A Floristic Survey and Rare Plant Assessment of Yellow Fever Creek Preserve, Lee County, Florida Final Report

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Cover photo: Catesby's lily (*Lilium catesbaei*), a species listed as threatened by the Florida Department of Agriculture and Consumer Services. Photo taken at Yellow Fever Creek Preserve by the primary author.

Introduction:

Lee County Parks and Recreation manages the 340 acre Yellow Fever Creek Preserve (YFCP). Lee County possessed very little floristic data on YFCP including floristic inventories, lists of rare plant species, lists of exotic species, or status of rare plant species. The Institute for Regional Conservation (IRC) was contracted to provide these data to Lee County for this property.

Methods:

Before visits were made, an IRC biologist coordinated with Lee County staff for any maps, habitat maps, or plant list data for YFCP. YFCP was visited in each of the seasons by two IRC biologists February 2nd, April 26th, August 1st, and October 17th, 2006. An attempt was made to visit all areas of YFCP over the entire study period. At each visit a list of plants was developed and augmented for YFCP, existing plant data was reviewed, and these species were sought after with special attention being paid toward rare plants. Taxonomy followed Wunderlin (1998) or Gann et al. (2001-2006). After the second survey date, population sizes on a log₁₀ scale were estimated for all vascular plant species encountered. Population sizes were amended as necessary during subsequent visits. Population estimates are for non cultivated mature adults and do not include seedlings or saplings.

During each visit an attempt was made to visit all habitats for the site as well as new ones encountered. A list of plants for each habitat was made. Habitat guidelines followed Florida Natural Areas Inventory (FNAI) (FNAI & DNR, 1992) and The Institute for Regional Conservation (Gann et al., 2001-2006).

Throughout the study, locations of rare plants were sought after. Plants were considered rare if they were listed by any of the following agencies: The United States Fish and Wildlife Service (USFWS) (FNAI, 2006), The Florida Department of Agriculture and Consumer Services (FDACS) (Coile & Garland, 2001), FNAI (2006), and/or IRC (Gann et al., 2001-2006). When rare plants were encountered, habitat, population size, and plant associates were recorded. Latitudinal and longitudinal coordinates were also recorded for each rare plant population with a Global Positioning System (GPS) device. During surveys if a rare plant species was found to occupy large non-discrete areas, the recording GPS coordinates desisted, and the plant species was recorded as throughout.

In addition to a checklist, plants were collected for herbarium vouchers during this study. Native plants collected met strict criteria. Collections encompassed less than 5% of the population for herbaceous species or 5% of an entire individual for woody species. If determinations could not be made in the field, plants were new to Lee County, or documentation of unusual species was deemed important plants were vouchered. Special attention was paid toward those species which were new or important records for Lee County, or invasive exotic plants which are poorly documented. Exotic plant species are those determined to have become naturalized in Florida after 1492 (post Columbus) or species outside their historic range. Primary herbarium voucher collections were deposited in part at Fairchild Tropical Botanic Garden Herbarium (FTG) in Coral Gables, FL. Duplicate specimens were housed at FTG and are to be deposited at The University of South Florida Herbarium (USF) and other registered herbaria.

Results:

Within the YFCP, a total of 381 native and naturalized plant species were recorded in our surveys. An additional 13 plants not recorded during these surveys were reported from an unpublished plant list provided by Lee County staff (Anonymous, 2005). Of these, three are thought to be false

records (Daucus caryota, Melochia corchorifolia, and Taxodium distichum), one is considered to be doubtful at the site (Xyris fimbriata), and the remaining nine are assumed to be present despite searches (Table 2). The reports of Daucus caryota, Melochia corchorifolia, and Taxodium distichum may have been misidentifications of the more common Oxypolis filiformis, Melochia spicata, and Taxodium ascendens respectively, all absent from the original list. A different taxonomic system which lumps the two Taxodiums may also be a reason for treating T. distichum as a false record. Xyris fimbriata has not been collected south of Manatee County (Wunderlin & Hansen, 2004), and although there is habitat (depression marsh) for this species, its occurrence is listed as doubtful.

With the inclusion of the additional nine reported species (Anonymous, 2005) a total of 390 plants were present or assumed present at YFCP (Tables 1 & 2). Of these 340 (87%) are considered native to Lee County, and 50 (13%) are considered exotic and naturalized. Of the 390 native plants at YFCP, 12 are ruderal (3%), and occur predominantly in disturbance areas. One exotic species, *Kalanchoe daigremontiana*, became extirpated during the survey year. Of the exotic species found on the preserve, 23 were considered ruderal or potentially invasive and not invading any natural area. Species reported as potentially invasive include *Cupaniopsis anacardioides*, *Ludwigia peruviana*, and *Sacciolepis indica*. Twenty-six exotic plant species were found to be invading intact habitat, of which 20 vascular plants were listed as invasive or potentially invasive by the Florida Exotic Pest Plant Council (FLEPPC) (Tables 2 & 5).

No plant species listed by the U.S. Fish and Wildlife Service were recorded. Six plant species listed by the Florida Department of Agriculture and Consumer Services either as commercially exploited, threatened, or endangered were recorded. One plant species listed by the Florida Natural Areas Inventory (FNAI) as rare (S3) in Florida was recorded. Fourteen plant species considered Critically Imperiled (SF1) in South Florida by IRC (Gann et al, 2001-2006) were recorded. A total of 19 rare plant species were recorded (Tables 3 & 4), 6% of the total native plant species recorded. Descriptions, history, and management recommendations for each rare species are provided in Appendix 1.

A total of nine habitats were surveyed during this study. Habitats surveyed included: depression marsh, disturbed upland, disturbed wetland, mesic flatwoods, mesic hammock, scrubby flatwoods, strand swamp, wet flatwoods, and wet prairie. Descriptions for each habitat including management recommendations are provided in Appendix 2.

The compiled plant list is provided in two formats. Table 1 provides a list of vascular plants (excluding false or doubtful records) recorded at the site arranged by group, family, and then genus/species. Common names and native status are also provided here. It is recommended that this table be used for distribution. Table 2 provides a list of all vascular plants recorded or reported at the site arranged by genus/species with common names. In Table 2, presence, native status, state status, FNAI status, IRC status, FLEPPC status, habitat location, and collector/collector # are provided. Also in Table 2, population size estimates on a log₁₀ scale of all native and naturalized species recorded by IRC staff are noted. Table 4 provides a list of rare species with GPS coordinates in decimal degrees for discrete locations, and a description of where the plants were observed. It is recommended that Table 4 not be used for distribution. Table 5 provides a list of FLEPPC species recorded at the site.

A total of 58 vascular plant collections were made at the preserve and included 54 vascular plant species.

An electronic copy of this report and a plant list with the above information as well as Invasive Status (ruderal, potentially invasive, etc.) in Microsoft Access format is also provided and also includes herbarium label data for all plants collected.

Acknowledgements:

As with any research endeavor, the authors are indebted to others for their contribution to this project. Hearty thanks go out to Lee County staff Laura Wewerka who assisted with field work. Stephen Hodges of IRC assisted with field work and plant collections. Kirsten Hines of IRC assisted with edits.

Table 1

The Vascular Plants of Yellow Fever Creek Preserve



The Institute for Regional Conservation Miami, Florida

Compiled from an anonymous plant list (Anonymous, 2005) provided by Lee County staff and field observations made by IRC staff: Steven W. Woodmansee and Steven E. Green on February 2nd, April 24th, August 2nd, 2006 and Steven W. Woodmansee and Stephen Hodges on October 17th, 2006

Dicots

Acanthaceae

Dyschoriste oblongifolia Common twinflower, Oblongleaf twinflower

Elytraria caroliniensis var. caroliniensis Carolina scalystem
Ruellia succulenta Thickleaf wild petunia

Stenandrium dulce Pinklet

<u>Amaranthaceae</u>

Amaranthus australis Southern water-hemp, Southern amaranth

E Gomphrena serrata Globe-amaranth
Iresine diffusa Bloodleaf, Juba's bush

<u>Anacardiaceae</u>

Rhus copallinum Winged sumac

E Schinus terebinthifolius Brazilian-pepper

Toxicodendron radicans Eastern poison-ivy

Annonaceae

Asimina reticulata Common pawpaw, Netted pawpaw

Apiaceae

Centella asiatica Coinwort, Spadeleaf Eryngium baldwinii Baldwin's eryngo

Eryngium yuccifolium Button snakeroot, Button rattlenakemaster

Oxypolis filiformis Water dropwort, Water cowbane
Ptilimnium capillaceum Mock bishopsweed, Herbwilliam

Aquifoliaceae

Ilex cassineDahoon holly, DahoonIlex glabraGallberry, Inkberry

<u>Asclepiadaceae</u>

Asclepias pedicellata Savannah milkweed

Asclepias tuberosa Butterflyweed, Butterfly milkweed
Sarcostemma clausum White twinevine

Asteraceae

Acmella oppositifolia var. repens Oppositeleaf spotflower
Ambrosia artemisiifolia Common ragweed

Aster adnatus Clasping aster, Scaleleaf aster

Aster braceiBrace's asterAster carolinianusClimbing asterAster dumosusRice button asterAster subulatusAnnual saltmarsh aster

Baccharis glomeruliflora Silverling

Baccharis halimifolia Saltbush, Groundsel tree, Sea-myrtle

Bidens alba var. radiata Spanish-needles

Bigelowia nudata subsp. australis Southern pineland rayless goldenrod

Boltonia diffusa Smallhead Doll's-daisy

Carphephorus corymbosus Florida paintbrush, Coastalplain chaffhead

Carphephorus odoratissimus var. subtropicanus

Pineland purple, False vanillaleaf

Woolly sunbonnets, Pineland daisy

Cirsium horridulum
Purple thistle
Conoclinium coelestinum
Blue mistflower

Conyza canadensis var. pusilla Dwarf Canadian horseweed

Coreopsis floridana Florida tickseed
Coreopsis leavenworthii Leavenworth's tickseed

Elephantopus elatus Florida elephant's-foot, Tall elephant's-foot

Emilia sonchifolia Lilac tassleflower

Erechtites hieracifolia Fireweed, American burnweed
Erigeron quercifolius Southern-fleabane, Oakleaf fleabane

Erigeron vernus Early whitetop fleabane Eupatorium capillifolium Dog-fennel

Eupatorium leptophyllum Falsefennel
Eupatorium mohrii Falsefennel
Mohr's thoroughwort

Eupatorium rotundifolium Roundleaf thoroughwort, False horehound

Euthamia caroliniana Slender goldenrod
Flaveria linearis Narrowleaf yellowtops

Gnaphalium falcatum Cudweed, Narrowleaf purple everlasting

Helenium pinnatifidum Southeastern sneezeweed

Heterotheca subaxillaris Camphorweed

Hieracium megacephalon Coastal plain hawkweed
Iva microcephala Piedmont marshelder
Liatris tenuifolia Shortleaf gayfeather
Mikania cordifolia Florida Keys hempvine

Mikania scandens Climbing hempweed, Climbing hempvine

Pectis prostrataSpreading cinchweedPityopsis graminifoliaNarrowleaf silkgrass

Pluchea odorata Sweetscent

Solidago sempervirens

Pluchea rosea Rosy camphorweed

Pterocaulon pycnostachyumBlackrootRudbeckia hirtaBlackeyed susanSolidago fistulosaPinebarren goldenrodSolidago odora var. chapmaniiChapman's goldenrod

Solidago stricta Narrow-leaved goldenrod, Wand goldenrod

Solidago tortifolia Twistedleaf goldenrod Vernonia blodgettii Florida ironweed

Seaside goldenrod

E Vernonia cinerea Little ironweed

Boraginaceae

Heliotropium polyphyllum Pineland heliotrope

Buddlejaceae

Polypremum procumbens Rustweed, Juniperleaf

Cactaceae

Opuntia humifusa Pricklypear

Campanulaceae

Lobelia feayanaBay lobeliaLobelia glandulosaGlade lobeliaLobelia paludosaWhite lobelia

Caryophyllaceae

Stipulicida setacea var. lacerata Lacerate pineland scalypink

Cistaceae

Helianthemum corymbosum Pinebarren frostweed
Lechea torreyi Piedmont pinweed

Clusiaceae

Hypericum brachyphyllumCoastalplain St. John's-wortHypericum cistifoliumRoundpod St. John's-wort

Hypericum crux-andreae St. Peter's-wort

Hypericum fasciculatum Sandweed, Peelbark St. John's-wort

Hypericum hypericoidesSt. Andrew's-crossHypericum mutilumDwarf St. John's-wortHypericum reductumAtlantic St. John's-wortHypericum tetrapetalumFourpetal St. John's-wort

Convolvulaceae

Evolvulus sericeus Silver dwarf morningglory
Ipomoea sagittata Everglades morningglory

E Ipomoea triloba Three-lobed morningglory, Littlebell

Crassulaceae

EX Kalanchoe daigremontiana Devil's-backbone

Droseraceae

Drosera brevifolia Dwarf sundew
Drosera capillaris Pink sundew

Ebenaceae

Diospyros virginiana Persimmon, Common persimmon

Ericaceae

Bejaria racemosa Tarflower

Lyonia fruticosa Coastalplain staggerbush

Vaccinium myrsinites Shiny blueberry

Euphorbiaceae

Caperonia castaneifolia Chestnutleaf Falsecroton
Chamaesyce hyssopifolia Eyebane, Hyssopleaf sandmat

Chamaesyce thymifolia Gulf sandmat

Cnidoscolus stimulosus Tread-softly, Finger-rot, 7-minute-itch

Croton glandulosus Vente conmigo

Euphorbia inundata Florida pineland spurge

Euphorbia polyphylla Pineland euphorbia, Lesser Florida spurge

Phyllanthus caroliniensis subsp. saxicola Rock Carolina leafflower

E Phyllanthus urinaria Chamber bitter

Stillingia aquatica Corkwood, Water toothleaf

Stillingia sylvatica Queensdelight

<u>Fabaceae</u>

E Abrus precatorius Rosary-pea, Crab-eyes

E Acacia auriculiformis Earleaf acacia

E Albizia lebbeck Woman's tongue, Rattlepod

Chamaecrista fasciculata Partridge pea

Chamaecrista nictitans var. aspera Hairy sensitive-pea, Hairy partridge-pea

Crotalaria rotundifoliaRabbitbellsDalea carneaWhitetasselsDesmodium floridanumFlorida ticktrefoilDesmodium incanumBeggar's-ticks

Desmodium incunumBeggar s-ticksDesmodium paniculatumPanicledleaf ticktrefoilDesmodium triflorumThreeflower ticktrefoilGalactia elliottiiElliott's milkpea

Galactia regularis
Eastern milkpea
Indigofera caroliniana
Carolina indigo
Indigofera hirsuta
Eastern milkpea
Carolina indigo
Hairy indigo

Sesbania herbacea Danglepod

<u>Fagaceae</u>

Quercus geminata Sand live oak

Quercus laurifolia Laurel oak, Diamond oak

Quercus minimaDwarf live oakQuercus myrtifoliaMyrtle oakQuercus pumilaRunning oakQuercus virginianaVirginia live oak

Gentianaceae

Sabatia brevifoliaShortleaf rosegentianSabatia stellarisRose-of-Plymouth

Haloraginaceae

Proserpinaca palustris Mermaid weed, Marsh mermaidweed
Proserpinaca pectinata Mermaid weed, Combleaf mermaidweed

Hydrophyllaceae

Hydrolea corymbosa Skyflower

<u>Lamiaceae</u>

Hyptis alata Musky mint, Clustered bushmint

Physostegia purpurea False dragonhead, Eastern false dragonhead

Piloblephis rigida Wild pennyroyal

Lauraceae

Cassytha filiformis Lovevine, Devil's gut

Persea palustris Swamp bay

Lentibulariaceae

Pinguicula luteaYellow butterwortPinguicula pumilaSmall butterwortUtricularia cornutaHorned bladderwortUtricularia foliosaLeafy bladderwort

Utricularia gibba Cone-spur bladderwort, Humped bladderwort

Utricularia purpureaEastern purple bladderwortUtricularia simulansFringed bladderwortUtricularia subulataZigzag bladderwort

Linaceae

Linum medium var. texanum Stiff yellow flax

Loganiaceae

Mitreola petiolataMiterwort, Lax hornpodMitreola sessilifoliaMitrewort, Swamp hornpod

