



# New Invasives in South Carolina

Vectors for Introduction: Ports,  
horticulture trade, and other  
origins

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# Definitions

- **Non-Native Plant (exotic):** A plant introduced with human help (intentionally or accidentally) to a new place or new type of habitat where it was not previously found. Includes cultivate plants
- **Naturalized Plant (naturalized exotic):** A non-native plant that does not need human help to reproduce and maintain itself over time in an area where it is not native. We have about 1,107
- **Invasive Plant (invasive exotic):** A plant that is both non-native and able to establish on many sites, grow quickly, and spread to the point of disrupting plant communities or ecosystems.



# Our Flora

- 4,059 plants documented in the state
- 1,107 (27%) are not indigenous here (Naturalized)
- 108 are Invasive (at least)



# New Exotic Plant Species and Future Invasives

- **We document up to 10 new exotic plant species in South Carolina annually**
- Exotics a major threat to biodiversity
- New species are collected, deposited in a University herbarium



# Documentation is Critical!

## Herbarium Specimens



# SCDNR Has a New Reporting Portal

<https://non-native-species-scdnr.hub.arcgis.com/>



South Carolina Department of Natural Resources

Home Non-native Plant Non-native Animal Non-native Insect Non-native Disease

## SCDNR Non-native Species Reporting

### Report a Non-native Species

Invasive and exotic species are those that are not native to a particular area and may cause significant environmental, economic, and human harm once established. SCDNR partnered with [EDDMapS](#) to create these reporting tools for the public to report their sightings of potentially invasive or exotic species in the state in an effort to protect South Carolina's natural resources.



# iNaturalist

The screenshot shows the iNaturalist website interface. At the top, there is a search bar and navigation links: Explore, Your Observations, Community, Identify, and More. Below this is the "Observations" section, which includes a filter for "Plantae" and a location filter for "South Carolina, USA". A "Go" button and a "Filters" button are also present.

The main content area features a map of South Carolina with a red grid overlay. The map includes various controls: a "Map Legend" button, a "Redo search in map" button, and a "Places of Interest" button. The map shows major cities like Charleston, Columbia, and Greenville, as well as national forests like Nantahala and Chattahoochee-Oconee.

On the right side of the map, there is a vertical list of species observations. Each entry includes a small image of the plant, the species name, a common name, the location, and the time of observation. The species listed are:

- Youngia japonica* (Oriental False Hawksbeard) - Shepard St, Summer... • Yesterday - 16h
- Genus *Tradescantia* (Spiderworts) - Shepard St, Summer... • Yesterday - 16h
- Lonicera japonica* (Japanese Honeysuckle) - Reynolds Rd, Summe... • Yesterday - 16h (Research Grade 2)
- Dactyloctenium aegyptium* (Durban Crowfoot) - Simmons Ave, Summe... • Yesterday - 16h

At the bottom right, there are links for "Keyboard shortcuts" and "Map di".

# Origins of Recently Documented Exotics

Regional Expansions



Almost all regional range expansions are coming from the south

Global Expansions



Other global sources mainly from horticultural escapees, but also international shipping



# Origins – Global Arrivals

- Ports
- Dredge Spoil
- Wool Mills
- Home Gardens/Landscaping
- Botanical Gardens
- Wildlife Food Plots?



# Regional range Expansions

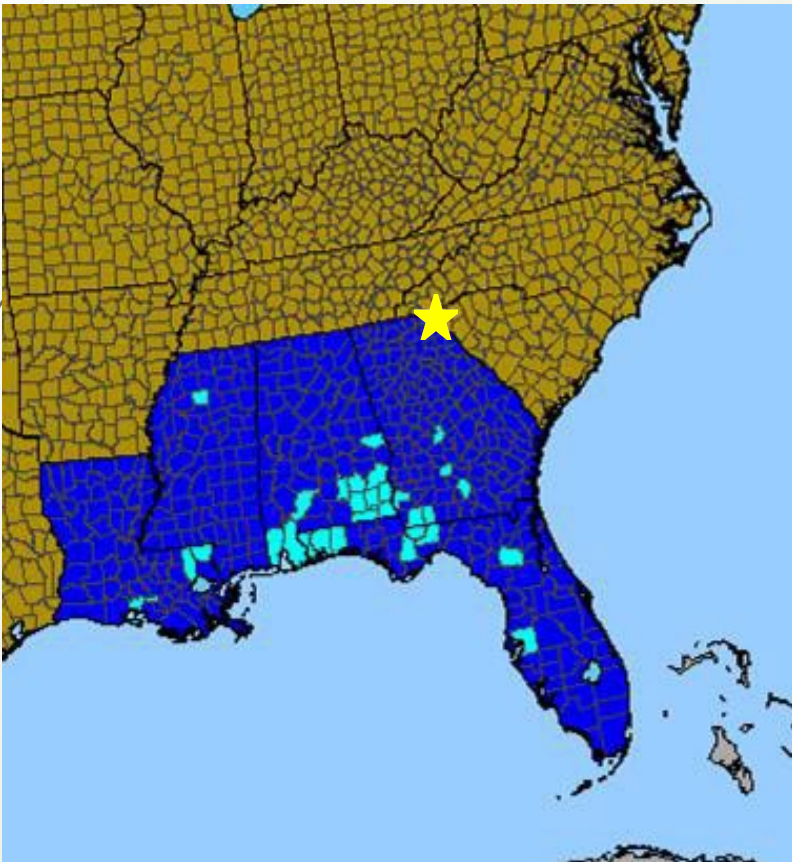
- Northward movement of southern species (not being seen from north at nearly same magnitude)



