

APPENDIX D

**Coral Reef Commons Rare Plant and Floristic Inventory and
Assessment Report (Woodmansee 2014)**

Coral Reef Commons Rare Plant and Floristic Inventory and Assessment



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Report Submitted to Johnson Engineering Inc.,

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Introduction

In September 2014 Pro Native Consulting was contracted with by Johnson Engineering to conduct a floristic inventory and a search for select plants listed by the US Fish and Wildlife Service at the Coral Reef Commons site in Miami-Dade County, FL. Coral Reef Commons consists of over 100 acres and is located south of SW 152nd Street (Coral Reef Drive) at SW 127th Avenue. Much of the acreage consists of pine rockland habitat, a plant community listed as globally critically imperiled by the Florida Natural Areas Inventory.

Site Overview

Coral Reef Commons consists of both natural areas and urban interface. Natural Areas are of varying degrees of disturbance, and the urban interface consists of buildings, roads, landscaped areas, and improved lawn. It borders Coral Reef Drive on the north, property owned by the Department of Homeland Security on the west and south, and borders Miami Zoo on the east. The Coral Reef Commons site is part of what is known as the Richmond Pine Rockland tract, an area of fairly contiguous pine rockland known to be the largest tract of pine rockland in Miami-Dade County outside of Everglades National Park.

Within Coral Reef Commons, four parcels possess the Natural Forest Community (NFC) designation. A conservation easement designation by Miami-Dade County where the private land owner manages the parcel of land as a natural area. (see Map 1 on next page). The remaining parcels are proposed for development.

Historical land use consisted of being used in the 1940's by the U.S. Air Force as part of a former blimp base that occurred throughout most of the Richmond Pine Rockland Tract. During this time, some of the property was likely cleared for some buildings and roads. Afterward, the land ownership was transferred to the University of Miami, who used the property for medical research. While the University of Miami managed the property, more buildings were installed, and some of the land was further cleared, however much of the pine rockland habitat remained intact. There is little evidence that the habitat was managed during this time period, and much of the area became altered over time by the countywide artificial lowering of the water table, lack of fire, and exotic pest plant infestation. In the mid 2000's, the property was rezoned by the Miami-Dade County Commission for Residential and Commercial use. In 2014 the property was purchased by RAM Realty, who plan to use some of the property for Residential and Commercial use, while also maintaining and managing conservation easements on site. Prior to surveys and by the date of this report, management consisting of exotic pest plant removal of some of the NFC areas by the current land owners, especially the hammock portion of the site has already taken place. Some natural areas within the site are in worse shape than others and will be discussed later on in the report. To date, no new development has occurred.

Methods

Recommended guidelines for conducting a botanical inventory of Coral Reef Commons was provided by the US Fish and Wildlife Service through Johnson Engineering. These methods were adhered to and are provided in Appendix A.

Historical Data Search

Historic floristic data was sought before conducting a floristic inventory and rare plant search. Fairchild Tropical Botanic Garden Center for Plant Conservation (Fairchild) staff were contacted, and data on rare plants outlined in Appendix A were provided. These data consisted of shapefiles from rare plant surveys conducted by Miami Dade Department of Environmental Resources, which contained maps of two federally endangered plant species: Tiny Polygala (*Polygala smallii*) and Deltoid Spurge (*Chamaesyce deltoidea* ssp. *deltoidea*). In addition, Fairchild provided printed map data on an area where Tiny Polygala was rescued on non NFC property located on site, as well as a track log on areas they searched for plants to rescue. Florida Natural Areas Inventory was contacted, and possessed no further data specific to the site. Herbarium label and species record data reported from Gann et al. (2002) was gathered. A plant list for the property was used from Bradley et al. (2000).

Rare Plant Inventory Methods

Maps of previous data will be uploaded onto a submeter accurate GPS device and printed and brought into the field. Field searches for all USFWS target species were conducted at all times of the day by Steven W. Woodmansee and Craig van der Heiden on September 26-27, 2014, October 10, 2014. Additional field searches were conducted by Woodmansee on September 28, 2014 and November 4, 2014. All searches were conducted on foot in all parcels of Coral Reef Commons. Attempts were made to seek out the historical populations of the listed species. Subsequently, surveys were conducted in habitats most likely to contain those species provided by the US Fish and Wildlife Service (Table 1 and also listed in Appendix A).

When a target species was encountered, botanists walked a spiral followed from the origin until a population was defined. The population was then mapped using ArcPad software. Number of individuals, fruiting/flowering (phenology), habitat, health of plants and habitat, and associated plant taxa were recorded. Each species/habitat combination was photographed using a digital camera.