<u>Lythraceae</u>

Ammannia latifolia Pink redstem, Toothcup

E Cuphea carthagenensis Colombian waxweed

Lythrum alatum var. lanceolatum Winged loosestrife

Rotala ramosior Toothcup, Lowland rotala

Malvaceae

E Sida cordifolia Lima

E Sida rhombifolia Cuban jute, Indian hemp

E Urena lobata Caesarweed

<u>Melastomataceae</u>

Rhexia cubensis West Indian meadowbeauty

Rhexia mariana Pale meadowbeauty, Maryland meadowbeauty

Rhexia nuttallii Nuttall's meadowbeauty

Moraceae

Ficus aurea Strangler fig, Golden fig
E Ficus microcarpa Laurel fig, Indian laurel

Myricaceae

Myrica cerifera Wax myrtle, Southern Bayberry

Myrsinaceae

Rapanea punctata Myrsine, Colicwood

<u>Myrtaceae</u>

E Melaleuca quinquenervia Punktree

E Syzygium cumini Jambolan-plum, Java-plum

Nymphaeaceae

Nymphaea elegans Blue waterlily, Tropical royalblue waterlily

<u>Onagraceae</u>

 Ludwigia alata
 Winged primrosewillow

 Ludwigia curtissii
 Curtiss's primrosewillow

 Ludwigia maritima
 Seaside primrosewillow

 Ludwigia microcarpa
 Smallfruit primrosewillow

 Ludwigia octovalvis
 Mexican primrosewillow

 Ludwigia peruviana
 Peruvian primrosewillow

Ludwigia repens Creeping primrosewillow

<u>Oxalidaceae</u>

Oxalis corniculata Lady's-sorrel, Common yellow woodsorrel

Passifloraceae

Passiflora suberosa Corkystem passionflower

Phytolaccaceae

Phytolacca americana American pokeweed

Polygalaceae

Polygala cruciata Drumheads

Polygala grandiflora Candyweed, Showy milkwort

Polygala incarnata Procession flower

Polygala nana Candyroot

Polygala polygama Racemed milkwort
Polygala setacea Coastalplain milkwort

Polygonaceae

Polygonella polygama var. brachystachya

Thinleaf October flower

Polygonum densiflorum Denseflower knotweed

Polygonum hydropiperoides Mild water-pepper, Swamp smartweed

Polygonum punctatum Dotted smartweed

Primulaceae

Anagallis pumila Florida pimpernel

<u>Rubiaceae</u>

Cephalanthus occidentalis Common buttonbush

Diodia teresPoor joe, Rough buttonweedDiodia virginianaButtonweed, Virginia buttonweedHedyotis procumbensInnocence, Roundleaf bluet

Hedyotis unifloraClustered mille grainePentodon pentandrusHale's pentodon

Psychotria nervosa

E Richardia brasiliensis

E Richardia scabra

E Richardia scabra

Shiny-leaved wild coffee

Tropical Mexican clover

Rough Mexican clover

Spermacoce assurgens

Woodland false buttonweed

Shrubby false buttonweed

Salicaceae

Spermacoce prostrata

Salix caroliniana Coastal Plain willow

<u>Sapindaceae</u>

E Cupaniopsis anacardioides Carrotwood

Sapotaceae

Sideroxylon reclinatum Recline Florida bully

Scrophulariaceae

Agalinis fasciculata Beach false foxglove

Bacopa caroliniana Lemon hyssop, Lemon bacopa, Blue

Bacopa innominata Tropical waterhyssop

Bacopa monnieri Water hyssop, Herb-of-grace

Buchnera americana American bluehearts

Prostrate false buttonweed

Gratiola hispida
Rough hedgehyssop
Branched hedgehyssop

E Lindernia crustacea
Lindernia grandiflora
Rough hedgehyssop
Branched hedgehyssop
Malaysian false-pimpernel
Savannah false-pimpernel

Mecardonia acuminata subsp. peninsularis Axilflower

Micranthemum glomeratum Manatee mudflower
Systemia dulais Systemia dulais

Sweetbroom, Licoriceweed

Solanaceae

Physalis pubescens

E Solanum tampicense

E Solanum torvum

Husk tomato

Aquatic soda-apple

Turkeyberry

Sterculiaceae

Melochia spicata Bretonica peluda

<u>Turneraceae</u>

Piriqueta caroliniana Pitted stripeseed

E Turnera ulmifolia Yellow alder, Ramgoat dashalong

<u>Urticaceae</u>

Boehmeria cylindrica Button-hemp, False nettle, Bog hemp

<u>Verbenaceae</u>

Callicarpa americana American beautyberry

Phyla nodiflora Frogfruit, Turkey tangle fogfruit, Capeweed

<u>Violaceae</u>

Viola palmata Early blue violet

Vitaceae

Parthenocissus quinquefolia Virginia-creeper, Woodbine Vitis rotundifolia Muscadine, Muscadine grape

Vitis shuttleworthii Calusa grape

Gymnosperms

Cupressaceae

Taxodium ascendens Pond cypress

<u>Pinaceae</u>

Pinus elliottii var. densa South Florida slash pine

Monocots

Alismataceae

Sagittaria graminea var. chapmanii Chapman's arrowhead

Sagittaria lancifolia Bulltongue arrowhead, lance-leaved arrowhead

<u>Amaryllidaceae</u>

Hymenocallis palmeri Alligatorlily

<u>Arecaceae</u>

Sabal palmettoCabbage palmSerenoa repensSaw palmetto

Bromeliaceae

Tillandsia balbisiana Reflexed wild-pine, Northern needleleaf
Tillandsia facciculata var. dencistica Stiff-leaved wild-pine Cardinal airplant

Tillandsia fasciculata var. densispica Stiff-leaved wild-pine, Cardinal airplant Tillandsia paucifolia Twisted wild-pine, Potbelly airplant

Tillandsia recurvata Ball-moss

Tillandsia setacea Thin-leaved wild-pine, Southern needleleaf

Tillandsia usneoides Spanish-moss

Tillandsia utriculata Giant wild-pine, Giant airplant

<u>Burmanniaceae</u>

Burmannia capitata Southern bluethread

Commelinaceae

Commelina erecta Whitemouth dayflower

E. Murdannia spirata Asiatic dewflower

<u>Cyperaceae</u>

Е

Ε

Bulbostylis ciliatifolia Densetuft hairsedge

Cladium jamaicense Saw-grass, Jamaica swamp sawgrass

Cyperus articulatusJointed flatsedgeCyperus croceusBaldwin's flatsedgeCyperus haspanHaspan flatsedgeCyperus ligularisSwamp flatsedgeCyperus pumilusLow flatsedge

Cyperus retrorsus Pinebarren flatsedge

E Cyperus rotundus Nut-grass

Cyperus surinamensisTropical flatsedgeEleocharis cellulosaGulf Coast spikerushEleocharis geniculataCanada spikerushEleocharis interstinctaKnotted spikerushFimbristylis autumnalisSlender fimbry

Fimbristylis cymosa Hurricane sedge, Hurricanegrass

Fimbristylis puberula Hairy fimbry
Fimbristylis schoenoides Ditch fimbry

Fuirena brevisetaSaltmarsh umbrellasedgeFuirena scirpoideaSouthern umbrellasedgeLipocarpha aristulataAwned halfchaff sedgeLipocarpha maculataAmerican halfchaff sedgeLipocarpha micranthaSmallflower halfchaff sedge

Rhynchospora colorata

Rhynchospora divergens

Rhynchospora fascicularis

Rhynchospora fascicularis

Rhynchospora fascicularis

Rhynchospora globularis

Globe beak-rush

Rhynchospora inundata Narrowfruit horned beaksedge

Rhynchospora microcarpaSouthern beaksedgeRhynchospora nitensShortbeak beaksedgeRhynchospora odorataFragrant beaksedgeRhynchospora plumosaPlumed beaksedgeRhynchospora tracyiTracy's beaksedge

Schoenus nigricans Black sedge, Black bogrush

Scleria ciliataFringed nutrushScleria ciliata var. paucifloraFewflower nutrushScleria georgianaSlenderfruit nutrush

Scleria reticularis Netted nutrush

Eriocaulaceae

Eriocaulon decangulare

Lachnocaulon anceps

Whitehead bogbutton

Syngonanthus flavidulus

Yellow hatpins

<u>Haemodoraceae</u>

Lachnanthes caroliana Bloodroot, Carolina redroot

Hypoxidaceae

Hypoxis junceaFringed Yellow stargrassHypoxis wrightiiBristleseed yellow stargrass

<u>Iridaceae</u>

Sisyrinchium nashii Nash's blueeyed-grass

<u>Juncaceae</u>

Juncus marginatusShore rush, Grassleaf rushJuncus megacephalusBighead rushJuncus polycephalosManyhead rushJuncus scirpoidesNeedlepod rush

Liliaceae

Aletris lutea Yellow colicroot
Lilium catesbaei Catesby's lily, Pine lily

<u>Marantaceae</u>

Thalia geniculata Alligatorflag, Fireflag

Orchidaceae

Eulophia alta Wild-coco

Habenaria floribunda Rein orchid, Toothpetal false reinorchid

Habenaria quinqueseta Longhorn false reinorchid

E. Oeceoclades maculata African ground orchid, Monk orchid

Sacoila lanceolata (unk.variety)

Beaked lady's-tresses

Spiranthes praecox

Greenvein lady's-tresses

Poaceae

Amphicarpum muhlenbergianumBlue-maidencaneAndropogon glomeratus var. glaucopsisPurple bluestemAndropogon glomeratus var. hirsutiorHairy bushy bluestemAndropogon glomeratus var. pumilusCommon bushy bluestem

Andropogon gyransElliott's bluestemAndropogon ternariusSplitbeard bluestemAndropogon virginicusBroomsedge bluestem

Andropogon virginicus var. decipiens Andropogon virginicus var. glaucus

Andropogon virginicus var. glaucusChalky bluestemAristida beyrichianaSouthern wiregrassAristida patulaTall threeawn

Aristida purpurascensArrowfeather threeawnAristida spiciformisBottlebrush threeawnAxonopus fissifoliusCommon carpetgrassCenchrus incertusCoastal sandburCoelorachis rugosaWrinkled jointtail grassDichanthelium aciculareNeedleleaf witchgrass

Dichanthelium commutatumVariable witchgrassDichanthelium dichotomumCypress witchgrassDichanthelium ensifoliumCypress witchgrassDichanthelium erectifoliumErectleaf witchgrassDichanthelium portoricenseHemlock witchgrass

Dichanthelium strigosum var. glabrescens Glabrescent roughhair witchgrass

E Digitaria longiflora
 E Eragrostis atrovirens
 E Eragrostis ciliaris
 E Eragrostis elliottii
 Indian crabgrass
 Thalia love grass
 Gophertail love grass
 Elliott's love grass

Eustachys glauca Prairie fingergrass, Saltmarsh fingergrass

Eustachys petruea Common fingergrass, Pinewoods fingergrass

Heteropogon contortusTangleheadHymenachne amplexicaulisTrompetillaImperata brasiliensisBrazilian satintail

E Imperata cylindrica Congongrass, Cogongrass

Leersia hexandra Southern cutgrass

Muhlenbergia capillarisMuhlygrass, HairawnmuhlyOplismenus hirtellusWoodsgrass, BasketgrassPanicum hemitomonMaidencane

Panicum hians

E Panicum maximum

E Panicum repens

Fanicum rigidulum

Panicum tenerum

Panicum virgatum

Panicum virgatum

Fanicum virgatum

Panicum virgatum

Panicum virgatum

Panicum virgatum

Panicum virgatum

Mattericarie

Guineagrass

Torpedo grass

Redtop panicum

Bluejoint panicum

Switchgrass

Paspalidium geminatum Egyptian paspalidium Paspalum monostachyum Gulfdune paspalum

E Paspalum notatum
Bahia grass
Paspalum praecox
Early paspalum
Paspalum setaceum
Paspalum vaginatum
Seashore paspalum

Pennisetum purpureum Napier grass, Elephantgrass

Phragmites australisCommon reedReimarochloa oligostachyaFlorida reimargrassRhynchelytrum repensRose NatalgrassSaccharum giganteumSugarcane plumegrassSacciolepis indicaIndian cupscale

Schizachyrium rhizomatum Rhizomatous bluestem

Setaria parviflora Knotroot foxtail, Yellow bristlegrass

Sorghastrum secundumLopsided Indian grassSpartina bakeriSand cordgrass

E Sporobolus indicus var. pyramidalis West Indian dropseed

Sporobolus junceusPineywoods dropseedTripsacum dactyloidesEastern gamagrass, Fakahatchee grass

Pontederia cordata Pickerelweed

<u>Smilacaceae</u>

Smilax auriculata Earleaf greenbrier

Smilax tamnoides Cathrier, Bristly greenbrier, Hogbrier

Typhaceae

Typha domingensis Southern cat-tail

Xyridaceae

Xyris ambiguaCoastalplain yelloweyed grassXyris brevifoliaShortleaf yelloweyed grassXyris carolinianaCarolina yelloweyed grassXyris elliottiiElliott's yelloweyed grassXyris flabelliformisSavannah yelloweyed grassXyris smallianaSmall's yelloweyed grass

Pteridophytes

Blechnaceae

Blechnum serrulatum Swamp fern, Toothed midsorus fern

Woodwardia virginica Virginia chain fern

<u>Dennstaedtiaceae</u>

Pteridium aquilinum var. caudatum Lacy bracken fern
Pteridium aquilinum var. pseudocaudatum Tailed bracken fern

Nephrolepidaceae

Nephrolepis exaltata Wild Boston fern
E Nephrolepis multiflora Asian sword fern

Polypodiaceae

Phlebodium aureum Golden polypody
Pleopeltis polypodioides var. michauxiana Resurrection fern

<u>Pteridaceae</u>

E Pteris vittata China brake

Thelypteridaceae

Thelypteris kunthii Southern shield fern

Vittariaceae

Vittaria lineata Shoestring fern

E = Not Native to the site

EX = Not Native to the site, extirpated

Table 2
The Vascular Plants of Yellow Fever Creek Preserve, by genus

													H	abita	ıts				
Scientific Name	Common Names	Occurrence	Native Status	State Status	FNAI state status	FNAI global status	IRC status	FLEPPC	Estimated Population Size	depression marsh	disturbed dry	disturbed wet	mesic flatwoods	mesic hammock	scrubby flatwoods	strand swamp	wet flatwoods	wet prairie	SW collector number
Abrus precatorius	Rosary-pea, Crab-eyes	P	Е					I	101-1,000		X		X						
Acacia auriculiformis	Earleaf acacia	P	Е					Ι	11-100		X		x						
Acmella oppositifolia var. repens	Oppositeleaf spotflower	P	N						11-100							X			
Agalinis fasciculata	Beach false foxglove	S	N																
Albizia lebbeck	Woman's tongue, Rattlepod	P	Е					Ι	2-10		X		X						
Aletris lutea	Yellow colicroot	P	N						11-100				X						1840
Amaranthus australis	Southern water-hemp, Southern amaranth	Р	N						101-1,000	x	X								
Ambrosia artemisiifolia	Common ragweed	P	N						101-1,000		X	X							
Ammannia latifolia	Pink redstem, Toothcup	P	N						11-100							X			1845
Amphicarpum muhlenbergianum	Blue-maidencane	P	N						1,001-10,000		X		X		X		X	X	
Anagallis pumila	Florida pimpernel	P	N				SF1		11-100			X							1836
Andropogon glomeratus var. glaucopsis	Purple bluestem	Р	N						1,001-10,000				x						
Andropogon glomeratus var. hirsutior	Hairy bushy bluestem	Р	N						101-1,000				X				X		
Andropogon glomeratus var. pumilus	Common bushy bluestem	P	N						1,001-10,000		X					x	x		
Andropogon gyrans	Elliott's bluestem	P	N						101-1,000		X		X						1789
Andropogon ternarius	Splitbeard bluestem	P	N						101-1,000				X						1940
Andropogon virginicus	Broomsedge bluestem	P	N						1,001-10,000		X		x				X		
Andropogon virginicus var. decipiens		P	N						101-1,000						X				1942
Andropogon virginicus var. glaucus	Chalky bluestem	P	N						1,001-10,000		X	X	x		x		X		

