Rare Plants of St. Lucie County Field Guide

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Chapter 1: Rare Plants in St. Lucie County and surrounding area overview

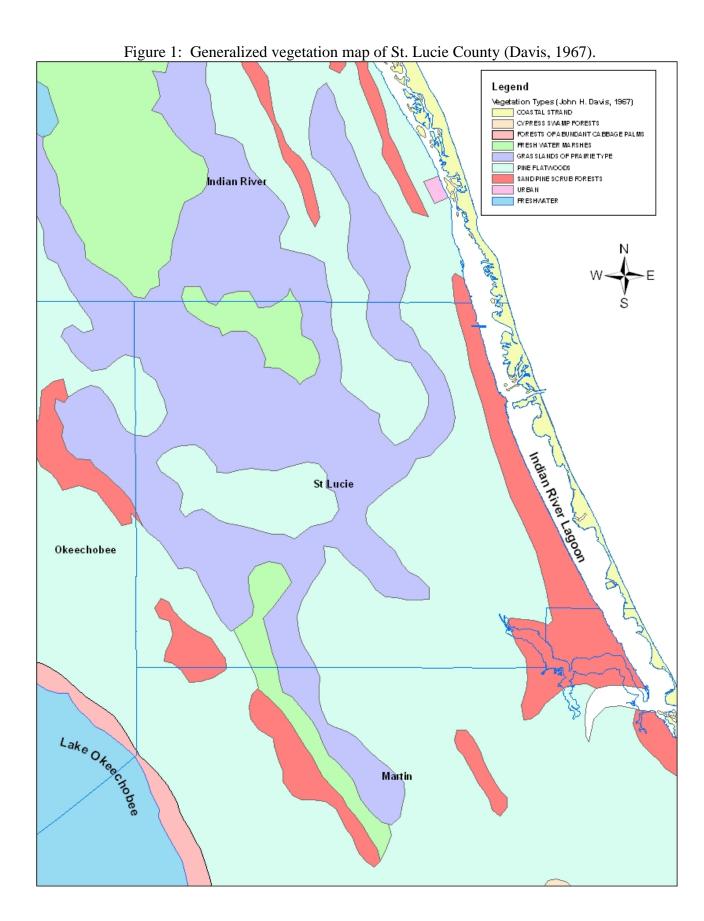
Introduction

St. Lucie County is comprised of a mosaic of habitats. Since the occupation by early pioneers to the 1970's much of the habitat was adapted or converted for agricultural practices such as farming as well as cattle raising. Urban development centered mostly in the vicinity of Fort Pierce. Recently urban sprawl has been rampant, especially in the vicinity of Port St. Lucie. With the onslaught of the recent surge of human development and the need for housing combined with exotic pest plant invasions, many of these habitats have become impacted and/or destroyed threatening many of the rare plant species. The intent of this field guide is to provide a quick useful resource for identifying rare state (Florida) listed plants documented within St. Lucie County.

Habitats

Historically the habitats in St. Lucie County primarily consisted of five types (Figure 1). Dominant habitats were flatwoods and dry prairie throughout most of the County. (Myers and Ewel, 1990; Davis, 1967; Watts and Stankey, 1977). Additional habitats include beach dune, coastal strand, maritime hammock, and tidal swamps on Hutchinson Island on the eastern coast. The Indian River Lagoon region comprised of Atlantic coastal ridge just west of the Lagoon consisting of scrub, scrubby flatwoods, and marshes. Habitats close to the coastline and the Indian River Lagoon were tempered by warm waters and provided adequate conditions for some subtropical species. Further inland are predominantly prairies, flatwoods, marshes, and floodplain plant communities along with river and creek systems such as the North Fork of the St. Lucie River. In the southwestern corner of the county exists an island of scrub and scrubby flatwoods, part of a generally contiguous ridge of upland beginning in Okeechobee County running all the way through northern portions of Martin County. Interspersed throughout are hammocks and swamps. Habitats in this field guide follow Florida Natural Areas Inventory descriptions (FNAI and FDNR, 1990). Although habitat types have been thoroughly inventoried, few vascular plant inventories have been conducted.

Cover Photo: Giant wild-pine (*Tillandsia utriculata*) in scrub by Steven Woodmansee, January 2003.



Vascular Plants

Wunderlin and Hansen (2007) report a total of 682 vascular plant species for St. Lucie County. Of which, 529 are native. For comparison, Martin County, where more floristic inventory work has been conducted, possesses 992 vascular plant species, and 792 are native, Although, Martin County may have a more diverse flora due to northern range limits of subtropical species, it is thought that St. Lucie County is under-represented due to lack of floristic inventory work. It should be noted that Wunderlin and Hansen (2007) data consist of species which have knowingly been collected and deposited into a registered herbarium. Still, for the most part floristic inventory work has primarily been focused on areas of scrub (Bradley et al., 1999), Savannas Preserve State Park (Garland, 1992), and barrier Islands (Johnson and Muller, 1993; Duquesnel et al., 1998). Several anonymous plant lists do exist for some St. Lucie County lands.

Rare Plants

Wunderlin and Hansen (2007) list 29 plants which are listed by Florida Department of Agriculture and Consumer Services (FDACS)¹ (Coile and Garland, 2003). Florida Natural Areas Inventory (FNAI) possesses element occurrence records for five rare plant species. When these data are combined with The Institute for Regional Conservation (IRC) data a total of 44 plant species listed by U.S. Fish and Wildlife Service (USFWS) (USFWS, 2000), FDACS or FNAI have been recorded or reported for St. Lucie County (Table 1). Of these; 19 are listed as threatened and 23 are listed as endangered by FDACS; six are listed as critically imperiled, 11 as imperiled, and nine as rare in Florida by FNAI. In addition, five plant species (*Dicerandra immaculata* var. *immaculata*, *D. immaculata* var. *savannarum*, *Halophila johnsonii*, *Harrisia fragrans*, and *Polygala smallii*) are listed by the USFWS. An additional FDACS listed species (*Roystonea regia*) has been recorded for St. Lucie County as either cultivated or naturalized outside their native range. An additional listed species *Pteris bahamensis* was erroneously reported for St. Lucie County.

¹ Not including commercially exploited species.

Table 1: Rare Plants reported or recorded for St. Lucie County, Florida.

rable 1. Rate Flants tep	orted or recorded for St. Lucie Coun	ty, 1 iorida.		FNAI	
Scientific Name	USFWS Status	State Status	State Status		
	Common Names	Status		Status	
Acanthocereus tetragonus	Barbwire cactus, Dildoe cactus		Т		
Aeschynomene pratensis	Sensitive joint-vetch, Meadow joint-vetch		Е	S2	
Argusia gnaphalodes	Sea-lavender, Sea-rosemary		E	S3	
Aristida rhizomophora	Florida threeawn			S3	
Asclepias curtissii	Curtiss' milkweed		Е	S3	
Calamintha ashei	Ashe's calamint		Т	S3	
Calopogon multiflorus	Manyflowered grasspink		E	S2S3	
Celosia nitida	West Indian cock's comb		Е		
Chamaesyce cumulicola	Sand-dune spurge, Coastal dune sandmat		E	S2	
Chrysophyllum oliviforme	Satinleaf		Т		
Coelorachis tuberculosa	Florida jointtail grass		Т	S3	
Conradina grandiflora	Largeflower false-rosemary		Т	S3	
Cyperus pedunculatus	Beachstar		Е		
Dicerandra immaculata	Lakela's mint	Е	E	S1	
Dicerandra immaculata var.					
savannarum	Savanna balm	E	E		
Erithalis fruticosa	Blacktorch		Т		
Garberia heterophylla	Garberia		Т		
	Beach verbena, Coastal mock				
Glandularia maritima	vervain		Е	S3	
Glandularia tampensis	Tampa mock vervain		Е	S1	
Habenaria nivea	Snowy orchid		Т		
Halophila johnsonii	Johnson's seagrass	Т		S2	
Harrisia fragrans	Fragrant pricklyapples, Caribbean applecactus	Е	E	S1	
Harrisia simpsonii	Simpson's pricklyapples, Simpson's applecactus		E	S2	
Lantana depressa var. floridana	East coast lantana, Florida shrubverbena		E	S2	
Lechea cernua	Nodding pinweed		Т	S3	
Lilium catesbaei	Catesby's lily, Pine lily		Т		
Myrcianthes fragrans	Twinberry, Simpson's stopper		Т		
Okenia hypogaea	Beach-peanut, Burrowing four- o'clock		E	S2	
Ophioglossum palmatum	Hand fern		Е	S2	
Opuntia stricta	Erect pricklypear		T		
Peperomia humilis	Low peperomia		Е	S2	
Peperomia obtusifolia	Florida peperomia, Baby rubberplant		Е	S2	
Polygala smallii	Small's milkwort, Tiny polygala	Е	E	S1	

Scientific Name	Common Names	USFWS Status	State Status	FNAI State Status	
Pteroglossaspis ecristata	Giant orchid		Т	S2	
Sacoila lanceolata	Leafless beaked lady's-tresses		Т		
Sarracenia minor	Hooded pitcher plant		T		
Scaevola plumieri	Inkberry, Beachberry, Gullfeed		Т		
Schizachyrium niveum	Pinescrub bluestem		Е	S1	
Spiranthes laciniata	Lacelip lady's-tresses		Т		
Tephrosia angustissima var. curtissii	Curtiss' hoarypea		E	S1	
Tillandsia balbisiana	Reflexed wild-pine, Northern needleleaf		Т		
Tillandsia fasciculata var. densispica	Stiff-leaved wild-pine, Cardinal airplant		E		
Tillandsia flexuosa	Banded wild-pine, Twisted airplant		Т	S3	
Tillandsia utriculata	Giant wild-pine, Giant airplant		E		
State Status	USFWS Status	FNAI State Status			
T = Threatened	E = Endangered	S1 = Critically Imperiled in Florida		iled in	
E = Endangered	T = Threatened	S2 = Impe	S2 = Imperiled in Florida		
		S3 = Rare in Florida			

Additional Rare Plants Occurring in Neighboring Counties

As St. Lucie County appears under-represented for rare plants, it is useful to review lists of rare plants in neighboring counties. Table 2 possesses a list of 38 rare plants which are recorded or reported for Indian River, Martin, and Okeechobee counties but not for St. Lucie County. Likelihood of these plants is assessed based upon combined occurrences in neighboring counties as well as presence of appropriate habitats and physical conditions in St. Lucie County.

