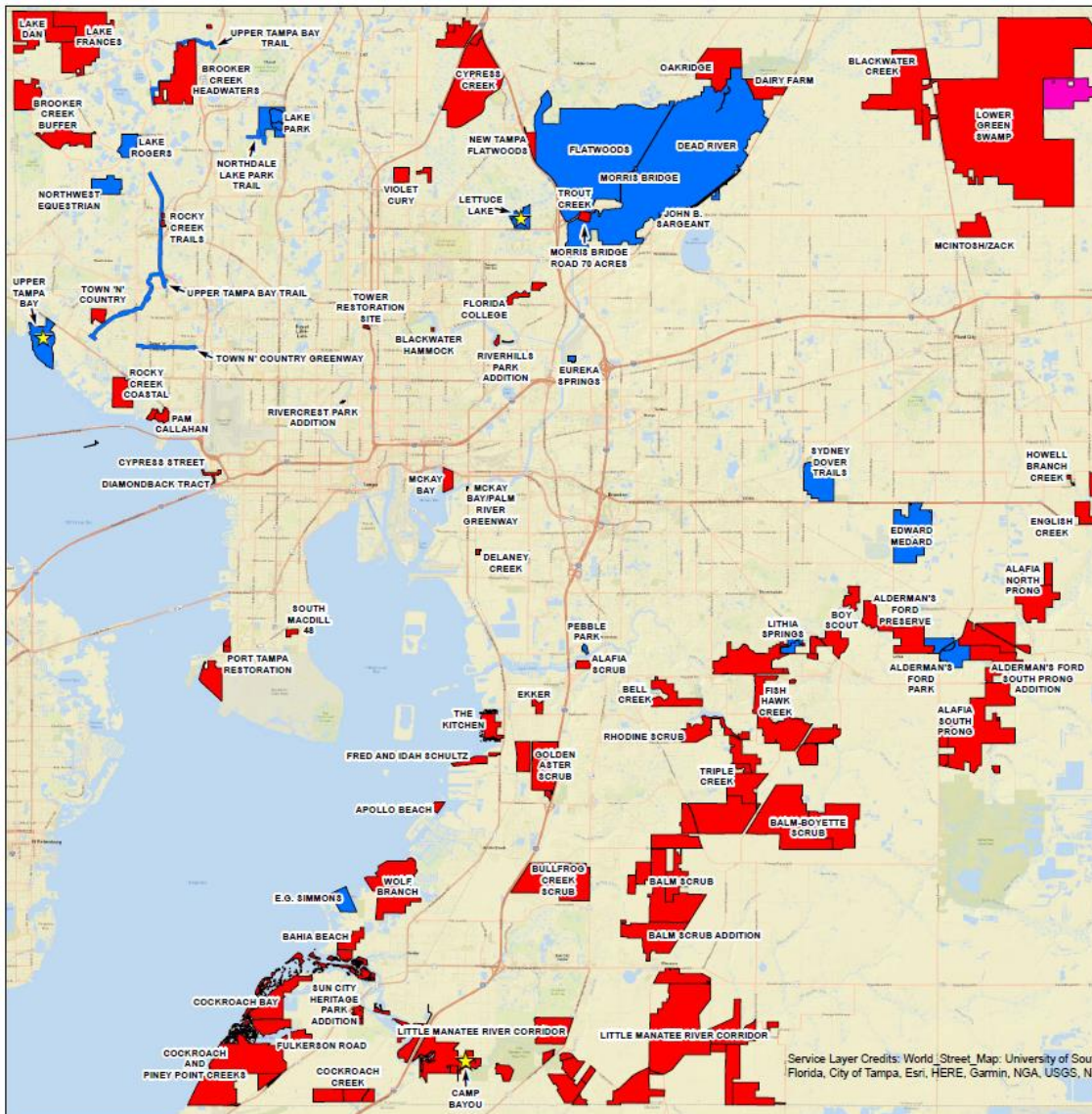


Interpreting the Impact of Invasive Plants

Rebecca Winch

Conservation and Environmental Lands Management

Hillsborough County CELM



Conservation Parks and ELAPP Sites

Conservation
and
Environmental Lands Management
Department

Park vs. Nature Preserve

Many parks feature natural attractions, so what makes a nature preserve different?

