

Florida Statewide Endangered and Threatened Plant Conservation Program (FPCP)



Rare Plants of NE Florida scrub and some considerations in their management

Presentation to Northwest Florida Scrub Working Group

19 May 2015 11:30 am

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<http://www.freshfromflorida.com/Divisions-Offices/Florida-Forest-Service/Our-Forests/Forest-Health/Florida-Statewide-Endangered-and-Threatened-Plant-Conservation-Program>

Michael.Jenkins@FreshFromFlorida.com

Florida Statewide Endangered and Threatened Plant Conservation Program

- Funding from USFWS under the Section 6, US Endangered Species Act. States receive recovery funding for federally-listed plant and animal species.
- Florida PCP initiated in 1991.
- Annual allocation around \$189,000.



Harper's
Beauty
*Harperocallis
flava*

Rugel's Pawpaw
*Deeringothamnus
rugelii*



Florida Statewide Endangered and Threatened Plant Conservation Program

➤ GOAL – to restore and maintain existing populations of listed plants on public land and on private lands managed for conservation purposes. Accomplished through:

- Plant Conservation Program Biologist
- LWRSF Scrub Plant Ecologist
- Funded Projects



Okeechobee Gourd-
(somewhat dependent on Alligator wallows/holes)

Rare Plants - Search - Microsoft Internet Explorer provided by FDACS

http://tlfweb03.doacs.state.fl.us/rarepublic/Default.aspx

wunderlin and hansen guide to vascular plants of florida

Florida Department of Agriculture and Consumer Services

Florida Forest Service

Adam H. Putnam, Commissioner - James R. Karels, Director

[Florida Forest Service HOME](#) > [Forest Management](#) > [Florida Statewide Endangered and Threatened Plant Conservation Program](#) >

Rare Plants Search

Welcome to the Florida Statewide Endangered and Threatened Plant Conservation Program's online, searchable database for published and to a larger extent, unpublished, "gray" literature produced by this and other rare plant conservation projects in Florida. The intent of this database is to aid researchers and plant conservationists by increasing the accessibility of reports produced during rare plant conservation projects. After searching the below dataset(s)+, click on an individual citation for more detailed information, such as whom to contact for the location of the document, or funding amounts for single or multiyear grant projects. Some reports or parts of reports will not be available to protect sensitive or confidential information.

If you would like to add your report's citation to, or have questions regarding this database, contact Michael Jenkins, michael.jenkins@freshfromflorida.com or 850-414-9909.

<p>Federally Designated Name: <input type="text"/></p> <p>This dataset is searchable by partial or whole matches containing the common or scientific name found in the latest list of federally-listed plants with nomenclature used by the United States Fish and Wildlife Service.</p>	<p>Citation Title: <input type="text"/></p> <p>This dataset contains citations for unpublished, "gray" literature produced in rare plant conservation projects, and can be searched using partial matches, including Investigator Last Name, Year, Taxon, etc. which are found in the citation of the document.</p>
<p>Investigator Last Name: <input type="text"/></p> <p>A partial or full match may be used to search this database.</p>	<p>County: <input type="text"/></p> <p>Use the drop down list to select a county where unpublished, rare plant conservation efforts have been conducted.</p>
<p>Taxon Type: <input type="text"/></p> <p>This dataset can be searched by some of the most encountered and heavily used scientific and common names, some synonymous with the Federal Designated Name. Once the Taxon Type is selected, a partial or whole match can be used to search.</p>	<p>Taxon Name: <input type="text"/></p>
<p>Organization Type: <input type="text"/></p> <p>Research: This dataset can be searched by partial or full matches and contains organizations that support the rare plant conservation Investigators. Funding: This dataset can be searched by partial or full matches and contains organizations that fund grant programs, conduct research, and own/manage particular. Managed Area: This dataset contains public and private conservation lands information taken from the Florida Natural Areas Inventory's Florida Managed Area database, downloaded from their website. A partial or full match may be used to search this database.</p>	<p>Organization Name: <input type="text"/></p>

Done Internet 100%

Goal of Talk: Northeast Florida Scrub Working Group


- Quickly, overview of rare plants within NE Florida scrub and some suggestions and definitions in rare plant management and biology.
- Each selected rare plant species found within the many scrub habitats in Northeast Florida.


Goal of Talk: Northeast Florida Scrub Working Group

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Scrub Areas in Northeast Florida Scrub Working Group


Legend


 NEFLscrubpolysFNAI_CLC


 NEFLSCRUB Working Group


DISTRICT


 Central Lake District

 Eastern Flatwoods District

 Gold Coast-Florida Bay District

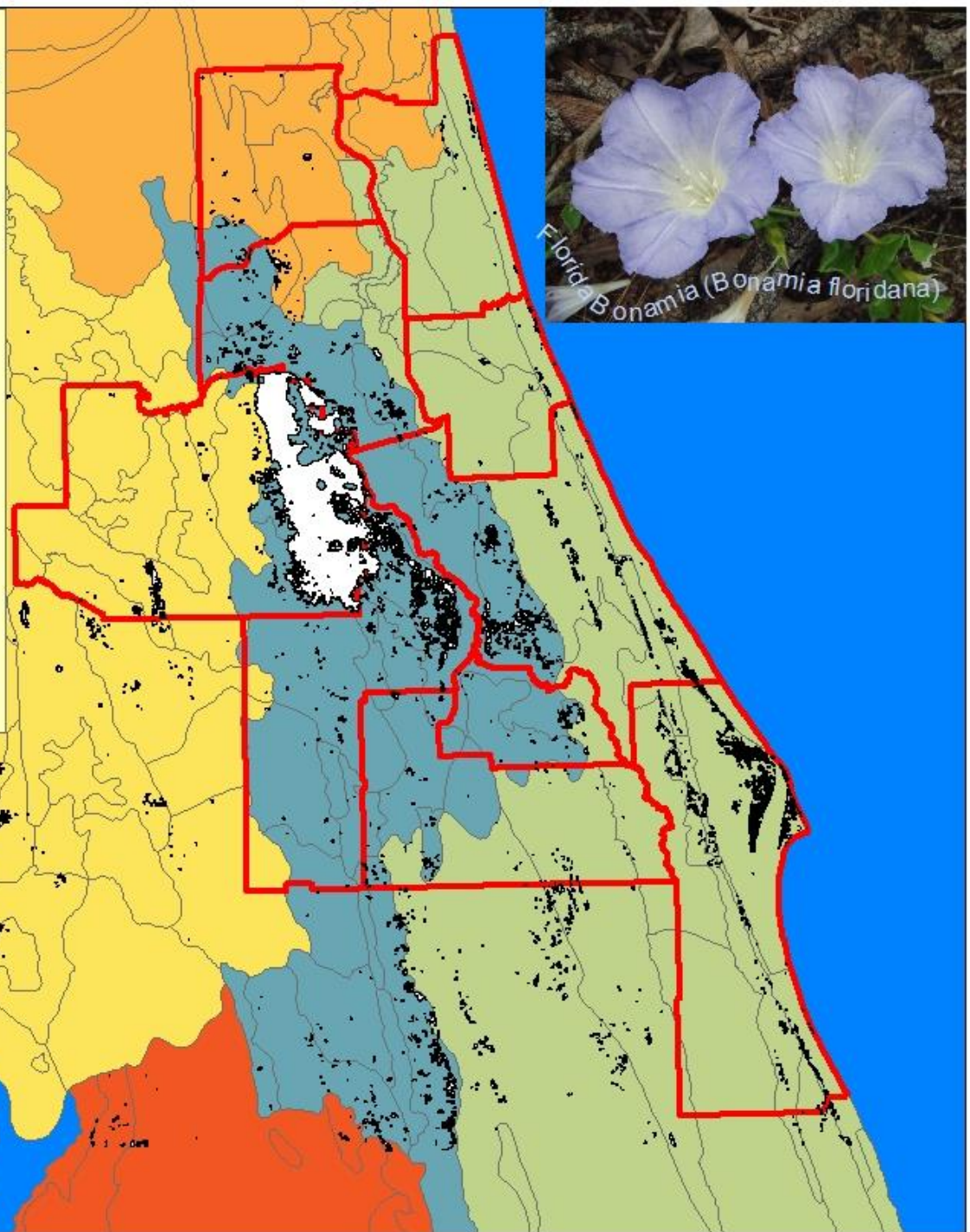
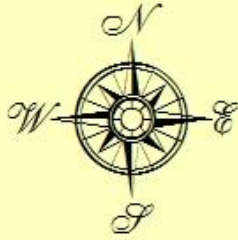
 Ocala Uplift District

 Sea Island District

 Southwestern Flatwoods District




Brooks, H. K. 1981. Physiographic Divisions of Florida. Florida Cooperative Extension Service, Institute of Food and Agricultural Sciences, University of Florida.

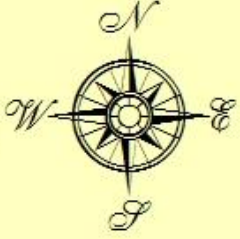
0 10 20 40 60 80 Miles



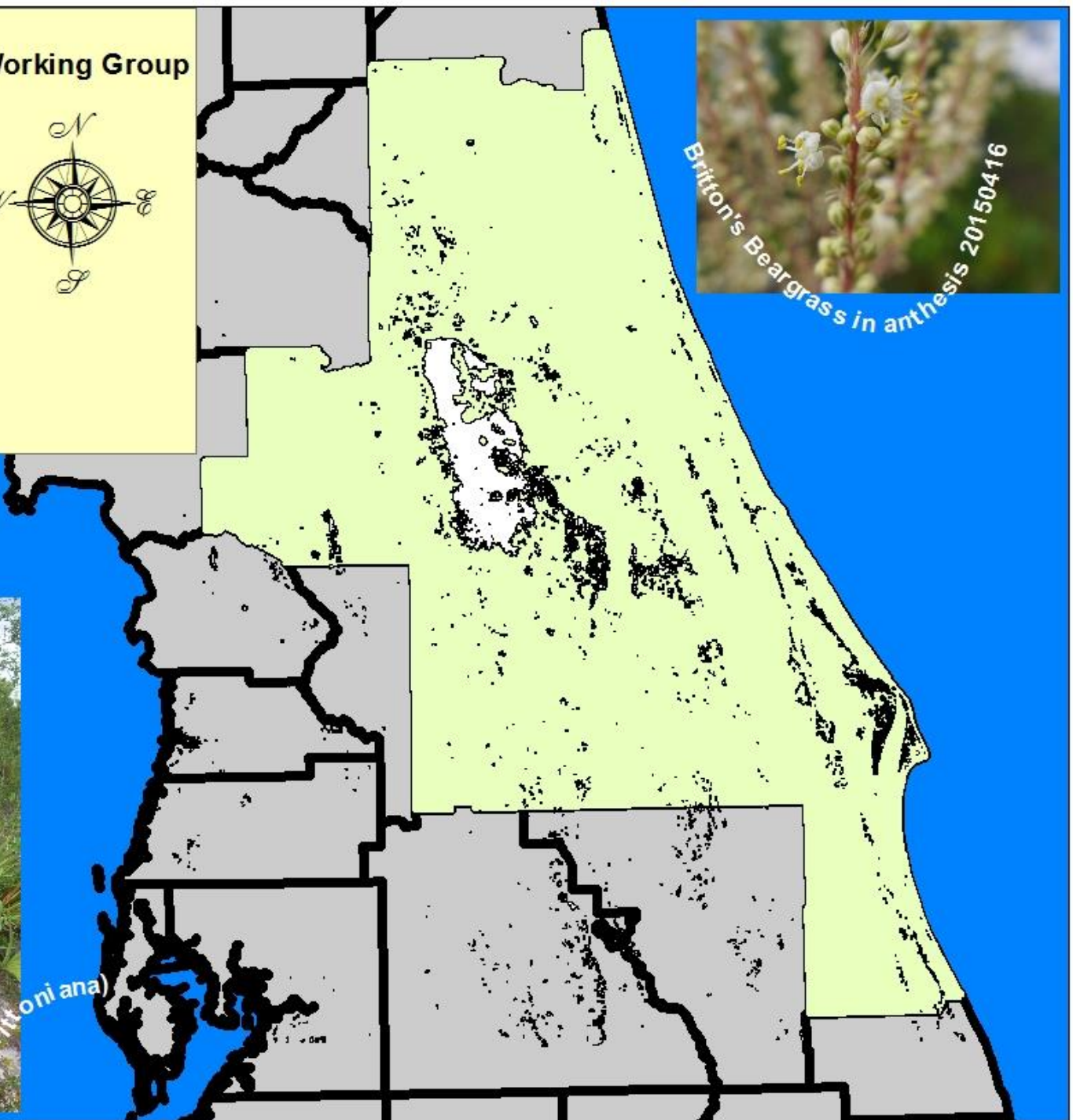
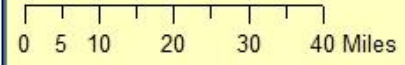
Scrub Areas in Northeast Florida Scrub Working Group

Legend





-  NEFLscrubpolysFNAI_CLC
-  NEFLSCRUB Working Group
-  Florida Counties



Polygons from FNAI,
Cooperative Land Cover Map
version2_3
www.fnai.org/gisdata.cfm

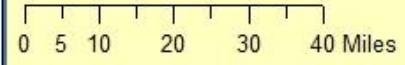


Scrub Areas in Northeast Florida Scrub Working Group Legend

-  NEFLscrubpolysFNAI_CLC
-  flma_201412
-  NEFLSCRUB Working Group
-  Florida Counties