Table 2: Florida listed plants not recorded for St. Lucie County but recorded for adjacent Indian River, Martin, and Okeechobee counties.

Scientific Name	Common Names	USFWS Status	State Status	FNAI State Status	Indian River County	Martin County	Okeechobee County	Occurrence in St. Lucie
Acrostichum aureum	Golden leather fern		Т	S3	X	X		Likely
Asimina tetramera	Fourpetal pawpaw	Е	Е	S1		х		Not Likely
Caesalpinia major	Yellow nicker-bean		Е			Х		Not Likely
Drypetes lateriflora	Guiana-plum		Т			Х		Not Likely
Elytraria caroliniensis var. angustifolia	Narrowleaf Carolina scalystem			S2		Х		Not Likely
Encyclia boothiana var. erythronioides	Dollar orchid		Е	S1		х		Not Likely
Epidendrum anceps	Dingy-flowered star orchid		Е			х		Not Likely
Epidendrum nocturnum	Night-blooming epidendrum, Night- scented orchid		Е	S2		Х		Not Likely
Eugenia confusa	Ironwood, Redberry stopper		Е	S2S3		х		Not Likely
Gymnopogon chapmanianus	Chapman's skeleton grass			S3			x	Likely
Hexalectris spicata	Coralroot, Spiked crested coralroot		E		х	Х		Likely
Jacquemontia curtisii	Pineland clustervine		Т	S2		х		Not Likely
Jacquemontia reclinata	Beach clustervine	Е	Е	S1	х	х		Somewhat Likely
Lechea divaricata	Drysand pinweed		E	S2		Х		Likely
Lythrum flagellare	Florida loosestrife		Е	S2			Х	Likely
Nemastylis floridana	Celestial lily, Fallflowering ixia		E	S2	х	х		Likely
Nephrolepis biserrata	Giant sword fern		Т		Х	Х		Likely
Panicum abscissum	Cutthroat grass		E	S3	Х	Х		Likely
Pecluma dispersa	Widespread polypody		Е	S2		х		Somewhat Likely
Pecluma plumula	Plume polypody		E	S2		Х		Somewhat Likely
Pecluma ptilodon var. caespitosa	Comb polypody		Е	S2		х		Somewhat Likely
Pinguicula caerulea	Blue butterwort, Blueflower butterwort		Т		х	х		Likely
Pinguicula lutea	Yellow butterwort		Т		Х	х	х	Likely
Pithecellobium keyense	Florida Keys		Т			х		Not Likely

Scientific Name	Common Names	USFWS Status	State Status	FNAI State Status	Indian River County	Martin County	Okeechobee County	Occurrence in St. Lucie
Pogonia ophioglossoides	Rose pogonia, Snakemouth orchid		Т		Х	х		Likely
Polystachya concreta	Greater yellowspike orchid		Е			х		Uncertain
Smilax havanensis	Havana greenbrier, Everglades greenbrier		Т			x		Not Likely
Solanum donianum	Mullein nightshade		Т			Х		Not Likely
Spermacoce terminalis	Everglades Keys false buttonweed		Т			х		Not Likely
Spiranthes polyantha	Florida Keys lady's- tresses		Е	S1S2		x		Somewhat Likely
Spiranthes tuberosa	Little lady's-tresses		Т		Х			Uncertain
Tectaria heracleifolia	Broad halbard fern		Т			Х		Not Likely
Thelypteris serrata	Toothed lattice-vein fern		E	S1		х		Likely
Tillandsia variabilis	Soft-leaved wild- pine, Leatherleaf airplant		Т			X	x	Likely
Tolumnia bahamensis	Variegated orchid, Angelita		Е	S1		x		Not Likely
Vanilla inodora	Mexican vanilla, Fuchs' vanilla		Е	S1		Х		Not Likely
Vernonia blodgettii	Florida ironweed			S3	Х	Х		Likely
Zephyranthes simpsonii	Rain-lily, Redmargin zephyrlily		Т	SH		х	Х	Likely
State Status	USFWS Status		FNAI State Status					
T = Threatened	E = Endangered		SH = Historical in Florida					
E = Endangered			S1 = Critically Imperiled in Florida				a	
			S2 = Imperiled in Florida S3 = Rare in Florida					

Acknowledgements

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Chapter 2: Rare Plants Recorded or Reported for St. Lucie County

Acanthocereus tetragonus (L.) Hummelinck Barbwire cactus, dildoe cactus

St. Lucie County Status: Present. **Taxonomy:** Dicotyledon; Cactaceae.

Habit: Perennial shrub.

Distribution outside Florida: Southern Texas and Mexico.

Florida Distribution: southern peninsula north to Brevard County on the east coast (Wunderlin

and Hansen 2007).

St. Lucie County Habitats: maritime hammock and xeric hammock.

Bloom season: August - October

Protection Status: Listed by FDACS as threatened.

Wetland Status: FL-Upland

Synonyms: A. floridanus Small ex Britton & Rose; Cereus pentagonus (L.) Haw.

Historical Context in St. Lucie County: Barbwire cactus was recorded for xeric hammock and maritime hammock by Mike Barry in Spring 2007 at a private site been observed in just east of Indian River Lagoon, south of Fort Pierce.

Comments: Can form dense impassable stands. Young germinating plants of barbwire cactus may resemble other rare cacti such as fragrant pricklyapples. Flowers sunset – sunrise.

Select References: Hammer, 2004; Wunderlin and Hansen, 2003.

Aids to Identification: Barbwire cactus differs from other cacti in being terrestrial (not climbing) and having 3-4 angles.



Photo by George Ganr



Photo by Steve Woodmansee





Photo by Steve Woodmansee

Aeschynomene pratensis var. pratensis Small Meadow jointvetch, Sensitive jointvetch

St. Lucie County Status: Present. **Taxonomy:** Dicotyledon; Fabaceae.

Habit: Perennial herb.

Distribution outside Florida: endemic to Florida.

Florida Distribution: Collier, Dade, Monroe, Sarasota and St. Lucie counties

St. Lucie County Habitats: Freshwater marshes.

Bloom season: spring – summer.

Protection Status: Listed by FDACS as endangered. Listed by FNAI as Imperiled in Florida.

Wetland Status: FL - OBL

Synonyms: None.

Historical Context in St. Lucie County: Meadow jointvetch was recorded at North Savannas by Bradley and Woodmansee in 1997 (Bradley et al. 1999).

Comments: An herbarium voucher of meadow jointvetch is needed for St. Lucie County.

Select References: Chafin, 2000; Wunderlin and Hansen, 2003.

Aids to Identification: Color Photographs and plant descriptions are in Chafin, 2000

Argusia gnaphalodes (L.) Heine Sea-lavender, Sea-rosemary

St. Lucie County Status: Assumed present. **Taxonomy:** Dicotyledon; Boraginaceae.

Habit: Perennial shrub.

Distribution outside Florida: Bahamas and Cuba.

Florida Distribution: Eastern coastline Brevard County south through the Florida Keys.

St. Lucie County Habitats: Beach dune and coastal strand.

Bloom season: all year.

Protection Status: Listed by FDACS as endangered. Listed by FNAI as rare in Florida.

Wetland Status: FL - Upland

Synonyms: Mallotonia gnaphalodes (L.) Britton; Tournefortia gnaphalodes (L.) R. Br. ex

Roem. & Schult.

Historical Context in St. Lucie County: Sea-lavender was recorded at John Brooks Park on an undated Anonymous plant list (Anonymous, s.d. A). Wunderlin and Hansen (2007) report a collection of sea-lavender for St. Lucie County.

Comments:

Select References: Hammer, 2004; Wunderlin and Hansen, 2007.

Aids to Identification:



Copyright: Ecohorizons



Photo by Roger Hammer



Photo by Keith Bradley

Aristida rhizomophora Swallen Florida threeawn

St. Lucie County Status: Assumed present.

Taxonomy: Monocotyledon; Poaceae.

Habit: Perennial herb.

Distribution outside Florida: endemic to Florida.

Florida Distribution: From Georgia countyline south to Palm Beach County, predominantly on

the eastern coast of Florida.

St. Lucie County Habitats: wet flatwoods.

Bloom season: summer.

Protection Status: Listed by FNAI as rare.

Wetland Status: FL - FAC

Synonyms: none.

Historical Context in St. Lucie County: Wunderlin and Hansen (2007) report Florida threeawn for St. Lucie County.

Comments:

Select References: Wunderlin and Hansen, 2007.

Aids to Identification: grass forming large clumps with scabrous (rough) leaves. Often dominant where found (rhizomatous).



Photo by Steve Woodmansee





Asclepias curtissii A. Gray Curtiss's milkweed

St. Lucie County Status: Assumed present.

Taxonomy: Dicotyledon; Apocynaceae (Asclepiadaceae).

Habit: Perennial herb.

Distribution outside Florida: Endemic to Florida.

Florida Distribution: Peninsular Florida.

St. Lucie County Habitats: scrub and scrubby flatwoods.

Bloom season: July - September

Protection Status: Listed by FDACS as endangered. Listed by FNAI as rare in Florida.

Wetland Status: FL - Upland

Synonyms: Oxypteryx curtissii (A. Gray) Small.