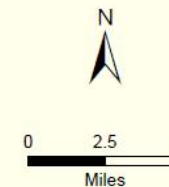
The answer lies in why the site was established. While parks are designed for human users, the primary beneficiary of a nature preserve is Mother Nature.

Parks generally have restrooms, manicured pathways and other amenities. Many parks also have playgrounds, full-service campgrounds and on-site staff.

Development is kept to minimum on nature preserves because they are intended for the protection of natural areas and the wildlife that inhabit them. Generally, you can expect to find the following: a fence with a walk-through entrance, unmarked fire lanes and/or marked hiking trails, signage indicating "nature preserve" and a kiosk with site information.

Parks and nature preserves each have their own charms. If you're new to natural Florida, a park is a great place to get your feet wet. When you're ready to dive into the deep end, check out a nature preserve.

**For More Information,
Contact Us At:**
813-672-7876



Hillsborough County Conservation Parks

- About 20,000 acres of conservation parks
 - Developed; bathrooms, paved trails, ranger stations.
 - Lots of signage and staff = more outreach potential.

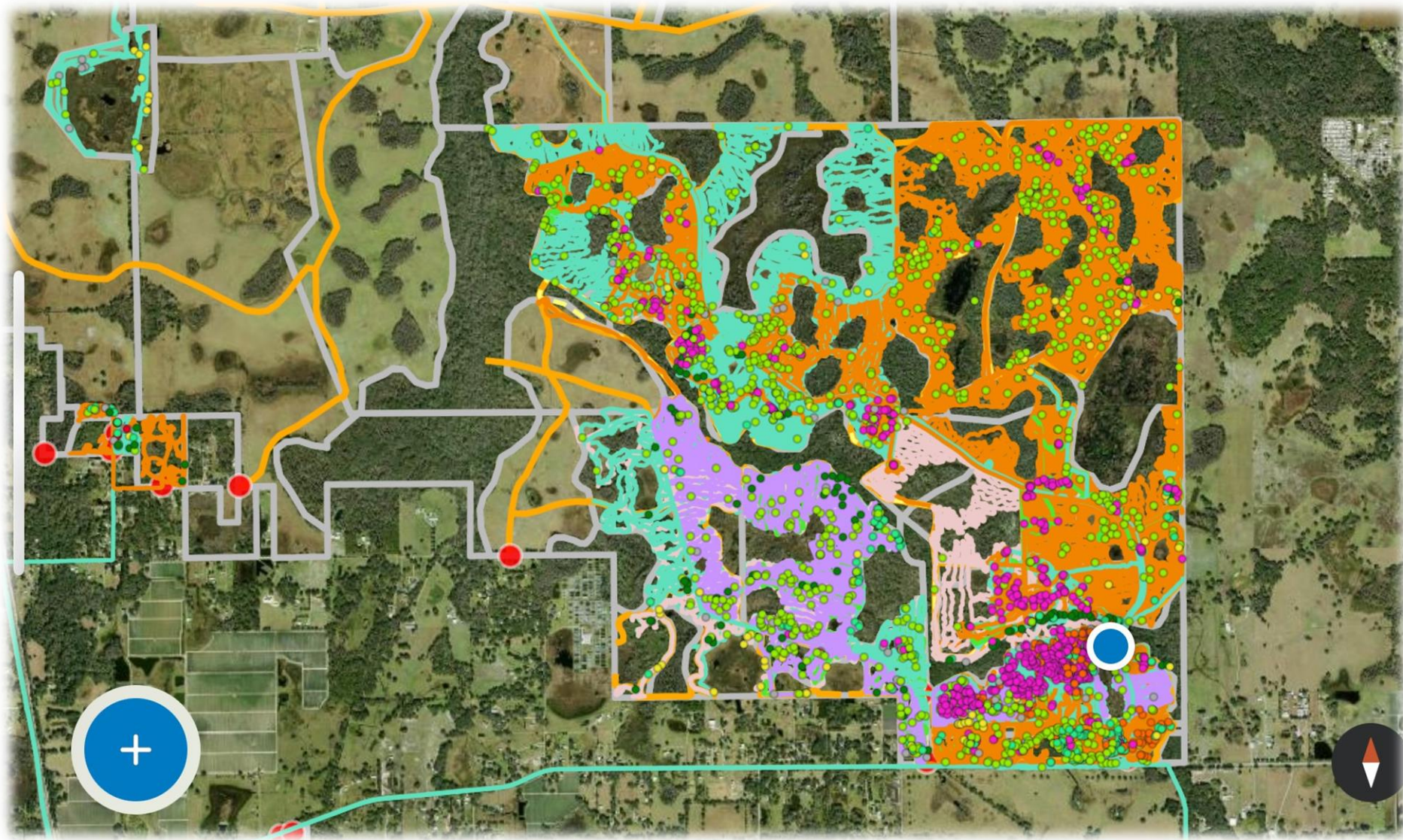


Hillsborough County Nature Preserves

- Over 65,000 acres of nature preserves
 - Less developed; natural trails, not staffed, few amenities.
 - Less potential for outreach - unless staff happen to be there.
 - Outreach happens via kiosk, planned events, and by chance staff encounters.



Hillsborough County Nature Preserves



When do we do outreach?

All the time!

- If we wait until we get complaints, people are already primed to be unhappy.
- Knowing how to deal with complaints is great - but not getting them in the first place is even better.
- Proactive, not reactive!



Where do we do outreach?

Everywhere!

- Planned outreach events
- Volunteer events
- Through signage/kiosks
- Presentations to special interest groups
- While working in the field
- Even with our friends and family!



Why do we do outreach?

WHY is it important for us to interpret invasive plant removal to the public?

- Reduce spread of invasive plants
- Help gain support of public
- Foster a sense of ownership/encourage volunteerism
- Reduce public push-back against herbicide use
- Inspire next generation of land managers



Why do we do outreach?

WHY is it important for us to interpret invasive plant removal to the public?

- To forestall visitor complaints that make others not want to come and enjoy our sites!

Who does outreach?

Everyone who sprays (ideally)!

- Visitors WILL ask questions.
- All applicators should know the basics.
- “My boss told me to” is a very poor explanation.



What should applicators know?

- What plant(s) are you spraying?
- What effect do these plants have on local ecosystems?
- What chemical(s) are you spraying?