Aristida beyrichiana So	outhern wiregrass	P	N			10,001-100,000		X		X		X				
Aristida patula Ta	'all threeawn	Р	N			11-100		X								
	rrowfeather threeawn	Р	N			10,001-100,000		X	X	X		X		X		
Aristida spiciformis Bo	ottlebrush threeawn	Р	N			10,001-100,000		X		X		X				1945
Asclepias pedicellata Sa	avannah milkweed	Р	N			11-100		X		X						
Asclepias tuberosa Bi	outterflyweed, Butterfly milkweed	Р	N			101-1,000		X		X		X		X		1846
Asimina reticulata Co	Common pawpaw, Netted pawpaw	Р	N			1,001-10,000		X		X		X		X		
Aster adnatus Cl	Clasping aster, Scaleleaf aster	Р	N			101-1,000				X		X				
Aster bracei Br	race's aster	P	N			101-1,000									X	1783
Aster carolinianus C.	limbing aster	Р	N			2-10							X			
Aster dumosus Ri	ice button aster	Р	N			101-1,000				X						
Aster subulatus A	nnual saltmarsh aster	P	N			11-100			X							
Axonopus fissifolius Co	Common carpetgrass	P	N			11-100		X								1875
Baccharis glomeruliflora Si	ilverling	P	N			1,001-10,000			X	X	X		X			
Baccharis halimifolia Sa	altbush, Groundsel tree, Sea-myrtle	P	N			1,001-10,000		X				X				
	emon hyssop, Lemon bacopa, Blue	P	N			1,001-10,000	x		x				x		x	
Bacopa innominata T:	ropical waterhyssop	Р	N		SF1	11-100			X							1943
Bacopa monnieri W	Vater hyssop, Herb-of-grace	Р	N			1,001-10,000			X				X			
Bejaria racemosa T:	arflower	Р	N			1,001-10,000		X		X		X				
Bidens alba var. radiata S _F	panish-needles	Р	N			1,001-10,000		X						X		
Bigelowia nudata suhsp. australis Sc	outhern pineland rayless goldenrod	P	N			101-1,000		X		X					X	
Blechnum serrulatum St	wamp fern, Toothed midsorus fern	P	N			1,001-10,000					X		x	x	x	
Boehmeria cylindrica Br	outton-hemp, False nettle, Bog hemp	P	N			1,001-10,000		X					X			
Boltonia diffusa Sr	mallhead Doll's-daisy	P	N			1,001-10,000	X		X				x	x	X	
Buchnera americana A	merican bluehearts	P	N			101-1,000		X	X	X						
Bulbostylis ciliatifolia D	Densetuft hairsedge	P	N			101-1,000				X		X				1881
Bulbostylis ciliatifolia D	Densetuft hairsedge	P	N			101-1,000				X		X				1876
Burmannia capitata Sc	outhern bluethread	P	N			1,001-10,000				X						
Callicarpa americana A:	merican beautyberry	Р	N			1,001-10,000		X		X						
Caperonia castaneifolia CI	Chestnutleaf Falsecroton	Р	N			11-100									X	
	lorida paintbrush, Coastalplain haffhead	P	N			101-1,000				x						1947
Carphephorus odoratissimus var. subtropicanus Pi	ineland purple, False vanillaleaf	P	N			11-100				X						1946

County of Cliffornia	Iin - Dill	Р	NI	l			1.001.10.000										
Cassytha filiformis	Lovevine, Devil's gut	P	N N				1,001-10,000		X		X					X	\vdash
Cenchrus incertus	Coastal sandbur	P	N				1,001-10,000		X				X				
Centella asiatica	Coinwort, Spadeleaf	1					10,001-100,000		X	X	X			X	X	X	\vdash
Cephalanthus occidentalis	Common buttonbush	P	N				101-1,000	X		X				X			\vdash
Chamaecrista fasciculata	Partridge pea	P	N				1,001-10,000				X		X				
Chamaecrista nictitans var. aspera	Hairy sensitive-pea, Hairy partridge-pea	P	N				101-1,000		X								
Chamaesyce hyssopifolia	Eyebane, Hyssopleaf sandmat	Р	N				11-100		X								
Chamaesyce thymifolia	Gulf sandmat	Р	N				1		X								
Chaptalia tomentosa	Woolly sunbonnets, Pineland daisy	Р	N				101-1,000		X		X		X			X	
Cirsium horridulum	Purple thistle	Р	N				101-1,000								X	X	
Cladium jamaicense	Saw-grass, Jamaica swamp sawgrass	Р	N				101-1,000				X	X		X		X	
Cnidoscolus stimulosus	Tread-softly, Finger-rot, 7-minute-itch	P	N				11-100		X		X		X		X		
Coelorachis rugosa	Wrinkled jointtail grass	Р	N				11-100								X	X	
Commelina erecta	Whitemouth dayflower	Р	N				11-100		X		X	X	X				
Conoclinium coelestinum	Blue mistflower	Р	N				101-1,000							X		X	
Conyza canadensis var. pusilla	Dwarf Canadian horseweed	Р	N				1,001-10,000		X								
Coreopsis floridana	Florida tickseed	Р	N				2-10				X						
Coreopsis leavenworthii	Leavenworth's tickseed	Р	N				1,001-10,000		X	X					X	X	
Crotalaria rotundifolia	Rabbitbells	P	N				11-100		X		X						
Croton glandulosus	Vente conmigo	P	N				101-1,000		X		X						
Cupaniopsis anacardioides	Carrotwood	P	Е			Ι	0		X								
Cuphea carthagenensis	Colombian waxweed	P	Е				101-1,000			X					X		
Cyperus articulatus	Jointed flatsedge	P	N				11-100	X									
Cyperus croceus	Baldwin's flatsedge	P	N				101-1,000		X								
Cyperus haspan	Haspan flatsedge	P	N				101-1,000		X						X	X	
Cyperus ligularis	Swamp flatsedge	P	N				11-100		X		X		X				
Cyperus pumilus	Low flatsedge	P	Е				101-1,000		x								1938
Cyperus retrorsus	Pinebarren flatsedge	P	N				101-1,000		X				X				
Cyperus rotundus	Nut-grass	P	Е				11-100		X								
Cyperus surinamensis	Tropical flatsedge	P	N				101-1,000		X								
Dalea carnea	Whitetassels	P	N				11-100		X								
Daucus carota		F	F				0										
Desmodium floridanum	Florida ticktrefoil	Р	N		SF1		11-100		X		X						1879
Desmodium incanum	Beggar's-ticks	P	N				1,001-10,000		X								
Desmodium paniculatum	Panicledleaf ticktrefoil	P	N				101-1,000				X						

Desmodium triflorum	Threeflower ticktrefoil	P	Е			101-1,000		X								
Dichanthelium aciculare	Needleleaf witchgrass	Р	N			1,001-10,000		X	X	X				X		
Dichanthelium commutatum	Variable witchgrass	Р	N			11-100					x					
Dichanthelium dichotomum	Cypress witchgrass	Р	N			1,001-10,000		x		X			X			1886
Dichanthelium ensifolium	Cypress witchgrass	P	N			1,001-10,000				X		X		X	X	
Dichanthelium erectifolium	Erectleaf witchgrass	P	N			1,001-10,000			X					X	X	1784
Dichanthelium portoricense	Hemlock witchgrass	P	N			10,001-100,000		X		X		X		X		
Dichanthelium strigosum var. glabrescens	Glabrescent roughhair witchgrass	P	N			10,001-100,000		X				X		X		
Digitaria longiflora	Indian crabgrass	P	Е			11-100		x								1878
Diodia teres	Poor joe, Rough buttonweed	P	N			1,001-10,000		X				X				
Diodia virginiana	Buttonweed, Virginia buttonweed	P	N			101-1,000	X		X				X		X	
Diospyros virginiana	Persimmon, Common persimmon	P	N			101-1,000		X		X						
Drosera brevifolia	Dwarf sundew	P	N			101-1,000				X						1786
Drosera capillaris	Pink sundew	P	N			10,001-100,000				X						
Dyschoriste oblongifolia	Common twinflower, Oblongleaf twinflower	P	N			11-100		x		x						
Eleocharis cellulosa	Gulf Coast spikerush	P	N			10,001-100,000	X		X						X	
Eleocharis geniculata	Canada spikerush	Р	N			101-1,000									X	
Eleocharis interstincta	Knotted spikerush	P	N			1,001-10,000	X		x							
Elephantopus elatus	Florida elephant's-foot, Tall elephant's-foot	Р	N			1,001-10,000		X		x				x		
Elytraria caroliniensis var. caroliniensis	Carolina scalystem	P	N		SF1	101-1,000									X	1884
Emilia sonchifolia	Lilac tassleflower	Р	Е			11-100		X								
Eragrostis atrovirens	Thalia love grass	Р	Е			101-1,000		X	X			X				
Eragrostis ciliaris	Gophertail love grass	P	Е			11-100		X								1877
Eragrostis elliottii	Elliott's love grass	P	N			101-1,000		X		X		X		X	X	
Erechtites hieracifolia	Fireweed, American burnweed	P	N			101-1,000		X		X						
Erigeron quercifolius	Southern-fleabane, Oakleaf fleabane	P	N			101-1,000			X					X	X	
Erigeron vernus	Early whitetop fleabane	P	N			1,001-10,000		x		X					X	
Eriocaulon decangulare	Tenangle pipewort	P	N			101-1,000	X			X						
Eryngium baldwinii	Baldwin's eryngo	P	N			10,001-100,000		X	X					X	X	
Eryngium yuccifolium	Button snakeroot, Button rattlenakemaster	P	N			101-1,000		x								
Eulophia alta	Wild-coco	Р	N			2-10		X		X						
Eupatorium capillifolium	Dog-fennel	Р	N			10,001-100,000		X								
Eupatorium leptophyllum	Falsefennel	Р	N			1,001-10,000	X		X							

Eupatorium mohrii	Mohr's thoroughwort	P	N				1,001-10,000				X						
Eupatorium rotundifolium	Roundleaf thoroughwort, False horehound	P	N				101-1,000		X		x						1890
Euphorbia inundata	Florida pineland spurge	P	N		SF1		101-1,000		X		X		X		X		1848
Euphorbia pohyphylla	Pineland euphorbia, Lesser Florida spurge	P	N				11-100		X	X	X		X		X		
Eustachys glauca	Prairie fingergrass, Saltmarsh fingergrass	P	N				11-100		X	x					X	x	
Eustachys petraea	Common fingergrass, Pinewoods fingergrass	P	N				101-1,000		x				x		x	x	
Euthamia caroliniana	Slender goldenrod	P	N				1,001-10,000		x	X	X				x		
Evolvulus sericeus	Silver dwarf morningglory	P	N				11-100		X				X		X		
Ficus aurea	Strangler fig, Golden fig	P	N				2-10					X		X	X		
Ficus microcarpa	Laurel fig, Indian laurel	P	Е			I	2-10		X			X			X		
Fimbristylis autumnalis	Slender fimbry	P	N				101-1,000		X		X						
Fimbristylis cymosa	Hurricane sedge, Hurricanegrass	P	Е				101-1,000		X								
Fimbristylis puberula	Hairy fimbry	P	N				1,001-10,000				X						
Fimbristylis schoenoides	Ditch fimbry	Р	Е				1,001-10,000		x						X		1937
Flaveria linearis	Narrowleaf yellowtops	P	N				101-1,000			X						X	
Fuirena breviseta	Saltmarsh umbrellasedge	Р	N				101-1,000	X	x	X	X				X	X	
Fuirena scirpoidea	Southern umbrellasedge	P	N				10,001-100,000		X	X					X	X	
Galactia elliottii	Elliott's milkpea	P	N				101-1,000		X		X						
Galactia regularis	Eastern milkpea	Р	N				11-100		X		X						1847
Gnaphalium falcatum	Cudweed, Narrowleaf purple everlasting	P	N				101-1,000		X	X							
Gomphrena serrata	Globe-amaranth	P	Е				11-100						X				
Gratiola hispida	Rough hedgehyssop	P	N				101-1,000		X		X						
Gratiola ramosa	Branched hedgehyssop	P	N				101-1,000			X				X		X	
Habenaria floribunda	Rein orchid, Toothpetal false reinorchid	P	N				11-100				X	X					
Habenaria quinqueseta	Longhorn false reinorchid	P	N				2-10		X								
Hedyotis procumbens	Innocence, Roundleaf bluet	P	N				101-1,000				X		X				
Hedyotis uniflora	Clustered mille graine	P	N				1,001-10,000		x		X						
Helenium pinnatifidum	Southeastern sneezeweed	P	N				11-100			x						X	
Helianthemum corymbosum	Pinebarren frostweed	Р	N				101-1,000		X		X		X				
Heliotropium polyphyllum	Pineland heliotrope	P	N				10,001-100,000		X	X					X	X	
Heteropogon contortus	Tanglehead	Р	N				2-10		X								1934
Heterotheca subaxillaris	Camphorweed	Р	N				101-1,000		x								

			1	ı		1		1	1	1			1	1	1	1	
Hieracium megacephalon	Coastal plain hawkweed	P	N				11-100		X		X						
Hydrolea corymbosa	Skyflower	P	N		_		101-1,000	X						X			
Hymenachne amplexicaulis	Trompetilla	P	Е			I	10,001-100,000	X		X				X			
Hymenocallis palmeri	Alligatorlily	P	N				11-100								X	X	
Hypericum brachyphyllum	Coastalplain St. John's-wort	P	N				1,001-10,000			X	X					X	
Hypericum cistifolium	Roundpod St. John's-wort	P	N				101-1,000		X		X		X			X	
Hypericum crux-andreae	St. Peter's-wort	P	N		SF1		11-100		X		X						
Hypericum fasciculatum	Sandweed, Peelbark St. John's-wort	S	N														
Hypericum hypericoides	St. Andrew's-cross	P	N				1,001-10,000		X		X					X	
Hypericum mutilum	Dwarf St. John's-wort	P	N				101-1,000		X	X							1842
Hypericum reductum	Atlantic St. John's-wort	P	N				101-1,000		X		X						
Hypericum tetrapetalum	Fourpetal St. John's-wort	P	N				1,001-10,000		X		X				X		
Hypoxis juncea	Fringed Yellow stargrass	P	N				11-100				X						
Hypoxis wrightii	Bristleseed yellow stargrass	P	N				11-100		X								1885
Hyptis alata	Musky mint, Clustered bushmint	P	N				1,001-10,000	X	X		X			X		X	
Ilex cassine	Dahoon holly, Dahoon	P	N				101-1,000				X	X		X			
Ilex glabra	Gallberry, Inkberry	P	N				101-1,000		X		X						
Imperata brasiliensis	Brazilian satintail	P	N				101-1,000		X		X						
Imperata cylindrica	Congongrass, Cogongrass	P	Е			Ι	101-1,000				X						
Indigofera caroliniana	Carolina indigo	P	N				11-100		X								1883
Indigofera hirsuta	Hairy indigo	S	Е						X								
Ipomoea sagittata	Everglades morningglory	P	N				101-1,000			X	X			X	X	X	
Ipomoea triloha	Three-lobed morningglory, Littlebell	S	Е														
Iresine diffusa	Bloodleaf, Juba's bush	S	N														
Iva microcephala	Piedmont marshelder	P	N				101-1,000		X	X						X	
Juncus marginatus	Shore rush, Grassleaf rush	P	N				1,001-10,000				X				X		
Juncus megacephalus	Bighead rush	P	N				1,001-10,000		X	X					X	X	
Juncus polycephalos	Manyhead rush	P	N				101-1,000			X				X			
Juncus scirpoides	Needlepod rush	P	N				11-100		X								1852
Kalanchoe daigremontiana	Devil's-backbone	X	X				0		X								
Lachnanthes caroliana	Bloodroot, Carolina redroot	P	N				1,001-10,000		X		X						
Lachnocaulon anceps	Whitehead bogbutton	P	N				10,001-100,000		X		X				X		
Lechea torreyi	Piedmont pinweed	P	N				101-1,000		X		X						1850
Lechea torreyi	Piedmont pinweed	Р	N				101-1,000		X		X						1882
Leersia hexandra	Southern cutgrass	Р	N				11-100							X			
Liatris tenuifolia	Shortleaf gayfeather	Р	N				11-100		X		X						