Historical Context in St. Lucie County: Curtiss's milkweed was recorded at Indrio North Savannas on an undated Anonymous plant list (Anonymous, s.d. B). Wunderlin and Hansen (2007) report it for St. Lucie County.

Comments: Searches should be conducted after fires or disturbances and during Bloom season.

Select References: Taylor, 1998; Wunderlin and Hansen, 2003.

Aids to Identification:



Photo by Keith Bradley

Calamintha ashei (Weath.) Shinners Ashe's calamint

St. Lucie County Status: Reported.Taxonomy: Dicotyledon; Lamiaceae.Habit: Perennial suffrutescent herb.Distribution outside Florida: Georgia.

Florida Distribution: central Florida (mostly inland) Volusia County south to Glades County.

St. Lucie County Habitats: scrub.

Bloom season: April – June.

Protection Status: Listed by FDACS as threatened. Listed by FNAI as rare in Florida.

Wetland Status: FL - Upland

Synonyms: *Clinopodium ashei* (Weath.) Small.

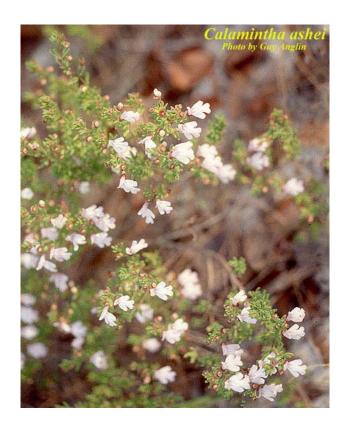
Historical Context in St. Lucie County: Ashe's calamint was recorded at Indrio North Savannas on an undated Anonymous plant list (Anonymous, s.d. B). Wunderlin and Hansen (2007) do not report it for St. Lucie County.

Comments: Plants should be surveyed for to determine if this is a misidentification of *Dicerandra immaculata* var. *immaculata* (Lakela's mint).

Select References: Nelson, 1996; Taylor, 1998; Wunderlin and Hansen (2003).

Aids to Identification: Ashe's calamint differs from Lakela's mint in that the flowers are in axillary clusters versus spikes or racemes. Nelson (1996) has a color photograph and description. Taylor (1998) has a color photograph and description.





Calopogon multiflorus Lindl. Manyflowered grasspink

St. Lucie County Status: Reported.

Taxonomy: Monocotyledon; Orchidaceae.

Habit: Perennial herb.

Distribution outside Florida: southeastern United States.

Florida Distribution: throughout

St. Lucie County Habitats: Hammocks, mesic and wet flatwoods.

Bloom season: March – July, primarily April.

Protection Status: Listed by FDACS as endangered. Listed by FNAI as Imperiled to Rare in

Florida.

Wetland Status: FL - FACW

Synonyms: Limodorum multiflorum (Lindl.) C. Mohr; Limodorum pinetorum Small.

Historical Context in St. Lucie County: In 1920, J.K. Small and H. DeWinkeler (#9485, NY) collected a specimen of many-flowered grasspink in a hammock along the Sebastian River. This collection, originally listed as St. Lucie County, is in current day Indian River County which incorporated in 1925 (Sebastian River does not occur in current day St. Lucie County). A collection of many-flowered grasspink is reported for St. Lucie County by Wunderlin and Hansen (2007).

Comments: Determine if Wunderlin and Hansen (2007) have additional specimens for St. Lucie County. Survey appropriate habitat after fires.

Select References: Taylor, 1998; Chafin, 2000; Wunderlin and Hansen, 2003; Brown, 2002.

Aids to Identification: This species of grasspink differs from others in that the sepals are widest above the middle.



Photo by Josh Mahoney



Photo by Roger Hammer

Celosia nitida Vahl. West Indian cock's comb

St. Lucie County Status: Possibly extirpated. **Taxonomy:** Dicotyledon; Amaranthaceae.

Habit: Perennial herb.

Distribution outside Florida: Texas, Mexico, West Indies, South America.

Florida Distribution: Brevard, Lake, Lee, Miami-Dade, Monroe and St. Lucie counties.

St. Lucie County Habitats: coastal hammock (shell mound).

Bloom season: Summer.

Protection Status: Listed by FDACS as endangered.

Wetland Status: FL - Upland

Synonyms: None.

Historical Context in St. Lucie County: West Indian cock's comb was collected by John Kunkel Small (8761, NY) in 1918 in a hammock south of Fort Pierce. This collection is reported for St. Lucie County by Wunderlin and Hansen (2007).

Comments: Survey coastal hammocks south of Fort Pierce. Leaves turn red when stressed.

Select References: FNA, 2003a; Wunderlin and Hansen, 2003.

Aids to Identification: FNA (2003a) has a description and an illustration of West Indian cock's comb.



Photo by Steve Woodmansee

Chamaesyce cumulicola Small Sand-dune spurge, Coastal dune sandmat

St. Lucie County Status: Present.

Taxonomy: Dicotyledon; Euphorbiaceae.

Habit: Perennial herb.

Distribution outside Florida: Endemic to Florida.

Florida Distribution: Peninsular Florida (sporadic), Escambia County.

St. Lucie County Habitats: coastal strand, scrub, scrubby flatwoods, disturbed upland.

Bloom season: Spring – fall.

Protection Status: Listed by FDACS as endangered. Listed by FNAI as Imperiled in Florida.

Wetland Status: FL - Upland

Synonyms: None.

Historical Context in St. Lucie County: Sand-dune spurge has been observed at John Brooks Park and Pepper Beach Park (Anonymous, s.d. A and Anonymous, s.d. C) and Savannas Preserve State Park by Gann et al. (1999). Collections of sand-dune spurge have been made at Savannas Preserve State Park by Mark Garland (#905, FLAS) in 1992 in disturbed open oak scrub and near Fort Pierce by C.E. Nauman & B.E. Tatje (#819, FTG) in 1979 in disturbed scrub. Wunderlin and Hansen (2007) do not report these collections.

Comments: Survey appropriate habitats.

Select References: Wunderlin and Hansen, 2003.

Aids to Identification: Cyathia (flowers) are in the leaf axils, stipules are separate, leaf margin is entire, seeds measure 1.1-1.4 mm, leaves mostly linear (4-5 times as long as wide) with red margins.



Photo by George Gann

Chrysophyllum oliviforme L. Satinleaf

St. Lucie County Status: Assumed present.

Taxonomy: Dicotyledon; Sapotaceae.

Habit: tree.

Distribution outside Florida: Bahamas, Greater Antilles, and Belize.

Florida Distribution: southern peninsular Florida, Brevard County southward along the eastern

coastline.

St. Lucie County Habitats: maritime hammock, mesic hammock, shellmound, and xeric

hammock.

Bloom season: June – November.

Protection Status: Listed by FDACS as threatened.

Wetland Status: FL - Upland

Synonyms: None.

Historical Context in St. Lucie County: Wunderlin and Hansen (2007) report a collection of satinleaf for St. Lucie County.

Comments: Survey appropriate habitats.

Select References: Nelson, 1994; Hammer, 2004; Wunderlin and Hansen, 2003.

Aids to Identification:



Photo by Roger Hammer



Photo by George Gann



Coelorachis tuberculosa (Nash) Nash Florida jointtail grass

 $\textbf{St. Lucie County Status:} \ \, \textbf{Assumed present}.$

Taxonomy: Monocotyledon; Poaceae.

Habit: Perennial herb.

Distribution outside Florida: Alabama and Georgia.

Florida Distribution: central peninsular Florida, western panhandle. **St. Lucie County Habitats:** depression marsh and basin marsh.

Bloom season: Summer – fall.

Protection Status: Listed by FDACS as threatened. Listed by FNAI as Rare in Florida.

Wetland Status: FL - FACW

Synonyms: *Manisuris tuberculosa* Nash.

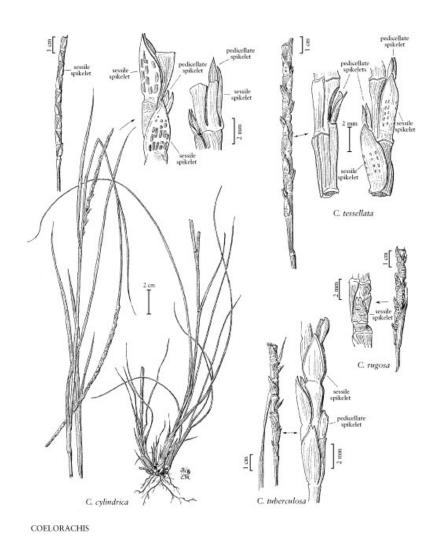
Historical Context in St. Lucie County: In 1992, Mark Garland reported Florida jointtail grass for Savannas Preserve State Park (Garland, 1992). In 1996, Miller et al. and in 1997, Loran Anderson report this occurrence. As Savannas Preserve State Park occurs in both Martin and St. Lucie counties, it is unknown whether plants were observed in St. Lucie County. Wunderlin and Hansen (2007) report a collection of Florida jointtail grass for St. Lucie County.

Comments: Survey appropriate habitats at St. Lucie County portions of Savannas Preserve State Park and adjacent preserves.

Select References: Tobe et al., 1998; FNA, 2003b; Wunderlin and Hansen, 2003.

Aids to Identification: Tobe et al. (1998) have an illustration and a detailed description; FNA (2003b) has an illustration and a detailed description.





Illustrator(s) Linda A. Vorobik and Cindy Roché. .

Conradina grandiflora Small Largeflower false-rosemary

St. Lucie County Status: Present.Taxonomy: Dicotyledon; Lamiaceae.Habit: Perennial suffrutescent herb.

Distribution outside Florida: endemic to Florida.

Florida Distribution: Atlantic coastal ridge Volusia County south to Miami-Dade County, and

Osceola County.

St. Lucie County Habitats: scrub and scrubby flatwoods.

Bloom season: all year.

Protection Status: Listed by FDACS as threatened. Listed by FNAI as Rare in Florida.

