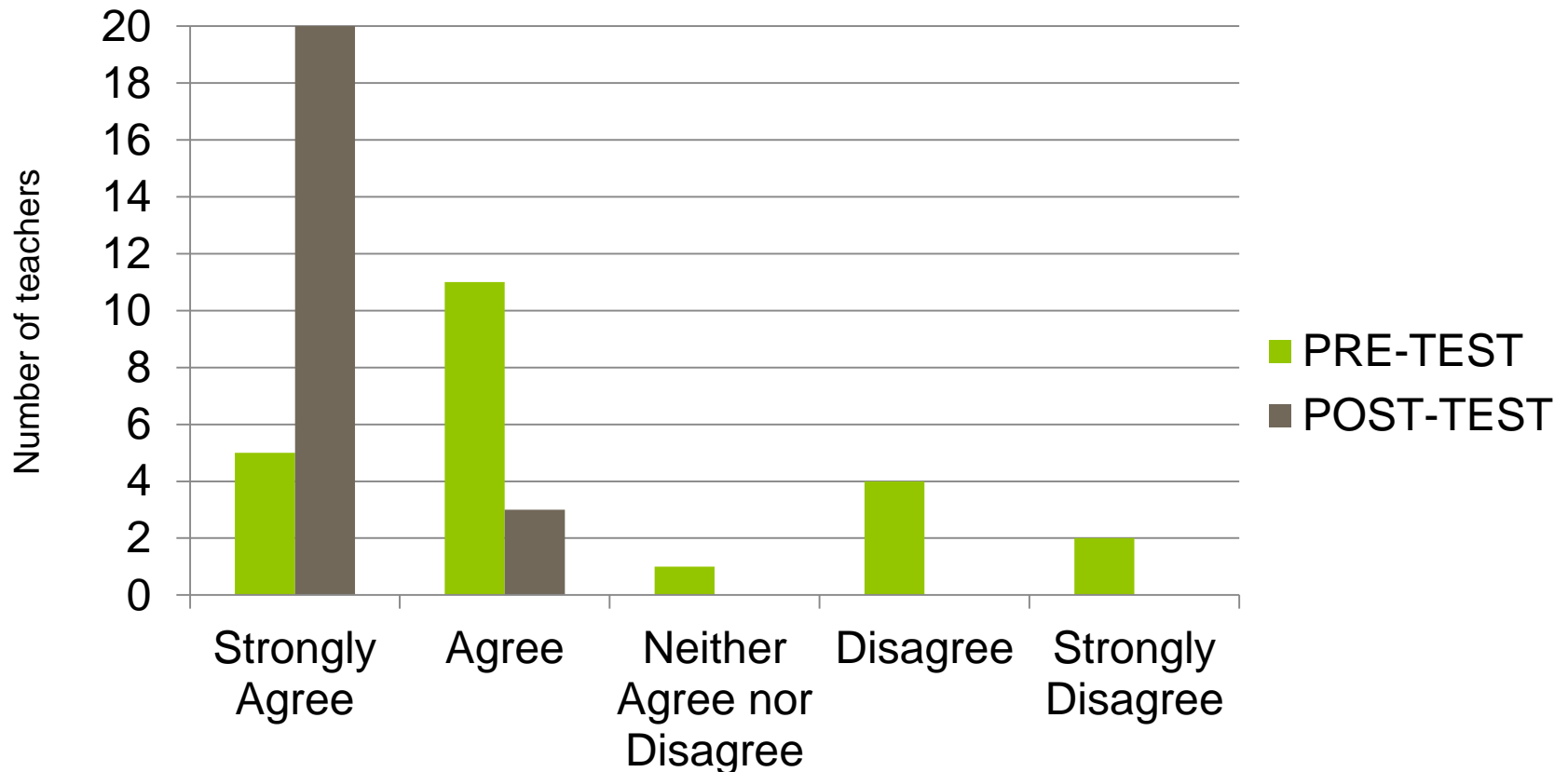
Knowledge Gains 2015

I am knowledgeable about the methods used to manage aquatic invasive plants (mechanical, physical, biological, and chemical).