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Lilium catesbaei	Catesby's lily, Pine lily	P	N	Т					101-1,000				X						1944
Lindernia crustacea	Malaysian false-pimpernel	P	Е						1,001-10,000		X		X						<u> </u>
Lindernia grandiflora	Savannah false-pimpernel	P	N						101-1,000			X					X	X	
Linum medium var. texanum	Stiff yellow flax	P	N						11-100			X	X						L
Lipocarpha aristulata	Awned halfchaff sedge	P	Е						1,001-10,000		X								1935
Lipocarpha maculata	American halfchaff sedge	P	N				SF1		101-1,000		X								1936
Lipocarpha micrantha	Smallflower halfchaff sedge	P	N						11-100		X								1978
Lobelia feayana	Bay lobelia	P	N						11-100			X							
Lobelia glandulosa	Glade lobelia	P	N						11-100		X			X			X		
Lobelia paludosa	White lobelia	P	N						101-1,000		X		X						
Ludwigia alata	Winged primrosewillow	P	N						11-100	X									
Ludwigia curtissii	Curtiss's primrosewillow	P	N						101-1,000			X	X					X	
Ludwigia maritima	Seaside primrosewillow	P	N						1,001-10,000		X		X		X		X		
Ludwigia microcarpa	Smallfruit primrosewillow	P	N						1,001-10,000		X	X				X		X	
Ludwigia octovalvis	Mexican primrosewillow	P	N						101-1,000				X				X		
Ludwigia peruviana	Peruvian primrosewillow	S	Е																
Ludwigia repens	Creeping primrosewillow	P	N						1,001-10,000		X	X				X			
Lygodium microphyllum	Small-leaf climbing fern	P	Е					Ι	2-10			X	X						
Lyonia fruticosa	Coastalplain staggerbush	P	N						1,001-10,000		X		X		X				
Lythrum alatum var. lanceolatum	Winged loosestrife	P	N						101-1,000		X					X		X	
Mecardonia acuminata subsp. peninsularis	Axilflower	P	N						1,001-10,000		X	X	X				X	X	
Melaleuca quinquenervia	Punktree	P	Е					I	10,001-100,000	X	X				X	X	X	X	
Melochia corchorifolia	Chocolateweed	F	F																
Melochia spicata	Bretonica peluda	P	N						1,001-10,000		X	X			X		X		
Micranthemum glomeratum	Manatee mudflower	P	N						101-1,000			X							1843
Mikania cordifolia	Florida Keys hempvine	P	N						11-100				X	X					
Mikania scandens	Climbing hempweed, Climbing hempvine	P	N						1,001-10,000	X	X	X				X		X	
Mitreola petiolata	Miterwort, Lax hornpod	P	N						101-1,000		X							X	
Mitreola sessilifolia	Mitrewort, Swamp hornpod	P	N						101-1,000				X					X	
Muhlenbergia capillaris	Muhlygrass, Hairawnmuhly	P	N						1,001-10,000			X	X				X	X	
Murdannia spirata	Asiatic dewflower	P	Е						101-1,000				X						
Myrica cerifera	Wax myrtle, Southern Bayberry	P	N						1,001-10,000	X	X	X	X	X	X	X	X	X	
Nephrolepis exaltata	Wild Boston fern	P	N						2-10		X								
Nephrolepis multiflora	Asian sword fern	Р	Е					Ι	101-1,000		X	X	X	X					

	Blue waterlily, Tropical royalblue																
Nymphaea elegans	waterlily	P	N				1,001-10,000	X		X				X	X		
Oeceoclades maculata	African ground orchid, Monk orchid	P	Е				2-10					X					<u> </u>
Oplismenus hirtellus	Woodsgrass, Basketgrass	P	N				11-100					X					
Opuntia humifusa	Pricklypear	P	N				11-100		X				X				
Oxalis corniculata	Lady's-sorrel, Common yellow woodsorrel	Р	N				101-1,000		x					x			
Oxypolis filiformis	Water dropwort, Water cowbane	P	N				11-100	X						X			
Panicum hemitomon	Maidencane	P	N				1,001-10,000	X		X				X		X	
Panicum hians	Gaping panicum	P	N				1,001-10,000		X	X	X				X		
Panicum maximum	Guineagrass	P	Е			II	2-10		X								
Panicum repens	Torpedo grass	P	Е			Ι	10,001-100,000	X	X	X			X			X	
Panicum rigidulum	Redtop panicum	P	N				101-1,000		X	X			X	X		X	
Panicum tenerum	Bluejoint panicum	P	N				101-1,000			X	X				x	X	
Panicum virgatum	Switchgrass	P	N				101-1,000		X		X					X	1889
Parthenocissus quinquefolia	Virginia-creeper, Woodbine	P	N				11-100				X				X		
Paspalidium geminatum	Egyptian paspalidium	P	N				11-100	X									
Paspalum monostachyum	Gulfdune paspalum	P	N				101-1,000				X				X	X	
Paspalum notatum	Bahia grass	P	Е				1,001-10,000		X		X		X		X		
Paspalum praecox	Early paspalum	P	N				11-100				X					X	1838
Paspalum setaceum	Thin paspalum	P	N				1,001-10,000		X		X		X		X	X	
Paspalum vaginatum	Seashore paspalum	P	N				11-100									X	
Passiflora suberosa	Corkystem passionflower	P	N				2-10					x					
Pectis prostrata	Spreading cinchweed	P	N				11-100		X								
Pennisetum purpureum	Napier grass, Elephantgrass	S	Е			I											
Pentodon pentandrus	Hale's pentodon	P	N				101-1,000			X							1844
Persea palustris	Swamp bay	P	N				11-100			X		X				X	
Phlebodium aureum	Golden polypody	P	N				101-1,000				X	X	X	X	X		
Phragmites australis	Common reed	P	N				101-1,000			X						X	
Phyla nodiflora	Frogfruit, Turkey tangle fogfruit, Capeweed	P	N				1,001-10,000		X	X				X		X	
Phyllanthus caroliniensis subsp. saxicola	Rock Carolina leafflower	P	N				101-1,000								X		
Phyllanthus urinaria	Chamber bitter	P	Е				101-1,000		X		X						
Physalis pubescens	Husk tomato	P	N				11-100		X		X						1880
Physostegia purpurea	False dragonhead, Eastern false dragonhead	P	N				11-100			X	X					X	

Phytolacca americana	American pokeweed	S	N		1													
Piloblephis rigida	Wild pennyroyal	P	N					1,001-10,000		**		X		X				
Pinguicula lutea	Yellow butterwort	P	N	Т		SF1		11-100		X		X		X				1782
Pinguicula pumila	Small butterwort	P	N	1		351		11-100		**		X						1/02
Pinus elliottii var. densa	South Florida slash pine	P	N					10,001-100,000		X X		x						
Piriqueta caroliniana	Pitted stripeseed	P	N					1,001-100,000			X X	X		X	X	X	X	
1	Narrowleaf silkgrass	P	N					1,001-10,000		X	X					X	X	
Pityopsis graminifolia	Natiowieai sukgrass	P	IN					1,001-10,000		X		X		X				
Pleopeltis polypodioides var. michauxiana	Resurrection fern	Р	N					11-100		x		x			X			
Pluchea odorata	Sweetscent	Р	N					1,001-10,000		х							X	
Pluchea rosea	Rosy camphorweed	Р	N					1,001-10,000	X	X	X	x			X	X	X	1837
Polygala cruciata	Drumheads	Р	N					101-1,000				x						
Polygala grandiflora	Candyweed, Showy milkwort	Р	N					1,001-10,000		X	X	x		x				1853
Polygala incarnata	Procession flower	Р	N					101-1,000				x						
Polygala nana	Candyroot	Р	N					11-100				X		X				
Polygala polygama	Racemed milkwort	Р	N			SF1		11-100				X						1851
Polygala setacea	Coastalplain milkwort	Р	N					1,001-10,000				X						
D. 1. 1. 1. 1. 1. 1. 1. 1. 1. 1. 1. 1. 1.	Thinleaf October flower	P	N					11 100										1041
Polygonella polygama var. brachystachya	Denseflower knotweed	S	N					11-100				X						1941
Polygonum densiflorum	Densenower knotweed	3	IN															
Polygonum hydropiperoides	Mild water-pepper, Swamp smartweed	P	N					101-1,000			X				x			
Polygonum punctatum	Dotted smartweed	Р	N					101-1,000	X		X				X			
Polypremum procumbens	Rustweed, Juniperleaf	Р	N					10,001-100,000		X				X				
Pontederia cordata	Pickerelweed	P	N					1,001-10,000	X		X				X		X	
Proserpinaca palustris	Mermaid weed, Marsh mermaidweed	P	N					1,001-10,000	X		x				x			
	,																	
Proserpinaca pectinata	Mermaid weed, Combleaf mermaidweed	P	N					101-1,000			X							
Psychotria nervosa	Shiny-leaved wild coffee	P	N					11-100		X		X	X		X			
Pteridium aquilinum var. caudatum	Lacy bracken fern	P	N					11-100		X								
Pteridium aquilinum var. pseudocaudatum	Tailed bracken fern	P	N					101-1,000		X		x		X				
Pteris vittata	China brake	Р	Е				II	2-10								X		
Pterocaulon pycnostachyum	Blackroot	Р	N					1,001-10,000		X		X				X		
Ptilimnium capillaceum	Mock bishopsweed, Herbwilliam	P	N					11-100	X		X				X			
Quercus geminata	Sand live oak	Р	N					11-100				X		X				
Quercus laurifolia	Laurel oak, Diamond oak	Р	N					11-100		X			X	X	X	X		

Ouercus minima	Dwarf live oak	Р	N						1,001-10,000										
Quercus minima Ouercus myrtifolia	Myrtle oak	P	N						101-1,000		X		X						
~ - / /	Running oak	P	N								X		X		X		**		
Quercus pumila	- V	P	N						101-1,000		X		X		X		X		
Quercus virginiana	Virginia live oak								101-1,000		X		X	X		X	X	X	
Rapanea punctata	Myrsine, Colicwood	P	N				OE4		101-1,000				X	X		X	X	X	4000
Reimarochloa oligostachya	Florida reimargrass	P	N				SF1		101-1,000							X			1888
Rhexia cubensis	West Indian meadowbeauty	Р	N						101-1,000		X		X						1839
Rhexia mariana	Pale meadowbeauty, Maryland meadowbeauty	P	N						1,001-10,000		X		X						
Rhexia nuttallii	Nuttall's meadowbeauty	P	N						1,001-10,000				X						
Rhus copallinum	Winged sumac	P	N						101-1,000		X		X						
Rhynchelytrum repens	Rose Natalgrass	P	Е					I	1,001-10,000		X		X		X				
Rhynchospora colorata	Starrush whitetop	P	N						101-1,000		X	X	X					X	
Rhynchospora divergens	Spreading beaksedge	P	N						1,001-10,000		X	X	X		X		X	X	
Rhynchospora fascicularis	Fascicled Beaksedge	P	N						1,001-10,000		X	X	X					X	1788
Rhynchospora globularis	Globe beak-rush	P	N						11-100		X		X						1887
Rhynchospora inundata	Narrowfruit horned beaksedge	P	N						101-1,000	X	X	X				X		X	
Rhynchospora microcarpa	Southern beaksedge	P	N						1,001-10,000			X					X	X	
Rhynchospora nitens	Shortbeak beaksedge	P	N						11-100		X	X					x	X	
Rhynchospora odorata	Fragrant beaksedge	P	N						11-100								X		
Rhynchospora plumosa	Plumed beaksedge	P	N						1,001-10,000		X		X		X		X		1785, 1835, 1849
Rhynchospora tracyi	Tracy's beaksedge	Р	N						101-1,000	X								X	
Richardia brasiliensis	Tropical Mexican clover	Р	Е						11-100		X								
Richardia scabra	Rough Mexican clover	Р	Е						11-100		X								
Rotala ramosior	Toothcup, Lowland rotala	Р	N						2-10								X		
Rudbeckia hirta	Blackeyed susan	Р	N						11-100		X		X					X	1841
Ruellia succulenta	Thickleaf wild petunia	Р	N						101-1,000	X	X		X					X	
Sabal palmetto	Cabbage palm	Р	N						1,001-10,000	X	X	X	X	X		X	X	X	
Sabatia brevifolia	Shortleaf rosegentian	Р	N						101-1,000				X						
Sabatia stellaris	Rose-of-Plymouth	Р	N						101-1,000			X							
Saccharum giganteum	Sugarcane plumegrass	Р	N						11-100				x						
Sacciolepis indica	Indian cupscale	Р	Е						101-1,000			X							
Sacoila lanceolata	Leafless beaked lady's-tresses	Р	N	Т	(S1)	(G4T1)			2-10					x			X		
Sagittaria graminea var. chapmanii	Chapman's arrowhead	Р	N						11-100							X			

			1						1	1		1					
Sagittaria lancifolia	Bulltongue arrowhead, lance-leaved arrowhead	P	N				1,001-10,000			x				x		X	
Salix caroliniana	Coastal Plain willow	P	N				11-100	X		X				X			
Sarcostemma clausum	Whitevine, White twinevine	P	N				1,001-10,000	X		X				X		X	
Schinus terebinthifolius	Brazilian-pepper	Р	Е			I	1,001-10,000	X	X		X	X	X	X	X		
Schizachyrium rhizomatum	Rhizomatous bluestem	P	N				1,001-10,000		X		X		X		X	X	
Schoenus nigricans	Black sedge, Black bogrush	P	N				11-100								X		
Scleria ciliata	Fringed nutrush	P	N				1,001-10,000		X		X		X				
Scleria ciliata var. pauciflora	Fewflower nutrush	P	N		SF1		11-100		X		X						1787
Scleria georgiana	Slenderfruit nutrush	P	N				11-100		X		X						
Scleria reticularis	Netted nutrush	P	N				101-1,000								X		
Scoparia dulcis	Sweetbroom, Licoriceweed	P	N				1,001-10,000		X						X		
Serenoa repens	Saw palmetto	P	N				10,001-100,000		x		X	x	x	x	x	X	
Sesbania herbacea	Danglepod	P	N				101-1,000	X									
Setaria parviflora	Knotroot foxtail, Yellow bristlegrass	P	N				101-1,000		X	X			X			X	
Sida cordifolia	Lima	P	Е				101-1,000		X								
Sida rhombifolia	Cuban jute, Indian hemp	P	Е				11-100		X								
Sideroxylon reclinatum	Recline Florida bully	P	N				101-1,000		X	X	X	X	X	X	X	X	
Sisyrinchium nashii	Nash's blueeyed-grass	P	N				11-100				X						
Smilax auriculata	Earleaf greenbrier	P	N				1,001-10,000		X		X	X	X	X	X		
Smilax tamnoides	Catbrier, Bristly greenbrier, Hogbrier	Р	N				2-10					X					
Solanum tampicense	Aquatic soda-apple	P	Е			I	11-100							X			
Solanum torvum	Turkeyberry	P	Е			II	11-100		X								
Solidago fistulosa	Pinebarren goldenrod	P	N				11-100		X								
Solidago odora var. chapmanii	Chapman's goldenrod	P	N				1,001-10,000				X		X				
Solidago sempervirens	Seaside goldenrod	P	N				11-100		X								
Solidago stricta	Narrow-leaved goldenrod, Wand goldenrod	Р	N				10,001-100,000		X		X				X		
Solidago tortifolia	Twistedleaf goldenrod	P	N				101-1,000		X		X						
Sorghastrum secundum	Lopsided Indian grass	P	N				1,001-10,000		X		X						
Spartina bakeri	Sand cordgrass	P	N				11-100	X	X	X					X	X	
Spermacoce assurgens	Woodland false buttonweed	P	N				11-100		X						X		
Spermacoce prostrata	Prostrate false buttonweed	P	N				101-1,000				X						
Spermacoce verticillata	Shrubby false buttonweed	P	Е				101-1,000		X								
Spiranthes praecox	Greenvein lady's-tresses	P	N		SF1		2-10				X						