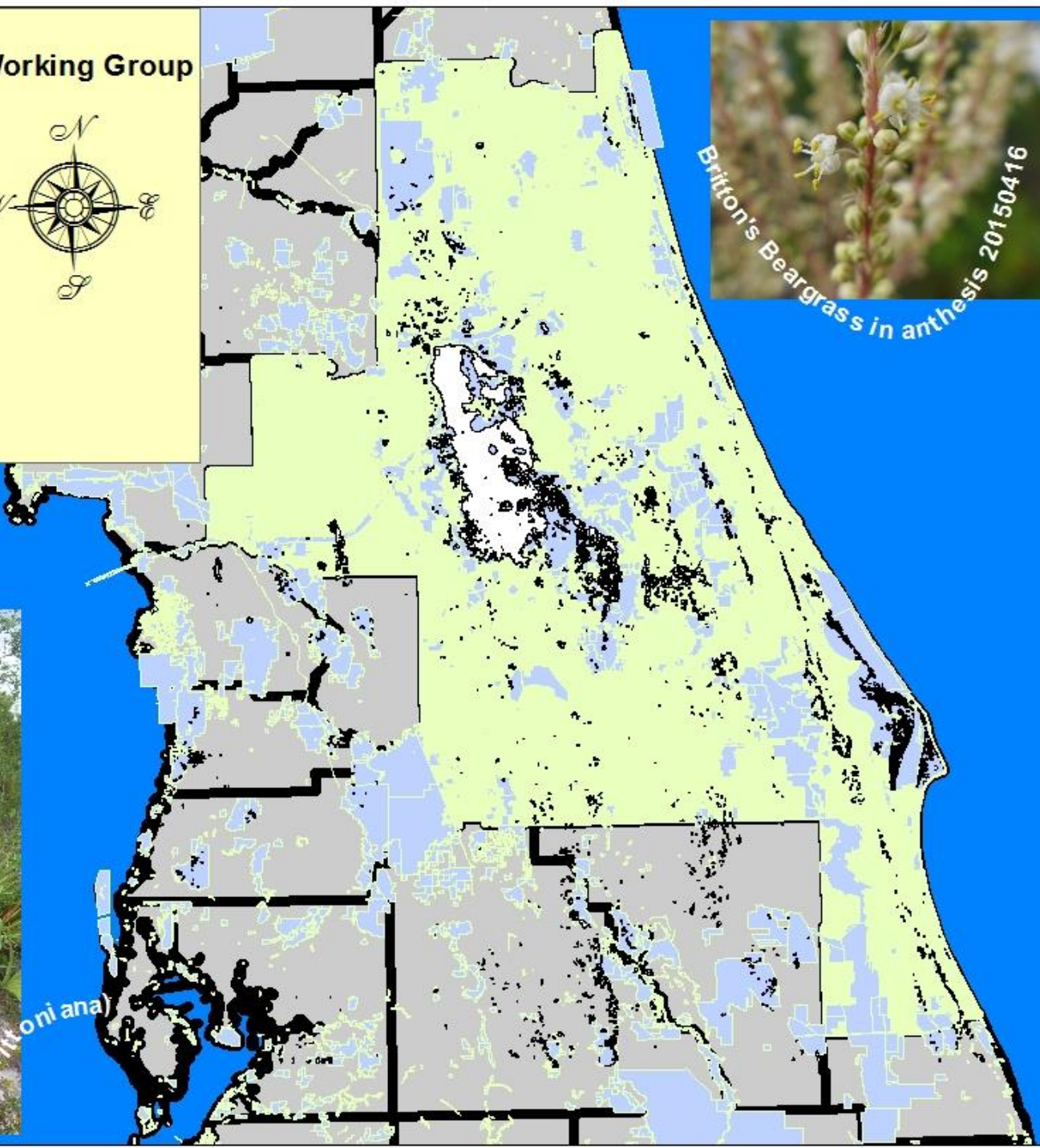
Polygons from FNAI,
Cooperative Land Cover Map
version2_3
www.fnai.org/gisdata.cfm






Britton's Beargrass in anthesis 20150416



Britton's Beargrass (*Nolina brittoniana*)

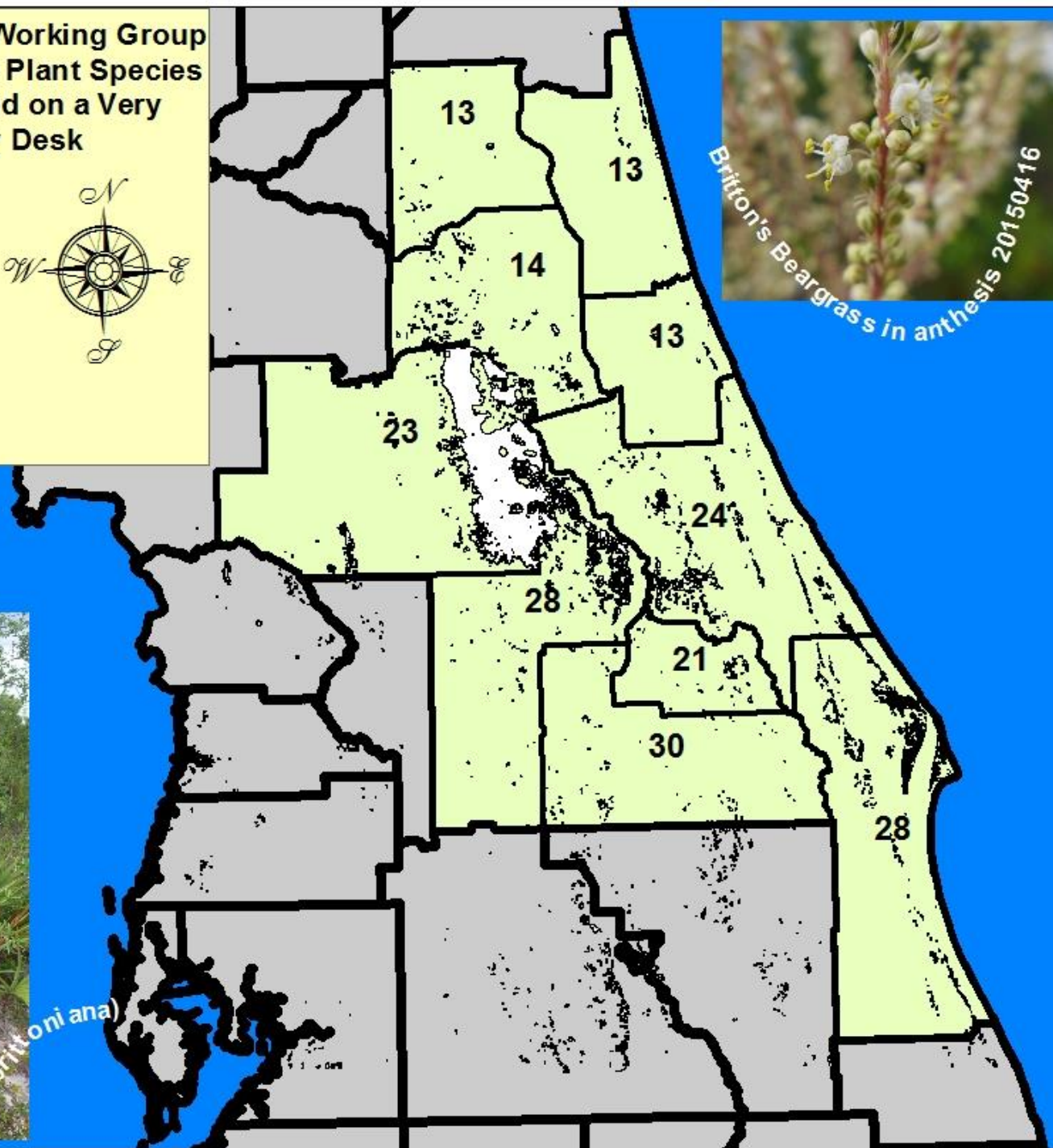


**Northeast Florida Scrub Working Group
Number of Potential Rare Plant Species
Within Each County Based on a Very
Internal GIS Project at my Desk
Legend**

-  NEFLscrubpolysFNAI_CLC
-  NEFLSCRUB Working Group
-  Florida Counties



0 5 10 20 30 40 Miles



NE FL Rare Scrub Plants

- 50 species of rare xeric soil scrub plants picked from internal GIS rare plant project, “ArcWunderlin”. Please ask for county lists of rare plants and latest rare plant list.
- 22 species of plants found within NE FL Working Group counties are endemic to Florida.
- 9 species are federal listed by USFWS as Endangered. 26 listed as Endangered by State of Florida (Florida Administrative Code 5B40 rule, Preservation of the Flora of Florida’s Regulated Plant Index, administered by FDACS, Division of Plant Industry).
- 4 species are federal listed by USFWS as Threatened. 14 species listed as by Threatened by the State of Florida.
- 5 of the 50 species are tracked by FNAI and not listed at all, of the 50 species selected, 8 are not tracked by FNAI.

Scrub Rare Plant Management Considerations

- Rx fire is good anytime but best in April and May and the drier the better. Serious concern among scrub botanists that winter burning over long periods of time does not favor rare plants.
- Be careful of rare plants in roads and firebreaks. May be the only place plants exist. Mowing is better than harrowing/disking and can be beneficial to rare plants. One firebreak disk can destroy all known populations of a species. Hand remove fuels from around rare plants.
- Be careful of scrub restoration where invasive grasses are infesting nearby areas or on site. Sometimes unmowed areas can somewhat block seeds from coming in. Mechanical treatments notorious for spreading invasive plants.
- Some areas are “better left alone” and should only be restored with fire.
- Scrub habitats vary widely and plants respond differently to different fire regimes and restoration techniques. This merits doing small-scale restoration first, seeing what works on site and going with that.

Rare Plant Management Tips

- Killing oaks (e.g., Sand Live Oaks) is good BUT MUST be followed up with Rx fire or periodic follow ups (e.g., hand crews w/saws, mowing). For example, girdling oaks is great but the increased sunlight from canopy reduction will increase germination of oaks, which can get much more thicker than what was being restored. Rx fire can get rid of these but if that is not an option, follow up treatments to small oaks must be done. A commitment is necessary from land manager to do this because if oaks come back and are not killed, the oaks will dominate for decades. Here it is better to not have opened up the canopy at all.
- Annual mowing can be beneficial to rare plants, except where invasive plants are being introduced. Having very wide, often-mowed firebreaks can provide habitat for rare plants and reduce dangerous fire spread.

Rare Plant Management Tips-What can I do tomorrow to help my rare plants on site?

- First do a thorough rare plant survey using in-house data or Florida Natural Areas Inventory's FLEO (Florida Element Occurrence data). There may be no data for an area if it has never been properly surveyed.
- While documenting plants with GPS, note which populations could use a "Fuel Buster".
- Fuel Buster is where a single person (or more) can open up the habitat significantly around a rare plant population and then commit to following it up on an annual basis. Without follow-up you can make the habitat worse than when you started.
- Fuel Busters can be as easy as a one person with a pair of loppers and be done in one hour or can be with large chainsaw crew. Rx fire or annual follow-up with hand crew/mowing is necessary.
- Fuel Busters can significantly increase plant fitness and germination/recruitment of new individuals in a small population.



Rare Plant
Management
Tips-What can
I do tomorrow
to help my rare
plants on site?

Fuel
Buster

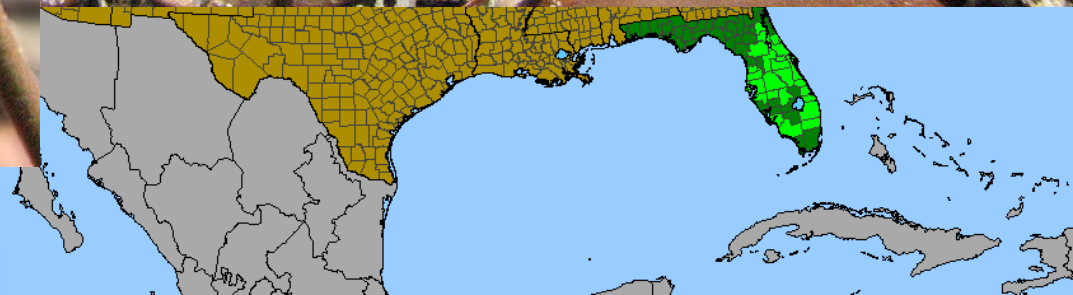
Goal of Talk: Northeast Florida Scrub Working Group

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Asclepias curtissii A.Gray Curtis's
Milkweed G3 S3 N LE Narrow Florida
Endemic
FNAI-No
Apocynaceae Dogbane Family



Asclepias curtissii A.Gray Curtis's
Milkweed G3 S3 N LE Narrow Florida
Endemic
FNAI-No
Apocynaceae Dogbane Family





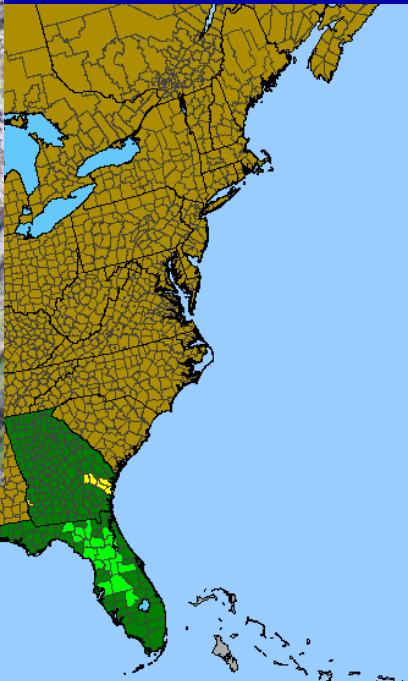
Asclepias curtissii A.Gray Curtis's
Milkweed G3 S3 N LE Narrow Florida
Endemic
FNAI-No
Apocynaceae Dogbane Family

Life History Research
Southeastern Naturalist 9(2):259-274. 2010

The Effect of Shrubs on the Establishment of an Endangered Perennial (*Asclepias curtissii*) Endemic to Florida Scrub

Patrick Mondo¹, Kristen D. Marshall Mattson² and Cynthia C. Bennington

- Seed germination was significantly enhanced by shade ($P < 0.0001$) but not by leaf litter.
- Seedlings growing in the shade of close neighboring shrubs had significantly higher rates of survival ($P < 0.001$) than those seedlings planted in gaps.
- Extant plants tended to grow close to shrubs, and seeds tended to land near shrubs, but neither of these distances were less than would be expected by random chance ($P > 0.10$ in both cases).
- The facilitation of seedling establishment by woody plants has been documented in other arid environments, but not in Florida scrub.



***Matelea floridana* (Vail) Woodson**
Florida Spiny Pod G2 S2 N LE
FNAI-Yes
Apocynaceae Dogbane Family
Well burned xeric areas and roadsides.
(map generated on 11/2/2014)



Shirley Denton, November 2000



(map generated on 11/2/2014)

***Garberia heterophylla* (W.Bartram)Merr. & F.Harper**
Garberia G3G4 S3S4 N LT
FNAI-No Narrow Florida Endemic Monotypic Genus in
U.S.A.!
Asteraceae Sunflower Family
Xeric areas and roadsides.

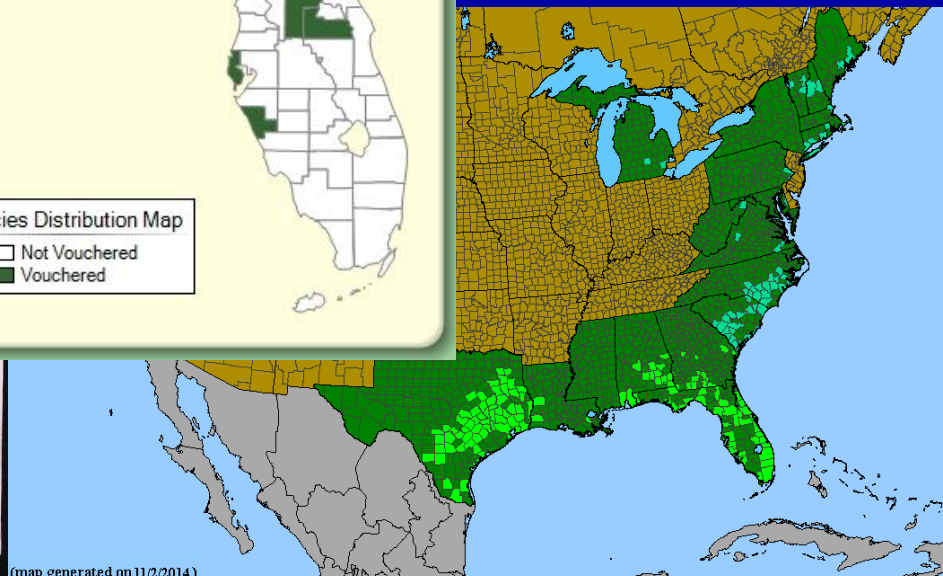
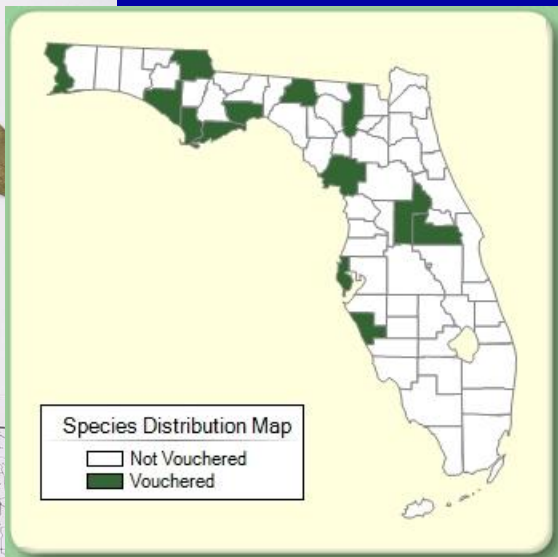
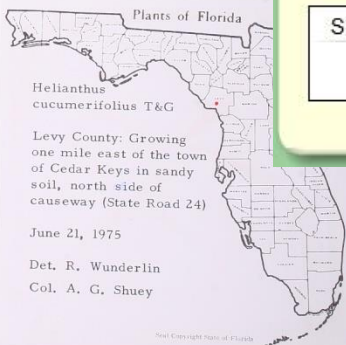
UNIVERSITY OF
FLORIDA
120843
HERRING

Helianthus debilis Nutt. subsp.
cucumerifolius (Torr. & A.Gray) Heiser
syn. *Helianthus debilis* subsp.
tardiflorus Heiser
Cucumber-leaf Dune Sunflower G5T3
S3 N N
FNAI-Yes
Asteraceae Sunflower Family
Stem erect, usu. red/brown mottled,
leaves coarsely irregular.
Mostly coastal dunes, rare inland.