Natal grass (*Melinis repens*), Category I Invasive in Florida. Shown here is a new detection on I-95 at the Savannah River. Also found at a closed Beaufort nursery in 2006

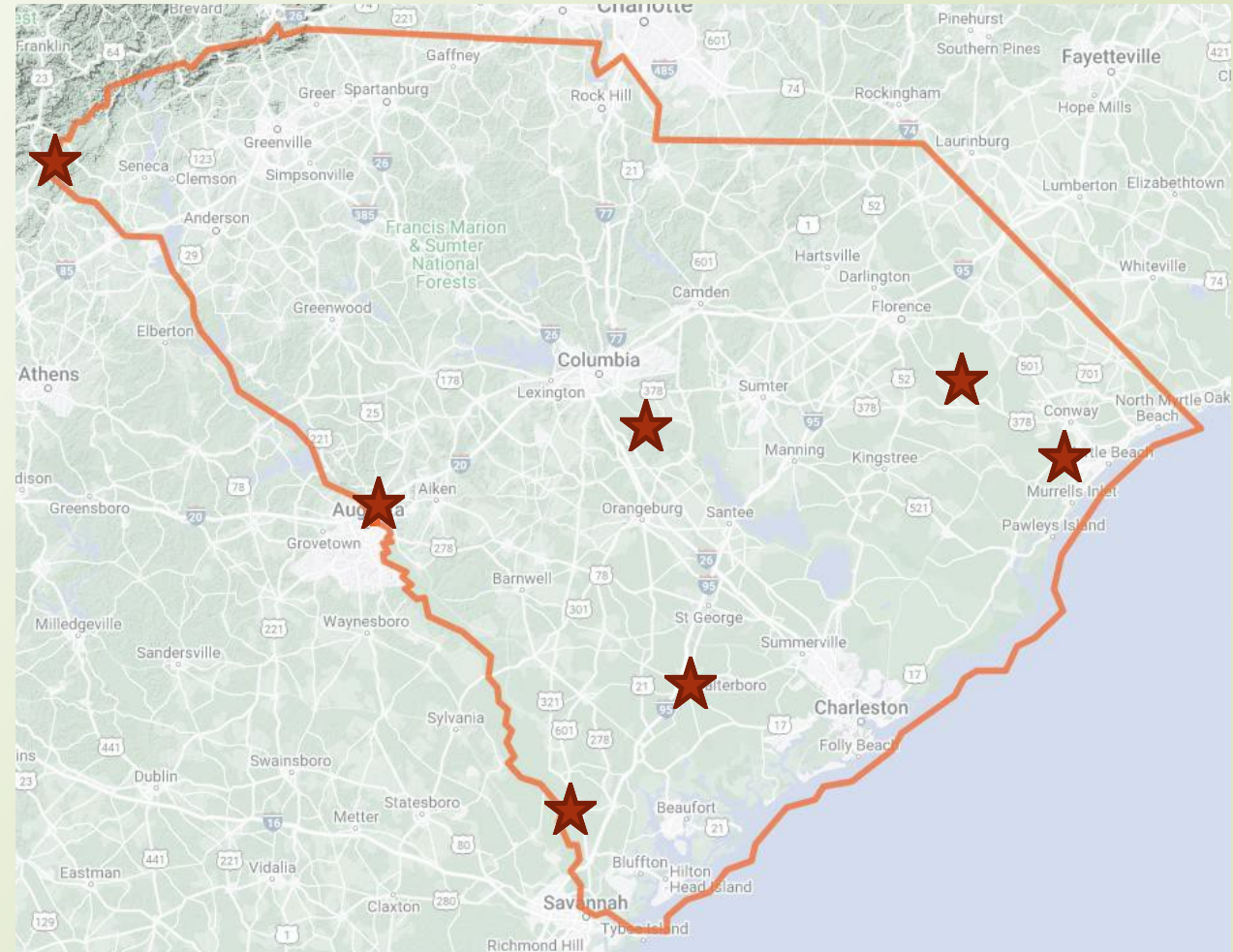
# *Deparia petersenii* (Japanese lady fern)

- Invasive, native to southeast Asia, and an aggressive weed in Florida and southern Georgia where displacing rare ferns
- Found for the first time in SC in Oconee County in June 2020 at Brasstown Creek HP. Northernmost record then



# *Deparia petersenii* (Japanese lady fern)

- 2020-2022 found in 7 counties
- Found for the first time in SC in Oconee County in June 2020 at Brasstown Creek HP. Northernmost record then
- Congaree National Park this month