Knowledge Gains 2015

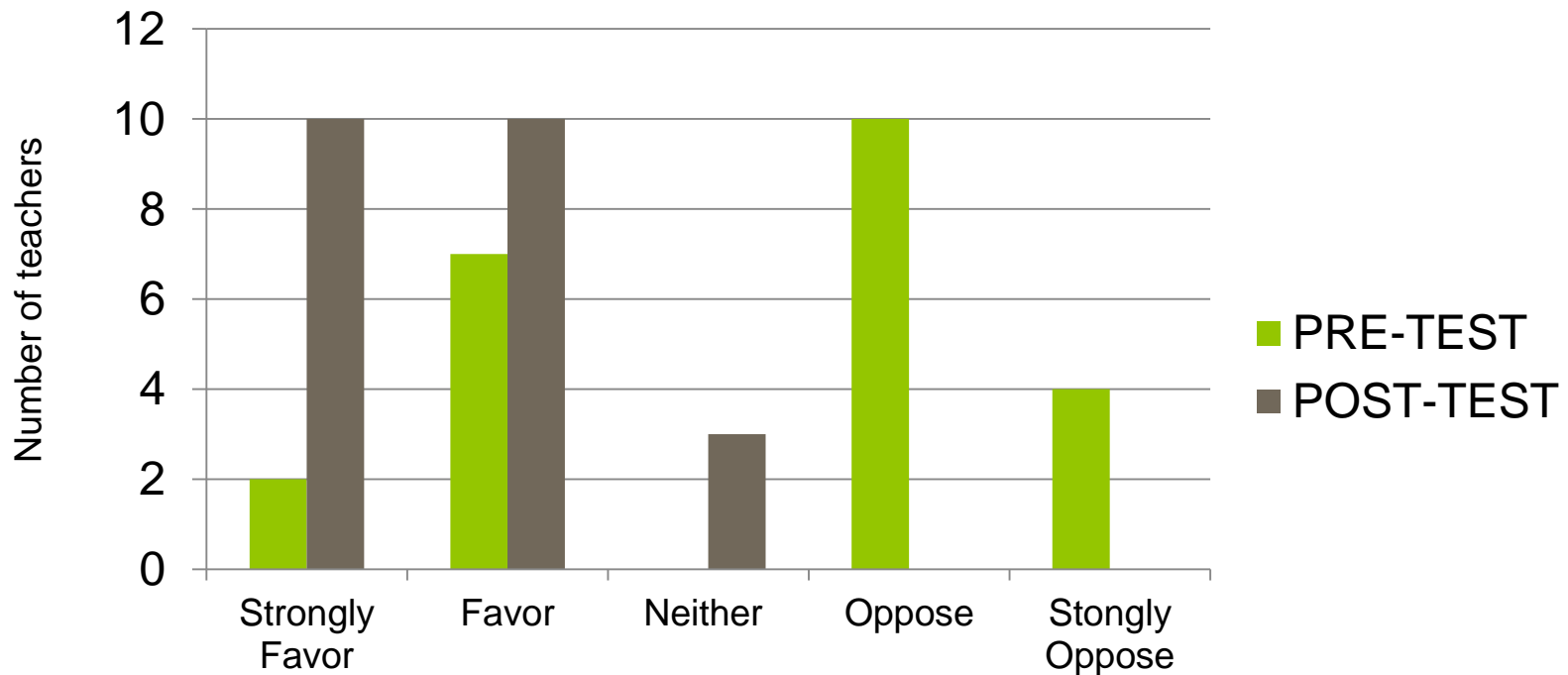
I am aware of the way species can be introduced to a new geographic area



Attitude Changes 2015

Please indicate if you favor or oppose the use of the following methods to control aquatic invasive plants:

Herbicide control methods (the use of chemical substances) for controlling invasive plants.