Sporobolus indicus var. pyramidalis	W/ I. J J J	Р	Е						1,001-10,000										
Sporobolus junceus	West Indian dropseed Pineywoods dropseed	P	N						101-1,000		X				X				
Stenandrium dulce	Pinklet	P	N						11-100				X						
Stillingia aquatica	Corkwood, Water toothleaf	P	N						101-1,000			X				_	_	_	
	Oueensdelight	P	N						,	X		X				X	X	X	
Stillingia sylvatica Stipulicida setacea var. lacerata		P	N						1,001-10,000 11-100		X		X		X		X	X	
1	Lacerate pineland scalypink														X				
Syngonanthus flavidulus	Yellow hatpins	P	N					т.	10,001-100,000				X						
Syzygium cumini	Jambolan-plum, Java-plum	P	E					1	11-100	X	X					X	X		
Taxodium ascendens	Pond cypress	P	N				-		101-1,000			X				X	X	X	
Taxodium distichum	Bald cypress	F	F				-		0										
Thalia geniculata	Alligatorflag, Fireflag	P	N				-		101-1,000	X		X				X			
Thelypteris kunthii	Southern shield fern	Р	N						11-100		X			X		X			
T:11 1 1 1 1 1		D		ar.					404 4 000										
Tillandsia balbisiana	Reflexed wild-pine, Northern needleleaf	Р	N	Т					101-1,000				X	X		X			
Tillandsia fasciculata var. densispica	Stiff-leaved wild-pine, Cardinal airplant	Р	N	Е					11-100					x		x			
Tillandsia paucifolia	Twisted wild-pine, Potbelly airplant	P	N	E					101-1,000					A		X			
Tillandsia recurvata	Ball-moss	P	N						101-1,000					**					
1 illanasia recurvala		P	IN						101-1,000		X			X		X			
Tillandsia setacea	Thin-leaved wild-pine, Southern needleleaf	Р	N						11-100		x			X		X			
Tillandsia usneoides	Spanish-moss	P	N						101-1,000		X	X	X	X		X	X		
Tillandsia utriculata	Giant wild-pine, Giant airplant	Р	N	Е					11-100				X	X					
Toxicodendron radicans	Eastern poison-ivy	Р	N						101-1,000		X		X	X			X		
Tripsacum dactyloides	Eastern gamagrass, Fakahatchee grass	Р	N						11-100		x						X	X	
Turnera ulmifolia	Yellow alder, Ramgoat dashalong	Р	E						2-10		X								1939
Typha domingensis	Southern cat-tail	P	N						101-1,000	X		X							1,0,
Urena lobata	Caesarweed	Р	E					II	1,001-10,000		X		X	X	X		X	X	
Utricularia cornuta	Horned bladderwort	Р	N						101-1,000			X							
Utricularia foliosa	Leafy bladderwort	Р	N						1,001-10,000	x		X							
	Cone-spur bladderwort, Humped								,,										
Utricularia gibba	bladderwort	P	N						1,001-10,000	x						x		x	
Utricularia purpurea	Eastern purple bladderwort	Р	N						101-1,000	x									
Utricularia simulans	Fringed bladderwort	Р	N						10,001-100,000		X	x	X				X	X	
Utricularia subulata	Zigzag bladderwort	Р	N						1,001-10,000			x	X				X		
Vaccinium myrsinites	Shiny blueberry	Р	N						1,001-10,000				X		x				
Vernonia blodgettii	Florida ironweed	P	N		S3	G3			11-100		x		X			İ	İ	x	
Vernonia cinerea	Little ironweed	Р	Е		İ				11-100		X								

Viola palmata	Early blue violet	P	N		SF1	11-100			X						
Vitis rotundifolia	Muscadine, Muscadine grape	P	N			1,001-10,000	X		X	X	X		X	X	
Vitis shuttleworthii	Calusa grape	P	N			101-1,000	X		X						
Vittaria lineata	Shoestring fern	P	N			101-1,000				X		X			
Woodwardia virginica	Virginia chain fern	P	N			101-1,000	X	X	X				X		
Xyris ambigua	Coastalplain yelloweyed grass	P	N			101-1,000	X		X						
Xyris brevifolia	Shortleaf yelloweyed grass	P	N			101-1,000			X						
Xyris caroliniana	Carolina yelloweyed grass	P	N			1,001-10,000			X				X	X	
Xyris elliottii	Elliott's yelloweyed grass	P	N			10,001-100,000	x	X	X				X		
Xyris fimbriata	Fringed yelloweyed grass	D	-		SF1										
Xyris flabelliformis	Savannah yelloweyed grass	P	N			10,001-100,000	X		X					X	
Xyris smalliana	Small's yelloweyed grass	P	N			101-1,000		X					X		

Occurrence	FNAI State Status
P = Present	S1 = Critically Imperiled in Florida
S = Assumed present	S3 = Very rare or local throughout its range in Florida
F = Recorded as present in error	
D = Doubtfully present	FNAI Global Status
X = Extirpated	G3 =Either very rare and local throughout its range or found locally in a restricted range or vulnerable to extinction from other factors.
	G4T1 = Subgroup (variety) is globally imperiled, Species is apparently secure globally.
Native Status	
N = Native	IRC status
E = Exotic (non native)	SF1 = Critically Imperiled in South Florida (SF)
F = Recorded as present in error	
X = Extirpated	FL EPPC Status
	I = species that are invading and disrupting native plant communities
State Status	II = species that have shown a potential to disrupt native plant communities
T = Threatened	
E = Endangered	

Table 3:
The Rare Plants of Yellow Fever Creek Preserve, Lee County

Scientific Name	Common Names	State Status	FNAI State Status	FNAI Global Status	IRC Status	Estimated Population Size
Anagallis pumila	Florida pimpernel				SF1	11-100
Bacopa innominata	Tropical waterhyssop				SF1	11-100
Desmodium floridanum	Florida ticktrefoil				SF1	11-100
Elytraria caroliniensis vat. caroliniensis	Carolina scalystem				SF1	101-1,000
Euphorbia inundata	Florida pineland spurge				SF1	101-1,000
Hypericum crux-andreae	St. Peter's-wort				SF1	11-100
Lilium catesbaei	Catesby's lily, Pine lily	Т				101-1,000
Lipocarpha maculata	American halfchaff sedge				SF1	101-1,000
Pinguicula lutea	Yellow butterwort	Т			SF1	11-100
Polygala polygama	Racemed milkwort				SF1	11-100
Reimarochloa oligostachya	Florida reimargrass				SF1	101-1,000
Sacoila lanceolata	Beaked lady's-tresses	Т	(S1?)	(G4T1?)		2-10
Scleria ciliata var. pauciflora	Fewflower nutrush				SF1	11-100
Spiranthes praecox	Greenvein lady's-tresses				SF1	2-10
Tillandsia balbisiana	Reflexed wild-pine, Northern needleleaf	Т				101-1,000
Tillandsia fasciculata var. densispica	Stiff-leaved wild-pine, Cardinal airplant	Е				11-100
Tillandsia utriculata	Giant wild-pine, Giant airplant	Е				11-100
Vernonia blodgettii	Florida ironweed		S3	G3		11-100
Viola palmata	Early blue violet				SF1	11-100
v iom puimum	Larry blue violet				31.1	11-100

State Status	IRC status
T = Threatened	SF1 = Critically Imperiled in South Florida (SF)
E = Endangered	

FNAI State Status

S3 = Very rare or local throughout its range in Florida

S1 = Critically Imperiled in Florida

FNAI Global Status

G3 =Either very rare and local throughout its range or found locally in a restricted range or vulnerable to extinction from other factors.

G4T1 = Subgroup (variety) is globally imperiled, Species is apparently secure globally.

Table 4
The Rare Plant Locations at Yellow Fever Creek Preserve, Lee County

		Decimal I)egrees		
Scientific Name	Common Names	Latitude	Longitude	Estimated Population Size	Comments
Anagallis pumila	Florida pimpernel	26.71049	-81.91861	11-100	Disturbed wet area next to depression marsh
Anagallis pumila	Florida pimpernel	26.71022	-81.91919	2-10	Disturbed wetland
Bacopa innominata	Tropical waterhyssop	26.71092	-81.91721	11-100	Growing in fire break in moist soil (disturbed wet)
Desmodium floridanum	Florida ticktrefoil	26.70412	-81.92104	11-100	Mesic flatwoods; with Desmodium paniculatum, Imperata brasiliensis, Solidago tortifolia, Serenoa repens, Dichanthelium ensifolium var. ensifolium, Parthenocissus quinquefolia, Dichanthelium aciculare, Lyonia fruticosa, Quercus virginiana
Desmodium floridanum	Florida ticktrefoil	26.70414	-81.92181	2-10	Mesic flatwoods and fire road edge
Elytraria caroliniensis	Carolina scalystem	26.70863	-81.92631	101-1,000	Ecotone between mesic flatwoods, wet prairie, and Strand Swamp along Yellow Fever Creek. Associated taxa include: Sideroxylon reclinatum, Taxodium ascendens, Pinus elliottii var. densa, Eryngium baldwinii, Hyptis alata, Melaleuca quinquenervia, Schizachyrium rhizomatum, Rhynchospora microcarpa, and Coreopsis leavenworthii
Euphorbia inundata	Florida pineland spurge	26.71006	-81.91762	1	Mesic flatwoods with Serenoa repens, Lachnocaulon anceps, Dichanthelium strigosum var. glabrescens, Quercus myrtifolia, Rhexia mariana, Xyris caroliniana, Aristida spiciformis, and Aristida beyrichiana
Euphorbia inundata	Florida pineland spurge	26.71059	-81.91774	1	Mesic flatwoods
Euphorbia inundata	Florida pineland spurge	26.70811	-81.92491	1	Disturbed upland (scraped area next to fence)
Euphorbia inundata	Florida pineland spurge	26.70432	-81.92448	1	Disturbed mesic flatwoods near gate entrance with Serenoa repens, Asclepias tuberosa, Vitis rotundifolia, Smilax auriculata, and Quercus virginiana.
Euphorbia inundata	Florida pineland spurge	26.70416	-81.92441	2-10	Disturbed mesic flatwoods next to road at entrance to 0136 with Piloblephis rigida, Panicum hians, Pityopsis graminifolia, Eragrostis elliottii, and Dichanthelium ensifolium var. ensifolium

	Florida pineland			• 40	
Euphorbia inundata	spurge	26.70418	-81.9238	2-10	Disturbed upland - with Fruit and flower
Euphorbia inundata	Florida pineland spurge	26.70491	-81.92342	1	In fire break with Pinus elliottii var. densa, Pterocaulon pycnostachyum, Paspalum setaceum, and Andropogon virginicus var. glaucus
Euphorbia inundata	Florida pineland spurge	26.7051	-81.92341	2-10	In mesic to wet flatwoods (flowering)
Euphorbia inundata	Florida pineland spurge	26.70487	-81.9306	1	In open sandy scrubby flatwoods with Schizachyrium rhizomatum, Eragrostis atrovirens, Dichanthelium portoricense, and Polypremum procumbens
Euphorbia inundata	Florida pineland spurge	26.70583	-81.93191	1	In open patches of mesic flatwoods
Euphorbia inundata	Florida pineland spurge	26.70425	-81.92417	1	
Euphorbia inundata	Florida pineland spurge	26.7044	-81.93041	2-10	Scrubby flatwoods with Serenoa repens, Amphicarpum muhlenbergianum, Polypremum procumbens, Paspalum setaceum, and Eragrostis atrovirens
Hypericum crux- andreae	St. Peter's-wort	26.70895	-81.9268	11-100	Growing along fire break between mesic flatwoods and strand swamp (yellow fever creek).
Lilium catesbaei	Catesby's lily, Pine lily	26.70892	-81.91889	11-100	Edge of fire break and mesic flatwoods
Lilium catesbaei	Catesby's lily, Pine lily	26.71014	-81.91821	101-1,000	Open areas of mesic flatwoods
Lilium catesbaei	Catesby's lily, Pine lily	26.70839	-81.93326	0	Open areas of mesic flatwoods
Lilium catesbaei	Catesby's lily, Pine lily	26.71049	-81.91818	2-10	Mesic flatwoods
Lilium catesbaei	Catesby's lily, Pine lily	26.7081	-81.93356	0	Estimated coordinate
Lilium catesbaei	Catesby's lily, Pine lily	26.70939	-81.92873	1	Mesic flatwoods
Lilium catesbaei	Catesby's lily, Pine lily	26.70855	-81.93386	0	Open areas of mesic flatwoods
Lilium catesbaei	Catesby's lily, Pine lily	26.7094	-81.91801	11-100	Mesic flatwoods
Lipocarpha maculata	American halfchaff sedge	26.7044	-81.92468	11-100	Abundant in fire break between disturbed creek and mesic to wet flatwoods.
Pinguicula lutea	Yellow butterwort	26.7105	-81.91792	1	Mesic flatwoods

Pinguicula lutea	Yellow butterwort	26.7103	-81.9179	11-100	Mesic flatwoods
Pinguicula lutea	Yellow butterwort	26.71018	-81.91775	2-10	Mesic flatwoods
Pinguicula lutea	Yellow butterwort	26.70957	-81.91846	2-10	In open areas of mesic flatwoods with Serenoa repens, Drosera capillaris, Xyris caroliniana, Euthamia caroliniana, Quercus minima, Erigeron vernus, and Aristida spiciformis
Pinguicula lutea	Yellow butterwort	26.70947	-81.91863	1	Mesic flatwoods with Serenoa repens, Myrica cerifera, and Erigeron vernus
Pinguicula lutea	Yellow butterwort	26.71029	-81.91814	1	Mesic flatwoods
Pinguicula lutea	Yellow butterwort	26.71016	-81.91776	2-10	Mesic flatwoods
Polygala polygama	Racemed milkwort	26.70432	-81.92142	11-100	In mesic flatwoods adjacent to gopher tortoise burrows. With Serenoa repens, Piloblephis rigida, Lechea sp., Dichanthelium strigosum var. glabrescens, Smilax auriculata, Myrica cerifera, Vaccinium myrsinites, Solidago tortifolia, Rhynchospora spp., and Pinus elliottii densa.
Reimarochloa oligostachya	Florida reimargrass	26.70913	-81.92606	101-1,000	Growing in Yellow Fever Creek (Strand Swamp).
Sacoila lanceolata	Beaked lady's- tresses	26.70892	-81.92513	1	Wet Flatwoods
Sacoila lanceolata	Beaked lady's- tresses	26.7089	-81.93948	1	Disturbed wetland
Sacoila lanceolata	Beaked lady's- tresses	26.70943	-81.93797	1	Mesic hammock
Scleria ciliata var. pauciflora	Fewflower nutrush	26.70901	-81.92751	2-10	Mesic flatwoods
Scleria ciliata var. pauciflora	Fewflower nutrush	26.70781	-81.93799	11-100	In disturbed trail running through flatwoods with Dichanthelium strigosum var. glabrescens, Dichanthelium ensifolium var. ensifolium, Lyonia fruticosa, Piloblephis rigida, Paspalum setaceum, and Pinus elliottii var. densa
Scleria ciliata var. pauciflora	Fewflower nutrush	26.70435	-81.92101	2-10	Mesic flatwoods; with Aristida purpurascens, Helianthemum corymbosa, Dichanthelium portoricense, Piloblephis rigida, and Serenoa repens
Spiranthes praecox	Greenvein lady's- tresses	26.71059	-81.91774	2-10	Mesic flatwoods
Tillandsia balbisiana	Reflexed wild-pine, Northern needleleaf	0	0	101-1,000	Throughout strand swamp, mesic hammock, and mesic flatwoods in preserve
Tillandsia balbisiana	Reflexed wild-pine, Northern needleleaf	0	0	101-1,000	Throughout preserve

Tillandsia fasciculata var. densispica	Stiff-leaved wild- pine, Cardinal airplant	0	0	101-1,000	Throughout preserve
Tillandsia fasciculata var. densispica	Stiff-leaved wild- pine, Cardinal airplant	0	0	1,001-10,000	Throughout mesic hammock and strand swamp in preserve
Tillandsia utriculata	Giant wild-pine, Giant airplant			11-100	Throughout appropriate habitats.
Vernonia blodgettii	Florida ironweed	26.70031	-81.82463	11-100	Edge of mesic flatwoods
Vernonia blodgettii	Florida ironweed	26.70229	-81.82527	2-10	Edge of mesic flatwoods
Vernonia blodgettii	Florida ironweed	26.70488	-81.92103	11-100	Mesic flatwoods and wet prairie
Viola palmata	Early blue violet	26.70949	-81.91859	11-100	In open areas of mesic flatwoods
Viola palmata	Early blue violet	26.70985	-81.91851	11-100	In open areas of mesic flatwoods

Table 5 The Florida Exotic Pest Plant Council (FLEPPC) Plants of Yellow Fever Creek Preserve

Scientific Name	Common Names	FLEPPC	Estimated Population Size
Abrus precatorius	Rosary-pea, Crab-eyes	I	101-1,000
Acacia auriculiformis	Earleaf acacia	I	11-100
Albizia lebbeck	Woman's tongue, Rattlepod	I	2-10
Cupaniopsis anacardioides	Carrotwood	I	0 *
Ficus microcarpa	Laurel fig, Indian laurel	I	2-10
Hymenachne amplexicaulis	Trompetilla	I	10,001- 100,000
Imperata cylindrica	Congongrass, Cogongrass	I	101-1,000
Lygodium microphyllum	Small-leaf climbing fern	I	2-10
Melaleuca quinquenervia	Punktree	I	10,001- 100,000
Nephrolepis multiflora	Asian sword fern	I	101-1,000
Panicum maximum	Guineagrass	II	2-10
Panicum repens	Torpedo grass	I	10,001- 100,000
Pennisetum purpureum	Napier grass, Elephantgrass	I	**
Pteris vittata	China brake	II	2-10
Rhynchelytrum repens	Rose Natalgrass	I	1,001- 10,000
Schinus terebinthifolius	Brazilian-pepper	I	1,001- 10,000
Solanum tampicense	Aquatic soda-apple	I	11-100
Solanum torvum	Turkeyberry	II	11-100
Syzygium cumini	Jambolan-plum, Java-plum	I	11-100
Urena lobata	Caesarweed	II	1,001- 10,000

^{*} Seedling or sapling
**Pennisetum purpureum was recorded on a previous plant list,
but not observed by the authors.