- Have access to labels!
- Where can visitors find more information about this process?



**Cogon
grass**

**Creates a monoculture
Alters fire behavior**

Imazapyr

**Find information on
the IFAS web page**

How do we do effective outreach?

By following the principles of interpretation!

- Interpretation helps get the public to care **about** our sites so they can support us in caring **for** our sites.
- We translate the information we know into something they understand and care about.
- *Interpreting Our Heritage*, Freeman Tilden (1957)
- *Interpretation for the 21st Century*, Larry Beck and Ted Cable (1998)



How do we do effective outreach?

“Any interpretation that does not somehow relate what is being displayed or described to something within the personality or experience of the visitor will be sterile” - Freeman Tilden

- Why should people care? What does your audience care about?
- Examples: wildflowers, pollinators, birds and other native wildlife, native trees, water flow, pretty views, wildfire reduction.
- Different for different audiences
 - Ex. preserve visitors: wildlife/aesthetics; HOA: overgrowth next to fences, wildfire risk.



How do we do effective outreach?

“Information, as such, is not interpretation. Interpretation is revelation based upon information. But they are entirely different things.”

- Freeman Tilden

- Giving information should NOT be our only aim.
- We want to help visitors understand the WHY, not just the WHAT.
- If you overwhelm people, they shut down and stop listening. Use lay terminology!
- Focus on helping them understand concepts, not just details.



How do we do effective outreach?

The rhizomes of *Imperata cylindrica* are prolific; 60% of the plant's biomass is subterranean. This extensive belowground biomass confers significant resilience and complicates management efforts, necessitating repeated applications of targeted systemic herbicides, including but not limited to imazapyr or glyphosate, to achieve effective population control.

Lygodium japonicum and *Lygodium microphyllum* were anthropogenically introduced to Florida's biome as ornamental horticultural specimens. Subsequently, these taxa have exhibited expansive invasive proliferation throughout the region, resulting in competitive exclusion and suppression of endemic wetland flora.

Cogon grass has long underground stems called rhizomes that help it spread. 60% of the plant's mass is underground, which is why it's impossible to control by hand-pulling. To help keep it under control, we need to use the right herbicide and come back to treat each patch several times.

People brought two invasive species of climbing fern (lygodium) to Florida as garden plants, but they've spread across the state and are crowding out native wetland species that wildlife depend on.