Table 1: Federally Listed and Candidate Plants Miami-Dade Pine Rocklands

Scientific Name	Common Name	USFWS Status
<i>Polygala smalii</i>	Tiny Polygala	Endangered
<i>Chamaesyce deltoidea</i> ssp. <i>deltoidea</i>	Deltoid Spurge	Endangered
<i>Linum carteri</i> var. <i>carteri</i>	Carter's Small-flowered Flax	Proposed Endangered w/CH
<i>Brickellia mosieri</i>	Florida Brickellbush	Proposed Endangered w/CH
<i>Galactia smallii</i>	Small's Milkpea	Endangered
<i>Amorpha crenulata</i>	Crenulate Leadplant	Endangered
<i>Linum arenicola</i>	Sand Flax	Candidate
<i>Argythamnia blodgettii</i>	Blodgett's Silverbush	Candidate
<i>Digitaria pauciflora</i>	Florida Pineland Crabgrass	Candidate
<i>Dalea carthagenensis</i> var. <i>floridana</i>	Florida Prairie Clover	Candidate
<i>Sideroxylon reclinatum</i> ssp. <i>austrofloridense</i>	Everglades Bully	Candidate

Floristic Inventory Methods

A plant list of previous data was created and brought into the field. Field searches for all vascular plant species were conducted by Steven W. Woodmansee on the same dates as the rare plant searches. Plant taxonomy follows Wunderlin & Hansen's (2011) "*Guide to the Vascular Plants of Florida Third Edition*". Plants were recorded for all habitats and disturbed areas on the site. Transects were conducted throughout the site, at five meter intervals. Observers, date, plant species, and habitats were recorded on data sheets. The botanist is proficient in identifying species utilizing vegetative field characteristics. For any species encountered which were unknown, a specimen was collected and identified using plant key and herbarium reference material. No State Endangered or Commercially Exploited species specimens were collected.

Habitat Delineation Methods

For the entire site, habitat boundaries were made using a combination of a handheld GPS device and using notes combined with aerial imagery maps. Final habitat boundaries were refined in the office using ARCGIS software.

Results

Rare Plant Inventory

Two species of federally listed vascular plants were found and mapped at Coral Reef Commons: Tiny Polygala (*Polygala smalii*) and Deltoid Spurge (*Chamaesyce deltoidea* ssp. *deltoidea*) (Map 1).

Tiny Polygala (*Polygala smallii*)

Tiny Polygala was encountered in two areas of pine rockland at Coral Reef Commons. The largest population was found within the westernmost NFC and contains 100 plants. Seedlings as well as flowering and fruiting adult plants were observed (Map 2; Figures 1-2)

A second smaller population of nine (9) plants was found within pine rockland slated to be developed. This population was also encountered during a plant rescue attempt in June 2014 by staff at Fairchild Tropical Botanic Garden and three plants were removed at that time. Seedlings as well as flowering and fruiting adult plants were observed.

The habitat for both populations is fairly healthy pine rockland with some Burmареed (*Neyraudia reynaudiana*). The smaller, non NFC, population was in an area with little pine canopy (Figure 3). Plants grow in sandy soil in and around open sunny patches of land in the pine rockland, sometimes under fronds of Saw palmetto (*Serenoa repens*). Additional plants recorded in association with (<1m distance) Tiny Polygala include: Roughhair witchgrass (*Dichantheium strigosum* var. *glabrescens*), Shiny blueberry (*Vaccinium myrsinites*), Prostrate false buttonweed (*Spermacoce prostrata*), Wild pennyroyal (*Piloblephis rigida*), Gopherapple (*Licania michauxii*), Running oak (*Quercus pumila*), Rabbitbells (*Crotalaria rotundifolia*), Lacy brakenfern (*Pteridium aquilinum* var. *caudatum*), Pineland golden trumpet (*Angadenia berteroi*), Poisonwood (*Metopium toxiferum*), and Burma Reed (*Neyraudia reynaudiana*).

Map 2: Tiny Polygala (*Polygala smallii*) Population densities at Coral Reef Commons



Figure 1: Tiny Polygala (*Polygala smallii*) adult at Coral Reef Commons



Figure 2: Tiny polygala (*Polygala smallii*) at Coral Reef Commons



Figure 3: Habitat surrounding Tiny Polygala (*Polygala smallii*) in the non NFC population at Coral Reef Commons



Deltoid Spurge (*Chamaesyce deltoidea* ssp. *deltoidea*)

Several populations of Deltoid spurge were found in pine rockland within three NFC parcels at Coral Reef Commons. 613 plants were observed and mapped (Map 3; Figures 4-5). Young plants fruiting and flowering were observed. No plants were observed on non-NFC lands.