Wetland Status: FL - Upland

Synonyms: None.

Historical Context in St. Lucie County: Bradley et al. (1999) recorded Largeflower falserosemary at Bluefield Ranch, Harbor Branch Oceanographic Institute (FAU), Indrio North Savannas, Indrio Scrub, North Fork of the St. Lucie River Preserve State Park, North Savannas, Savannas Preserve State Park, Spruce Bluff Park, and Walton Scrub. Collections have been made at Bluefield Ranch in 1998 (Bradley and Woodmansee, 882, FTG) and at Savannas Preserve State Park in 1992 (Garland, 808, FLAS) and in 2001 (Bradley and Woodmansee, 1492, FTG). Wunderlin and Hansen (2007) report a collection of Largeflower false-rosemary for St. Lucie County.

Comments:

Select References: Taylor, 1992; Wunderlin and Hansen, 2003.

Aids to Identification: Although when crushed, leaves of Largeflower false-rosemary emit a fine "minty" odor, it is less intense than those of Ashe's Calamint or Lakela's mint.



Photo by Steve Woodmansee



Photo by George Gann

Cyperus pedunculatus (R. Br.) J. Kern Beachstar

St. Lucie County Status: Present.

Taxonomy: Monocotyledon; Cyperaceae.

Habit: Perennial herb.

Distribution outside Florida: Pantropical.

Florida Distribution: Atlantic coast Indian River County south to Miami-Dade County.

St. Lucie County Habitats: beach dune.

Protection Status: Listed by FDACS as endangered.

Wetland Status: FL - FACW

Synonyms: *Remirea maritima* Aubl.

Historical Context in St. Lucie County: Duquesnel et al. (1998) report beachstar for Avalon State Park and Fort Pierce Inlet State Park. An additional report of beachstar occurs on an anonymous plant list (anonymous, s.d. A) for John Brooks Park. Wunderlin and Hansen (2007) report a collection of beachstar for St. Lucie County.

Comments:

Select References: Wunderlin and Hansen, 2003; FNA, 2003c (www.efloras.org).

Aids to Identification:





Photo by George Ganr

Dicerandra immaculata Lakela var. immaculata Lakela's mint

St. Lucie County Status: Present. **Taxonomy:** Dicotyledon; Lamiaceae.

Habit: Perennial herb.

Distribution outside Florida: endemic to Florida.

Florida Distribution: Indian River and St. Lucie counties.

St. Lucie County Habitats: scrub, scrubby flatwoods, and disturbed upland.

Bloom season: September – November.

Protection Status: Listed by USFWS as endangered. Listed by FDACS as endangered. Listed

by FNAI as Critically Imperiled in Florida.

Wetland Status: FL - Upland

Synonyms: None.

Historical Context in St. Lucie County: Bradley et al. (1999) report Lakela's mint for Harbor Branch Oceanographic Institute, North of Shell Station Scrub, and North Savannas. Olga Lakela (#25221, USF) made a collection in St. Lucie County in 1962. Wunderlin and Hansen (2007) report this collection of Lakela's mint for St. Lucie County. Attempts are being made by Cheryl Pederson, of Bok Tower Sanctuary, to augment populations at nearby conservation areas.

Comments:

Select References: Chafin, 2000; Wunderlin and Hansen, 2003.

Aids to Identification: Chafin (2000) has a color photograph, illustration, and plant descriptions. Lakela's mint differs from Savanna balm in that flowers possess no spots.





Photo by Amy Mott



Photo by Amy Mott

Dicerandra immaculata Lakela var. savanarum Huck Savanna balm

St. Lucie County Status: Present. **Taxonomy:** Dicotyledon; Lamiaceae.

Habit: Perennial herb.

Distribution outside Florida: endemic to Florida.

Florida Distribution: St. Lucie County.

St. Lucie County Habitats: scrub, xeric hammock, disturbed upland.

Bloom season: September – November.

Protection Status: Listed by USFWS as endangered. Listed by FDACS as endangered.

Wetland Status: FL - Upland

Synonyms: None.

Historical Context in St. Lucie County: Two colonies occur just north of the Martin County line in southern St. Lucie County on the Atlantic Coast Ridge. One colony occurs at Savannas Preserve State Park while the other occurs on private lands along Indian River Dr. Both of these colonies have been declining in recent years.

Savanna balm was discovered in 1995 by George Gann and Keith Bradley at both the private site and Savannas Preserve State Park who listed it as *Dicerandra* aff. *immaculata*. On October 26, 1996, Robin Huck made an herbarium specimen at Savannas Preserve State Park (#5492, FLAS). Wunderlin and Hansen (2007) report this collection of Lakela's mint for St. Lucie County. Huck (2001) reported two populations of some 200 individuals. The Savannas Preserve State Park population was again visited by Gann, Bradley, and Woodmansee in 1998 and eleven plants were observed to be flowering in shade, and more plants were observed in the railroad tracks nearby.

Plants were surveyed for throughout Savannas Preserve State Park, and other private parcels nearby (Woodmansee et al. 2007). Additional plants were not observed. Existing plants are in decline. Attempts are being made by Cheryl Pederson, of Bok Tower Sanctuary, to augment populations of Savanna balm at Savannas Preserve State Park.

Comments: Continue surveys in appropriate habitats.

Select References: Woodmansee et al., 2007; Wunderlin and Hansen, 2007.

Aids to Identification: Savanna balm differs from Lakela's mint in having flowers with spots.



Photo by Keith Bradley

Erithalis fruticosa L. Black torch

St. Lucie County Status: Reported. **Taxonomy:** Dicotyledon; Rubiaceae.

Habit: tree.

Distribution outside Florida: tropical America.

Florida Distribution: St. Lucie County south to the Florida Keys in Monroe County.

St. Lucie County Habitats: coastal hammocks.

Bloom season: all year.

Protection Status: Listed by FDACS as threatened.

Wetland Status: FL - Upland

Synonyms: None.

Historical Context in St. Lucie County: A report of black torch exists for Dollman Park (Anonymous, s.d. D). Wunderlin and Hansen (2007) report no collections of black torch for St. Lucie County.

Comments: Survey Dollman Park for black torch.

Select References: Hammer, 2004; Wunderlin and Hansen, 2003.

Aids to Identification:



Photo by Roger Hamme



Photo by Keith Bradley

Garberia heterophylla (W. Bartram) Merr. & F. Harper Garberia

St. Lucie County Status: Reported. **Taxonomy:** Dicotyledon; Asteraceae.

Habit: perennial herb.

Distribution outside Florida: endemic to Florida.

Florida Distribution: Central and north peninsular Florida.

St. Lucie County Habitats: scrub.

Bloom season: Spring – fall.

Protection Status: Listed by FDACS as threatened.

Wetland Status: FL - Upland

Synonyms: Garberia fruticosa (Nutt.) A. Gray

Historical Context in St. Lucie County: A report of garberia exists for Indrio North Savannas (Anonymous, s.d. B). Wunderlin and Hansen (2007) report no collections of garberia for St. Lucie County, or any adjacent counties.

Comments: Survey Indrio North Savannas for garberia.

Select References: Cronquist, 1980; Wunderlin and Hansen, 2003.

Aids to Identification: Cronquist (1980) lists the following description: Flower heads discoid, flowers perfect, phyllaries imbricate (overlapping), pappus of brownish barbellate capillary bristles, Leaves viscid (sticky) and minutely glandular-punctate. Heads in small corymbiform clusters terminating the branches, the 5 flowers all tubular and perfect, corolla pink-purple. Achenes slender, ca. 10-ribbed, 7-8 mm long, conspicuously short hairy; pappus of numerous brownish barbellate capillary bristles.





Glandularia maritima (Small) Small Beach verbena, Coastal mock vervain

St. Lucie County Status: Assumed present. **Taxonomy:** Dicotyledon; Verbenaceae.

Habit: perennial herb.

Distribution outside Florida: endemic to Florida.

Florida Distribution: St. John's County south along eastern coastline to the Florida Keys

(Monroe County), Collier, Hendry and Levy counties.

St. Lucie County Habitats: coastal strand. **Bloom season:** all year, primarily spring.

Protection Status: Listed by FDACS as endangered. Listed as Rare in Florida by FNAI.

Wetland Status: FL - Upland

Synonyms: Verbena maritima Small.

Historical Context in St. Lucie County: Beach verbena has been recorded at Avalon State Park and Fort Pierce Inlet State Park by Duquesnel et al. (1998), and at several private sites on Hutchinson Island. A collection of beach verbena was made by Hansen and Sauleda (#7130, FTG) on Hutchinson Island in St. Lucie County. This collection is reported by Wunderlin and Hansen (2007).

Comments: Compare with Tampa mock vervain (*Glandularia tampensis*).

Select References: Chafin, 2000; Hammer, 2002; Wunderlin and Hansen, 2003.

Aids to Identification: Chafin (2000) has illustrations, and plant descriptions. Calyx glandular,

tips of calyces without bristles.



Photo by Roger Hammer



Photo by George Gann

Glandularia tampensis (Nash) Small Tampa mock vervain

St. Lucie County Status: Reported. **Taxonomy:** Dicotyledon; Verbenaceae.

Habit: perennial herb.

Distribution outside Florida: endemic to Florida.

Florida Distribution: coastal Florida: Volusia County south to St. Lucie County on the eastern

coast of Florida, Levy County south to Lee County on the western coast.

St. Lucie County Habitats: uncertain. Chafin (2000) reports its habitat as live oak-cabbage

palm hammocks and pine-palmetto flatwoods.

Bloom season: all year, primarily spring.

Protection Status: Listed by FDACS as endangered. Listed as Critically Imperiled in Florida by

FNAI.

Wetland Status: FL - Upland

Synonyms: *Verbena tampensis* Nash.