Helianthus debilis ssp. *cucumerifolius* var.
tardiflorus (Heiser) Cronquist

Richard P. Wunderlin
University of South Florida 1980



(map generated on 11/2/2014)

Argusia gnaphalodes

Photo by Shirley Denton

*Argusia
gnaphalodes*
(L.)Heine G4 S3
N LE
Boraginaceae
BorageFamily



**Sea
Lavender**

(map generated on 11/2/2014)



Argusia gnaphalodes

Photo by Shirley Denton



*Argusia
gnaphalodes*
(L.)Heine G4 S3
N LE
Boraginaceae
BorageFamily

Sea Lavender

- Sea lavender is a shoreline erosion control plant. It helps to trap sand and stabilize the dunes on which other plants can become established.
- Rx fire adapted? Massive numbers of plants may recruit following storms if seed sources are present (Institute for Regional Conservation website 2015).



Warea amplexifolia
(Nutt.) Nutt

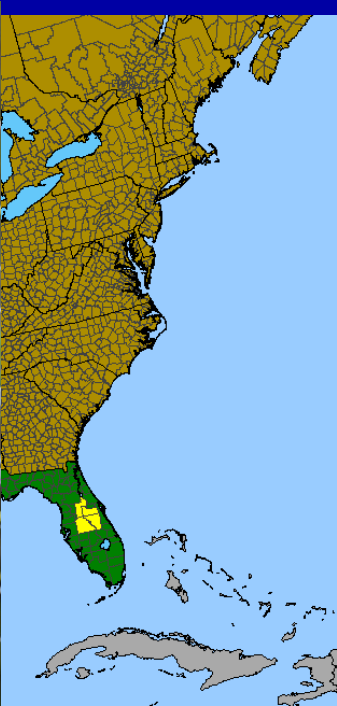
Clasping Warea

G1 S1 LE LE

Florida Endemic

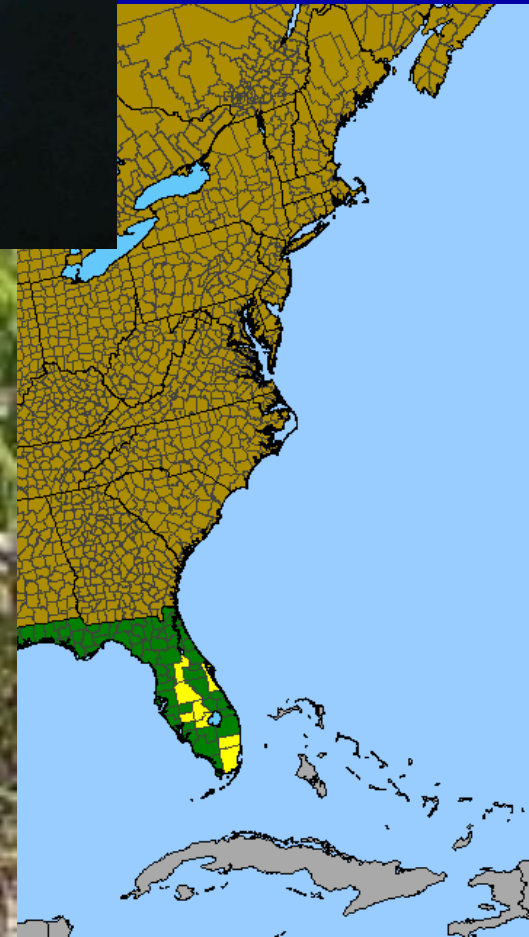
FNAI-Yes

Brassicaceae Mustard
Family



Warea carteri
Photo by Bob Upcavage

Warea carteri Small
Carter's Warea
G3 S3 LE LE
Florida Endemic
FNAI-Yes
Brassicaceae Mustard
Family



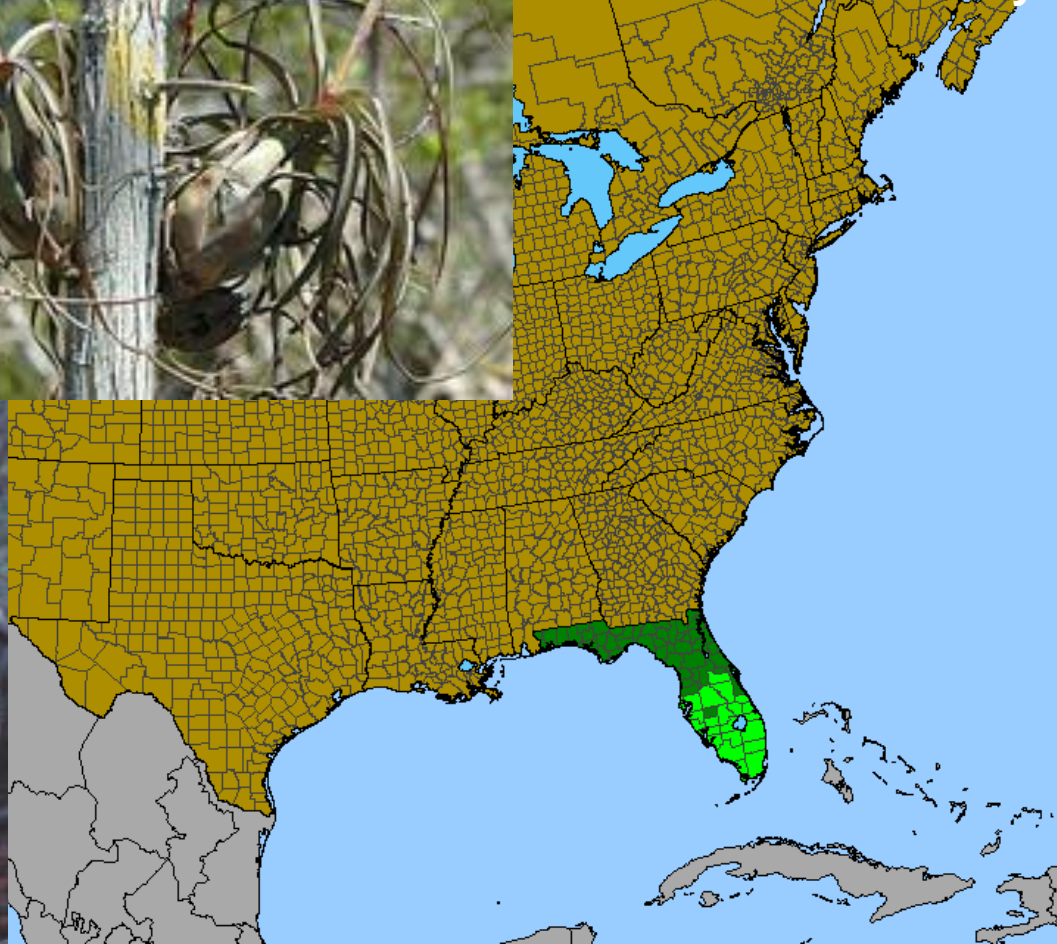


Tillandsia balbisiana
Photo by T. Ann Williams



Tillandsia balbisiana
Photo by Ann Williams

Tillandsia balbisiana
Schult. & Schult.f.
Inflated And
Reflexed Wildpine/
G4G5 S3 N LT
FNAI-No
Bromeliaceae
Bromeliad Family



Harrisia fragrans

Photo by T. Ann Williams



Harrisia fragrans Small
ex Britton & Rose.

Fragrant Prickly Apple

G1 S1 LE LE

FNAI-Yes

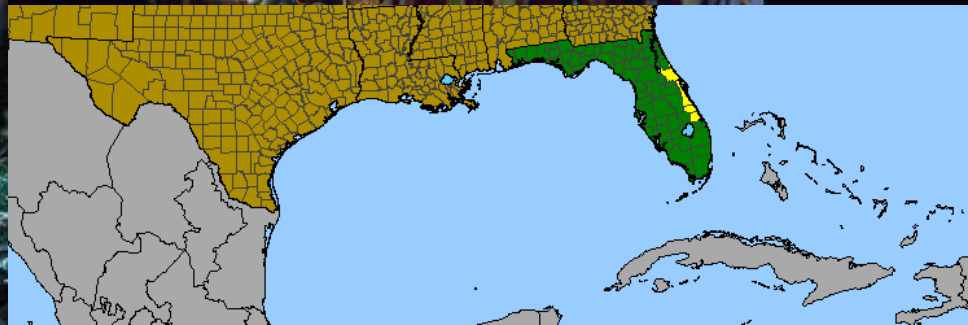
Cactaceae

Cactus Family

Coastal hammocks and
shell middens.



Photo by Roger Hammer

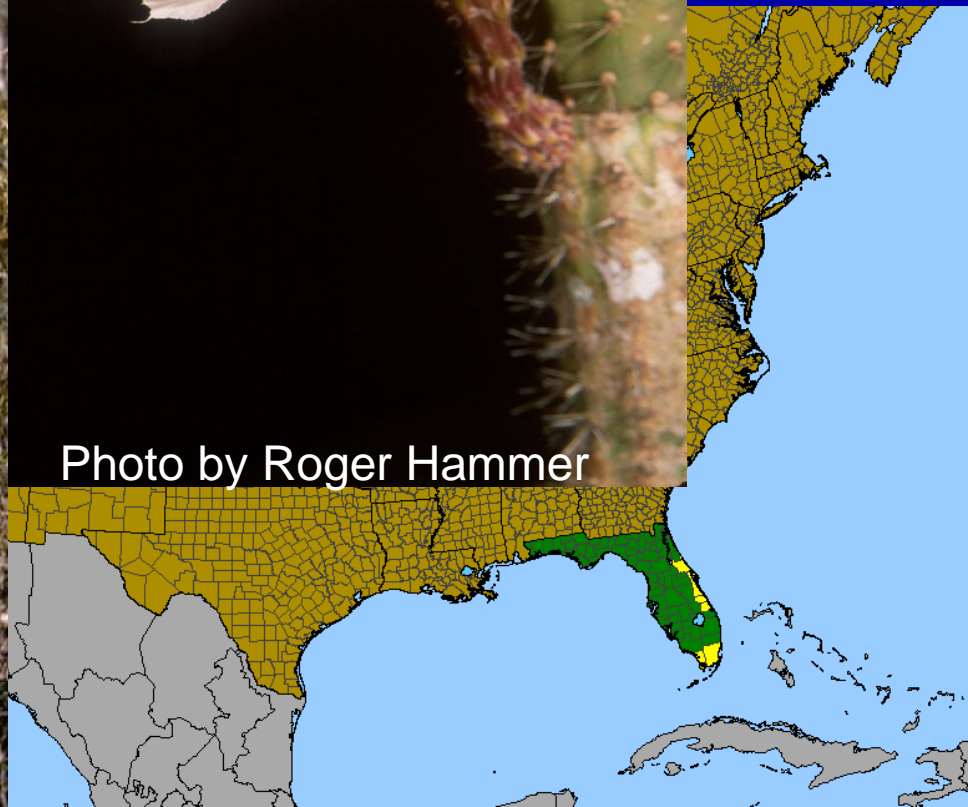




Harrisia simpsonii Small
ex Britton & Rose
Simpson's Prickly Apple
Prickly Apple G1 S1 LE LE
Florida endemic
FNAI-Yes
Cactaceae
Cactus Family