Participant Feedback

“ I was generally aware of most of the things listed above [vectors of introduction and control methods] before camp. However, I did not feel knowledgeable enough to have in depth discussions with people who were not aware, esp. the aquatic issues. I now feel I can have a meaningful discussion with most stakeholders and not give misinformation or inadequate perspective to them. **Lakeville was key to this.**

”

Lakeville – A Natural Resource Management Activity

- Provides students with a fun and interactive way to learn about the challenges associated with natural resource management by having them **participate in the decision-making process.**



The town of Lakeville



The citizens of Lakeville

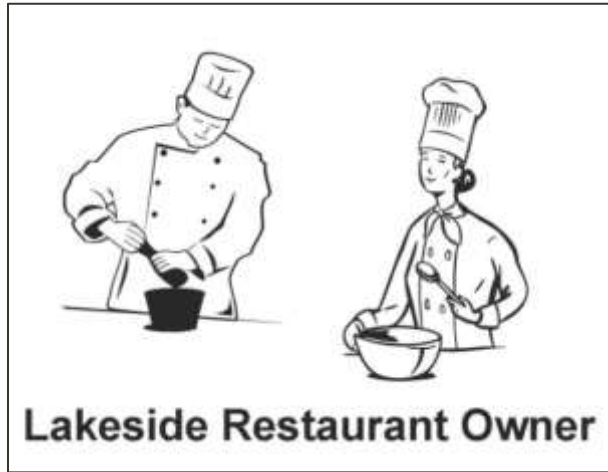
- 6 students sit on a *Citizen Advisory Panel* and role play as stakeholders in the town of Lakeville.



Roles:

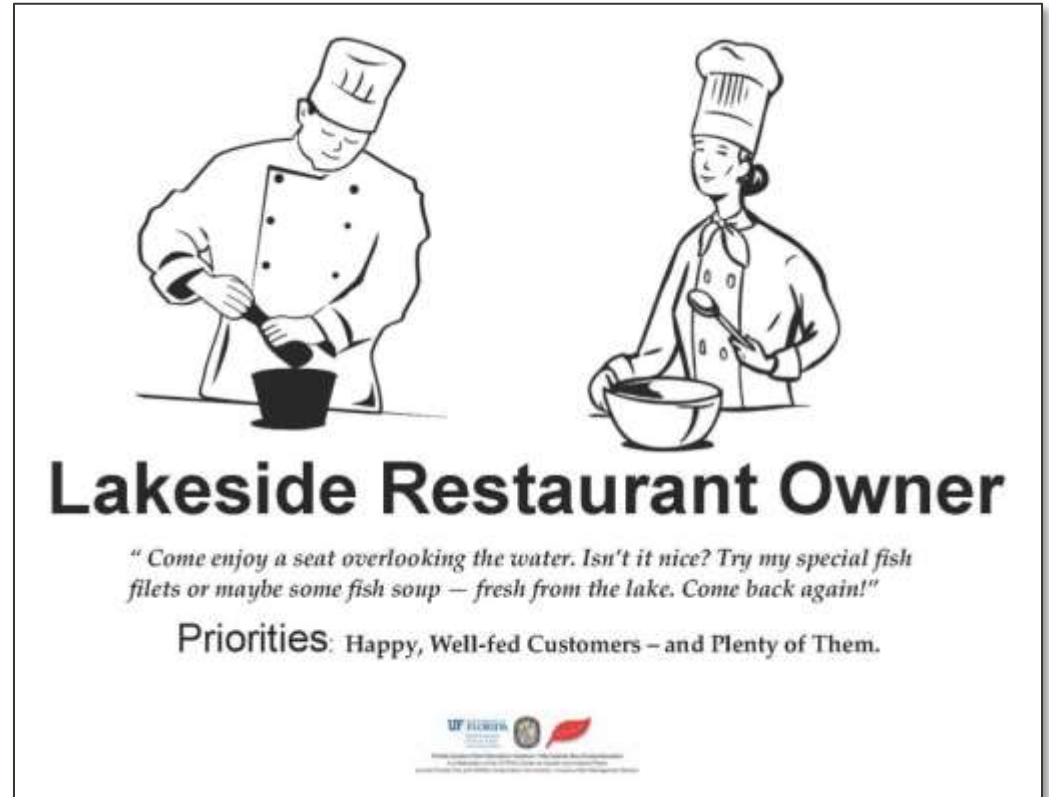
- Farmer
- Angler
- Boater
- Retiree
- Restaurant Owner
- Factory Owner
- Developer
- Nature Lover
- Lake Resource Manager
- Politician
- Water Ski Club President