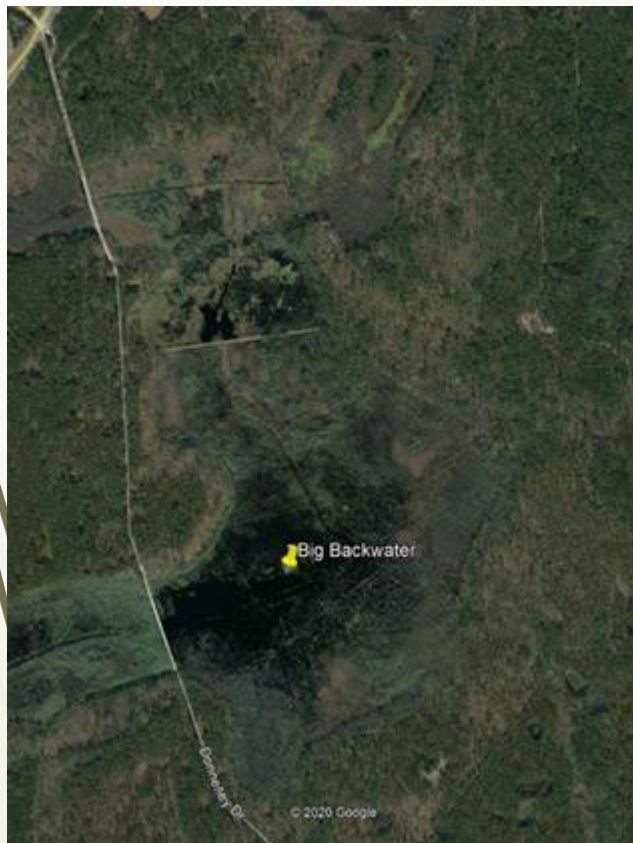


- Dark stipe, covered with silvery hairs
- Sporangia elongate



# *Cyperus blepharoleptos* (Cuban bulrush)

- Highly Invasive – detection on iNaturalist
- Known from Donnelley WMA (Colleton Co.) for at least 6 years, now covering several hundred acres
- Found at a second site by Christy Hand in 2022 in a wood stork rookery
- Resistant to DNRs herbicide treatments



## Cuban Bulrush (*Cyperus blepharoleptos*) Research Grade



sharleen\_j

4,358 observations

Observed:  
May 9, 2020 · 3:32 PM EDT

Submitted:  
May 10, 2020 · 3:12 PM EDT



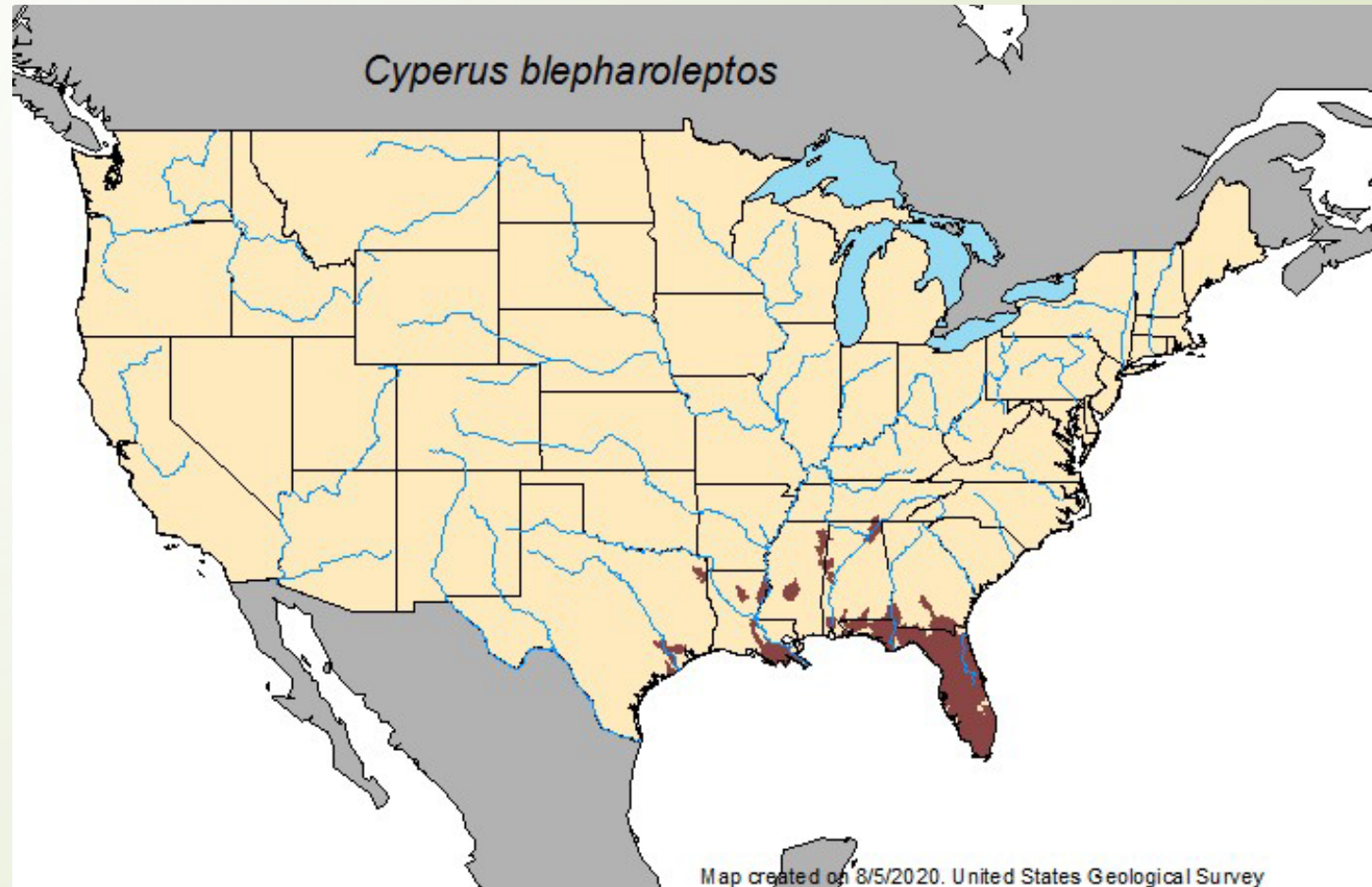
585 Donnelley Dr, Green Pond, SC... Show

Details

Be the first to love this observation!