Photo by Roger Hammer



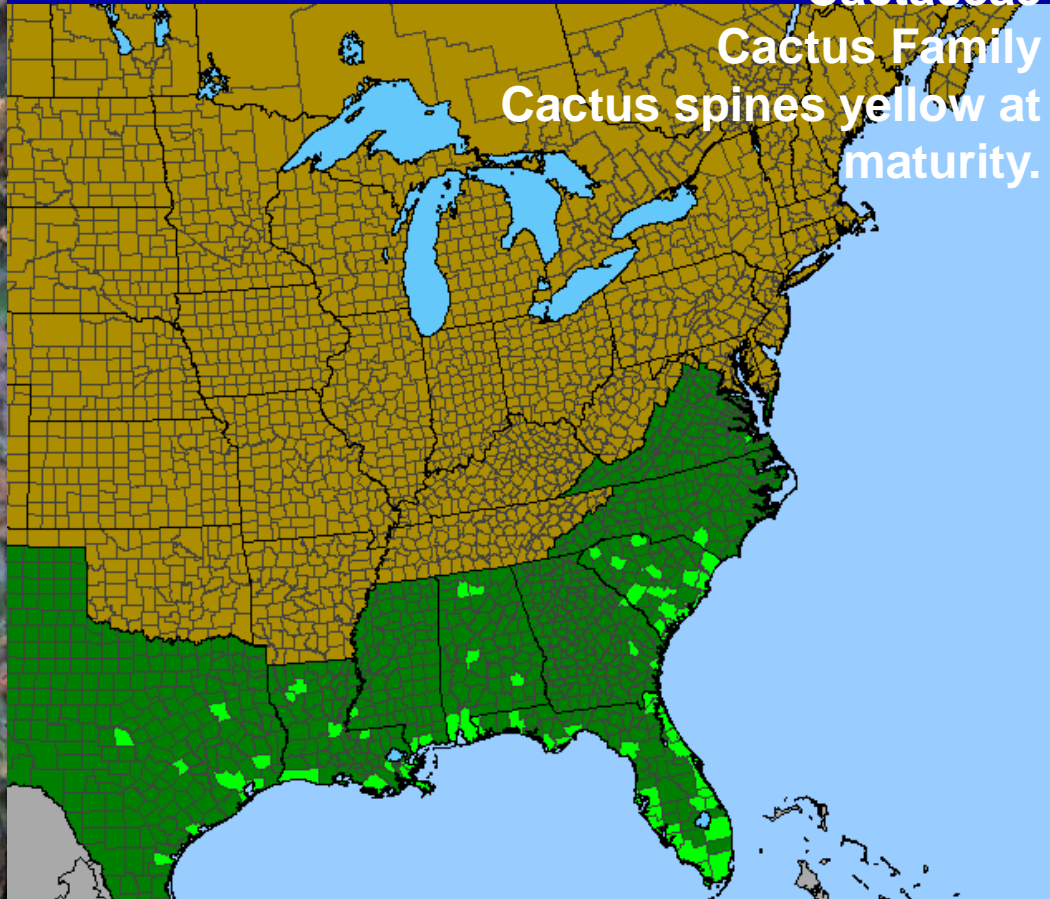
Opuntia stricta

Photo by Walter Hodge

USF Herbarium Slide Collection

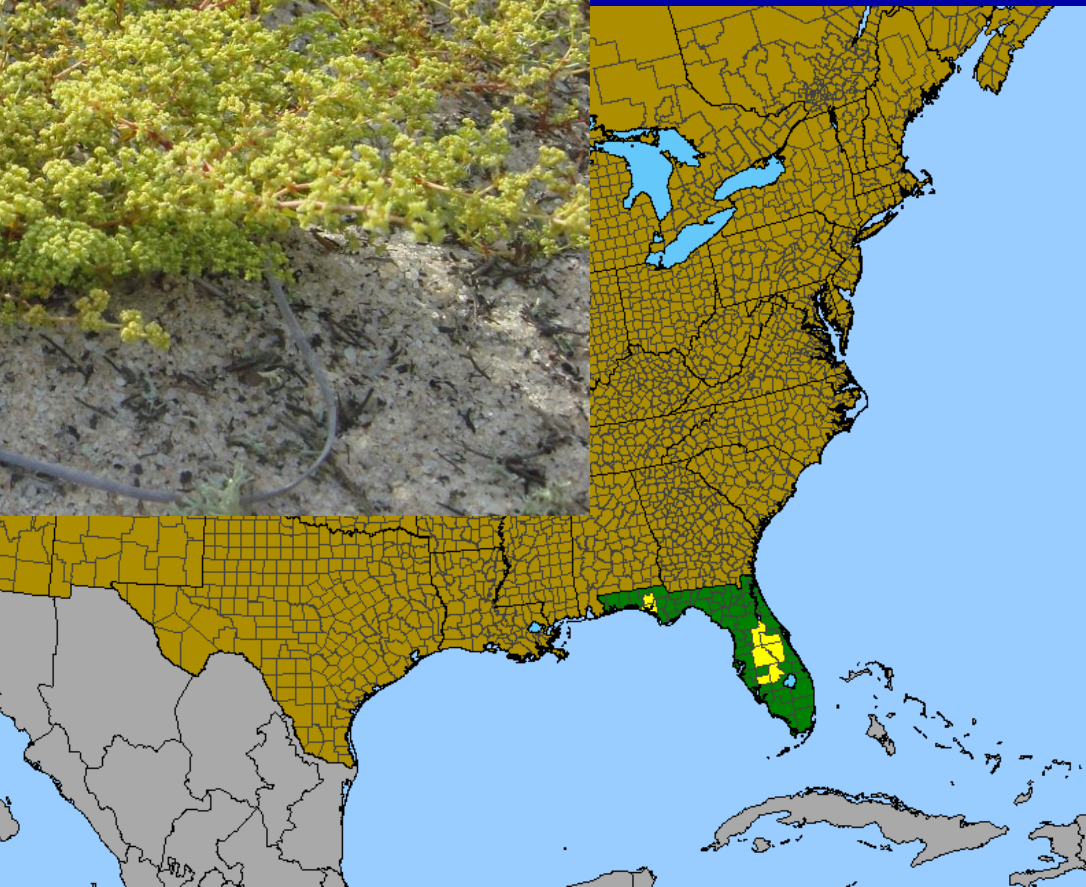


Opuntia stricta (Haw.)Haw.
Shellmound Prickly Pear
G4? SNR N LT
Florida endemic
FNAI-No
Cactaceae





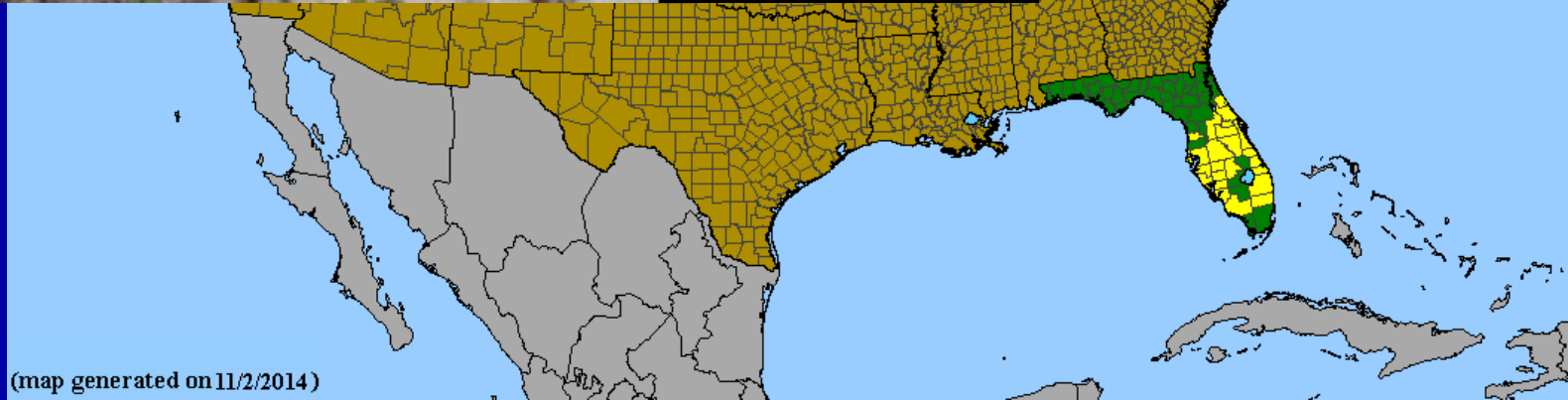
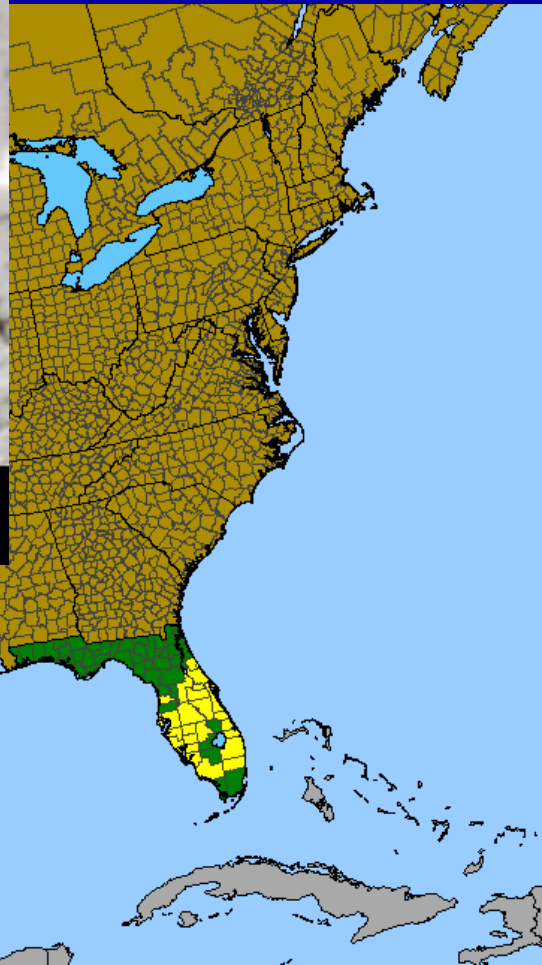
Paronychia chartacea Fernald
Paper Nailwort
G3T3 S3 LT LE
Florida endemic
FNAI-Yes
Caryophyllaceae
Pink Family
Male and Female forms found in field
Dioecious





Lechea cernua Small
Nodding Pinweed
G3 S3 N LT
Florida endemic
FNAI-Yes
Cistaceae
Rock Rose Family

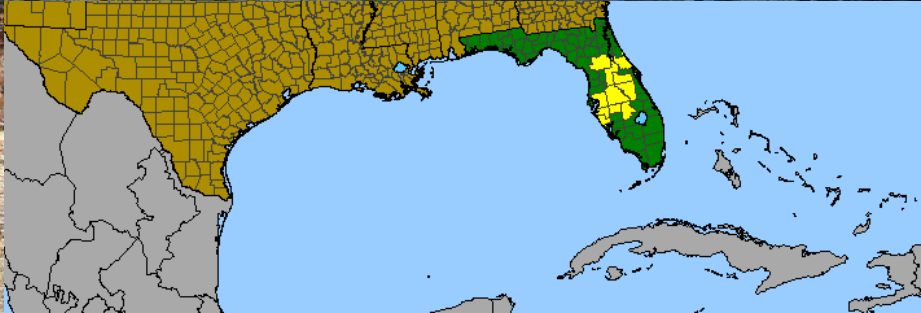
Lechea cernua
Photo by Shirley Denton



(map generated on 11/2/2014)

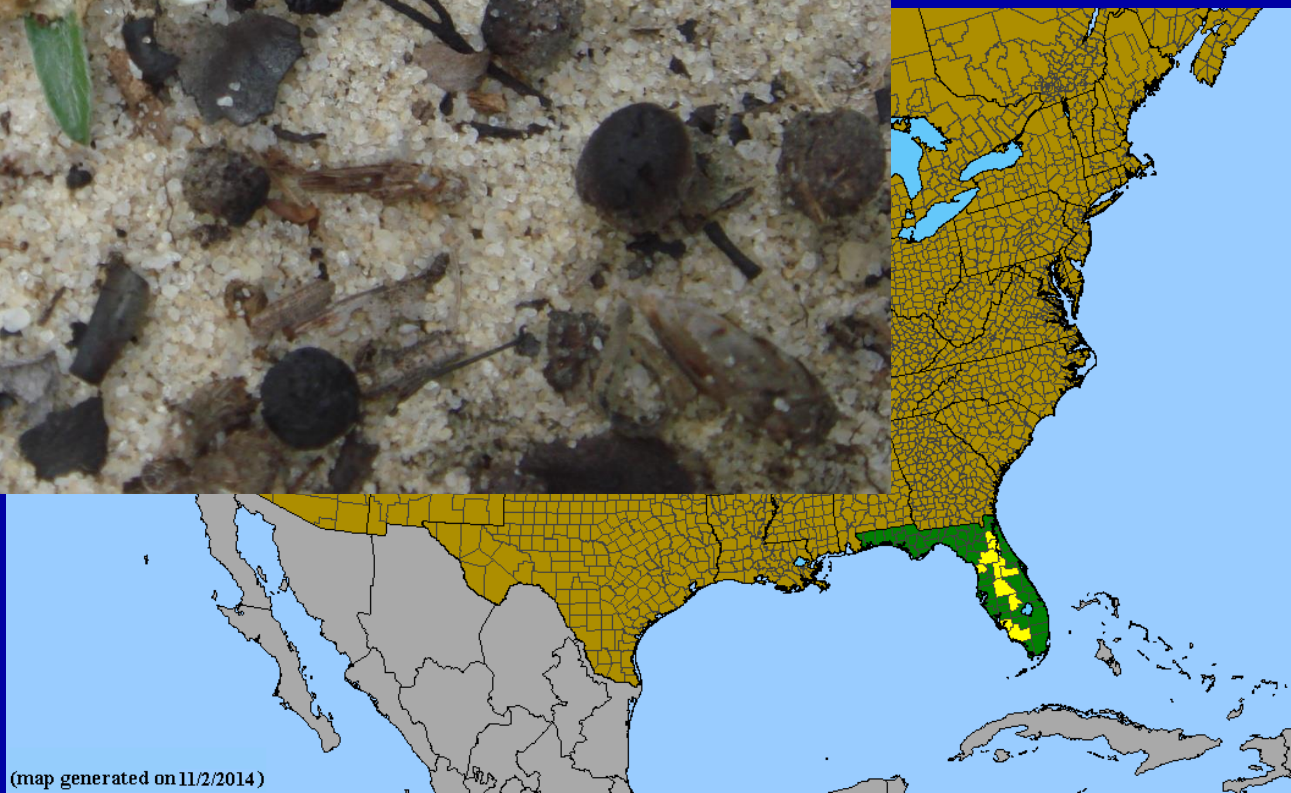


Bonamia grandiflora
(A.Gray)Hallier f.
Florida Bonamia
G3 S3 LT LE
Florida endemic
FNAI-Yes
Convolvulaceae
Morning Glory Family





Stylisma abdita Myint
Scrub Stylisma
G3 S3 N LE
Florida endemic
FNAI-Yes
Convolvulaceae
Morning Glory Family



(map generated on 11/2/2014)

Chamaesyce cumulicola

Photo by Jon Moore



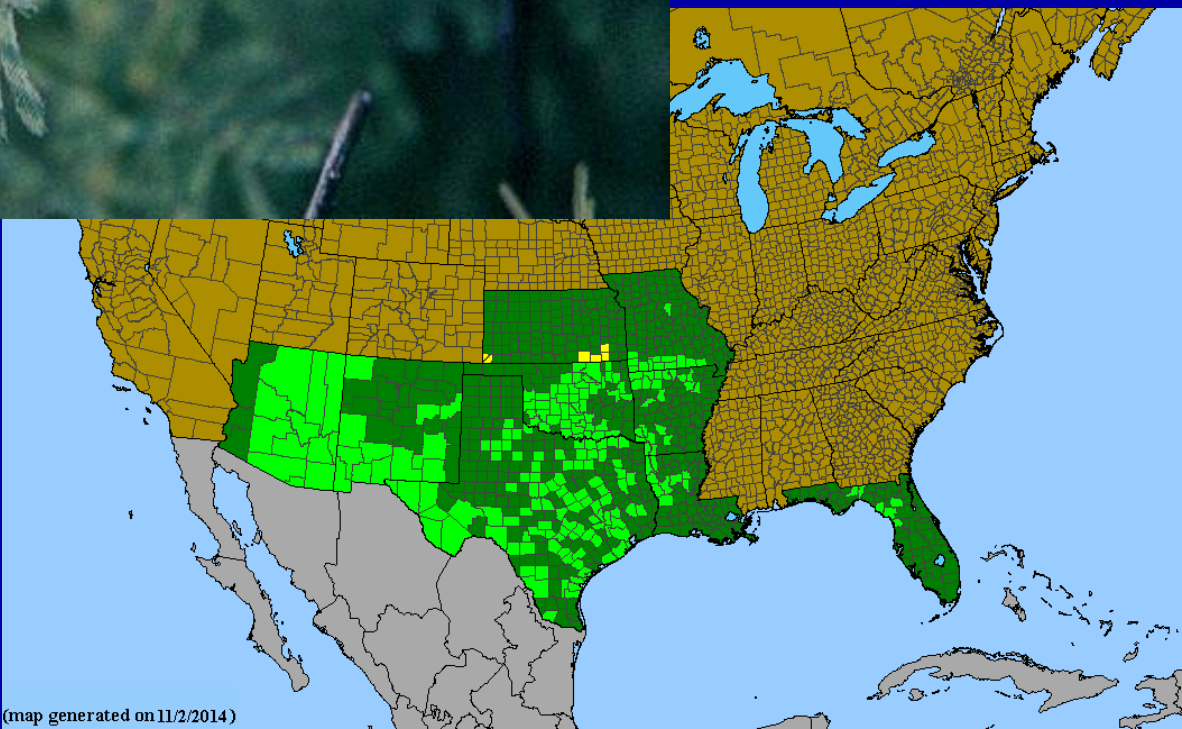
Chamaesyce cumulicola Small
Sand Dune Spurge
G2 S2 N LE
Florida endemic
FNAI-Yes
Euphorbiaceae
Spurge Family



Acaciella angustissima

Photo by Dennis Girard

Acaciella angustissima
(Mill.) Britton & Rose
Prairie Acacia
G5T4? SNR N LE
FNAI-No
Fabaceae
Pea Family



(map generated on 11/2/2014)

UNIVERSITY OF
SOUTH FLORIDA
HERBARIUM
248514



FLORA OF FLORIDA 125

FABACEAE

Baptisia calycosa Canby var. *calycosa*

St. Johns County - Narrow roadside sandhill

LOCALITY DATA OBSCURED

Elev.