Historical Context in St. Lucie County: Tampa mock vervain is reported for North Fork of the St. Lucie River Preserve State Park by J. Broda (1992). Wunderlin and Hansen (2007) report no collections of Tampa mock vervain for St. Lucie County.

Comments: Survey North Fork of the St. Lucie River Preserve State Park for Tampa mock vervain. Compare with beach verbena (*Glandularia maritima*).

Select References: Chafin, 2000; Wunderlin and Hansen, 2003.

Aids to Identification: Chafin (2000) has a color photograph, illustrations, and plant descriptions. Calyx not glandular, tips of calyces have a bristle.





Habenaria nivea (Nutt.) Spreng. Snowy orchid

St. Lucie County Status: Assumed present. **Taxonomy:** Monocotyledon; Orchidaceae.

Habit: perennial herb.

Distribution outside Florida: southeastern United States.

Florida Distribution: throughout.

St. Lucie County Habitats: wet prairie, wet flatwoods, disturbed wetlands.

Bloom season: May – June.

Protection Status: Listed by FDACS as threatened.

Wetland Status: FL - OBL

Synonyms: Gymnadeniopsis nivea (Nutt.) Rydb.; Platanthera nivea (Nutt.) Luer.

Historical Context in St. Lucie County: Snowy orchid was collected in a sunny roadside depression in 1964 in St. Lucie County by J.A. Lassiter (#44, USF). Wunderlin and Hansen (2007) report this collection for St. Lucie County.

Comments: Survey appropriate habitats during flowering season in St. Lucie County.

Select References: Hammer, 1992; Wunderlin and Hansen, 2003; Brown, 2002.

Aids to Identification:



Photo by Chuck McCartney



Halophila johnsonii Eiseman Johnson's seagrass

St. Lucie County Status: Assumed present. **Taxonomy:** Monocotyledon; Hydrocharitaceae

Habit: perennial marine herb.

Distribution outside Florida: endemic to Florida.

Florida Distribution: Brevard County south to Miami-Dade County. **St. Lucie County Habitats:** Indian River Lagoon (sea grass beds).

Bloom season: does not reproduce sexually (female flowers observed only).

Protection Status: Listed by USFWS as threatened. Listed by FNAI as Imperiled in Florida

Wetland Status: FL - OBL

Synonyms: none

Historical Context in St. Lucie County: Three occurrences of Johnson's seagrass in various portions of the Indian River Lagoon have been reported by FNAI. Wunderlin and Hansen (2007) report a collection for St. Lucie County.

Comments: Survey appropriate Indian River Lagoon in St. Lucie County.

Select References: Chafin, 2000; Wunderlin and Hansen, 2003.

Aids to Identification: Chafin (2000) has a color photograph, illustrations, and plant descriptions.

Harrisia fragrans Small ex Britton & Rose Fragrant pricklyapples, Caribbean applecactus

St. Lucie County Status: Present. **Taxonomy:** Dicotyledon; Cactaceae.

Habit: perennial shrub.

Distribution outside Florida: endemic to Florida.

Florida Distribution: Volusia County south to St. Lucie County.

St. Lucie County Habitats: scrub, coastal strand, xeric hammock, disturbed upland.

Bloom season: April – May and September – October.

Protection Status: Listed by the USFWS as endangered. Listed by FDACS as endangered.

Listed as Critically Imperiled in Florida by FNAI.

Wetland Status: FL - Upland

Synonyms: Cereus eriophorus Pfeiff. & Otto var. fragrans (Small ex Britton & Rose) L. D.

Benson

Historical Context in St. Lucie County: Fragrant pricklyapples has been recorded and collected by various observers for the vicinity of Savannas Preserve State Park beginning with John K. Small in 1917 to Present. Bradley et al. (2002) document the population of fragrant pricklyapples at Savannas Preserve State Park to be in excess of 2,200 plants. Ongoing studies of fragrant pricklyapples at Savannas Preserve State Park by The Institute for Regional Conservation staff continue (Woodmansee et al. 2007). Private parcels adjacent or near Savannas Preserve State Park were surveyed by IRC staff 2006-2007 (Woodmansee et al. 2007). A total of 62 plants, many in fruit, were found on 14 privately owned parcels.

In 1969 William McCart (#11289, FTG) collected a specimen of fragrant pricklyapples on "foredune" in the vicinity of what is now John Brooks Park (Woodmansee et al. 2007). This area was searched for by John Bradford in 2007, and no plants were found. It is believed to be extirpated there due to severe beach erosion.

Wunderlin and Hansen (2007) report a collection of fragrant pricklyapples for St. Lucie County.

Comments: There has been much consternation and disagreement about the taxonomy and distribution of Florida species of *Harrisia*. Aboriginal pricklyapples (*Harrisia aboriginum* Small ex Britton & Rose) occurs only on the western coast of Florida, so is left out of this discussion. The differences between and geographic ranges of fragrant pricklyapples and Simpson's pricklyapples (*H. simpsonii* Small ex Britton & Rose) are much debated. University of South Florida graduate student Alan Franck will be sampling various *Harrisia* throughout Florida to determine genetic relationships (Rowe 2007). Hopefully, this will help resolve the issue.

If any additional individuals of any species of *Harrisia* are encountered, plants should be mapped and monitored.

Select References: Chafin, 2000; Wunderlin and Hansen, 2003; Woodmansee et al., 2007.

Aids to Identification: Wunderlin and Hansen (2003) differentiate *Harrisia fragrans* from *H. simpsonii* using two floral characteristics. *Harrisia fragrans* possess trichomes of the areoles on the hypanthium which measure 10 - 15 mm, and the margins of the inner petals are entire at the apex. Whereas, *H. simpsonii* possess trichomes of the areoles on the hypanthium which measure 6 - 8 mm, and the margins of the inner petals are erose-denticulate at the apex.



Photo by Steve Woodmansee



Illustration by M.E. Eaton, 1912, from the archives of the Smithsonian Institution



Photo by Tony Koop



Harrisia simpsonii Small ex Britton & Rose Simpson's pricklyapples, Simpson's applecactus

St. Lucie County Status: Reported. **Taxonomy:** Dicotyledon; Cactaceae.

Habit: perennial shrub.

Distribution outside Florida: endemic to Florida.

Florida Distribution: Volusia County south to St. Lucie County, Miami-Dade and Monroe

counties.

St. Lucie County Habitats: uncertain. Benson (1982) describes Simpson's pricklyapples habitat and range as sandy soils of jungles and hammocks (Caribbean tropical forest) at low elevations along the coast of Cape Sable and Ft. Pierce to the Florida Keys (St. Lucie, Miami-Dade, and Monroe counties).

Bloom season: May – August.

Protection Status: Listed by FDACS as endangered. Listed as Imperiled in Florida by FNAI.

Wetland Status: FL - Upland

Synonyms: Cereus gracilis Mill. var. simpsonii (Small ex Britton & Rose) L. D. Benson

Historical Context in St. Lucie County: Wunderlin and Hansen (2007) list Benson's (1982) report of Simpson's pricklyapples for St. Lucie County. This specimen was searched for and may not exist (Woodmansee et al., 2007).

Comments: There has been much consternation and disagreement about the taxonomy and distribution of Florida species of *Harrisia*. The differences between and geographic ranges of fragrant pricklyapples and Simpson's pricklyapples are much debated. Appendix 5-1 in Woodmansee et al. (2007) discusses the taxonomic history of these two cacti. University of South Florida graduate student Alan Franck will be sampling various *Harrisia* throughout Florida to determine genetic relationships (Rowe 2007). Hopefully, this will help resolve the issue.

Select References: Hammer, 2002; Wunderlin and Hansen, 2003.

Aids to Identification: Wunderlin and Hansen (2003) differentiate *Harrisia fragrans* from *H. simpsonii* using two floral characteristics. *Harrisia fragrans* possess trichomes of the areoles on the hypanthium which measure 10 - 15 mm, and the margins of the inner petals are entire at the apex. Whereas, *H. simpsonii* possess trichomes of the areoles on the hypanthium which measure 6 - 8 mm, and the margins of the inner petals are erose-denticulate at the apex.



Photo by Steve Woodmansee



Photo by Steve Woodmansee



Photo by Roger Hammer

Lantana depressa var. floridana East coast lantana, Florida shrubverbena

St. Lucie County Status: Assumed present. **Taxonomy:** Dicotyledon; Verbenaceae.

Habit: perennial shrub.

Distribution outside Florida: endemic to Florida.

Florida Distribution: Brevard County south to Miami-Dade County.

St. Lucie County Habitats: coastal strand and coastal areas of scrubby flatwoods, xeric

hammock, and disturbed upland.

Bloom season: all year.

Protection Status: Listed by FDACS as endangered. Listed as Imperiled in Florida by FNAI.

Wetland Status: FL - Upland

Synonyms: None.

Historical Context in St. Lucie County: East coast lantana was observed by Bradley and Woodmansee (Bradley et al. 1999) in 1998 at a private site North of Shell Station scrub. Wunderlin and Hansen (2007) do not recognize East coast lantana as distinct from the exotic invasive West Indian shrubverbena (*Lantana camara* L.).

Comments: This native endemic readily hybridizes with the exotic invasive West Indian shrubverbena. Wunderlin and Hansen (2003) consider *Lantana depressa* var. *floridana* as conspecific with *Lantana camara*.

Select References: Chafin, 2000; Sanders, 1987.

Aids to Identification: *Lantana depressa* varieties from Florida differ from *L. camara* in having flowers that are exclusively yellow turning orange when pollinated by insects. In addition, leaf bases are cuneata (wedge shaped) in *Lantana depressa*, and either truncate (ending abruptly) or cordate (heart shaped) in *L. camara*. Chafin (2000) has color photographs and an illustration of the *Lantana depressa* series.



Photo by Steve Woodmansee



Photo by Steve Woodmansee



Lantana camara for comparison. Photo by Steve Woodmansee

Lechea cernua Small Nodding pinweed

St. Lucie County Status: Present.