# *Cyperus blepharoleptos* (Cuban bulrush)

- Tropical American, found in Mobile Bay in late 1800s, spreading northward



# *Cyperus blepharoleptos* (Cuban bulrush)





# *Cyperus blepharoleptos* (Cuban bulrush)



# Regional range Expansions



Coral ardisia (*Ardisia crenata*), Category I in Florida. Jasper County, and a few other spots



# *Chrysopogon pauciflorus* (Florida false beardgrass)

- Potentially invasive, native to Florida and Cuba where weedy, one record in a campground in North Carolina
- Found at Lewis Ocean Bay in 2016 where common along roads and starting to creep into flatwoods



*Chrysopogon pauciflorus* (Florida false beardgrass)





# *Chrysopogon pauciflorus* (Florida false beardgrass)

Annual. Treated for 3 years

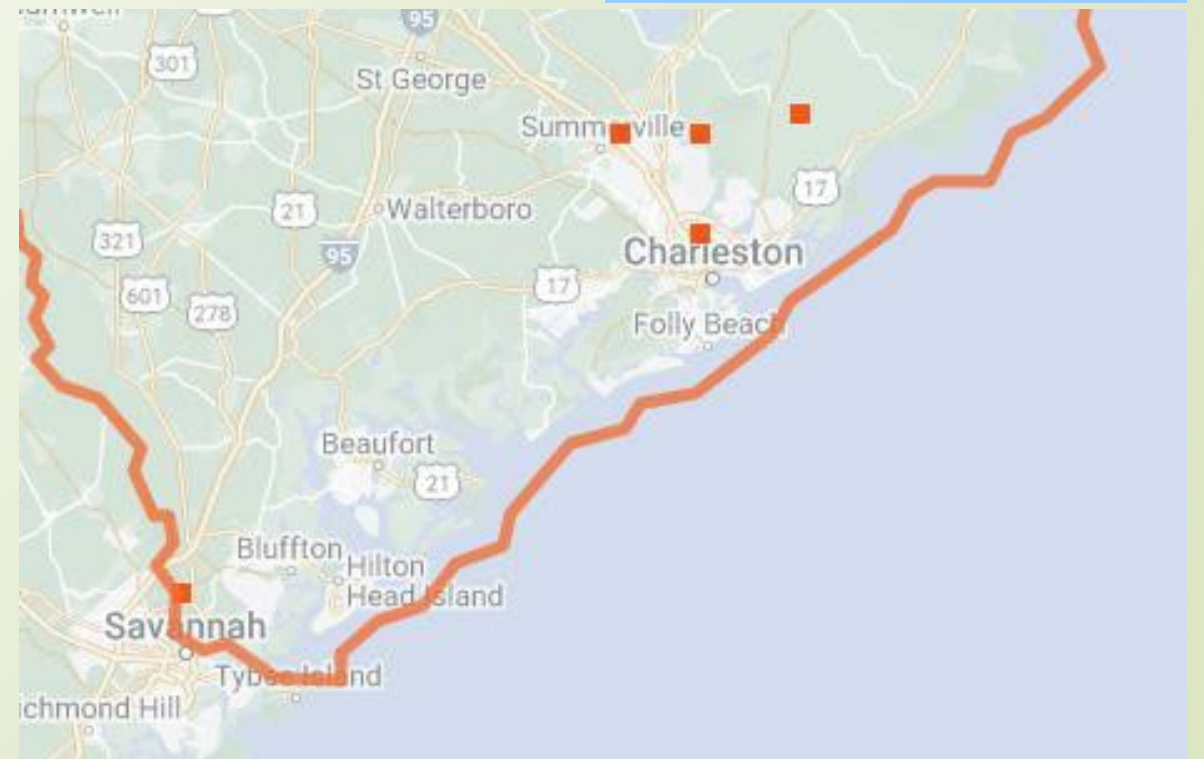
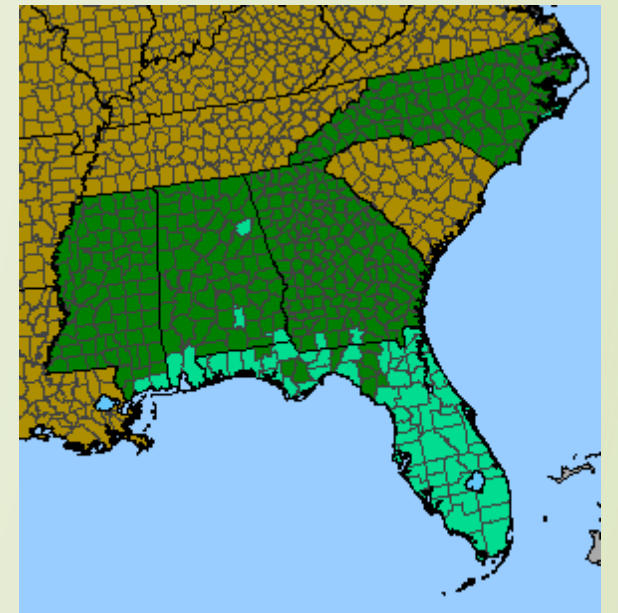


# *Chrysopogon pauciflorus* (Florida false beardgrass)



## *Ludwigia peruviana* (Peruvian primrose-willow)

- Documented in Richland County by John Nelson in 2022.
- Category I Invasive in Florida
- Also some iNaturalist records from Savannah and Charleston