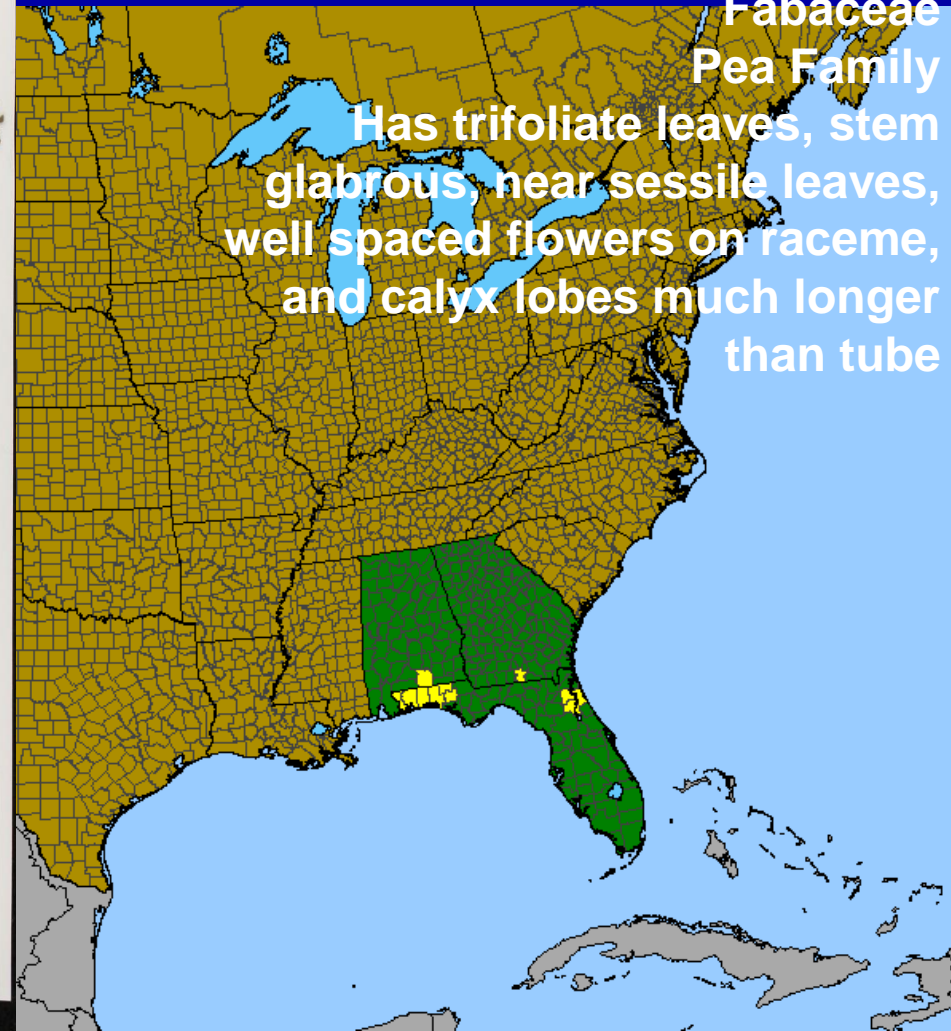
13-15 ft. Soils - Toco (Ultic Haplaquods).

Steve L. Orzell and Edwin L. Bridges 22102 9 June 1993

University of South Florida Herbarium (USF)

Baptisia calycosa* var. *calycosa
Canby
Florida Wild indigo
G3T1 S1 N N
var. *calycosa* is Florida endemic
FNAI-Yes
Fabaceae
Pea Family

**Has trifoliate leaves, stem
glabrous, near sessile leaves,
well spaced flowers on raceme,
and calyx lobes much longer
than tube**



Centrosema arenicola

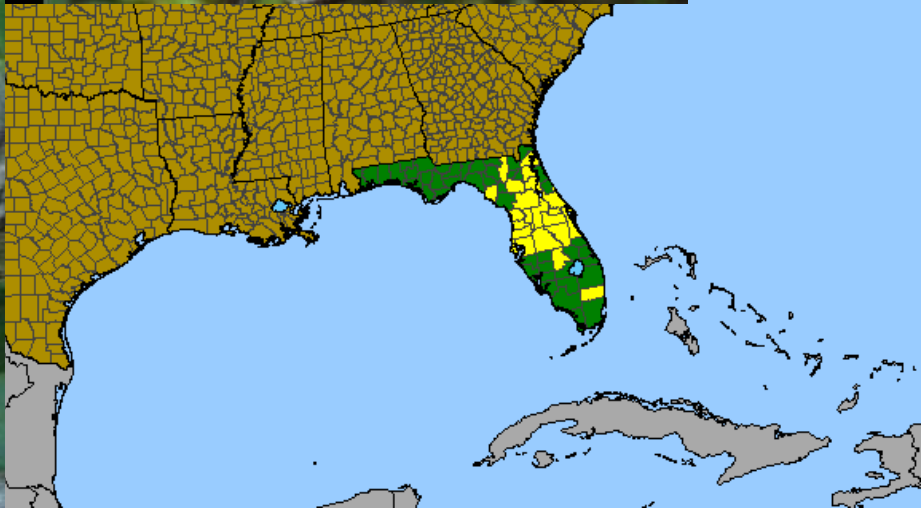
Photo by Shirley Denton



Photo by Shirley Denton

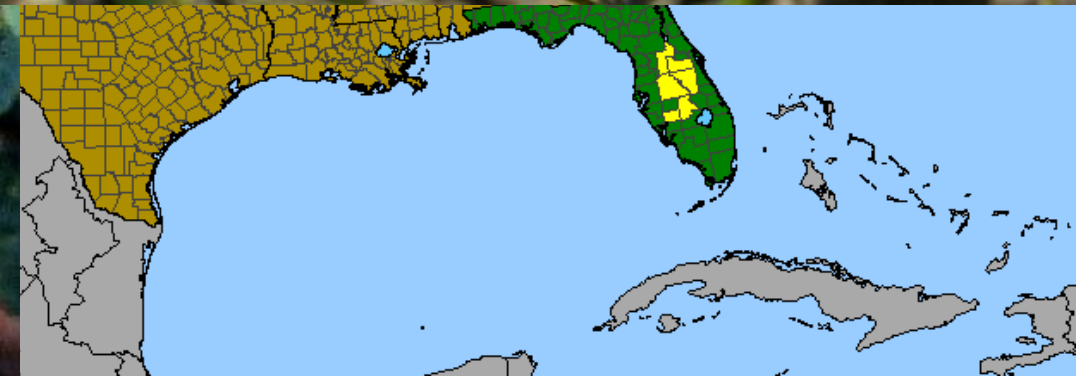


***Centrosema*
arenicola
(Small) F.J. Herm.
Sand Butterfly Pea
G2Q S2 N LE
Florida endemic
FNAI-Yes
Fabaceae
Pea Family
Ovate leaflets,
chartaceous, veins
NOT prominent on
lower surface.**





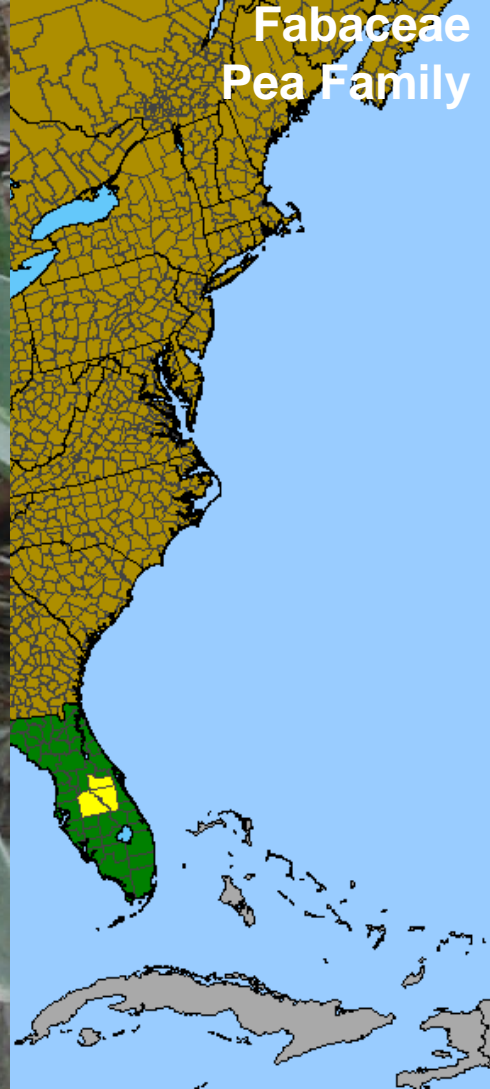
Clitoria fragrans
Small.
Scrub Pigeon Wing
G3 S3 LT LE
Florida endemic
FNAI-Yes
Fabaceae
Pea Family
Ovate leaflets,
chartaceous, veins
NOT prominent on
lower surface.



Clitoria Fragrans
photo by Bruce Hansen
USF Herbarium Slide Collection



Lupinus aridorum (McFarlin
ex Beckner) Isley
Scrub Lupine
G1 S1 LE LE
FNAI-Yes
Fabaceae
Pea Family



Orbexilum virgatum

(Nutt.) Rydb.

Pineland Scurfpea

G1 S1 N LE

FNAI-Yes

Fabaceae

Pea Family



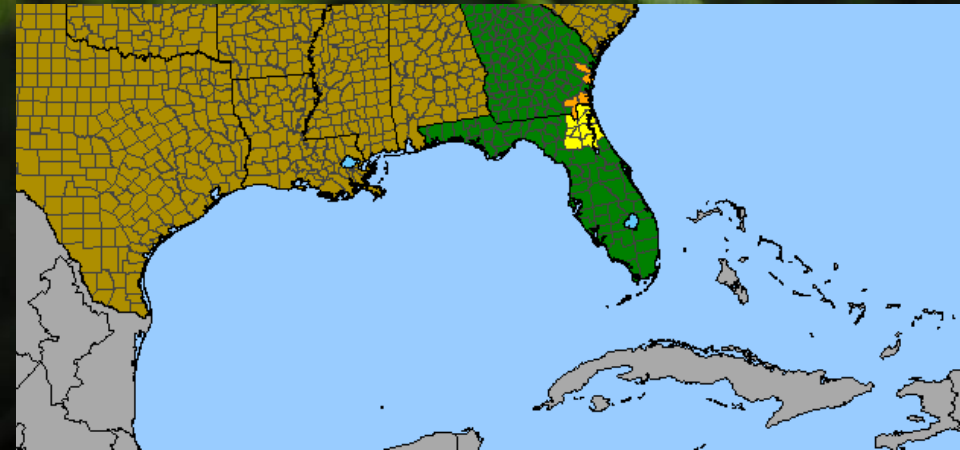
Orbexilum virgatum

Photo by Anne Barkdoll



Orbexilum virgatum

Photo by Anne Barkdoll

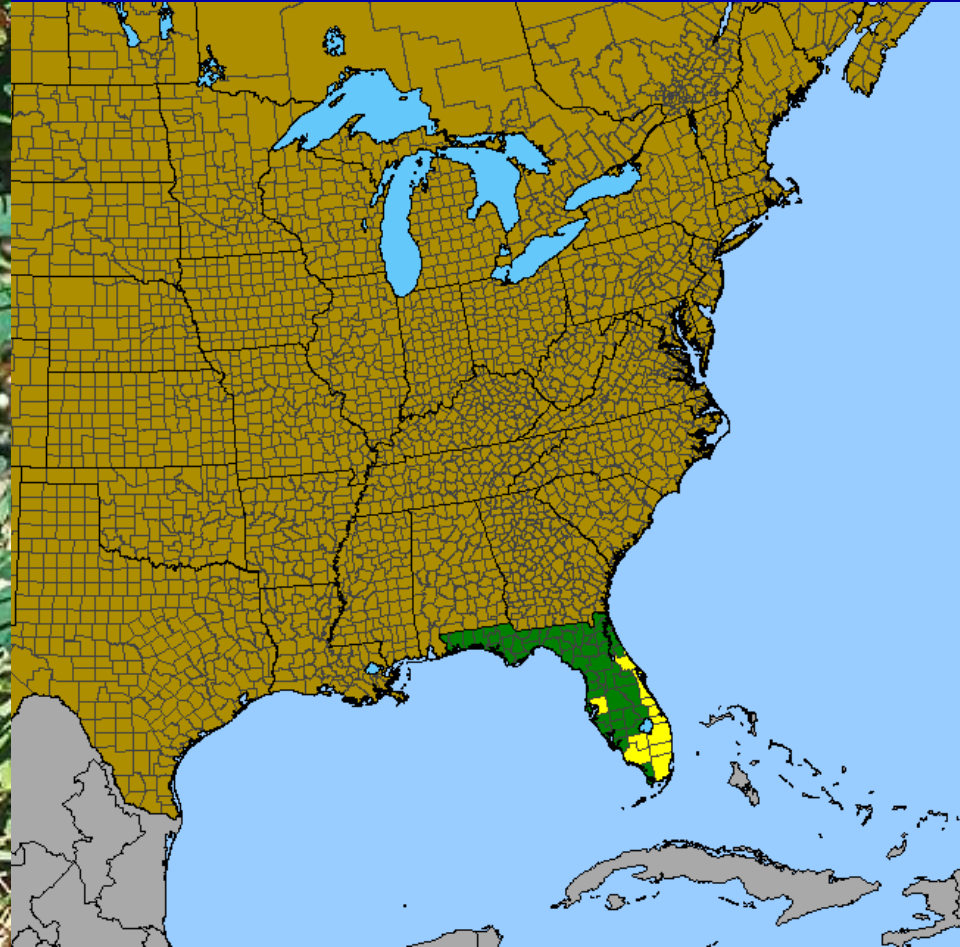


Tephrosia angustissima* var. *curtissii

Photo by Walter K. Taylor
from his book: *Florida Wildflowers
in Their Natural Communities*