Appendix 1 The Rare Plants of Yellow Fever Creek Preserve

The following species accounts may be geo-referenced in Table 4 and Figures 1-5.

Anagallis pumila (Florida pimpernel)

Florida pimpernel is ranked as Critically Imperiled in South Florida by The Institute for Regional Conservation (IRC) (Gann et al., 2002). This small member of the Primulaceae often goes unnoticed due to its diminutive size. It is an annual and is very rare at Yellow Fever Creek Preserve (YFCP) as it was encountered only two times. On April 26, 2006 a handful of plants were found in an ATV trail within a disturbed wetland dominated by Melaleuca quinquenervia. That same day, a second larger colony of 11-100 plants was adjacent to a depression marsh (Figure 2). This station was documented with an herbarium voucher by Woodmansee and Green (Woodmansee, 1836, FTG). In South Florida it has only been documented from Collier and Lee counties, and elsewhere in Florida, Highlands County. Within Lee County, it is also known from Prairie Pines Preserve (Woodmansee & Sadle, 2004) and Caloosahatchee Creeks Preserve (Woodmansee & Green, report in progress). This species is typically found in mesic flatwoods, pond margins, and river banks all of which occur at YFCP and may be found elsewhere at YFCP with additional surveys during its reproductive period in March, April or May. In addition to conducting further surveys for this species, these two populations should be monitored on an annual basis during its reproductive period. If no additional plants are found, augmenting this species to appropriate undisturbed habitats should be considered.

Bacopa innominata (Tropical waterhyssop)

Tropical waterhyssop is ranked as Critically Imperiled in South Florida by IRC (Gann et al., 2001-2006). It is a short-lived perennial and is very rare at YFCP having only one population of 11-100 plants that was found on October 17th, 2006 in a moist to wet fire break along the northeastern boundary of the preserve (Figure 2). This station was documented with an herbarium voucher by Woodmansee and Stephen Hodges (Woodmansee, 1943, FTG). This species record was new for Lee County and represents the only known population within Lee County. In South Florida it is known from only a handful of preserves in Collier, Palm Beach, and Martin counties. It occurs sporadically throughout peninsular Florida (Wunderlin & Hansen, 2004). It is small and typically found in "dry down" areas of pond margins and swamps. It may be discovered elsewhere at YFCP as such habitats exist there. Surveys should be conducted late in the wet season, October-December. This station should be monitored on an annual basis during that season. If no additional plants are found outside of disturbance areas, augmenting this species to appropriate undisturbed habitats should be considered.

Desmodium floridanum (Florida ticktrefoil)

Florida ticktrefoil is ranked as Critically Imperiled in South Florida by IRC (Gann et al., 2002). It is a perennial terrestrial herb and is rare at YFCP. Two colonies totaling 11-100 plants were found on August 1st and October 17th, 2006 along the southern boundary on the east side of the preserve on the edge of the fire break and in adjacent mesic flatwoods (Figure 3). This occurrence was documented with an herbarium voucher by Woodmansee and Green (Woodmansee, 1879, FTG). In South Florida it is known to occur in two other conservation areas in Miami-Dade County (Gann et al., 2001-2006), and has been documented in Broward and Palm Beach counties where it is presumed extirpated. It occurs sporadically elsewhere in Florida (Wunderlin & Hansen, 2004). It is

may occur elsewhere in YFCP in appropriate habitat. These stations should be monitored on an annual basis during the flowering and fruiting period in late summer to early fall, or after fires.

Elytraria caroliniensis var. caroliniensis (Carolina scalystem)

Carolina scalystem is ranked as Critically Imperiled in South Florida by IRC (Gann et al., 2001-2006). It is a terrestrial perennial herb and is locally common at YFCP in strand swamp with graminoid understory grading into wet prairie on the west side of Yellow Fever Creek (Figure 4). A single colony of 100-200 plants was observed by Woodmansee, Green, and Laura Wewerka on August 1st, 2006. This station was documented with an herbarium voucher by Woodmansee and Green (Woodmansee, 1984, FTG). Before these surveys, this calciphyte was ranked as historical from Lee County as well as South Florida (Gann et al., 2002). Before this rediscovery, Carolina scalystem was last observed in 1985 by Elliot Brown along Yellow Fever Creek, in an area south of YFCP (Gann et al., 2002). Elsewhere in South Florida it is was only once known from Charlotte County, where it is presumed extirpated (Gann et al., 2002). It occurs sporadically throughout Florida (Wunderlin & Hansen, 2004). It is unlikely elsewhere at YFCP except in appropriate habitat as described above, it may still exist in similar habitat elsewhere along Yellow Fever Creek outside of YFCP. This station should be monitored annually.

Euphorbia inundata (Florida pineland spurge)

Florida pineland spurge is ranked as Critically Imperiled in South Florida by IRC (Gann et al., 2001-2006). It is a terrestrial perennial herb which easily goes unnoticed since vegetative portions of this plant greatly resemble nearby vegetation, especially witch grasses (Dichanthelium spp.) and bluemaidencane (Amphicarpum muhlenbergianum). Twelve colonies totaling 11-100 plants were found on April 24th, 2006 by Woodmansee and Green. They were distributed sporadically throughout open areas of mesic, wet, and scrubby flatwoods and disturbed upland areas of YFCP (Figures 2-5). Colonies usually contain few individuals, so despite being throughout the Preserve, Florida Pineland Spurge is rare at YFCP. This occurrence was documented with an herbarium voucher by Woodmansee and Green (Woodmansee, 1848, FTG). Florida Pineland Spurge is also at Prairie Pines Preserve in Lee County (Woodmansee & Sadle, 2004), and at Babcock/Webb Wildlife Management Area in Charlotte County and nowhere else in South Florida. It is considered to be possibly extirpated from Collier County (Gann et al., 2002). Wunderlin & Hansen (2004) recognize a segregate of South and Central Florida plants as an endemic variety garettii. This variety is restricted to several counties west of the Kissimmee River and Lake Okeechobee between Polk and Collier counties (Wunderlin & Hansen, 2004). More individuals may be encountered at YFCP during the appropriate reproductive season between April and June. These stations should be monitored on an annual basis during the flowering and fruiting period.

Hypericum crux-andreae (St. Peter's-wort)

St. Peter's-wort is ranked as Critically Imperiled in South Florida by IRC (Gann et al., 2001-2006). It is a terrestrial perennial shrub and is rare at YFCP having only been found in a fire break between strand swamp and mesic flatwoods. A single colony of 11-20 plants was observed here by Woodmansee and Green on August 1st, 2006 (Figure 4). This species was also discovered at Caloosahatchee Creeks Preserve by the authors on the following day. In Lee County it is also present at Corkscrew Regional Ecosystem Watershed (Gann et al., 2001-2006). Elsewhere in South Florida it is known from two conservation areas in Collier and Hendry counties (Gann et al, 2001-2006. It occurs sporadically in central Florida and becomes more frequent northward in Florida (Wunderlin & Hansen, 2004). St. Peter's-wort may occur elsewhere at YFCP and special attention should be made towards open grassy areas of mesic flatwoods or after fires in mesic flatwoods. At

the time of the surveys the population of this species was not sufficient enough for an herbarium collection. Should populations increase in number, it is recommended that upon monitoring, this station be documented with an herbarium voucher and deposited in a registered herbarium in Florida. This station should be monitored on an annual basis during the flowering and fruiting period summer-fall, or after fires.

Lilium catesbaei (Catesby's lily)

Catesby's lily is ranked as threatened in Florida by FDACS (Coile & Garland, 2003). It is a terrestrial perennial herb which flowers in the fall. Five colonies totaling 100-200 plants were observed on August 1st and October 17th, 2006 by Woodmansee, Green, and Hodges sporadically distributed in open areas of mesic flatwoods (Figures 2, 4, & 5). A single colony possessed 100-200 plants, while the remaining 4 colonies possessed fewer than 20 plants each, so Catesby's lily is occasional at YFCP. This occurrence was documented with an herbarium voucher by Woodmansee and Hodges (Woodmansee, 1944, FTG). Catesby's lily is rare to occasional across South Florida excluding Broward, Glades, Hendry, Miami-Dade and Monroe counties where it is absent (Gann et al., 2001-2006). It is mostly throughout elsewhere in Florida (Wunderlin & Hansen, 2004). These stations should be monitored on an annual basis in the fall.

Lipocarpha maculata (American halfchaff sedge)

American halfchaff sedge is ranked as Critically Imperiled in South Florida by IRC (Gann et al., 2001-2006). It is a terrestrial annual herb and is rare at YFCP (Figure 4). A single colony of 11-100 plants was observed in a moist fire break not far east of the remnant Yellow Fever Creek by Woodmansee and Hodges on October 17th, 2006 (Figure 3). This station was documented with an herbarium voucher by Woodmansee and Hodges (Woodmansee, 1936, FTG). Before these surveys American halfchaff sedge was ranked as extirpated from South Florida (Gann et al., 2002). It is new for Lee County, and currently is only known from this station. Historically, this species was only known from Collier County, and it was uncertain whether the population there represented a waif occurrence (Gann et al., 2002). Recently, other populations of this sedge were documented for Collier County by Keith A. Bradley (in database files of The Institute for Regional Conservation) and it is also now reported for Glades County (Wunderlin & Hansen, 2004). It occurs sporadically throughout Florida (Wunderlin & Hansen, 2004). American halfchaff sedge should be monitored annually at YFCP during the fall. Moist soils elsewhere at YFCP should also be surveyed for additional plants. If no plants are found non-disturbance areas, augmenting this species to wet flatwoods and shallow depression marsh edges should be considered.

Pinguicula lutea (Yellow butterwort)

Yellow butterwort is ranked as Critically Imperiled in South Florida by IRC (Gann et al., 2001-2006) and as threatened in Florida by FDACS(Coile & Garland, 2003). It is a terrestrial perennial herb and is rare at YFCP. Two colonies totaling 27 plants were observed in mostly open areas of mesic flatwoods by Woodmansee, Green and Hodges throughout 2006 (Figure 2). This station was documented with a partial herbarium voucher (leaf and flower) by Woodmansee and Green (Woodmansee, 1782, FTG). Yellow butterwort is known from ten conservation areas throughout northern South Florida excluding Palm Beach County (Gann et al., 2001-2006), and is mostly throughout the rest of the state (Wunderlin & Hansen, 2004). This species should be monitored on an annual basis during February or March when flowering is most prevalent.

Polygala polygama (Racemed milkwort)

Racemed milkwort is ranked as Critically Imperiled in South Florida by IRC (Gann et al., 2001-2006). It is a terrestrial perennial herb and is rare at YFCP near gopher tortoise burrows in mesic flatwoods. It may go unnoticed since it resembles the more ubiquitous *Polygala grandiflora* (now *P. violacea*) (Wunderlin & Hansen, 2004), however, this species differs in having underground cleistogamous flowers in addition to above ground flowers. A single colony of 50-100 plants was observed by Woodmansee and Green on April 26th, 2006 (Figure 3). This station was documented with an herbarium voucher by Woodmansee and Green (Woodmansee, 1851, FTG). This species was thought to be extirpated in Lee County, as it had not been reported since 1969 (Gann et al, 2002). Coincidentally, the authors discovered this species at Caloosahatchee Creeks Preserve the previous day. Elsewhere in South Florida it is known from three conservation areas in Collier, Palm Beach, and Martin counties (Gann et al, 2001-2006. It occurs sporadically throughout elsewhere in Florida (Wunderlin & Hansen, 2004). Racemed milkwort may occur elsewhere at YFCP and special attention should be made towards mesic flatwoods areas with animal disturbance. This station should be monitored annually.

Reimarochloa oligostachya (Florida reimargrass)

Florida reimargrass is ranked as Critically Imperiled in South Florida by IRC (Gann et al., 2001-2006). It is a terrestrial perennial herb and is locally common at YFCP in water (3dm deep) near the center of strand swamp or Yellow Fever Creek (Figure 4). A single colony of 100-200 plants was observed by Woodmansee, Green, and Laura Wewerka on August 1st, 2006. This station was documented with an herbarium voucher by Woodmansee and Green (Woodmansee, 1988, FTG). Before these surveys, this near endemic grass was ranked as historical from Lee County (Gann et al., 2001-2006). Before this finding, Florida reimargrass was last observed in Lee County in 1977 by William Brumbach on Lower Captiva Island (Gann et al., 2002). Elsewhere in South Florida it is known from Big Cypress National Preserve in Collier County (Gann et al., 2001-2006). It occurs sporadically throughout peninsular Florida (Wunderlin & Hansen, 2004). It may occur elsewhere in wet areas at YFCP. This station should be monitored annually during the wet season (June through September).

Sacoila lanceolata (undetermined variety) (Beaked lady's-tresses)

Both varieties of Beaked lady's tresses are ranked as threatened in Florida by the FDACS (Coile & Garland, 2003) and S. lanceolata var. paludicola is ranked as Critically Imperiled in Florida by FNAI (Florida Natural Areas Inventory, 2006). It is a terrestrial perennial herb which flowers in the spring-summer. Three colonies each containing a single plant were observed on August 1st and October 17th, 2006 by Woodmansee, Green, and Hodges in disturbed wetland (at base of melaleuca), wet flatwoods, and mesic hammock (Figures 4 &5). Leafless beaked lady's tresses (S. lanceolata var. lanceolata) occurs sporadically throughout Florida whereas Leafy beaked lady's tresses is endemic to Broward, Collier, and Miami-Dade counties (Wunderlin & Hansen, 2004). Further surveys should be conducted for this species in appropriate habitats. Optimally, in Spring 2007 these stations should be visited and plant's varieties should be determined upon blooming. If any of these plants were determined as Leafy beaked lady's tresses, then it would be significant as it has not been reported for Lee County. It should then be documented with a photo, and data should be sent to FNAI. At the time of the surveys the population of this species was not sufficient enough for an herbarium collection. Should populations increase in number, it is recommended that upon monitoring, this species be documented with an herbarium voucher and deposited in a registered herbarium in Florida. These stations should be monitored on an annual basis in the spring or when

they are flowering. Further surveys should be conducted for this species in appropriate habitats. If enough plants

Scleria ciliata var. pauciflora (Fewflower nutrush)

Fewflower nutrush is ranked as Critically Imperiled in South Florida by IRC (Gann et al., 2001-2006). It is a terrestrial perennial herb. Three colonies totaling 11-100 plants were found on February 2nd, August 1st, and October 17th, 2006 by Woodmansee, Green, and Hodges in open areas of, and fire breaks running through, mesic flatwoods of YFCP (Figures 3-5). Colonies contained 5-15 individuals each and fewflower nutrush is rare at YFCP. This occurrence was documented with an herbarium voucher by Woodmansee and Green (Woodmansee, 1787, FTG). In South Florida, fewflower nutrush is also at Prairie Pines Preserve in Lee County (Woodmansee & Sadle, 2004), and at Babcock/Webb Wildlife Management Area in Charlotte County and in a few conservation areas in Martin County (Gann et al., 2001-2006). It has also been reported for Corkscrew Regional Ecosystem Wetland in either Collier or Lee counties (Anderson, 1997). Wunderlin & Hansen (2004) no longer recognize *S. ciliata* var. *pauciflora* as a distinct variety, however Godfrey & Wooten (1979) list it throughout Florida. More individuals may be encountered at YFCP during the appropriate reproductive season between April and June as well as after fires. These stations should be monitored on an annual basis during the flowering and fruiting period.

Spiranthes praecox (Greenvein lady's-tresses)

Greenvein lady's-tresses is ranked as Critically Imperiled in South Florida by IRC (Gann et al., 2001-2006). It is a terrestrial perennial herb. Greenvein lady's tresses is extremely rare at YFCP as only a single colony of three plants was observed in an open grassy area of mesic flatwoods on April 26th, 2006 by Woodmansee and Green (Figure 2). In Lee County, Greenvein lady's-tresses has not been definitively observed since 1930 when Harold Moldenke collected it in a moist grassy ditch near Coconut (Gann et al., 2002). Coincidentally, the authors discovered this species at Caloosahatchee Creeks Preserve the previous day. Elsewhere in South Florida it is at Corkscrew Swamp Sanctuary in Collier County and in four conservation areas in Martin and Palm Beach counties (Gann et al., 2001-2006). It has also been reported for Corkscrew Regional Ecosystem Wetland in either Collier or Lee counties (Anderson, 1997). It is mostly throughout elsewhere in Florida (Wunderlin & Hansen, 2004). More individuals may be encountered in open areas of mesic flatwoods and other moist areas at YFCP during the appropriate reproductive season between April and June as well as after fires. If sufficient individuals are found, it is recommended that Greenvein Lady's-tresses be documented with an herbarium voucher and deposited in a registered herbarium in Florida. This station should be monitored on an annual basis during the flowering and fruiting period in the spring.