# Coming from north? (maybe?)

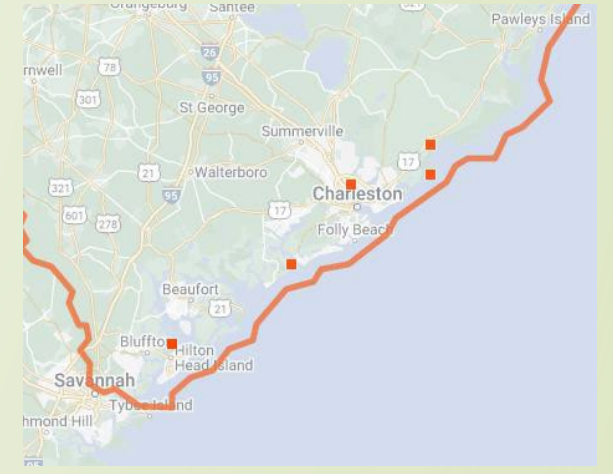
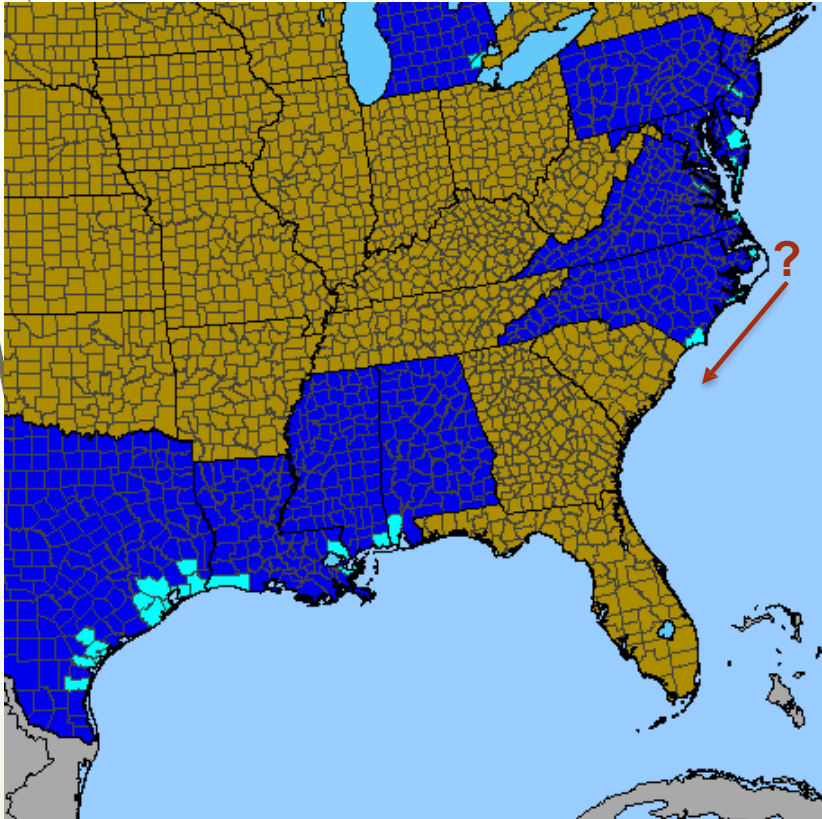
- *Centaurium erythraea* (Common centaury)
- *Parapholis incurva* (Sickle grass)





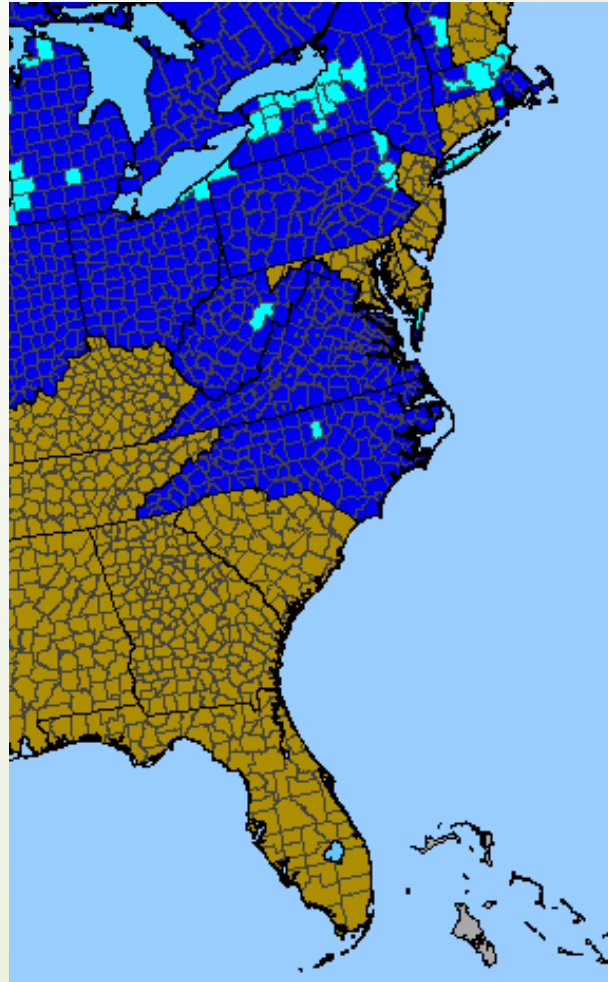
# Coming from north? (maybe?)

- *Parapholis incurva* (Sickle grass)



# Coming from north? (maybe?)

- *Centaurium erythraea* (Common centaury)
- Lewis Ocean Bay Heritage Preserve (Horry Co.)