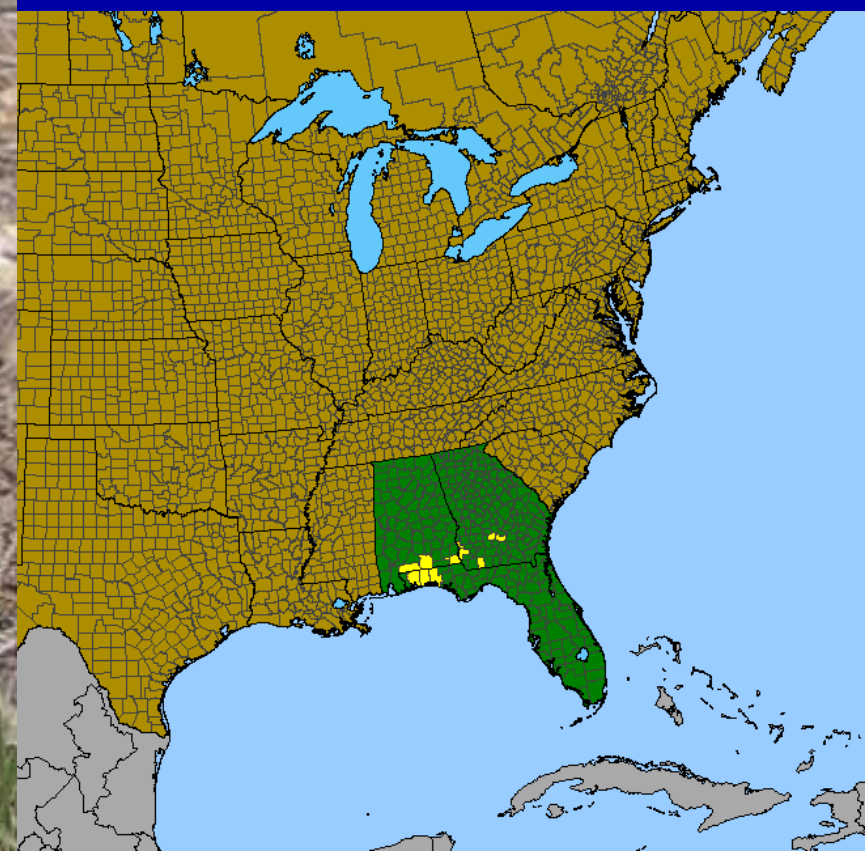
***Tephrosia angustissima* Shuttlew. ex
Chapm. var. *curtissii* (Small ex
Rydb.) Isely
Coastal Hoary-pea
G1T1 S1 N LE
FNAI-Yes
Fabaceae
Pea Family**



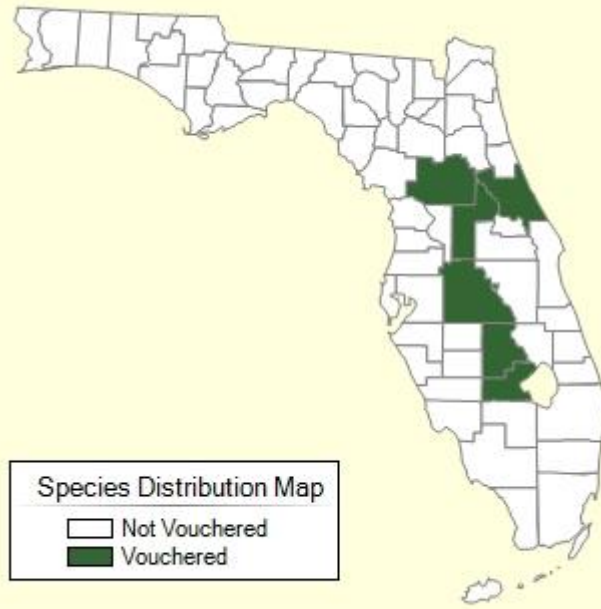
Tephrosia virginiana
Photo by Shirley Denton



***Tephrosia mohrii* (Rydberg)**
R. K. Godfrey, Brittonia 10:
169. 1958.
Tephrosia virginiana
(L.)Pers.
Pineland Hoary-pea
G3 S3 N LT
FNAI-Yes
Fabaceae
Pea Family



Calamintha ashei
(Weath.) Shinners.
Ashe's Savory
G3 S3 N LE
FNAI-Yes
Lamiaceae
Mint Family



Calamintha ashei
Photo by Guy Anglin



***Conradina etonia* Kral & McCartney**

Etoniah Rosemary

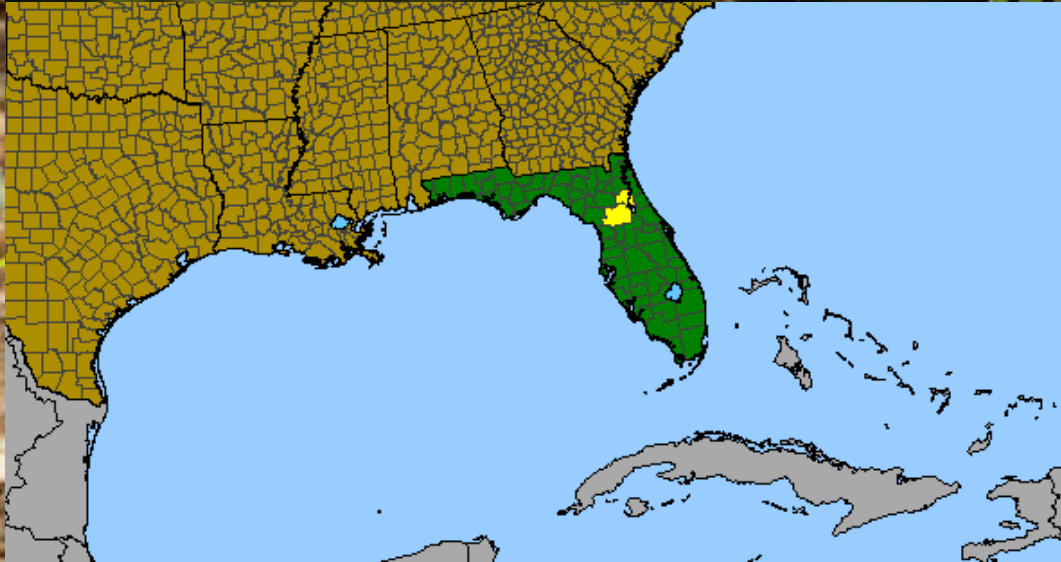
G1 S1 LE LE

FNAI-Yes

Florida Endemic

Lamiaceae

Mint Family



***Conradina etonia* Kral & McCartney**

Etoniah Rosemary

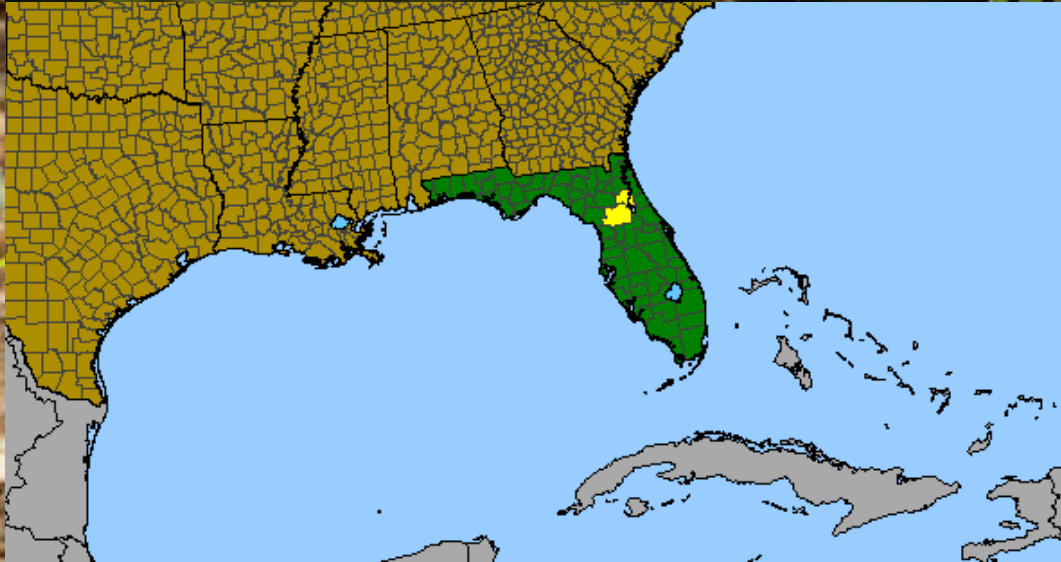
G1 S1 LE LE

FNAI-Yes

Florida Endemic

Lamiaceae

Mint Family

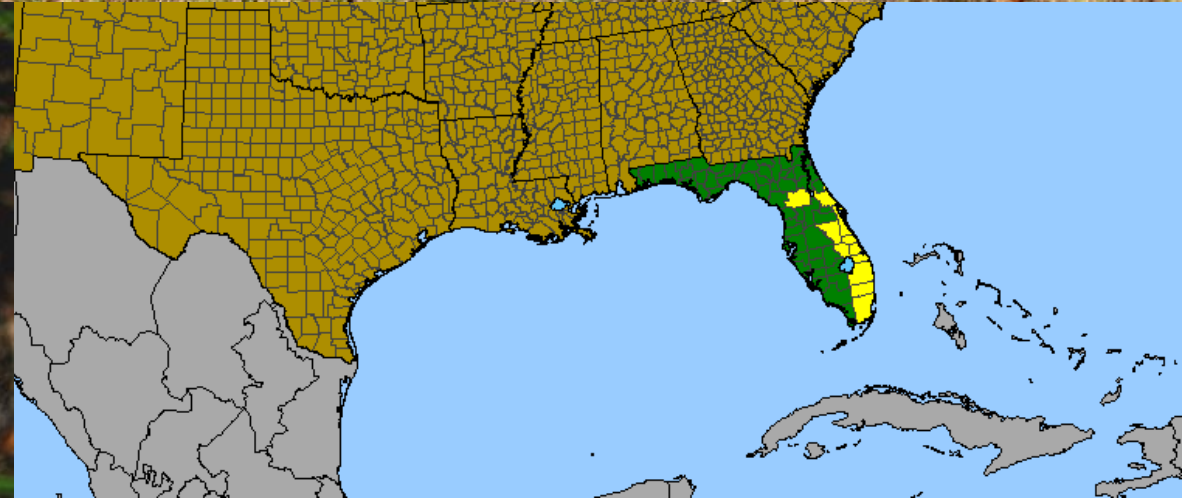


Conradina grandiflora Small
Large-flowered Rosemary
G3 S3 N LT
FNAI-Yes
Florida Endemic
Lamiaceae
Mint Family

Conradina grandiflora
Photo by Jim Tear



Conradina grandiflora
Photo by Jim Tear









Dicerandra thinicola

H.A.Mill.

Titusville Balm

G1Q S1 N LE

FNAI-Yes

Florida Endemic

Lamiaceae

Mint Family



Dicerandra thinicola

Photo by Shirley Denton



Dicerandra thinicola

*Photo by Kris DeLaney
USF Herbarium Slide Collection*



Species Distribution Map

Not Vouchered
Vouchered

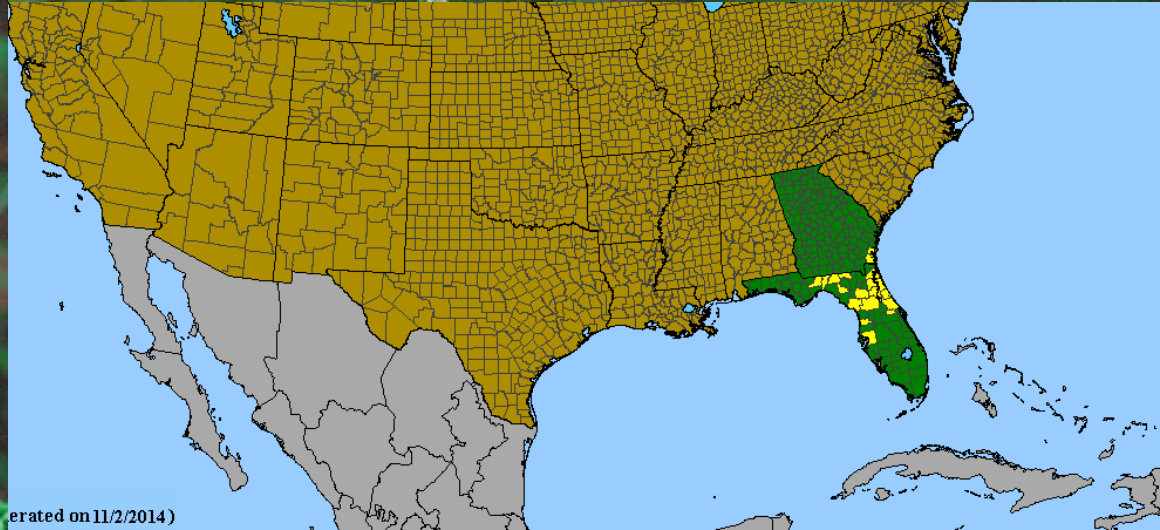
Pycnanthemum floridanum
E. Grant & Epling

Florida Mountain Mint
G3 S1 N LT
FNAI-Yes
Lamiaceae
Mint Family

Pycnanthemum floridanum
Photo by Dennis Girard



Pycnanthemum floridanum
Photo by Walter K. Taylor,
from his book: Florida Wildflowers
In Their Natural Communities



erated on 11/2/2014)

***Chionanthus pygmaeus* Small**

Pigmy Fringetree

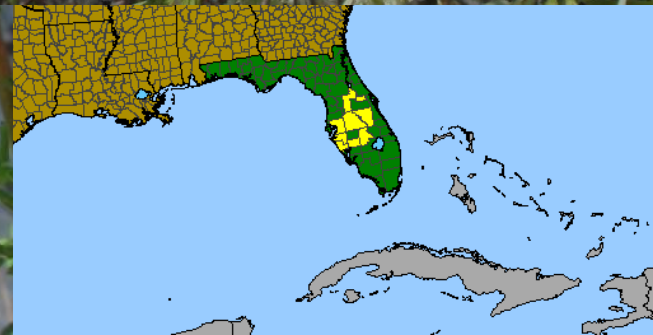
G3 S3 LE LE

FNAI-Yes

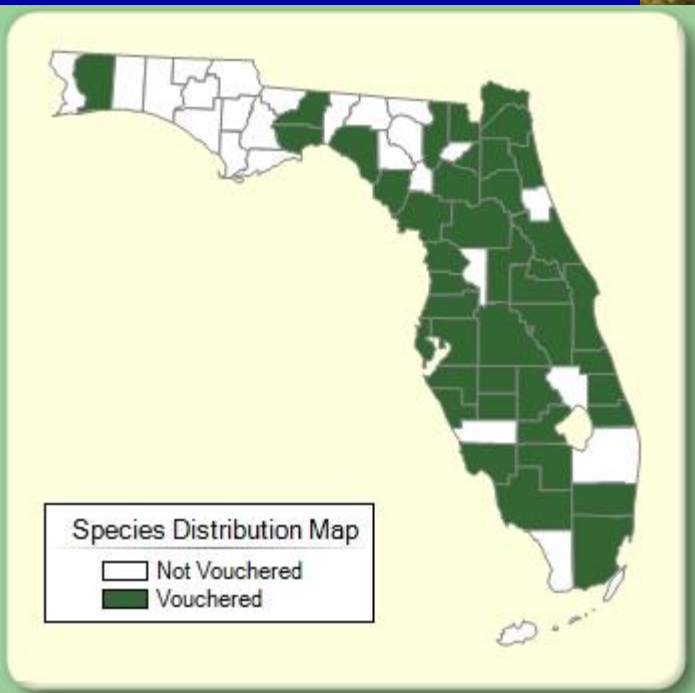
Florida Endemic

Oleaceae

Olive Family



Pteroglossaspis ecristata
(Fernald) Rolfe
Giant Orchid
G2G3 S2 N LT
FNAI-Yes
Orcidaceae
Orchid Family



Spiranthes tuberosa

Photo by Dan Tenaglia



Spiranthes tuberosa Raf.