Taxonomy: Dicotyledon; Cistaceae.

Habit: perennial herb.

Distribution outside Florida: endemic to Florida. **Florida Distribution:** Central and South Florida.

St. Lucie County Habitats: scrub and scrubby flatwoods.

Bloom season: Summer – fall.

Protection Status: Listed by FDACS as threatened. Listed as Rare in Florida by FNAI.

Wetland Status: FL - Upland

Synonyms: None.

Historical Context in St. Lucie County: Nodding pinweed has been recorded by Bradley et al. (1999) at several locations including: Blackhorse Scrub, Bluefield Ranch, Indrio Scrub, North fork of the St. Lucie River Preserve State Park, North of Shell Station Scrub, North Savannas, Savannas Preserve State Park, Spruce Bluff, and Walton Scrub.

Nodding pinweed was collected in the northern end of St. Lucie County by Olga Lakela (#26216, USF) in 1962. It was collected again in 1985 by Wunderlin et al. (#10176, USF) in the Port St. Lucie area. Bradley and Woodmansee (#894, FTG) collected nodding pinweed at Bluefield Ranch in 1998. Wunderlin and Hansen (2007) report collections of nodding pinweed for St. Lucie County.

Comments: This native endemic is fairly common, but may be dormant underground during the winter.

Select References: Wunderlin and Hansen, 2003.

Aids to Identification: This nodding pinweed can be distinguished from other species of *Lechea* in St. Lucie County by having leaves that are ovate and not needlelike.



Photo by Steve Woodmansee

Lilium catesbaei Walter Catesby's lily, Pine lily

St. Lucie County Status: Present.

Taxonomy: Monocotyledon; Liliaceae.

Habit: perennial herb.

Distribution outside Florida: southeastern United States.

Florida Distribution: throughout.

St. Lucie County Habitats: wet and mesic flatwoods.

Bloom season: July – November.

Protection Status: Listed by FDACS as threatened.

Wetland Status: FL - FAC

Synonyms: *Lilium catesbaei* subsp. *asprellum* Wherry; *L. catesbaei* var. *longii* Fernald.

Historical Context in St. Lucie County: Catesby's lily was recorded by J. Broda on a plant list for North Fork St. Lucie Preserve State Park in 1992 (Broda, 1992). Wunderlin and Hansen (2007) report a collection of Catesby's lily for St. Lucie County.

Comments: Conduct searches in the summer and fall (dormant in winter to spring).

Select References: Taylor, 1998; Hammer, 2002; Wunderlin and Hansen, 2003.

Aids to Identification:





Photo by Steve Woodmansee



Myrcianthes fragrans (Sw.)McVaugh Simpson's stopper, Twinberry

St. Lucie County Status: Present. **Taxonomy:** Dicotyledon; Myrtaceae.

Habit: tree.

Distribution outside Florida: Tropical America.

Florida Distribution: southern peninsula, St. John's County south to St. Lucie County (Atlantic

coastal ridge).

St. Lucie County Habitats: hammocks.

Bloom season: April - August

Protection Status: Listed by FDACS as threatened.

Wetland Status: FL - Upland

Synonyms: None.

Historical Context in St. Lucie County: Simpson's stopper was recorded by Duquesnel et al. (1998) at Avalon State Park and Fort Pierce Inlet State Park. Simpson's stopper was recorded by Bradley and Woodmansee at Bluefield Ranch in 1997 (Bradley et al. 1999). Wunderlin and Hansen (2007) report a collection of Simpson's stopper for St. Lucie County.

Comments:

Select References: Hammer, 2004; Nelson, 1994; Wunderlin and Hansen, 2003.

Aids to Identification: Simpons's stopper has skin like bark that flakes off, and opposite leaves, which are fragrant when crushed. Fruits are orange – red when mature, flowers are fragrant.





Okenia hypogaea Schltdl. & Cham. Beach-peanut, Burrowing four-o'clock

St. Lucie County Status: Assumed present. **Taxonomy:** Dicotyledon; Nyctaginaceae.

Habit: short-lived perennial herb.

Distribution outside Florida: Mexico and Central America (Nicaragua). **Florida Distribution:** St. Lucie County south to Miami-Dade County. **St. Lucie County Habitats:** beach dune, disturbed upland (coastal).

Bloom season: Summer – fall, peak in spring.

Protection Status: Listed by FDACS as endangered. Listed by FNAI as Imperiled in Florida.

Wetland Status: FL - Upland

Synonyms: None.

Historical Context in St. Lucie County: FNAI (2007) reports an occurrence of beach-peanut for St. Lucie County. Wunderlin and Hansen (2007) report a collection of beach-peanut for St. Lucie County.

Comments: Get herbarium label data for the collection of beach-peanut, and conduct surveys at this location and along coastal upland habitats.

Select References: Hammer 2002; Wunderlin and Hansen, 2003.

Aids to Identification:



Photo by Roger Hammer

Ophioglossum palmatum L. Handfern

St. Lucie County Status: Present.

Taxonomy: Pteridophyte; Ophioglossaceae.

Habit: perennial epiphyte.

Distribution outside Florida: pantropical. **Florida Distribution:** peninsular Florida.

St. Lucie County Habitats: scrub and mesic hammock.

Bloom season: Does not flower, sporulates throughout the year.

Protection Status: Listed by FDACS as endangered. Listed by FNAI as Imperiled in Florida.

Wetland Status: FL - Upland

Synonyms: Cheiroglossa palmata (L.)C. Presl, Cheiroglossa palmata (L.)C. Presl var.

malagassica C.Chr., Ophioderma palmatum (L.)Nakai .

Historical Context in St. Lucie County: Gann, Bradley, and Woodmansee recorded handfern at Savannas Preserve State Park in 1997 (Bradley et al. 1999). Bradley and Woodmansee (#1493, FTG) collected an herbarium specimen of handfern from Savannas Preserve State Park in 2001. Plants were growing on cabbage palm (*Sabal palmetto* (Walter)Lodd. ex Schult. & Schult.f.) on the edge of scrub and basin marsh. Wunderlin and Hansen (2007) report a collection of handfern for St. Lucie County.

Comments: Epiphytic exclusively on palms (Arecaceae) in Florida, and mostly on cabbage palms (*Sabal palmetto*).

Select References: Nelson, 2000; Wunderlin and Hansen, 2000.

Aids to Identification:



Photo by Steve Woodmansee



Opuntia stricta (Haw.)Haw. Erect pricklypear

St. Lucie County Status: Present.

Taxonomy: Dicotyledon; Cactaceae.

Habit: perennial herb.

Distribution outside Florida: Texas, Alabama, Georgia, South Carolina, Mexico and Tropical

America.

Florida Distribution: dispersed throughout coastal Florida counties and Okeechobee County.

St. Lucie County Habitats: beach dune, coastal strand, scrub, and shellmound.

Bloom season: all year, peak spring-summer.

Protection Status: Listed by FDACS as threatened.

Wetland Status: FL - Upland

Synonyms: Numerous, Opuntia dillenii (KerGawl.)Haw. is the most commonly used synonym.

Historical Context in St. Lucie County: Erect pricklypear was recorded on undated anonymous plant lists for John Brooks Park and Pepper Beach Park (Anonymous, s.d.; Anonymous s.d.). In 1997, Gann, Bradley, and Woodmansee recorded erect pricklypear at Savannas Preserve State Park (Bradley et al. 1999). In 1998, Janice Duquesnel et al. recorded erect pricklypear at Avalon State Park and Fort Pierce Inlet State Park (Duquesnel et al., 1998). Also in 1998, Bradley and Woodmansee recorded erect pricklypear at North of Shell Station Scrub and Walton Scrub (Bradley et al. 1999). In 1999, Bradley and Woodmansee recorded erect pricklypear at Harbor Branch Oceanographic Institute (Bradley et al. 1999).

In 1962, Dan Ward (#5038, FLAS) collected erect pricklypear in scrub just west of the Indian River Lagoon 6.5 miles south of Fort Pierce. Wunderlin and Hansen (2007) report a collection of erect pricklypear for St. Lucie County.

Comments: Threatened by Cactoblastis moth whose larvae feed on the pads.

Select References: Hammer, 2004; Wunderlin and Hansen, 2003.

Aids to Identification: Erect pricklypear differs from pricklypear (*Opuntia humifusa* (Raf.)Raf.) by having yellow spines as opposed to gray.



Photo by Roger Hammer



Peperomia humilis A.Dietr. Low peperomia

St. Lucie County Status: Possibly extirpated.

Taxonomy: Dicotyledon; Piperaceae. **Habit:** perennial herb and epiphyte.

Distribution outside Florida: West Indies. **Florida Distribution:** peninsular Florida.

St. Lucie County Habitats: uncertain, possibly strand swamp or floodplain forest.

Bloom season: all year.

Protection Status: Listed by FDACS as endangered. Listed as Imperiled in Florida by FNAI.

Wetland Status: FL – Upland, (epiphyte, indicative of wet to moist habitats).

Synonyms: Several, *Micropiper humilis* (A.Dietr.)Small is the most commonly used one.

Historical Context in St. Lucie County: Wunderlin and Hansen (2007) report a collection of low peperomia for St. Lucie County.

Comments: Get herbarium label data on location of low peperomia. Conduct surveys for low peperomia at location and appropriate habitats. Often grows on floating or fallen logs as well as trees.

Select References: Hammer, 2002; Wunderlin and Hansen, 2003.

Aids to Identification: Low Peperomia is distinguished from Florida Peperomia by leaves that are finely pubescent and elliptic and stems are reddish.



Photo by Roger Hammer



Photo by Steve Woodmansee



Photo by Steve Woodmansee

Peperomia obtusifolia (L.)A.Dietr. Florida peperomia, Baby rubberplant

St. Lucie County Status: Assumed present.