## Invasive Exotic Plant Species – Port of Charleston reconnaissance

- *Blackstonia* (Yellow-wort), first North American Record in April 2022, Port of Charleston. Native to Europe and to nearby regions of Asia and Africa
- This was the first record in North America



# Port of Charleston

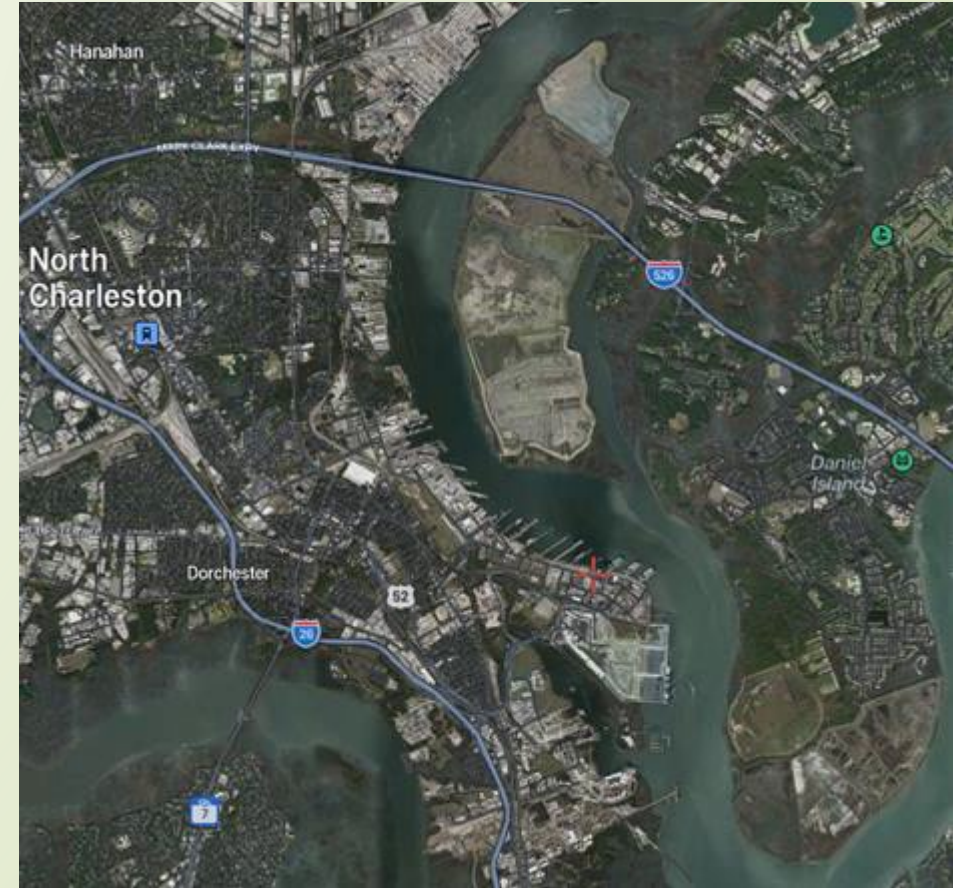
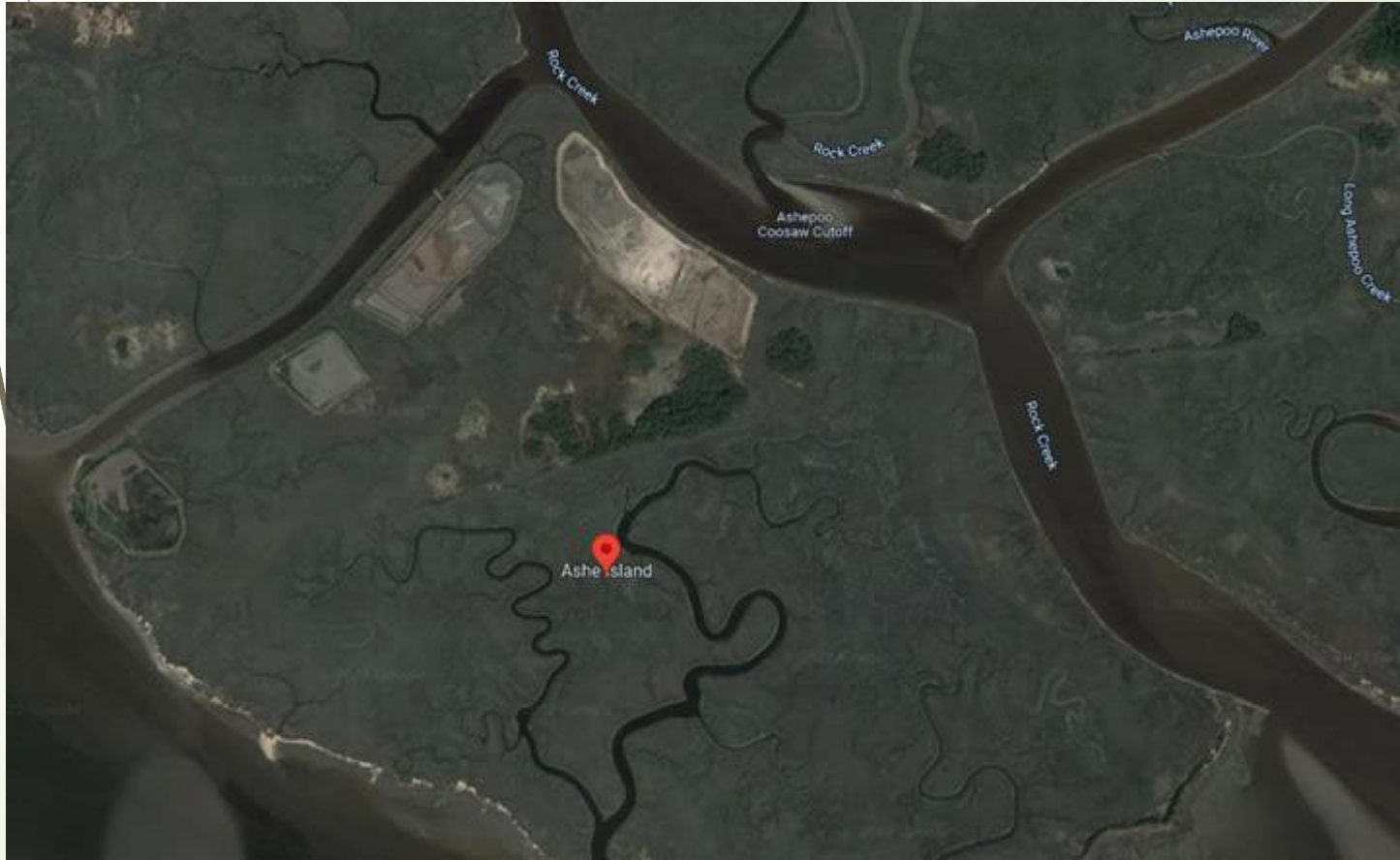