The habitat at Coral Reef Commons for the populations of Deltoid spurge is fairly healthy pine rockland with some Burmared (*Neyraudia reynaudiana*). Plants grow on oolitic limestone, or oolitic limestone rock outcrops surrounded by sandy soil, in and around open sunny patches of land in the pine rockland. In some areas, Deltoid spurge persisted in partial shade. Plants recorded in association with (<1m distance) Deltoid Spurge include: South Florida slash pine (*Pinus elliottii* var. *densa*), Saw palmetto (*Serenoa repens*), Roughhair witchgrass (*Dichanthelium strigosum* var. *glabrescens*), Wire bluestem (*Schizachyrium gracile*), Winged sumac (*Rhus copallinum*), Elliott's lovegrass (*Eragrostis elliottii*), Blue paspalum (*Paspalum cespitosum*), Pineland golden trumpet (*Angadenia berteroi*), and Burma Reed.

Figure 4: Deltoid Spurge (*Chamaesyce deltoidea* ssp. *deltoidea*) at Coral Reef Commons



Figure 5: Pine Rockland Habitat of Deltoid spurge (*Chamaesyce deltoidea* ssp. *deltoidea*) at Coral Reef Commons



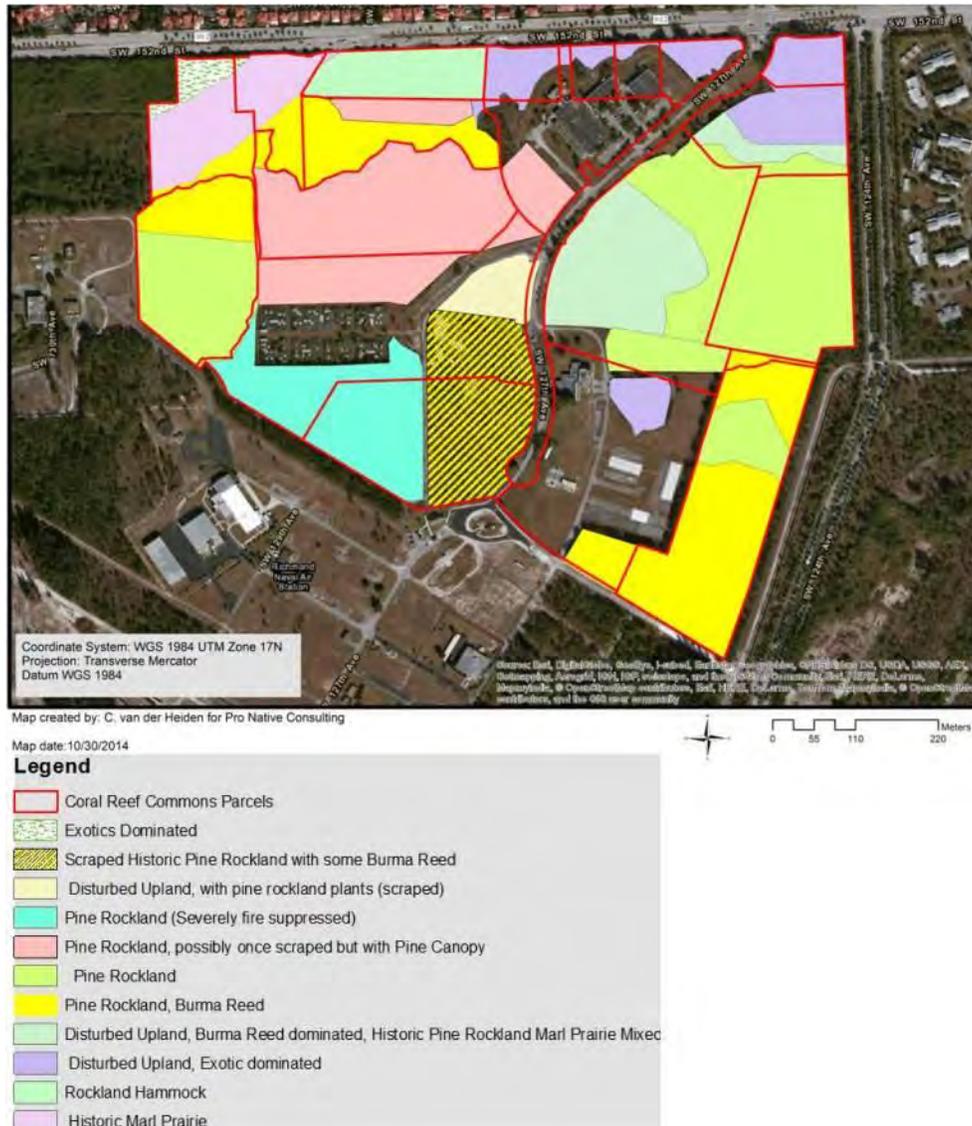
Floristic Inventory

A list of vascular plants recorded at Coral Reef Commons is provided in Appendix B at the end of this report. The list contains Date of initial observation, Scientific Name, Common Name, Plant Group, Plant Family, Reference, Native Status, and habitats. Most all species from Bradley et al. (2000) were recorded in 2014. Those which were not observed are in Appendix B, and are in bold with the Date record left blank.

Habitats

There are four main types of vegetation communities at Coral Reef Commons, with several subtype categories for Disturbed Upland and Pine Rockland (Map 4).

Map 4: Habitats at Coral Reef Commons



Historic Marl Prairie

A band of remnant marl prairie occurs along the northwest portion of Coral Reef Commons. Some marl soil remains here, and some plants typical of this community still occur such as Muhlygrass (*Muhlenbergia capillaris*) and Sawgrass (*Cladium jamaicense*) (Figure 6). However, due to the artificial lowering of the water table, and lack of hydrological flow, this habitat has been succeeding to being occupied by upland species such as Quailberry (*Crossopetalum ilicifolium*)

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which do not tolerate periods of standing water. Much of it is dominated by Burma Reed (*Neyraudia reynaudiana*) and Shoebuttan Ardisia (*Ardisia elliptica*) (Figure 7).

Figure 6: Historic Marl Prairie with Muhlygrass (*Muhlenbergia capillaris*) and Sawgrass (*Cladium jamaicense*) at Coral Reef Commons