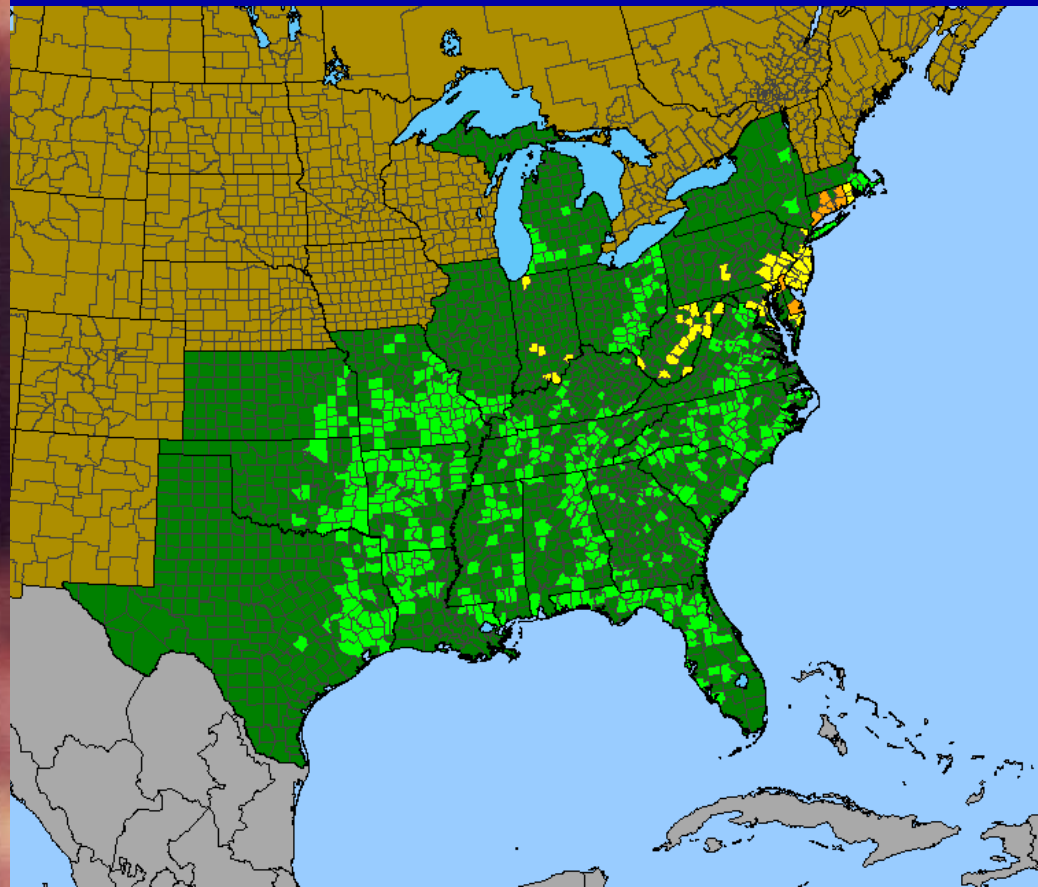
Little Pearl Twist

G5 S3S4 N LT

FNAI-No

Orchidaceae

Orchid Family

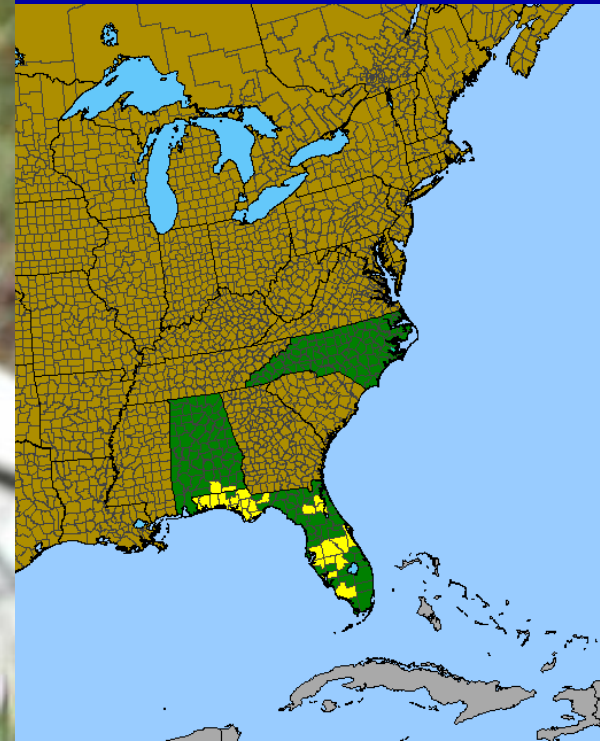


Andropogon arctatus

Photo by Ann Johnson

***Andropogon arctatus* Chapm.**
Pinewoods Bluestem G3 S3 N LT
FNAI Tracks - Yes
Poaceae Grass Family

- 12 species of *Andropogon* in Florida
- Over waist high, densely pubescent rachis (primary axis of flower), with 3 stamens, long awns (>0.3cm).
- Interesting Wet Prairie/Flatwoods/Sand Pine Scrub habitat preference



Andropogon arctatus

Photo by Guy Anglin



Andropogon arctatus

Photo by Guy Anglin



UNIVERSITY OF
SOUTH FLORIDA
HERBARIUM

251370



FLORA OF AVON PARK AIR FORCE RANGE 19

POACEAE

Digitaria gracillima (Lamson-Scribner) Fernald

FLORIDA: Polk County: Scrub on E side of Old Bravo Rd., 0.2 mi SE of Alpha Rd., Avon Park AFR; Lake Arbuckle NE 7.5 Quad.; SWQ, NEQ, NWQ, Sec. 36, T32S, R30E.

Carmel vanHoek and Betty Wargo 791

8 Nov 1996

University of South Florida Herbarium (USF)

Digitaria gracillima (Scribn.)

Fernald

Longleaf Crabgrass

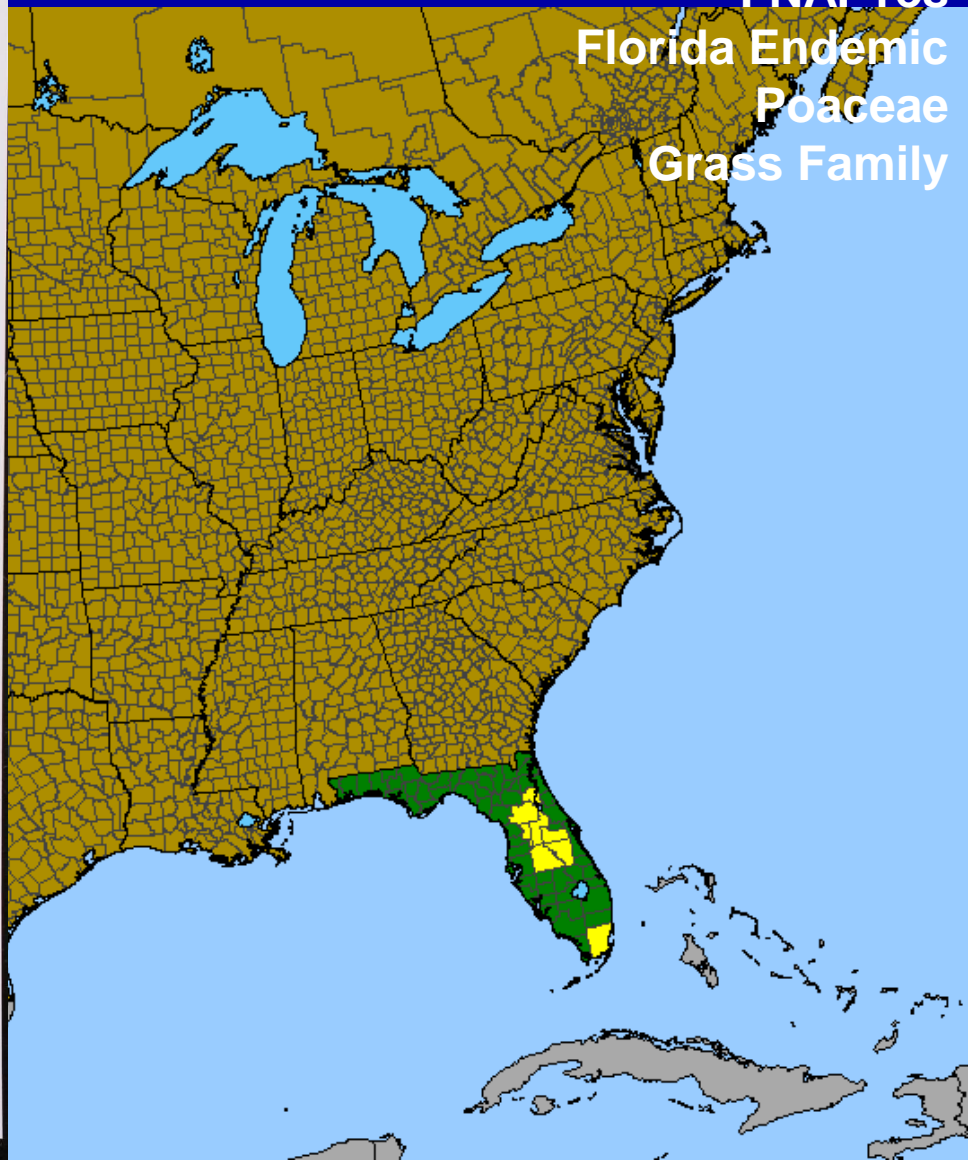
G1 S1 N N

FNAI-Yes

Florida Endemic

Poaceae

Grass Family



Gymnopogon chapmanianus

Photo by Betty Wargo



Gymnopogon chapmanianus

Hitchc.