Citizen Role Cards - 12



front of card

Cards provide role-play cues for students, including a short list of the citizen's priorities.



back of card

The organisms of Lakeville

- The rest of the students role play as organisms advocating for their right to live in Lakeville.



Organisms include aquatic and terrestrial; native, non-native, and invasive plants and animals.

Organism Cards - 30



- What does it eat?
- What eats it?
- Is it aquatic or terrestrial?
- Native, non-native or invasive?
- Does it provide an economic benefit/harm?
- Does it provide an ecological benefit/harm?

hydrilla *Hydrilla verticillata* **INVASIVE**

PROS

CONS

- Hydrilla is a submersed aquatic plant thought to be from Southeast Asia. When hydrilla starts to grow in lakes, ponds, rivers, or canals, it provides cover (habitat) for fish.
- Hydrilla can grow in a few inches of water or in water more than 20 feet deep. It can eventually fill up the whole water body, leaving little room for fish. This can also cause flooding.
- Hydrilla shades out other submersed aquatic plants, reducing sunlight and preventing them from growing.
- When large amounts of hydrilla begin to die and decay, they use up much of the oxygen in the water and can cause a large number of fish to suffocate and die.
- Because of its thick growth, hydrilla can make it impossible to swim, boat, or fish in a lake. Some swimmers have drowned by becoming entangled in hydrilla plants.
- Hydrilla provides food for ducks and some fish (grass carp).
- New hydrilla plants can grow from fragments, from buds called turions, or from tubers in the mud. Hydrilla can grow up to 1 inch per day in ideal conditions.
- Each year in Florida, millions of dollars are spent to keep hydrilla growth under control with herbicides and mechanical harvesters.

back of card

This information card is part of the Invasive Species Literacy Initiative developed by the Florida Invasive Plant Education Network. Copyright 2012 University of Florida.

UF FLORIDA
The University of Florida
Florida Invasive Plant Education Initiative • <http://invasive.flu.edu/education>
A Collaboration of the IFWIS Center for Aquatic and Invasive Plants
and the Florida Park and Wildlife Conservation Commission • Invasive Plant Management Division