Invasive plant outreach themes

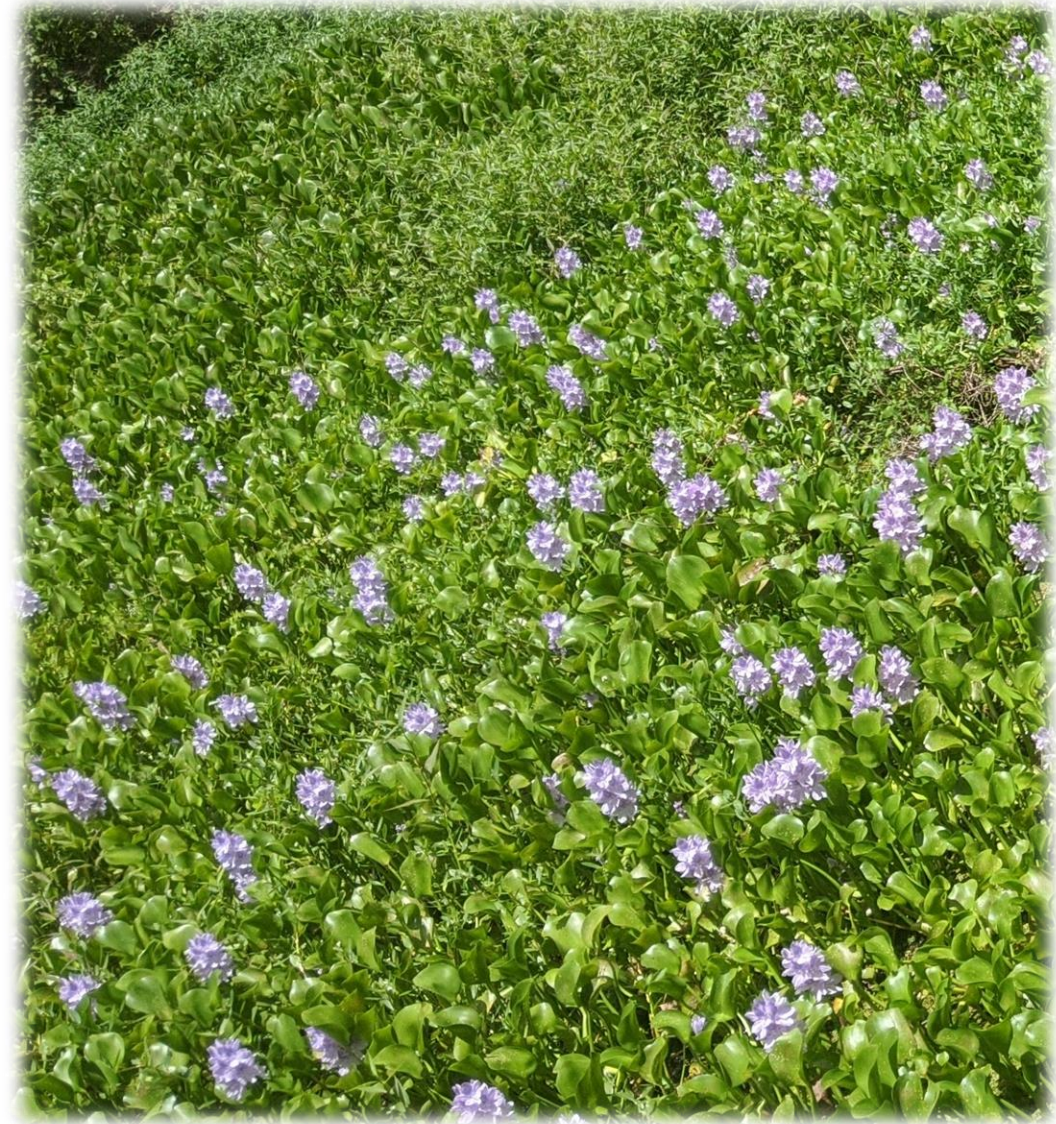
Here are some common themes to focus on:

- Habitat destruction
 - Links to people's concept of "home."
 - Bring up specific charismatic wildlife - deer, turkeys, quail.
- Pollinators
 - Huge right now! Emphasize pollinator host plants being overrun by invasive plants.
 - If you don't spray certain plants while they're blooming, share that information!
- Wildfire prevention
 - Especially if working with cogon grass - this is a big one for local homeowners.