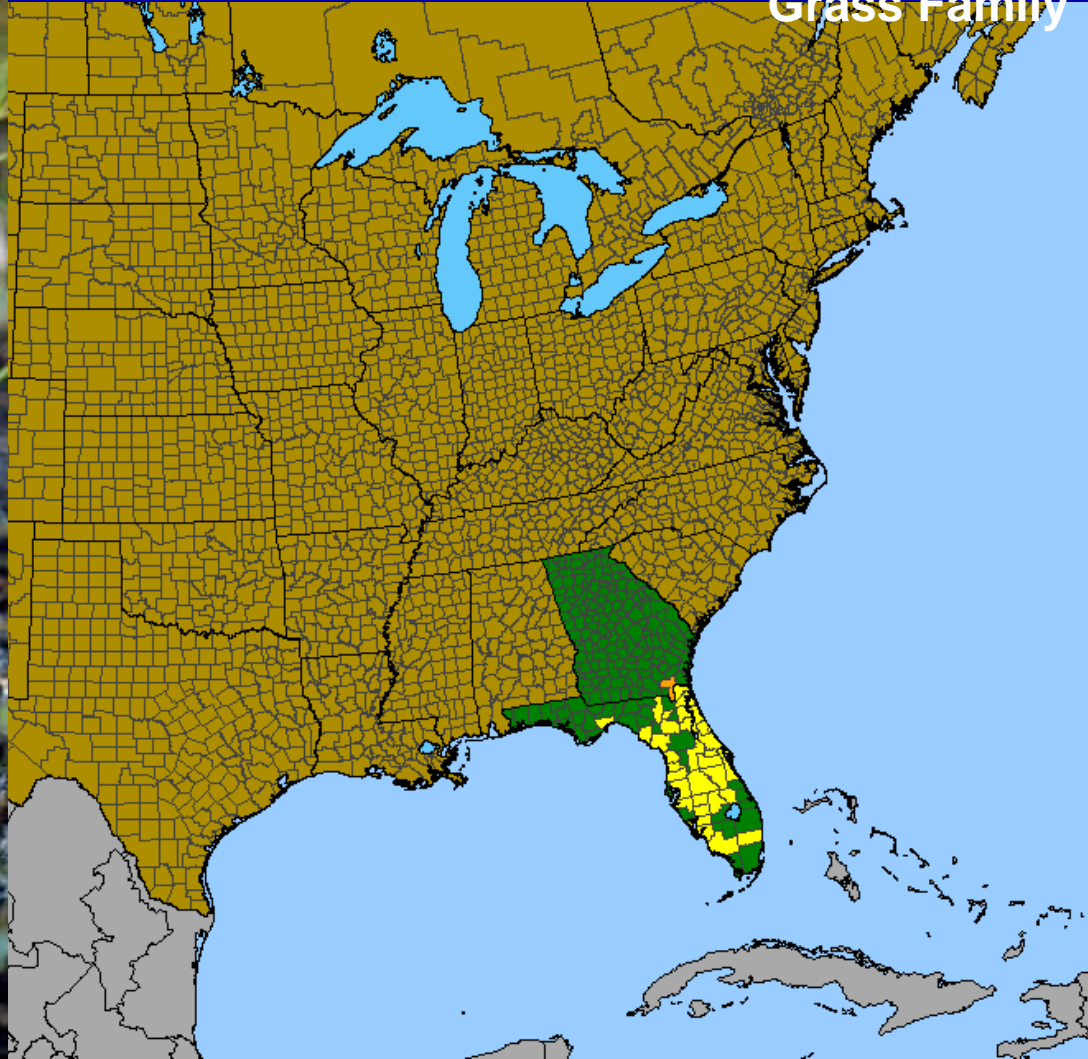
Chapman's Skeletongrass

G3 S3 N N

FNAI-Yes

Poaceae

Grass Family





Polygala lewtonii Small

Lewton's Polygala

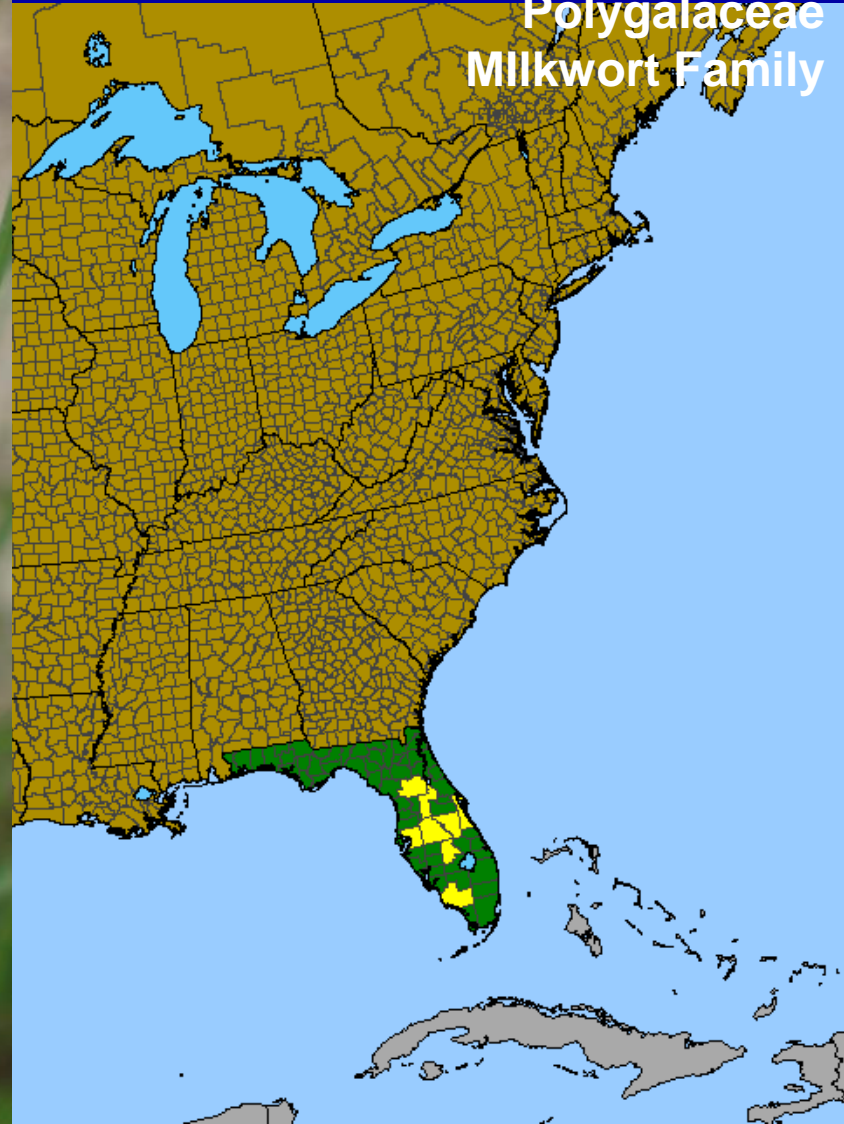
G3 S3 LE LE

FNAI-Yes

Florida Endemic

Polygalaceae

Milkwort Family



Polygala lewtonii Small

Lewton's Polygala

G3 S3 LE LE

FNAI-Yes

Florida Endemic

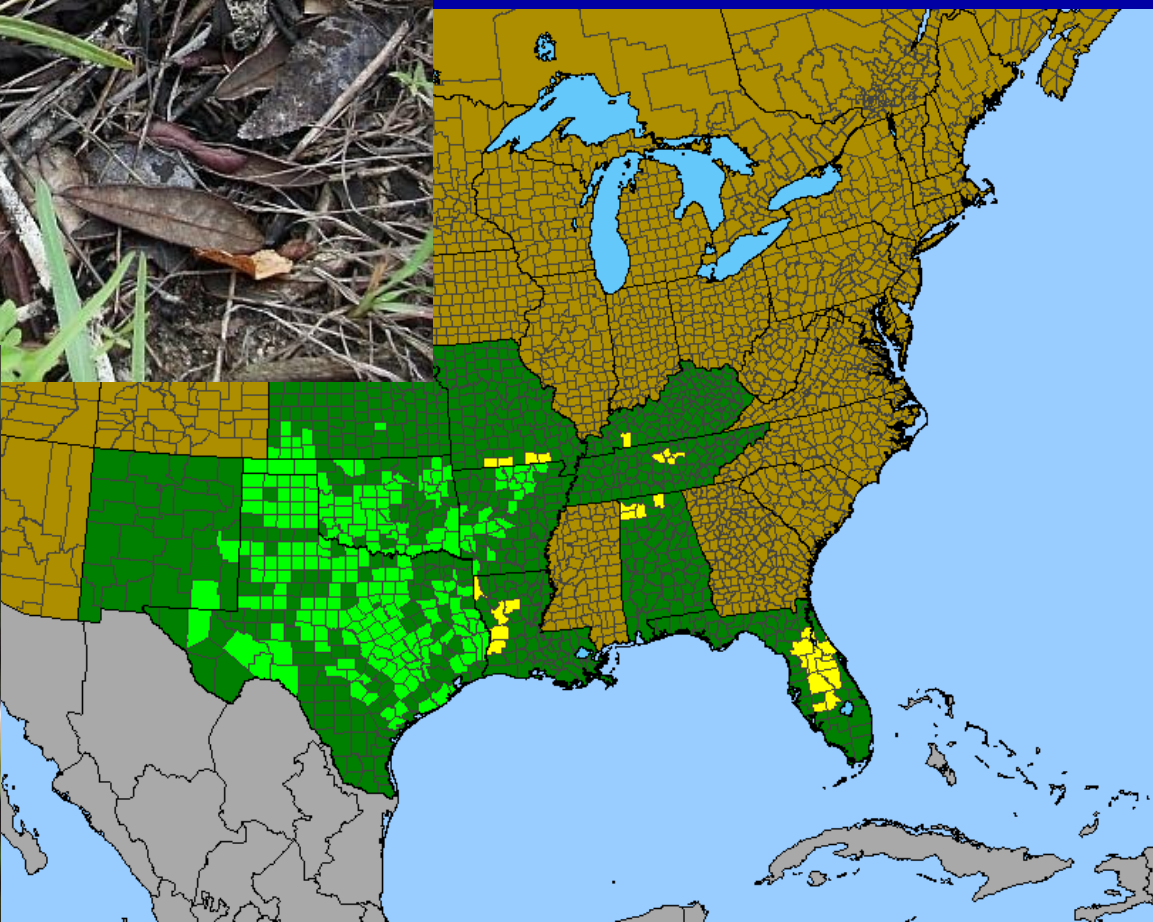
Polygalaceae

Milkwort Family





Eriogonum longifolium Nutt.
var. *gnaphalifolium* Gand.
Scrub Buckwheat
G4T3 S3 LT LE
FNAI-Yes
Florida Endemic
Polygonaceae
Buckwheat Family



Polygonella myriophylla

Photo by Theodore Cochran
USF Herbarium Slide Collection



Polygonella myriophylla
(Small)Horton
Small's Jointweed
G3 S3 LE LE
FNAI-Yes
Florida Endemic
Polygonaceae
Buckwheat Family



Species Distribution Map
Not Vouchered
Vouchered



Prunus geniculata R.M.Harper

Scrub Plum

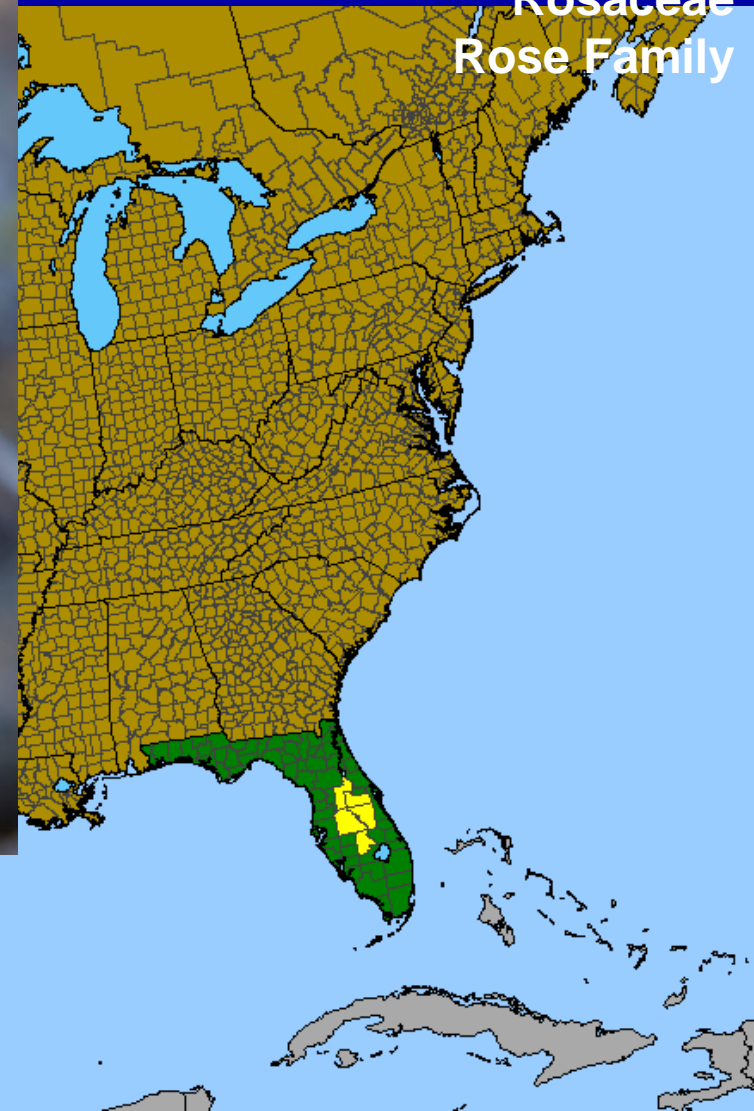
G3 S3 LE LE

FNAI-Yes

Florida Endemic

Rosaceae

Rose Family



(map generated on 11/2/2014)

Prunus geniculata R.M.Harper

Scrub Plum

G3 S3 LE LE

FNAI-Yes

Florida Endemic

Rosaceae

Rose Family





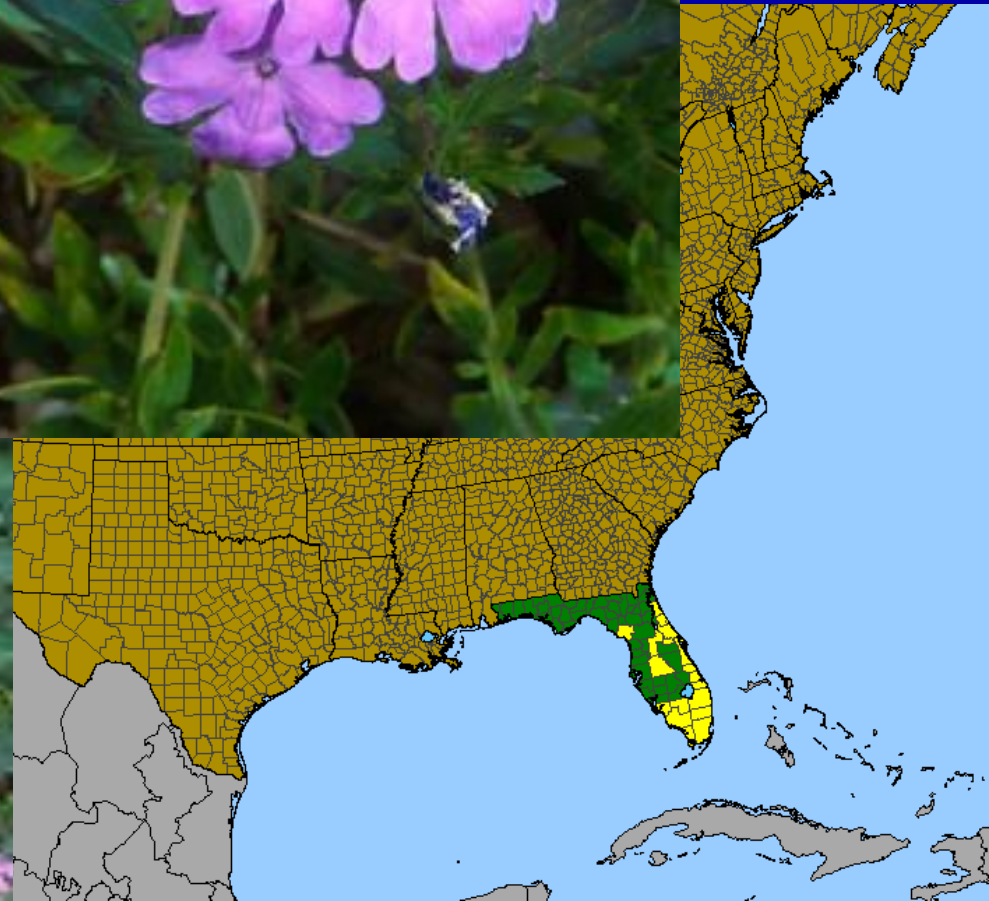
Nolina brittoniana Nash
Britton's Beargrass
G3 S3 LE LE
FNAI-Yes
Florida Endemic
Ruscaceae
Butcher's Broom Family



Nolina brittoniana Nash
Britton's Beargrass
G3 S3 LE LE
FNAI-Yes
Florida Endemic
Ruscaceae
Butcher's Broom Family

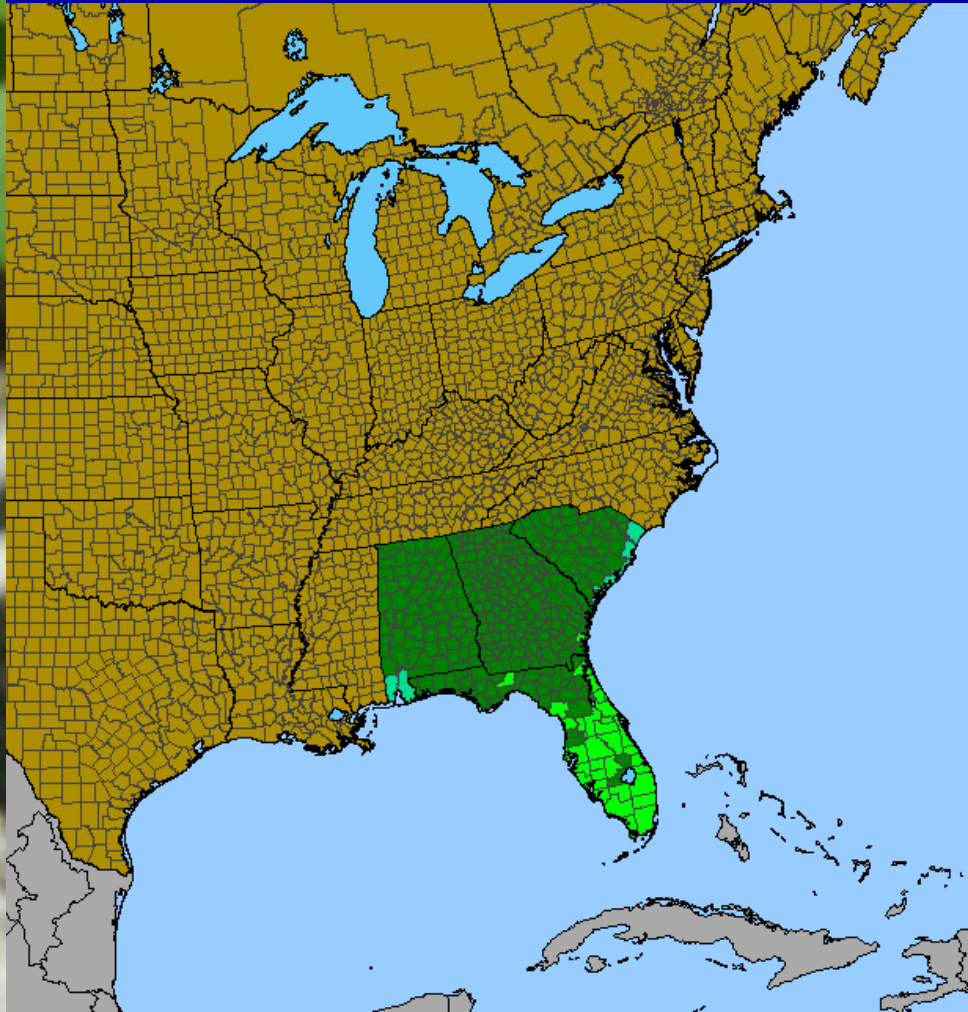


Glandularia maritima
(Small)Small
Coastal Vervain
G3 S3 N LE
FNAI-Yes
Florida Endemic
Verbenaceae
Vervain Family



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18 March 2015
Virginia Key and Marine
Stadium, Miami-Dade County**

***Lantana depressa* Small var. *floridana*
(Moldenke) R.W. Sanders
Atlantic Coast Florida Lantana
G2T1 S1 N LE
FNAI-Yes
Verbenaceae
Vervain Family**



Thank you for this opportunity!

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Michael.Jenkins@FreshFromFlorida.com**

**Florida Statewide Endangered and
Threatened Plant Conservation Program**

Florida Forest Service, Tallahassee