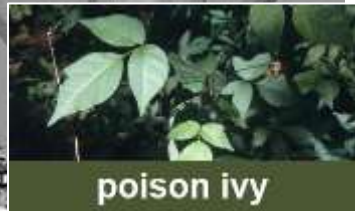
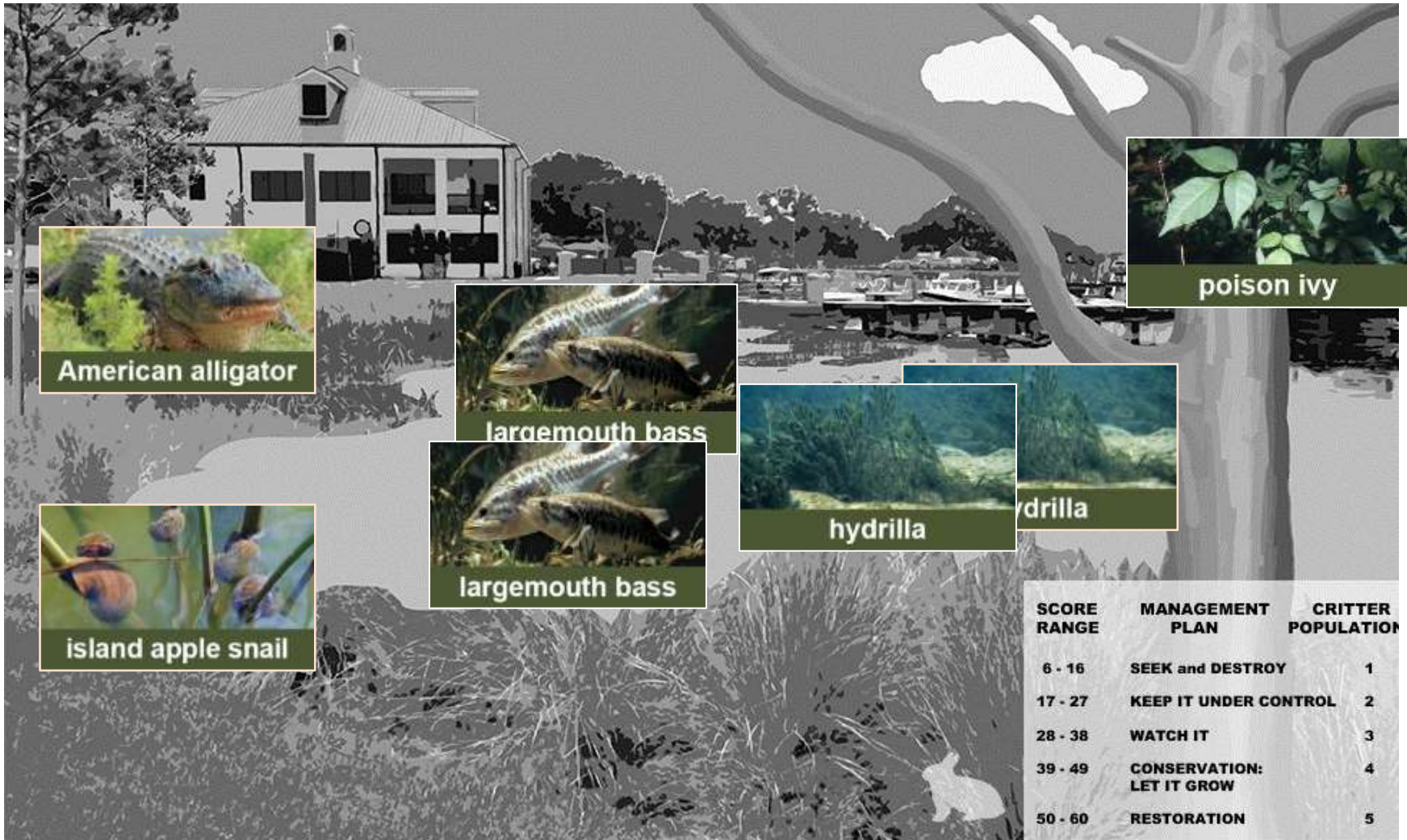
Let's play!

- The class participates in a town hall meeting where each organism makes its case for inclusion in the ecosystem.
- The *Citizen Advisory Board* is allowed to ask questions, and then vote.
- The votes are added up and correspond to a management plan.