Invasive plant outreach themes

- Water flow/drainage
 - Especially important after last year's hurricanes!
 - Talk about how some invasive plants can clog wetlands, streams, pond outflows.
- Pretty views/aesthetic enjoyment
 - Monocultures, overgrowth, lack of native wildflowers/wildlife.
- Economic harm
 - Many invasive plants are also noxious weeds, causing agricultural damage.
 - Invasive aquatic plants harm fisheries
 - Wildlife/scenery brings tourism



Herbicide-specific outreach

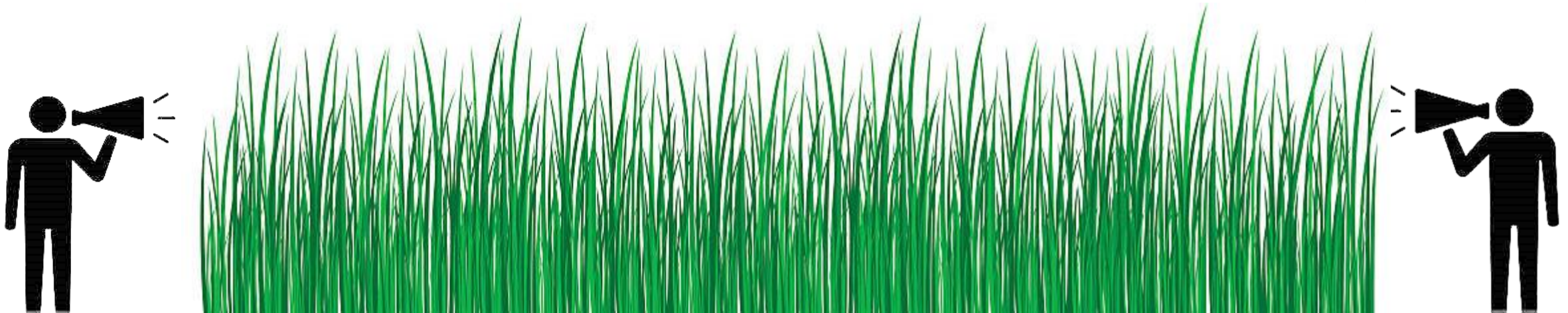
“Why are you spraying that poison? I thought you all were supposed to take care of this place, not kill it.”

- This is why we need to know exactly WHAT we're spraying and WHY!
- Make sure public understands the damage invasive plants can do.
- Emphasize that herbicide is an important tool in the toolbox of Integrated Pest Management, and that we need it to effectively remove invasive plants.
- You're not trying to win hearts and minds - some people will never be OK with herbicide use. We just need them to know the WHY.



DON'Ts of herbicide outreach

- Don't use herbicides in a manner inconsistent with the label.
- Don't spray native plants unless you can't help it.
- Don't get into arguments - know how to de-escalate the situation.
- Don't get defensive – assume good intentions.
- Don't be flippant – people have serious opinions about herbicides and this can cause conflict.



DOs of herbicide outreach

- Always know, and wear, the PPE described on the label.
- Have a label available onsite wherever you're spraying.
- Know how to direct the public to more information about invasive plants and herbicides (IFAS, FISC)
- Stay calm and polite. Know when to walk away.
- Actively listen and don't interrupt, especially if someone is already upset.



Best information sources

- IFAS Center for Invasive and Aquatic Plants <https://plants.ifas.ufl.edu/>
 - Management Guides:
 - <https://plants.ifas.ufl.edu/resources/management-guides-and-videos/>
 - Invasive Plant Directory:
 - <https://plant-directory.ifas.ufl.edu/plant-directory/>
 - Chemical Control Information:
 - <https://plants.ifas.ufl.edu/control-methods/chemical-control/>

Best information sources

- Florida Invasive Species Council <https://www.floridainvasives.org/>
 - Invasive plant list:
 - <https://www.floridainvasives.org/plant-list/>
 - Information for homeowners:
 - <https://www.floridainvasives.org/for-homeowners/>
 - CISMA information:
 - <https://www.floridainvasives.org/cismas/>
 - Resources for practitioners:
 - <https://www.floridainvasives.org/resources/>

Questions?