Yellow-wort  
(Blackstonia)



Red-tipped Rabbit Tobacco – also new to SC (*Pseudognaphalium luteoalbum*)

# Dredge Spoil: Novel Habitats and Point Sources for Invasives



# Dredge Spoil: Novel Habitats and Point Sources for Invasives

Last week on Ashe Island, St. Helena Sound Heritage Preserve



Common reed (*Phragmites australis*)



Salt-cedar (*Tamarix* spp.)



Fumewort (*Fumaria vaillantii*)



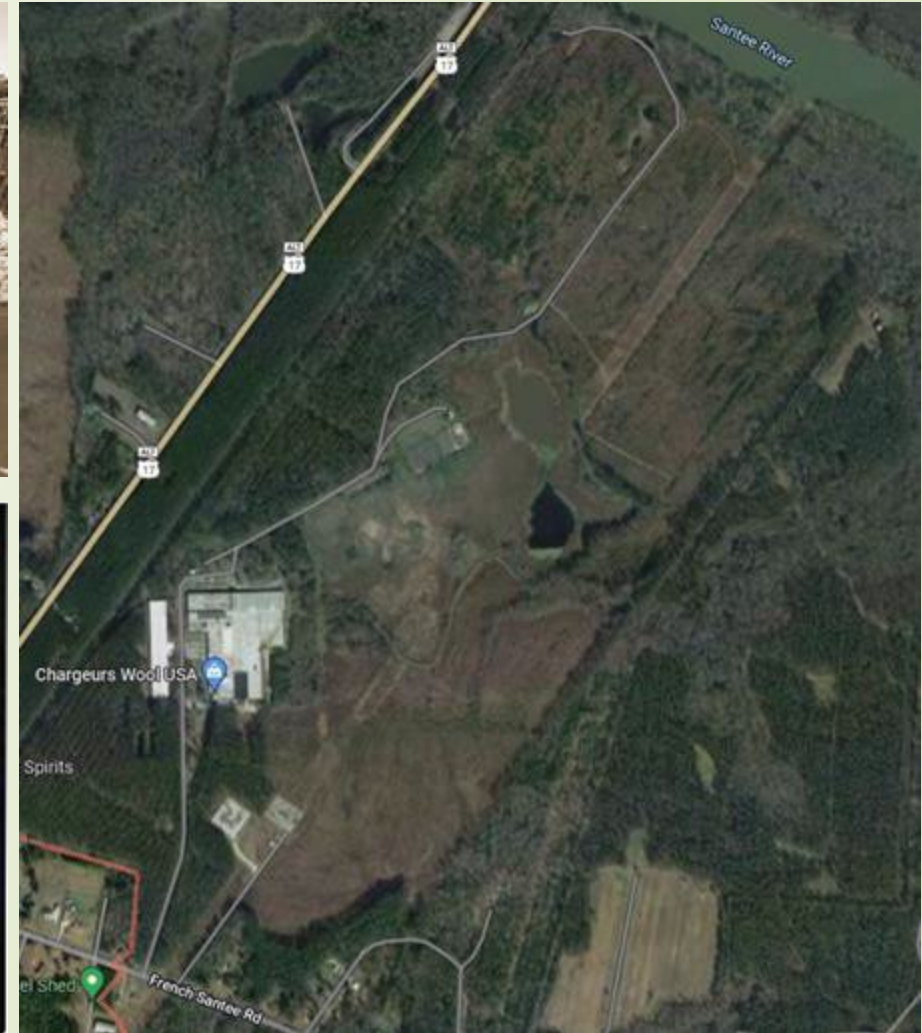
Red-tipped Rabbit Tobacco  
(*Pseudognaphalium luteoalbum*)



Shyleaf  
(*Aeschynomene americana*)

Dredge Spoil: Novel Habitats and Point Sources for Invasives

# Wool Mills



**Chargeurs Wool USA**

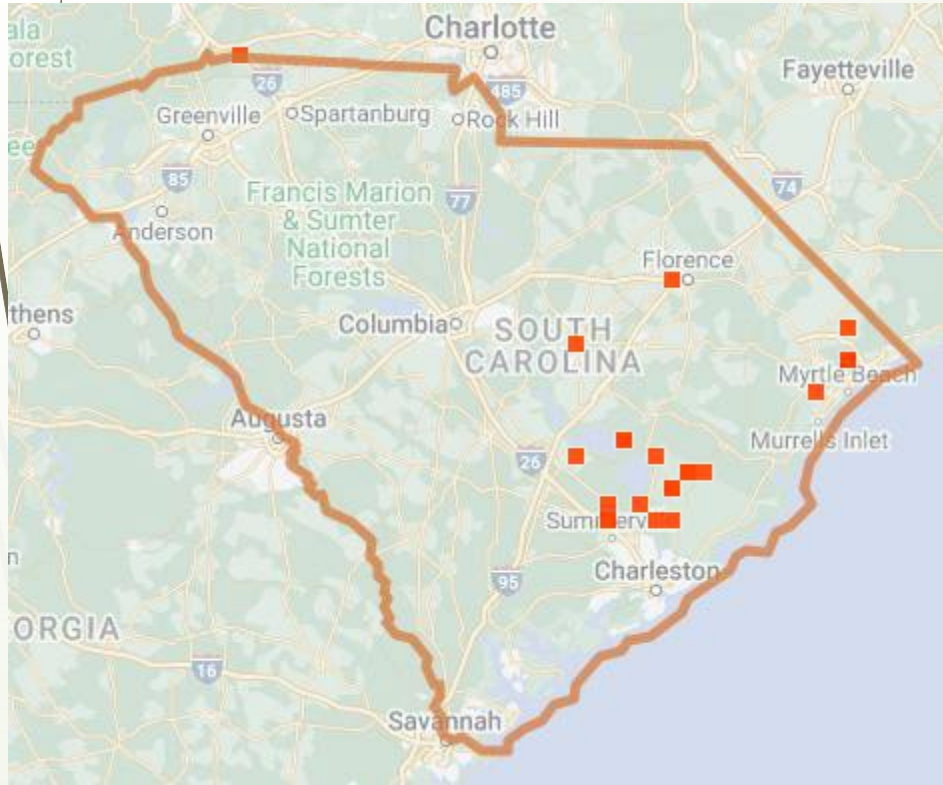
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# Wool Mills