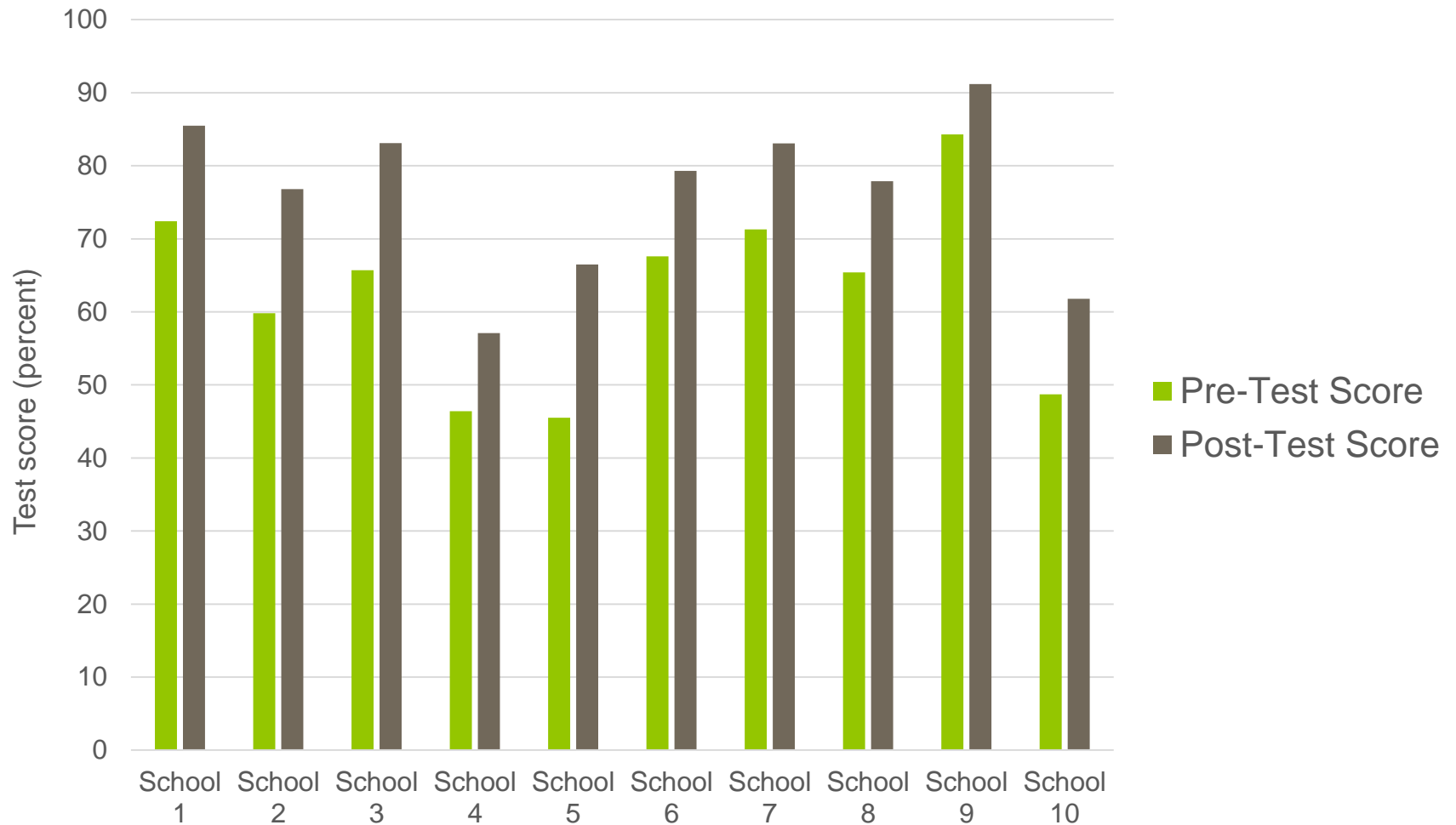
SCORE RANGE	MANAGEMENT PLAN	ORGANISM POPULATION
6 - 16	SEEK and DESTROY	1
17 - 27	KEEP IT UNDER CONTROL	2
28 - 38	WATCH IT	3
39 - 49	CONSERVATION: LET IT GROW	4
50 - 60	RESTORATION	5

Students populate their ecosystem



SCORE RANGE	MANAGEMENT PLAN	CRITERION POPULATION
6 - 16	SEEK and DESTROY	1
17 - 27	KEEP IT UNDER CONTROL	2
28 - 38	WATCH IT	3
39 - 49	CONSERVATION: LET IT GROW	4
50 - 60	RESTORATION	5

Knowledge Gains 2014-15



Conclusions: A successful teacher outreach program combines



Expanding the Florida Model

Georgia

- 2012 teacher training on Lakeville Unit

North + South Carolina

- 2014 Teachers attended FL Plant Camp
- 2014 Lakeville Unit created
- 2015 Plant Camp for students implemented
- 2016 Plant Camp for teachers planned

Alabama/Mid-South

- 2015 Teachers attended FL Plant Camp
- 2015 Lakeville Unit Created
- 2015 Plant Camp for teachers (1 day) implemented

The CAIP Invasive Plant Education Initiative

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