Taxonomy: Dicotyledon; Piperaceae. **Habit:** perennial herb and epiphyte.

Distribution outside Florida: Tropical America.

Florida Distribution: Brevard and Indian River counties, southern peninsular Florida. **St. Lucie County Habitats:** floodplain forest, basin swamp, hydric hammock complex.

Bloom season: all year.

Protection Status: Listed by FDACS as endangered. Listed as Imperiled in Florida by FNAI.

Wetland Status: FL – Upland, (epiphyte, indicative of wet to moist habitats). Synonyms: Several, *Peperomia floridana* Small is the most commonly used one.

Historical Context in St. Lucie County: Chuck Hilsenbeck observed Florida Peperomia in southwestern St. Lucie County in May 1997 (FNAI, 2007). He reports 200 plants on cabbage palm (*Sabal palmetto*), live oak (*Quercus virginiana*), and mockernut hickory (*Carya sp.*)in "High quality basin swamp/hydric hammock/floodplain swamp wetland complex dominated by large old bald cypress (*Taxodium distichum*), swamp laurel oak (*Quercus laurifolia*), water hickory (*Carya aquatica*), red maple (*Acer rubrum*), American elm (*Ulmus americana*), and pop ash (*Fraxinus caroliniana*)." In 1998, Bradley and Woodmansee observed Florida Peperomia persisting from cultivation around an old homesite at Walton Scrub (Bradley et al., 1999). It is uncertain whether the germplasm at Walton Scrub is indigenous.

Comments: Often on floating or fallen logs as well as trees.

Select References: Hammer, 2002; Wunderlin and Hansen, 2003.

Aids to Identification: Florida Peperomia can be distinguished from low Peperomia by having glabrous leaves that are spatulate in shape.





Polygala smallii R.R.Sm. & D.B.Ward Small's milkwort, Tiny polygala

St. Lucie County Status: Historical. **Taxonomy:** Dicotyledon; Polygalaceae.

Habit: shortlived perennial herb.

Distribution outside Florida: endemic to Florida.

Florida Distribution: St. Lucie County south to Miami-Dade County.

St. Lucie County Habitats: scrubby flatwoods.

Bloom season: all year.

Protection Status: Listed by USFWS as Endangered. Listed by FDACS as endangered. Listed

as Critically Imperiled in Florida by FNAI.

Wetland Status: FL - FACW.

Synonyms: Polygala arenicola Small; Pilostaxis arenicola Small.

Historical Context in St. Lucie County: In December 1995, Bradley and Woodmansee discovered and collected an herbarium specimen of Small's milkwort near Lynngate Park in what is now part of Savannas Preserve State Park (formerly South Fork of the St. Lucie River State Buffer Preserve) (Bradley & Woodmansee s.n, FTG). Plants were observed again in 1998, 1999, and 2000 by Bradley and Woodmansee (Bradley et al. 1999; Fisher, 2000). The population there declined each subsequent year until 2006 when surveys were conducted by Woodmansee, Mahoney, and Kaufman who could not find any plants (Woodmansee et al., 2007).

Comments: Plants at the above site may return after appropriate fire management. Survey appropriate habitats after fires.

Select References: Hammer, 2002; Wunderlin and Hansen, 2003.

Aids to Identification: Small's milkwort greatly resembles the more common candyroot (*Polygala nana* (Michx.)DC.). Small's milkwort possesses seeds which are greater than 1.6 mm in length and are linear in shape, while candyroot seeds are less than 1.6 mm in length and urn

shaped.





Photo by Josh Mahoney

Pteroglossaspis ecristata Giant orchid

St. Lucie County Status: Assumed present. **Taxonomy:** Monocotyledon; Orchidaceae.

Habit: perennial herb.

Distribution outside Florida: southeastern United States.

Florida Distribution: throughout.

St. Lucie County Habitats: scrub.

Bloom season: Summer - fall.

Protection Status: Listed by FDACS as threatened. Listed by FNAI as Imperiled in Florida.

Wetland Status: FL - Upland

Synonyms: *Gymnadeniopsis nivea* (Nutt.) Rydb.; *Platanthera nivea* (Nutt.) Luer.

Historical Context in St. Lucie County: Giant orchid was first observed by Jake Heaton in 2000 at a private site in southcentral St. Lucie County (FNAI, 2007). Alfred Schotz visited this site and recorded 58 plants (84% flowering) growing with good vigor in a xeric coastal scrub habitat (FNAI, 2007). Wunderlin and Hansen (2007) report a collection for St. Lucie County.

Comments: Plants are perennial, but underground much of the year. Survey appropriate habitats during flowering season in St. Lucie County.

Select References: Wunderlin and Hansen, 2003; Brown, 2002.

Aids to Identification: Plants resemble the more common wild coco (Eulophia alta), however flowers of giant orchid are typically cleistogamous, and do not open.









Sacoila lanceolata (Aubl.)Garay Leafless beaked lady's-tresses

St. Lucie County Status: Assumed present. **Taxonomy:** Monocotyledon; Orchidaceae.

Habit: perennial herb.

Distribution outside Florida: Tropical America. **Florida Distribution:** mostly peninsular Florida.

St. Lucie County Habitats: mesic flatwoods, disturbed upland, disturbed wetland.

Bloom season: March - July.

Protection Status: Listed by FDACS as threatened.

Wetland Status: FL - FAC

Synonyms: Several, but Stenorrhynchos lanceolatum (Aubl.)Rich. ex Spreng. is the most

commonly used.

Historical Context in St. Lucie County: Wunderlin and Hansen (2007) report a collection of Leafless beaked lady's-tresses for St. Lucie County.

Comments: Get herbarium label data for the reported St. Lucie County collection of leafless beaked lady's-tresses. Survey this location and appropriate habitats during flowering season in St. Lucie County. Plants are perennial, but underground much of the year.

Select References: Wunderlin and Hansen, 2003; Brown, 2002.

Aids to Identification:



Photo by Roger Hammer



Sarracenia minor Walter Hooded pitcherplant

St. Lucie County Status: Assumed present. **Taxonomy:** Dicotyledon; Sarraceniaceae.

Habit: perennial herb.

Distribution outside Florida: North Carolina south to Georgia.

Florida Distribution: central panhandle, peninsular Florida south to St. Lucie, Okeechobee, and

Highlands counties.

St. Lucie County Habitats: flatwoods.

Bloom season: spring.

Protection Status: Listed by FDACS as threatened.

Wetland Status: FL - FACW

Synonyms: Sarracenia variolaris Michx.; Sarracenia adunca Raf.; Sarracenia adunca Sm.

Historical Context in St. Lucie County: Hooded pitcherplant was first reported for a private site in St. Lucie County circa 2000. In May 2005, Woodmansee, Amy Mott, and Stephen Hodges visited this population and recorded 20 - 30 individuals of hooded pitcherplant. Wunderlin and Hansen (2007) report no collections of hooded pitcherplant for St. Lucie County.

Comments: Collect a voucher of hooded pitcherplant and deposit in a registered herbarium. Consider introducing hooded pitcherplant to a nearby conservation area.

Select References: Wunderlin and Hansen, 2003; Schnell, 2002.

Aids to Identification:



Photo by Steve Woodmansee



Notes:

Scaevola plumieri (L.)Vahl Inkberry, Beachberry, Gullfeed

St. Lucie County Status: Assumed present. **Taxonomy:** Dicotyledon; Goodeniaceae.

Habit: shrub.

Distribution outside Florida: Lousiana, Texas, Tropical America, Old World tropics.

Florida Distribution: central and southern peninsula.

St. Lucie County Habitats: coastal strand and beach dune.

Bloom season: All year, peak in summer.

Protection Status: Listed by FDACS as threatened.

Wetland Status: FL - FAC

Synonyms: Numerous, Wunderlin and Hansen (2007) provide a list of synonyms.

Historical Context in St. Lucie County: Inkberry was reported on an anonymous plant list (s.d.) for John Brooks Park. Duquesnel et al. (1998) recorded inkberry at Avalon State Park and Fort Pierce Inlet State Park. Inkberry was first collected in St. Lucie County in 1974 by Margaret Meagher at North Beach in Fort Pierce (#1405, FTG). Andre Allen made a collection of inkberry on beach strand in 1978 (s.n., FTG). Wunderlin and Hansen (2007) report one of these collections for St. Lucie County.

Comments:

Select References: Hammer, 2002; Wunderlin and Hansen, 2003.

Aids to Identification: The invasive Beach naupaka (*Scaevola sericea*) can be distinguished from inkberry by having pubescent leaves and white fruits.



Photo by Roger Hammer





Schizachyrium niveum (Swallen) Gould Pinescrub bluestem

St. Lucie County Status: Present. **Taxonomy:** Moncotyledon; Poaceae.

Habit: Perennial herb.

Distribution outside Florida: endemic to Florida.

Florida Distribution: Highlands, Polk, Osceola, Indian River, and Martin counties.

St. Lucie County Habitats: scrub.

Bloom season: fall.

Protection Status: Listed by FDACS as endangered. Listed by FNAI as Critically Imperiled in

Florida.

Wetland Status: FL - FAC

Synonyms: Andropogon niveus Swallen.

Historical Context in St. Lucie County: Wunderlin and Hansen (2007) report Florida threeawn for St. Lucie County.

Comments:

Select References: FNA, 2003b; Wunderlin and Hansen, 2003.

Aids to Identification: Pinescrub bluestem differs from other species of *Schizachyrium* in St. Lucie County by its habitat combined with being small (1 - 2 feet in height), with leaves that are distichous. Chafin (2000) and FNA (2003) provide a detailed descriptions and illustrations of pinescrub bluestem. Chafin (2000) has a color photograph of pinescrub bluestem.

Spiranthes laciniata (Small)Ames Lacelip lady's-tresses

St. Lucie County Status: Assumed present. **Taxonomy:** Monocotyledon; Orchidaceae.