Tillandsia balbisiana (Reflexed wild-pine, Northern needleleaf)

Reflexed wild-pine is ranked as threatened in Florida by FDACS (Coile & Garland, 2003). It is an epiphytic perennial herb which flowers throughout the year. Reflexed wild-pine is relatively common in mesic flatwoods, mesic hammock, and strand swamp communities at YFCP. Between 101 and 1,000 adults were observed throughout 2006 by Woodmansee, Green, and Hodges. Reflexed wild-pine occurs throughout South Florida (Gann et al., 2001-2006) and in southern central Florida (Wunderlin & Hansen, 2004). This species ranking is due to the arrival of the nonnative weevil *Metamasius callizona*, which preys on adult plants. No signs of this weevil were noticed at YFCP, however, reflexed wild-pine should be monitored for predation by this exotic pest and should it appear that populations of this bromeliad be declining, more frequent monitoring of individual populations should take place.

Tillandsia fasciculata var. densispica (Stiff-leaved wild-pine, Cardinal airplant)

Stiff-leaved wild-pine is ranked as endangered in Florida by FDACS (Coile & Garland, 2003). It is an epiphytic perennial herb which flowers throughout the year. Stiff-leaved wild-pine is relatively common in mesic hammock and strand swamp communities at YFCP. Between 1,001 and 10,000 adults were observed throughout 2006 by Woodmansee, Green, and Hodges .Stiff-leaved wild-pine occurs throughout South Florida (Gann et al., 2001-2006) and in southern and coastal central Florida (Wunderlin & Hansen, 2004). This species ranking is due to the arrival of the non-native weevil *Metamasius callizona*, which preys on adult plants. No signs of this weevil were noticed at YFCP, however, stiff-leaved wild-pine should be monitored for predation by this exotic pest and should it appear that populations of this bromeliad be declining, it is recommended that more frequent monitoring of individual populations take place.

Tillandsia utriculata (Giant wild-pine, Giant airplant)

Giant wild-pine is ranked as endangered in Florida by FDACS (Coile & Garland, 2003). It is an epiphytic monocarpic perennial herb which flowers throughout the year. Giant wild-pine is relatively common throughout mesic flatwoods and mesic hammock communities at YFCP. Between 11 and 100 adults were observed throughout 2006 by Woodmansee, Green, and Hodges. Giant wild-pine occurs throughout South Florida (Gann et al., 2001-2006) and in central Florida (Wunderlin & Hansen, 2004). This species ranking is due to the arrival of the non-native weevil Metamasius callizona, which preys on adult plants. No signs of this weevil were noticed at YFCP, however, giant wild-pine should be monitored for predation by this exotic pest and should it appear that populations of this bromeliad be declining, it is recommended that more frequent monitoring of individual populations take place.

Vernonia blodgettii (Florida ironweed)

Florida ironweed is ranked as rare in Florida (S3) by Florida Natural Areas Inventory (FNAI) (FNAI, 2006). It is a terrestrial perennial herb which flowers in the fall. Florida ironweed is rare at YFCP. A single colony of 40-50 plants was observed in an open area of mesic flatwoods and in nearby wet prairie on October 17th, 2006 by Woodmansee and Hodges (Figure 3). Florida ironweed is common throughout moist pinelands and prairies in most of South Florida (Gann et al., 2001-2006). Outside of South Florida it is known from St. Lucie and Indian River counties (Wunderlin & Hansen, 2004). With more surveys in the fall or after fires, it may be found elsewhere in flatwoods and prairies at YFCP. This station should be monitored on an annual basis in the fall when it flowers.

Viola palmata (Early blue violet)

Early blue violet is ranked as Critically Imperiled in South Florida by IRC (Gann et al., 2001-2006). It is a terrestrial perennial herb. Early blue violet is rare at YFCP as only two colonies together containing 30-50 plants were observed in open grassy areas of mesic flatwoods on February 2nd, 2006 by Woodmansee and Green (Figure 2). Early blue violet was also recorded for Prairie Pines Preserve (Woodmansee & Sadle, 2004) and five other conservation areas in Collier, Lee, and Palm Beach counties (Gann et al., 2001-2006). It is mostly throughout the rest of Florida (Wunderlin & Hansen, 2004). More individuals may be encountered in mesic flatwoods (especially after fire), usually on the edge of open areas and saw palmetto areas at YFCP. At the time of the surveys individuals were sterile. Should populations not decrease in number, it is recommended that upon monitoring, this station be documented with an herbarium voucher and deposited in a registered herbarium in Florida. This station should be monitored on an annual basis during the flowering and fruiting period in the spring.

Appendix 2 The Habitats at Yellow Fever Creek Preserve*

Depression Marsh

Depression marsh is characterized as a shallow, usually rounded depression in sand substrate with herbaceous vegetation, often in concentric bands (FNAI & DNR, 1990). Typical vegetation includes such plants as St. John's-worts, spikerushes, yellow-eyed-grasses, chain ferns (*Woodwardia spp.*), willows, maidencane, wax myrtle, swamp-primrose (*Ludwigia palustris*), bloodroot, buttonbush, fire flag, pickerelweed, arrowheads, and bladderworts (FNAI & DNR, 1990).

Depression marshes are typical of karst regions where sand has slumped around or over a sinkhole, and thereby created a conical depression; they are smaller than basin marshes, which are situated in relatively large and irregular-shaped basins (FNAI & DNR, 1990). They are filled by direct rainfall, runoff, or seepage from surrounding uplands, and may be maintained by a subsurface hardpan (FNAI & DNR, 1990). Hydroperiods are highly variable, and range from as few as 50 days to more than 200 days per year (FNAI & DNR, 1990). Fire is important in maintaining this community by limiting peat build-up and preventing the invasion of trees and shrubs (Craighead 1971, in Kushlan 1990). No typical fire frequency for depression marshes is given by FNAI & DNR (1990), but they state that the normal fire interval for basin marshes is one to ten years; Wade et al. (1980, in Kushlan 1990) state that fire periodicity is about three to five years in most deep water marshes, while shallow water marshes burn on one to three-year cycles, provided plant growth is sufficient to carry a fire. FNAI (2006) lists depression marsh as G4 and S4 respectively, meaning that it is apparently secure globally and in Florida, but may be rare in parts of its range.

The depression marshes at Yellow Fever Creek Preserve (YFCP) are fairly wide and deep in their center, which remains wet in the dry season. Vegetation that is characteristic of these depression marshes include herbaceous and graminoid species such as alligatorflag, beaksedges, pickerelweed, various bladderwort species, dotted smartweed, maiden cane, and various spike rushes. Some woody trees and shrubs are also found in depression marsh habitat at YFCP including Coastal Plain willow, common buttonbush, and wax myrtle. A notable feature of the depression marsh located on the northeastern part of the property is a periphyton mat (unusual to the region) along the periphery of the depression marsh. In addition to blue-green algae, this periphyton mat also possesses bladderworts and *Chara* spp. Depression marsh habitat at YFCP grades into disturbed wet, wet flatwoods, mesic flatwoods, and wet prairie habitats. A total of 39 native species were observed growing in depression marsh habitat, none of which are considered rare nor are listed by any agency. See Table 2 for a complete list of native species found in YFCP.

Five exotic plant species were recorded growing in depression marsh habitat at YFCP. These species include Brazilian-pepper, Java-plum, punktree, torpedo grass, and trompetilla. All five of these species are listed as category I invasive exotic species by the Florida Exotic Pest Plant Council (FLEPPC).

Disturbed Upland

Disturbed upland includes areas such as roadsides, agricultural fields, or thickets (Gann et al., 2001-2006). Disturbed upland can be characterized by a multitude of different strata and species

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^{*} Scientific names in the text are provided for those species not occurring at YFCP.

depending on its context. In general, in addition to the above, disturbed upland can be applied to habitats which were formerly native, but are now dominated by exotics, with 50% or greater coverage. Although exotics do tend toward occupying areas of disturbance, in some cases natives will often persist in areas cleared. Often times rare plant species can occur in these habitats since many disturbance areas occur along former ecotones between key habitats where rare plants often occur. In addition, some rare native species are ruderals, and occur in disturbance dominated areas. Although not often recognized as an official habitat, it nevertheless occurs throughout YFCP and hosts a significant component of the flora there.

At YFCP disturbed upland includes fire breaks, powerline easements, and areas dominated by non-native plant species. Fire breaks and powerline easements are often dominated by native vegetation and include trees such as southern slash pine, laurel oak, Virginia live oak, and cabbage palm. Shrubs such as St. John's worts, cabbage palm, myrtle oak, running oak, wax myrtle and winged sumac also occur here. Most of the fire breaks and easements are dominated by herbs and grasses however, and include: blue-maidencane, three awns, sandmats, dog-fennel, flat sedges, witch grasses, beak sedges, nut-rushes, hempweed, greenbrier, grapes, and goldenrods. Disturbed upland habitat grades into disturbed wetland, mesic flatwoods, mesic hammock, and scrubby flatwoods habitats. A total of 184 native species were observed growing in disturbed upland habitat. See Table 2 for a complete list of native species found in disturbed upland at YFCP.

Six rare plants were recorded for disturbed upland. Florida ironweed is listed as rare in Florida by Florida Natural Areas Inventory (Gann et al., 2001-2006). In addition, five other species listed as Critically Imperiled in South Florida by IRC are also found in the disturbed upland of YFCP. These plant species include Florida ticktrefoil, Florida pineland spurge, St. Peter's-wort, fewflower nutrush, and American halfchaff sedge, the latter of which is known only from disturbed areas.

Thirty-six exotic plant species were recorded growing in disturbed upland, 14 of which are listed by FLEPPC. For a list of non-native species in this habitat, see Table 2.

Disturbed Wetland

Disturbed wetland includes disturbed wet areas such as ditches, canals, and borrow pits (Gann et al., 2001-2006). In general, in addition to the above, disturbed wetland can be applied to habitats which were formerly native, but are now dominated by exotics, with 50% or greater coverage. Although exotics do tend toward occupying areas of disturbance, in some cases natives will often persist in areas cleared. Often times rare plant species can occur in these habitats since many disturbance areas occur along former ecotones between key habitats where rare plants often occur. In addition, some rare native species are ruderals, and occur in disturbance dominated areas. Although not often recognized as an official habitat, it nevertheless occurs throughout YFCP and hosts a significant component of the flora there.

At YFCP disturbed wetland is characterized by fire breaks and powerline easements in low areas, a borrow pit in the southwest corner of the preserve, ditched portions of Yellow Fever Creek, and large areas of punktree lowland forest. Nonetheless, some areas are dominated by natives including waterhyssop, finger grass, yellowtops, St. John's worts, primrosewillows, blue water-lily, smartweed, mermaidweed, rushes, bladderworts, and yellow-eyed grass. Disturbed wetland habitat grades into disturbed upland, wet prairie, depression marsh, wet flatwoods, mesic flatwoods, mesic hammock, and strand swamp habitats. A total of 97 native species were observed growing in disturbed wetland habitat. See Table 2 for a complete list of native species found in disturbed wetland at YFCP.

Two rare plants were recorded for disturbed wetland. Florida pimpernel and Tropical waterhyssop are listed as Critically Imperiled in South Florida by IRC.

Eight exotic plants were observed in disturbed wetland. Five are listed as Invasive by FLEPPC and include punktree, torpedo grass, trompetilla, Asian swordfern, and small leaf climbing fern. The remaining three non-natives are Columbian waxweed, Thalia love grass, and Indian cupscale.

Mesic Flatwoods

Typical mesic flatwoods communities are characterized by a low, flat topography, and moderately-to poorly-drained, acidic, sandy soils often overlying an organic or clay hardpan (Abrahamson and Hartnett, 1990; FNAI & DNR, 1990). Generally, an overstory of pines is present, which may consist of longleaf pine (*Pinus palustris*), slash pine or pond pine (*Pinus serotina*). The understory is quite variable, but generally includes species such as saw palmetto, gallberry, and wiregrass. Other typical taxa include St. John's-worts, dwarf huckleberry (*Gaylussacia dumosa*), wax myrtle, staggerbush, blueberries, gopher-apple, tarflower, bog-buttons, blackroot, false foxgloves, white-topped aster (*Aster paternis*), yellow-eyed-grasses, and cutthroat grass (*Panicum abscissum*) (FNAI & DNR, 1990).

Due to the presence of the hardpan, mesic flatwoods usually flood for brief periods each year; this is contrasted with the dry season, when groundwater is unattainable for many plant species (FNAI & DNR, 1990). Fire frequency in mesic flatwoods has been estimated at one to eight years (FNAI & DNR, 1990). In the absence of fire, mesic flatwoods may develop towards hardwood-dominated forests with a closed canopy that can eliminate the ground cover herbs and shrubs; very frequent or hot fires can eliminate pine recruitment and eventually transform mesic flatwoods into dry prairie (FNAI & DNR, 1990). FNAI (2006) lists mesic flatwoods as G4 and S4 respectively, meaning that it is apparently secure globally and in Florida, but may be rare in parts of its range.

Mesic flatwoods at YFCP are typified by a flat sand substrate with a sparse pine canopy composed entirely of South Florida slash pine, and a midstory of saw palmetto, and various shrubs including, coastal plain staggerbush, winged sumac, American beautyberry and Virginia live oak. A diverse understory of herbaceous and graminoid vegetation including various witch grasses, three-awn grasses broomsedges, milkworts, sundews, yellow hatpins and yellow-eyed grasses, dominate the forest floor in open areas lacking saw palmetto. Mesic flatwoods at YFCP grade into a variety of other habitats including disturbed wetland, disturbed upland, mesic hammock, scrubby flatwoods, wet flatwoods and depression marsh. Mesic flatwoods are the most diverse undisturbed habitat found at YFCP with 177 native species. See Table 2 for a complete list of native species found in mesic flatwoods at YFCP.

Twelve rare plant species were recorded in this habitat, including the state threatened Catesby's lily, yellow butterwort and reflexed wild-pine, and the state endangered giant wild-pine. In addition, seven other species listed as Critically Imperiled in South Florida by IRC are also found in the mesic flatwoods of YFCP. These plant species include Florida ticktrefoil, Florida pineland spurge, St. Peter's-wort, racemed milkwort, fewflower nutrush, greenvein lady's-tresses, and early blue violet. Yellow butterwort is also listed as Critically Imperiled in South Florida by IRC.

Nine invasive exotic plant species were found in the mesic flatwoods at YFCP. Among these species are rosary pea, earleaf acacia, rattle-pod, cogon grass, small-leaf climbing fern, Asian swordfern, rose natalgrass, Brazilian-pepper, and Caesarweed. All of these species are listed by FLEPPC as category

I exotic species with the exception of Caesarweed which is listed as category II. In addition to these species, four other non-native species were found to be invading the mesic flatwoods. These include chamber bitter, Bahia grass, Asiatic dewflower, and Malaysian false-pimpernel.

Mesic Hammock

Mesic hammock occurs on slight rises in relatively flat terrain (Gann et al 2006.) Mesic hammock is a hardwood forest community of open or closed canopy dominated by live oak, with cabbage palm often present in the canopy and subcanopy (FNAI & DNR, 1990). Epiphytes (ferns, orchids, and bromeliads) are often found and may become abundant in undisturbed stands (FNAI & DNR, 1990). Shrubby understory may be dense or open, tall or short and is composed of saw palmetto, beautyberry, and wax myrtle, with the addition of tropical shrubs, such as Simpson's stopper (Myrcianthes fragrans) and wild coffee, in the south. The herb layer is often sparse or patchy and consists of various grasses, including witchgrasses and basket grass, and sedges (FNAI & DNR, 1990).

FNAI & DNR (1990) report that mesic hammock usually occurs as fringes or small patches on the borders of, or in higher parts of, rivers, swamps, marshes, and large lakes, and ranges from central and South Florida (Polk to Dade and Collier counties) northward along the Atlantic and Gulf coasts to North Carolina and Texas, however it is the authors' experience that in South Florida, mesic hammock may also occur as fire shadows within mesic flatwoods, or along mesic flatwoods ecotones with lowlands. Soils generally consist of sands overlying calcareous marls but may be a more complex association of marl, peat, and sand over limestone. FNAI & DNR (1990) report that soils are sand mixed with organic matter and are normally dry underfoot. FNAI (2006) lists mesic hammock as G3 and S2 respectively, meaning that it is either very rare or local throughout its range globally or is found locally in a restricted range, or is vulnerable to extinction from other factors. Mesic hammock is Imperiled in Florida due to its rarity or because of its vulnerability to extinction due to some natural or man-made factor (FNAI, 2006).