Skyseeds (*Chevreulia* spp.), from South America





# Ornamental Escapees

- Three Kinds:
  - Widespread ornamentals
  - Botanical Gardens
  - Movement of contaminated landscape materials/root balls

# Autumn fern (*Dryopteris erythrosora*)



## Autumn Fern (*Dryopteris erythrosora*) - 5 Pack of Quart Pots



[WRITE A REVIEW](#)

**FREE SHIPPING**

[Questions about this item? Be the first to ask here >>](#)

**SHIPPING RESTRICTIONS:** Does Not Ship to AK, CA, HI

**SHIPPING INFO:** Orders ship within 3-7 working days

**SIZE:**

5-PACK OF QUART POTS

1 GALLON POT

6-PACK OF 1 GALLON POTS

Quantity Pricing

Quantity

Price Each

1

\$69.97



# Autumn fern (*Dryopteris erythrosora*)

First wild South Carolina detection in 2014, it has since become an aggressive invader from mountains to coast



# Ilex cornuta (Chinese holly)



# Botanical Garden Escapees



# Kalmia Gardens/Segars-McKinnon HP and Riverbanks Zoo & Garden

Hotspot for new exotic species



# *Ternstroemia gymnanthera* (Japanese Ternstroemia)

- Invasive. Native to Asia, escaped from cultivation. Otherwise very rare in United States. **This has been known for some time.**
- Small tree. Abundant at Garden, it has spread to the Heritage Preserve





# Quercus glauca (Ring cupped oak, Japanese blue oak)

- Abundant at Garden, probably thousands of plants, found from low to high portions of bluff and in undisturbed habitats. A major concern



# Clerodendrum trichotomum (Harlequin Glory-bower)

- Invasive. Asian. Ornamental shrub spreading on bluff in Garden, also Riverbanks



# *Illicium floridanum* (Florida star-anise)

- Native to Florida, Georgia, to Louisiana. Spreading aggressively at Garden far from native range. This has been known for some time.



# Riverbanks Zoo escapees



Chinese windmill palm  
(*Trachycarpus fortunei*)



Coast redwood (*Sequoia sempervirens*)

# Contaminated landscape materials

- Movement with root balls, mulch, cabbage palm transplants, etc
- One report from 2006 on Hilton Head (destroyed)
- Found by Lauren Serra and I on January 3, 2022 on Edisto Beach
- Also found last month at a new site



Brazilian-pepper (*Schinus terebinthifolia*), one of Florida's worst weeds. Edisto island 2022

# Contaminated landscape materials



Goldfoot fern (*Phlebodium aureum*) on transplanted cabbage palm

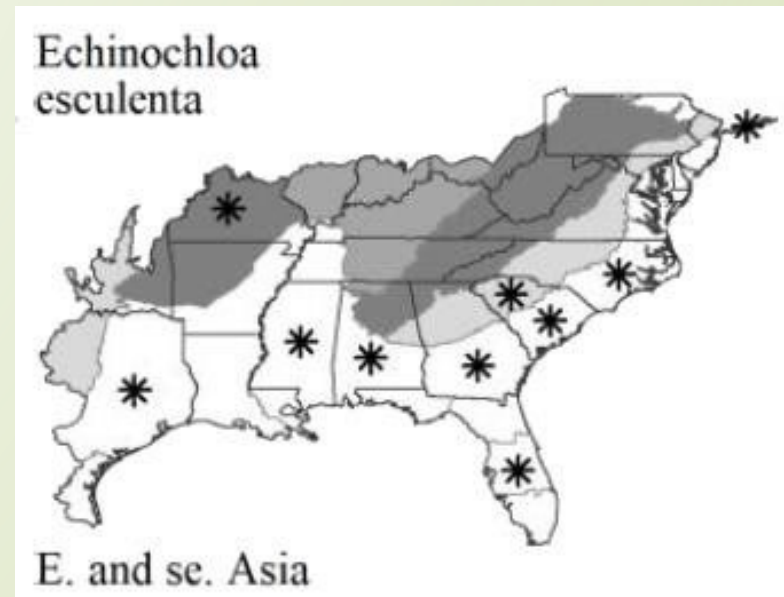


Santa Maria (*Parthenium hysterophorus*), State Farmers Market, can cause allergic reactions



# Wildlife Food Plots?

- Japanese millet (*Echinochloa esculenta*), could spread (not documented yet here)



# Mysterious origin?

- *Porophyllum macrocephalum* ("Bolivian coriander"), native Texas to South America
- Found in Richland County by John Nelson in 2022 at the 3 rivers confluence