Habit: perennial herb.

Distribution outside Florida: Southeastern United States and New Jersey.

Florida Distribution: throughout.

St. Lucie County Habitats: marshes and disturbed wetland.

Bloom season: Spring - summer.

Protection Status: Listed by FDACS as threatened.

Wetland Status: FL - FACW

Synonyms: Gyrostachys laciniata Small; Ibidium laciniatum (Small) House; Triorchos laciniata

(Small) House.

Historical Context in St. Lucie County: Wunderlin and Hansen (2007) report a collection of Lacelip lady's-tresses for St. Lucie County.

Comments: Get herbarium label data for the St. Lucie County record of lacelip lady's-tresses. Survey this location, and appropriate habitats in St. Lucie County during flowering season. Plants are perennial, but underground much of the year.

Select References: Wunderlin and Hansen, 2003; Brown, 2002.

Aids to Identification: Flowers in a single spiral (white) with *capitate trichomes* and pubescent. Lip pubescent, apical margins of the lip denticulatae, the blade with a broad yellow center, leaves linear with groove, flowers in spring and early summer.



Tephrosia angustissima Shuttlew. ex Chapm. var. curtissii (Small ex Rydb.)Isely Curtiss' hoarypea

St. Lucie County Status: Assumed present.

Taxonomy: Dicotyledon; Fabaceae.

Habit: perennial herb.

Distribution outside Florida: endemic to Florida. **Florida Distribution:** Peninsular Florida, sporadic.

St. Lucie County Habitats: coastal strand.

Bloom season: spring - fall.

Protection Status: Listed by FDACS as endangered. Listed by FNAI as Critically Imperiled in

Florida.

Wetland Status: FL - Upland

Synonyms: Cracca curtissii Small ex Rydb.; Tephrosia curtissii (Small ex Rydb.)Shinners;

Tephrosia seminole Shinners

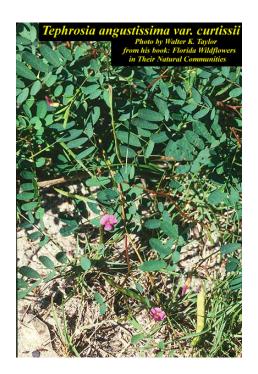
Historical Context in St. Lucie County: In 1989, Jane Brooks reported Curtiss' hoarypea for the Dollman Tract (now Dollman Park) on Hutchinson Island (FNAI, 2007). Wunderlin and Hansen (2007) report no collections of Curtiss' hoarypea for St. Lucie County.

Comments:

Select References: Chafin, 2000; Wunderlin and Hansen, 2003.

Aids to Identification: Chafin (2000) provides color photographs, an illustration, and descriptions of the *Tephrosia angustissima* series.





Tillandsia balbisiana Schult. & Schult. f. Reflexed wild-pine, Northern needleleaf

St. Lucie County Status: Present.

Taxonomy: Monocotyledon; Bromeliaceae.

Habit: perennial epiphytic herb.

Distribution outside Florida: Tropical America.

Florida Distribution: Central and southern peninsular Florida.

St. Lucie County Habitats: flatwoods, scrub, swamps.

Bloom season: June - November.

Protection Status: Listed by FDACS as threatened.

Wetland Status: FL – Upland (epiphyte) Synonyms: *Tillandsia cubensis* Gand.

Historical Context in St. Lucie County: Several records of reflexed wild-pine exist for St. Lucie County from surveys conducted by IRC staff 1997-1999 (Bradley et al., 1999). Sites where occurrences were recorded include: Bluefield Ranch, Spruce Bluff Park, Savannas Preserve State Park, North Fork St. Lucie River State Buffer Preserve, and the St. Lucie Village site. Collections of reflexed wildpine during these surveys included: Gann, Bradley, and Woodmansee (#47, FTG) at Savannas Preserve State Park, Bradley and Woodmansee (#867, FTG) at Bluefield Ranch, and Bradley and Woodmansee (1145, FTG) at Spruce Bluff Park. Wunderlin and Hansen (2007) report a collection of reflexed wildpine for St. Lucie County.

Comments: This species occasionally hybridizes with *T. fasciculata* var. *densispica* creating the hybrid *T. xsmalliana*. Reflexed wildpine may be threatened by the Mexican bromeliad weevil (*Metamasius callizona*).

Select References: Hammer, 2002; Wunderlin and Hansen, 2003.

Aids to Identification: Reflexed wildpine differs from other species of Tillandsia by having twisted leaves which are longer than the inflorescence.



Photo by Steve Woodmansee



Tillandsia fasciculata Sw. Var. densispica Mez Stiff-leaved wild-pine, Cardinal airplant

St. Lucie County Status: Present.

Taxonomy: Monocotyledon; Bromeliaceae.

Habit: perennial epiphytic herb.

Distribution outside Florida: Tropical America.

Florida Distribution: Central and southern peninsular Florida.

St. Lucie County Habitats: coastal uplands, flatwoods, scrub, swamps.

Bloom season: May – December.

Protection Status: Listed by FDACS as endangered.

Wetland Status: FL – Upland (epiphyte)

Synonyms: None in common use.

Historical Context in St. Lucie County: J. Broda (1992) reported stiff-leaved wild-pine at North Fork St. Lucie River State Buffer Preserve. Several records of stiff-leaved wild-pine exist for St. Lucie County from surveys conducted by IRC staff 1997-1999 (Bradley et al., 1999). Sites where occurrences were recorded include: Bluefield Ranch, Spruce Bluff Park, Savannas Preserve State Park, and the Indrio Scrub site. Janice Duquesnel et al. (1998) recorded stiff-leaved wild-pine at Avalon State Park and Fort Pierce Inlet State Park. Wunderlin and Hansen (2007) report no collections of stiff-leaved wild-pine for St. Lucie County.

Comments: This species occasionally hybridizes with *T. balbisiana* creating the hybrid *T.* x*smalliana*. Many color forms of blooming spikes exist for this species of airplant. Stiff-leaved wild-pine may be threatened by the Mexican bromeliad weevil (*Metamasius callizona*).

Select References: Hammer, 2002; Wunderlin and Hansen, 2003.

Aids to Identification: Stiff-leaved wild-pine can have inflorescences which are variable in color. It differs from the similar giant wild-pine by producing pups at the base of the plant. It differs from reflexed wildpine by not possessing a narrowing at the top of the plant, and by having leaves which are shorter than the inflorescence.



Photo by Steve Woodmansee



Photo by Steve Woodmansee



Photo by Steve Woodmansee



Photo by Steve Woodmansee



Photo by Steve Woodmansee



Notes:

Tillandsia flexuosa Sw. Banded wild-pine, Twisted airplant

St. Lucie County Status: Assumed present. **Taxonomy:** Monocotyledon; Bromeliaceae.

Habit: perennial epiphytic herb.

Distribution outside Florida: Tropical America.

Florida Distribution: Southern peninsular Florida and Highlands County.

St. Lucie County Habitats: scrub. **Bloom season:** Spring - summer.

Protection Status: Listed by FDACS as threatened. Listed by FNAI as rare in Florida.

Wetland Status: FL – Upland (epiphyte)

Synonyms: Numerous, none in common use.

Historical Context in St. Lucie County: George Gann, Bradley and Woodmansee recorded a single individual of banded wild-pine at Savannas Preserve State Park in 1997 (Bradley et al., 1999). Wunderlin and Hansen (2007) report no collections of banded wild-pine for St. Lucie County.

Comments: Banded wild-pine may be at the northern end of its range in St. Lucie County. Banded wild-pine may be threatened by the Mexican bromeliad weevil (*Metamasius callizona*).

Select References: Wunderlin and Hansen, 2003.

Aids to Identification: Banded wild-pine differs from other species of *Tillandsia* in Florida by having an open inflorescence with pink flowers, and by having prominent dark bands on the leaves.





Tillandsia utriculata L. Giant wild-pine, Giant airplant

St. Lucie County Status: Present.

Taxonomy: Monocotyledon; Bromeliaceae.

Habit: perennial epiphytic herb.

Distribution outside Florida: Tropical America.

Florida Distribution: Central and southern peninsular Florida.

St. Lucie County Habitats: coastal uplands, flatwoods, scrub, swamps.

Bloom season: April - November.

Protection Status: Listed by FDACS as endangered.

Wetland Status: FL – Upland (epiphyte)

Synonyms: None in common use.

Historical Context in St. Lucie County: An anonymous plant list reports giant wild-pine at Dollman Park (s.d.). In 1971, W. Teas recorded giant wild-pine at North Fork St. Lucie River State Buffer Preserve (Teas, 1971). J. Broda (1992) reported giant wild-pine at North Fork St. Lucie River State Buffer Preserve. Several records of stiff-leaved wild-pine exist for St. Lucie County from surveys conducted by IRC staff 1997-1999 (Bradley et al., 1999). Sites where occurrences were recorded include: Bluefield Ranch, North Fork St. Lucie River State Buffer Preserve, North of Shell Station Scrub, North Savannas, Harbor Branch Oceanographic Institute, Blackhorse Scrub, Walton Scrub, St. Lucie Village Site, Spruce Bluff Park, Savannas Preserve State Park, and the Indrio Scrub site. Janice Duquesnel et al. (1998) recorded giant wild-pine at Fort Pierce Inlet State Park. In 1992, Mark Garland collected a specimen of giant wild-pine at Savannas Preserve State Park (#904, FLAS). Wunderlin and Hansen (2007) report a collection of giant wild-pine for St. Lucie County.

Comments: Giant wild-pine may be threatened by the Mexican bromeliad weevil (*Metamasius callizona*).

Select References: Hammer, 2004; Wunderlin and Hansen, 2003.

Aids to Identification: Giant wild-pine differs from the similar stiff-leaved wild-pine by being monocarpic and completely dies after flowering. In addition, inflorescences are open and can be over two meters tall.





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