Mesic hammocks at YFCP are typified by a flat organic substrate over sandy soil with a canopy composed primarily of Virginia live oak and laurel oak with other scattered hardwoods such as myrsine and dahoon holly, in addition to cabbage palm. The canopy also contains several epiphytic species including wild-pines, shoestring fern and golden polypody. Various shrubs including shiny-leaved wild coffee, silverling, and recline Florida bully are also typical of mesic hammock habitat at YFCP. The understory is sparse, but contains a mixture of graminoid, and fern species including basketgrass, variable witch grass, southern shield fern and swamp fern all of which are characteristic of this habitat. Mesic hammock habitat at YFCP grades into disturbed upland, disturbed wetland, wet and mesic flatwoods and wet prairie. A total of 35 native species were observed growing in mesic hammock habitat at YFCP. For a complete list of native species in mesic hammock at YFCP, see Table 2.

Four state listed species were found growing in mesic hammock habitat at YFCP. These species include the state threatened reflexed wild-pine and the state endangered giant wild-pine and stiff-leaved wild-pine. The state threatened leafless beaked lady's-tresses was also recorded, but because there was no fertile material at the time of the observation, it is unknown if the leafless beaked lady's-tresses are the FNAI Critically Imperiled in Florida variety *paludicola*.

Five exotic plant species were found growing in mesic hammock habitat at YFCP. Three of these species are listed as category I by FLEPPC, and include Asian swordfern, laurel fig, and Brazilian-

pepper; the latter of which represents the most problematic at the preserve. Caesarweed is also present, and is listed as a category II exotic plant species by FLEPPC. Monk orchid is the only non FLEPPC listed species found to be invading mesic hammock habitat at YFCP.

Scrubby Flatwoods

Scrubby flatwoods communities generally occur in transitional areas between mesic flatwoods and scrub. While some consider scrubby flatwoods as an ecotonal or even an artificial community, others classify it as a discrete community or association (Abrahamson and Hartnett, 1990; FNAI & DNR, 1990). The canopy is usually composed of scattered pines, which may include slash pine or longleaf pine (*Pinus palustris*). The understory is usually dominated by scrub oaks, saw palmetto or scrub palmetto (*Sabal etonia*), or a combination of these taxa. Other typical taxa include staggerbush, wiregrass, shiny blueberry, gopher-apple, rusty lyonia (*Lyonia ferruginea*), tarflower, golden-asters (*Chrysopsis* spp.), ground lichens (*Cladonia* spp.), scrub-bay (*Persea borbonia var. humilis*), garberia (*Garberia heterophylla*), huckleberries (*Gaylussacia* spp.), goldenrods, running oak, pinweeds, and frostweeds (*Verbesina virginica*) (FNAI & DNR, 1990).

Scrubby flatwoods differ from other the types of flatwoods in that they occur at slightly higher elevations, on more well-drained soils. Even under extremely wet conditions, scrubby flatwoods will not flood (Abrahamson et al., 1984). The structure and species composition of scrubby flatwoods is more closely aligned with scrub than with other types of flatwoods. Due to the relatively sparse ground cover, the presence of scrub oaks, and the presence of open, sandy areas, fire frequency in scrubby flatwoods is lower than in other flatwoods communities, and has been estimated at 8 to 25 years (FNAI & DNR, 1990). In the absence of regular fire, scrubby flatwoods may develop towards scrub on drier sites, or xeric live oak hammock on less well-drained sites (Laessle, 1942). A successional pathway from xeric live oak hammock to mesic hammock also has been proposed (Laessle, 1942). FNAI (2006) lists scrubby flatwoods as G3 and S3 respectively, meaning that it is either very rare or local throughout its range globally and in Florida, or found locally in a restricted range, or vulnerable to extinction from other factors.

Scrubby flatwoods at YFCP are characterized by flat land with sandy soil and a very widely scattered, almost absent pine canopy. Dense patches of saw palmettos and scrub oaks with scattered shrubs such as Coastal Plain staggerbush and tarflower comprise the typical shrubby vegetation. A high diversity of grasses and sedges including bluestems, three-awn grasses, witchgrasses and densetuft hairsedge along with herbaceous vegetation such as shiny blueberry, candyweed and prickly-pear, are typical understory species in this habitat, as there is no true scrub at YFCP. Scrubby flatwoods habitat at YFCP is somewhat disturbed and occurs under the powerline easement on the southwest portion of the property where it grades into mesic flatwoods and disturbed upland. Sixty-three native species were found to be growing in scrubby flatwoods habitat at YFCP. See Table 2 for a list of native plant species found in scrubby flatwoods at YFCP.

Florida pineland spurge, listed as Critically Imperiled in South Florida by IRC, is the only rare species listed by any agency, found to be growing in scrubby flatwoods habitat at YFCP.

Nine exotic plant species were found growing in scrubby flatwoods habitat at YFCP. Four of these species are FLEPPC category I exotic plant species. Among these species are Brazilian-pepper, punktree, rose Natalgrass and torpedo grass. Caesarweeed, a FLEPPC category II exotic plant species was also recorded for this habitat. Species not listed by FLEPPC found to be invading the scrubby flatwoods include bahia grass, globe amaranth, Thalia love grass, and West Indian dropseed.

Strand Swamp

Strand Swamps are shallow, forested, usually elongated depressions or channels dominated by bald cypress (*Taxodium distichum*) (FNAI & DNR, 1990). They are generally situated in troughs in a flat limestone plain (FNAI & DNR, 1990). Typical plants include red maple (*Acer rubrum*), laurel oak, cabbage palm, strangler fig, red bay (*Persea borbonia*), sweet bay (*Magnolia virginiana*), coastal plain willow, wax myrtle, myrsine, buttonbush, royal palm (*Roystonea regia*), poison ivy, swamp lily (*Crinum americanum*), leather fern (*Acrostichum danaeifolium*), royal fern (*Osmunda regalis* var. *spectabilis*), saw-grass, swamp primrose (*Ludwigia palustris*), water hyssop, floating heart (*Nymphoides aquatica*), dotted smartweed, and arum (*Peltandra* spp.) (FNAI & DNR, 1990). Canopy plants are mainly temperate, while understory and epiphytic plants are mainly tropical (FNAI & DNR, 1990). Small young trees at the outer edge of strand swamps grade into large old ones in the interior, giving a strand a distinctly rounded cross-sectional profile (FNAI & DNR, 1990). Strand swamp soils are peat and sand over limestone and the best developed forests are on deep peat that acts as a wick to draw moisture from groundwater up into the root zone during droughts (FNAI & DNR, 1990).

The normal hydroperiod is 200-300 days with a maximum water depth of 18 to 30 inches (FNAI & DNR, 1990). Water is deepest and remains longest near the center where the trees are biggest (FNAI & DNR, 1990). Fire occurs in strand swamps on a cycle of perhaps 30 to 200 years, with the largest trees on the deepest peat towards the center of the strand burning least frequently (FNAI & DNR, 1990). Fire is essential for maintenance of this natural community; without fire, hardwood invasion and peat accumulation would convert the strand to bottomland forest in a few hundred years (FNAI & DNR, 1990). Cypress is very tolerant of light surface fires, but muck fires burning into the peat can kill the trees, lower the ground surface, and transform a strand into a slough (FNAI & DNR, 1990). FNAI (2006) lists strand swamp as G4 and S4 respectively, meaning that it is apparently secure globally and in Florida, but may be rare in parts of its range.

Strand swamp at YFCP is typified by a seasonally inundated peat substrate over sand and limestone with a pond cypress dominated canopy. Six different species of wild-pine, including ball-moss, reflexed wild-pine, Spanish-moss, stiff-leaved wild-pine, thin-leaved wild-pine, and twisted wild-pine are epiphytic on pond cypress in this habitat. Several sub-canopy trees are also present including Coastal Plain willow, dahoon holly, common buttonbush and wax myrtle. Fern, herbaceous and graminoid species typical of this habitat include saw-grass, smartweeds, buttonweed, hyssops, primrosewillows, alligator flag, maidencane, mermaid weed and swamp fern. The exotic trompetilla is also a common component of strand swamp community at YFCP. Strand swamp habitat at YFCP grades into wet flatwoods and wet prairie. It may be more closely associated with the slough habitat, since it is present at the headwaters of Yellow Fever Creek, however based upon the actual physical structure of the plant community; it was decided to be categorized as strand swamp. Seventy native plant species were found growing in strand swamp habitat at YFCP. For a complete list of native plant species found at YFCP, see Table 2.

Rare plant species found growing in strand swamp habitat at YFCP include the state threatened twisted wild-pine, and the state endangered stiff-leaved wild-pine. In addition, Florida reimargrass was also found growing in this habitat. This species is listed as Critically Imperiled in South Florida by IRC.

Five exotic plant species were found to be growing in strand swamp habitat. These species include aquatic soda-apple, Brazilain-pepper, Java-plum, punktree and trompetilla. All five of thee species are listed as category I exotic plant species by the Florida Exotic Pest Plant Council.

Wet Flatwoods

Wet flatwoods are characterized as relatively open-canopy forests of scattered slash pine or pond pine (*Pinus serotina*), or cabbage palms with either a thick shrubby understory and very sparse ground cover, or a sparse understory and a dense ground cover of hydrophytic herbs and shrubs (FNAI & DNR, 1990). Typical understory plants include sweet-bay (*Magnolia virginiana*), spike-rushes, beak-rushes, sedges (*Cyperaceae*), wax myrtle, gallberry, titi (*Cyrilla racemiflora*), saw palmetto, beggar-ticks (*Desmodium* spp.), deer-tongue (*Carphephorus odoratissimus*), blazing-stars (*Liatris* spp.), greenbrier, bluestems, and pitcher plants (*Sarracenia* spp.) (FNAI & DNR, 1990).

Wet flatwoods occur on relatively flat, poorly drained terrain. The soils typically consist of one to three feet of acidic sands generally having a hardpan, and during the rainy season flood for one or more months per year (FNAI & DNR, 1990). Fire frequency in wet flatwoods has been estimated at three to ten years (FNAI & DNR, 1990). FNAI (2006) lists wet flatwoods as G4 and S4 respectively, meaning that it is apparently secure globally and in Florida, but may be rare in parts of its range.

Typical wet flatwoods habitat at YFCP is comprised of a poorly drained, flat, sandy substrate with a relatively dense canopy of South Florida slash pine. The midstory contains scattered oaks and saw palmetto. The understory is a diverse assemblage of grasses, sedges and herbs such as blue stems, beaksedges, witchgrasses, umbrellasedges, yellow-eyed grasses, bladderworts, blackroot, rosy camphorweed, and Florida elephant's-foot. Wet flatwoods at YFCP grade into depression marsh, wet prairie, mesic flatwoods, mesic hammock and disturbed wetland habitat. Much of the original wet flatwoods habitat at YFCP has been lost to the invasion of punktree, and is currently categorized as disturbed wetland. Ninety-seven native plant species were recorded for wet flatwoods habitat at YFCP. See Table 2 for a complete list of native plants at YFCP.

Two rare plant species were observed growing in wet flatwoods habitat at YFCP. Leafless beaked lady's-tresses is listed as threatened by FDACS (Coile & Garland, 2003). Florida pineland spurge is listed as Critically Imperiled in South Florida by IRC.

Nine exotic plant species were found growing in wet flatwoods habitat at YFCP. Four of these plant species, including Brazilian-pepper, Java-plum, laurel fig and punktree are listed as category I invasive exotic species by FLEPPC. In addition, two category II exotic plant species are also found in this habitat and include Caesarweed and China brake. In addition, the non FLEPPC listed bahia grass, Columbian waxweed and ditch fimbry were also found invading the wet flatwoods habitat.

Wet Prairie

Wet Prairie is characterized as a treeless plain with a sparse to dense ground cover of grasses and herbs, including wiregrass, toothache grass (*Ctenium* spp.), maidencane, spikerush, and beakrush. Other typical plants include hatpins, marsh pinks, crownbeard (*Verbesina* spp.), sundews, black-eyed susan, stargrass, white-top sedge, meadowbeauty, yellow-eyed grass, sneezeweed, sunflower (*Helianthus* spp.), waxmyrtle, pitcher plants (*Sarracenia* spp.), tickseed, St. John's wort, and panicums (FNAI & DNR, 1990).

Wet prairie occurs on low, relatively flat, poorly drained terrain of the coastal plain. Soils typically consist of sands often with a substantial clay or organic component (FNAI & DNR, 1990). The most important physical factors are hydrology and fire (FNAI & DNR, 1990). Wet prairie is seasonally inundated or saturated for 50 to 100 days each year and burns every two to four years (FNAI & DNR, 1990). Wax myrtle quickly invades and will dominate wet prairies with longer fire intervals (FNAI & DNR, 1990). In South Florida, melaleuca invasions can seriously impact wet prairies (FNAI & DNR, 1990). Generally, wet prairies have a much shorter hydroperiod than other herbaceous wetlands and are subject to regular and prolonged desiccation during the dry season due to their flat topography (FNAI & DNR, 1990). FNAI (2006) lists wet prairie as G3 and S2 respectively, meaning that it is either very rare or local throughout its range globally or found locally in a restricted range, or vulnerable to extinction from other factors. Wet prairie is Imperiled in Florida because of rarity or because of vulnerability to extinction due to some natural or man-made factor (FNAI, 2006).

Wet prairie at YFCP is typified by a poorly drained, flat, sandy substrate with occasional limestone outcrops and with no canopy and a few shrubs such as cabbage palm. The herb layer is dominated by herbs and graminoids including southeastern sneezeweed, blue-maidencane, saw-grass, fingergrass, gulfdune Paspalum, Panicum spp., beaksedges, bladderworts, yellow-eyed-grasses, rhizomatous bluestem, miterworts, musky mint, piedmont marshelder, and umbrellasedges. Wet prairie at YFCP grades into wet flatwoods, depression marsh, strand swamp, and disturbed wetland habitats. Ninety-eight native plant species were recorded for wet prairie habitat at YFCP. See Table 2 for a complete list of native plants in wet prairie at YFCP.

Wet prairie at YFCP is closely associated with marl prairie, which is more common further south in Collier County. Due to the discovery of the periphyton layer in the nearby depression marsh, and due to the many plants which are associated with both plant communities, it is possible that this habitat may more closely be referable to marl prairie, although no marl soil type was observed. Much of the historic wet prairie at YFCP has been invaded and dominated by punktree. These areas are now categorized as disturbed wetland. Very little wet prairie remains and can be seen mostly along the ecotones between flatwoods and depression marshes. With adequate restoration including removal of such exotic species, restoration of hydrology, and implementation of a fire regime, wet prairie at YFCP could be abundant once again.

Two rare plant species were observed growing in wet prairie habitat at YFCP. These species are Florida ironweed and Carolina scalystem both ranked as Critically Imperiled in South Florida by IRC.

Three exotic plant species were found growing in wet prairie habitat at YFCP. Two of these plant species, including Torpedo grass and punktree are listed as category I invasive exotic species by FLEPPC. In addition, Caesarweed, a category II exotic plant species is also found in this habitat.

Figure 1
Rare Plants of Yellow Fever Creek Preserve
Overview

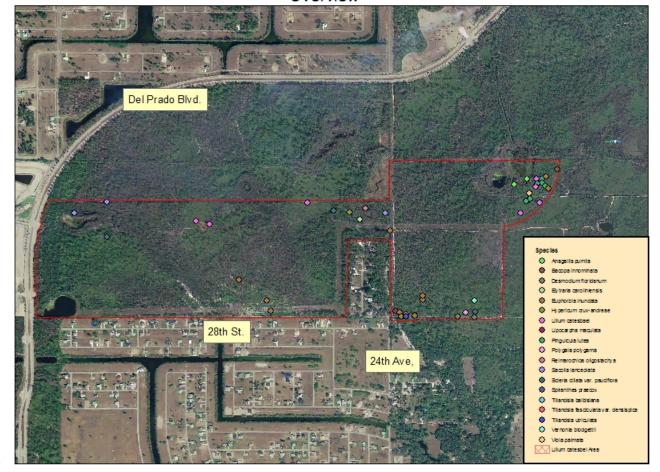






Figure 2
Rare Plants of Yellow Fever Creek Preserve
Northeast Boundary







Figure 3
Rare Plants of Yellow Fever Creek Preserve
Southeast Boundary







Figure 4
Rare Plants of Yellow Fever Creek Preserve
Central







Figure 5
Rare Plants of Yellow Fever Creek Preserve
West







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