Figure 7 Historic Marl Prairie dominated by exotic pest plants Burma Reed (*Neyraudia reynaudiana*) and Shoebutton Ardisia (*Ardisia elliptica*) at Coral Reef Commons



Rockland Hammock

"Rockland Hammock" occurs within the northernmost NFC that borders SW 152nd Street (Coral Reef Drive) (Figure 8). This area was cleared of exotic pest plants prior to inventorying. A spring may have occurred here at one time, as there is evidence of hydrological flow, since much of the oolitic limestone has been carved by water. Historically, it may have been a more open habitat, or it may have been analogous to Bayhead type swamps. Currently there is little to no evidence that it possesses standing water except for possibly the briefest period. A few species typical of wetter areas still persist in lower elevations of this habitat such as Giant leatherfern (*Acrostichum danaefolium*), Cocoplum (*Chrysobalanus icaco*), Swamp bay (*Persea palustris*) and Long strapfern (*Campyloneurum phyllitidis*) (Figure 9). Otherwise it is dominated by forest trees such as Virginia live oak (*Quercus virginiana*), Strangler fig (*Ficus aurea*), Gumbo limbo (*Bursera simaruba*), and Dahoon Holly (*Ilex cassine*).

Figure 8: Rockland Hammock at Coral Reef Commons (Recently cleared of exotic pest plants)



Figure 9: Giant leatherfern (*Acrostichum danaeifolium*) indicating historic water flow within the Rockland Hammock at Coral Reef Commons



Pine Rockland

The pine rockland at Coral Reef Commons has undergone various disturbances overtime. All areas have some degree of fire suppression. Some areas that appear as empty mowed lawn, actually contain a significant number of pine rockland herb and grass species, with patches that are dominated by native vegetation (Figure 10). Some areas appear to have been scraped at one time, however the pine canopy was not disturbed (Figure 11). Some areas have a healthy shrub understory, containing saw palmetto, but possess little to no pine canopy (Figure 12). All the pine rockland has Burma Reed to some extent, and some areas contain over 50% areal coverage (Figure 13). Other than the Rockland Hammock at the site, all NFC's on site consist of pine rockland habitat.

Figure 10: Scraped Pine Rockland at Coral Reef Commons



Figure 11: Possibly once scraped Pine Rockland with Southern Slash Pine (*Pinus elliottii* var *densa*) canopy at Coral Reef Commons. (Note the absence of saw palmetto, which is an indicator of physical disturbance)



Figure 12: Open Canopy Pine Rockland at Coral Reef Commons



Figure 13: Burma Reed (*Neyraudia reynaudiana*) infested pine rockland (areal coverage > 50%)



Disturbed Upland

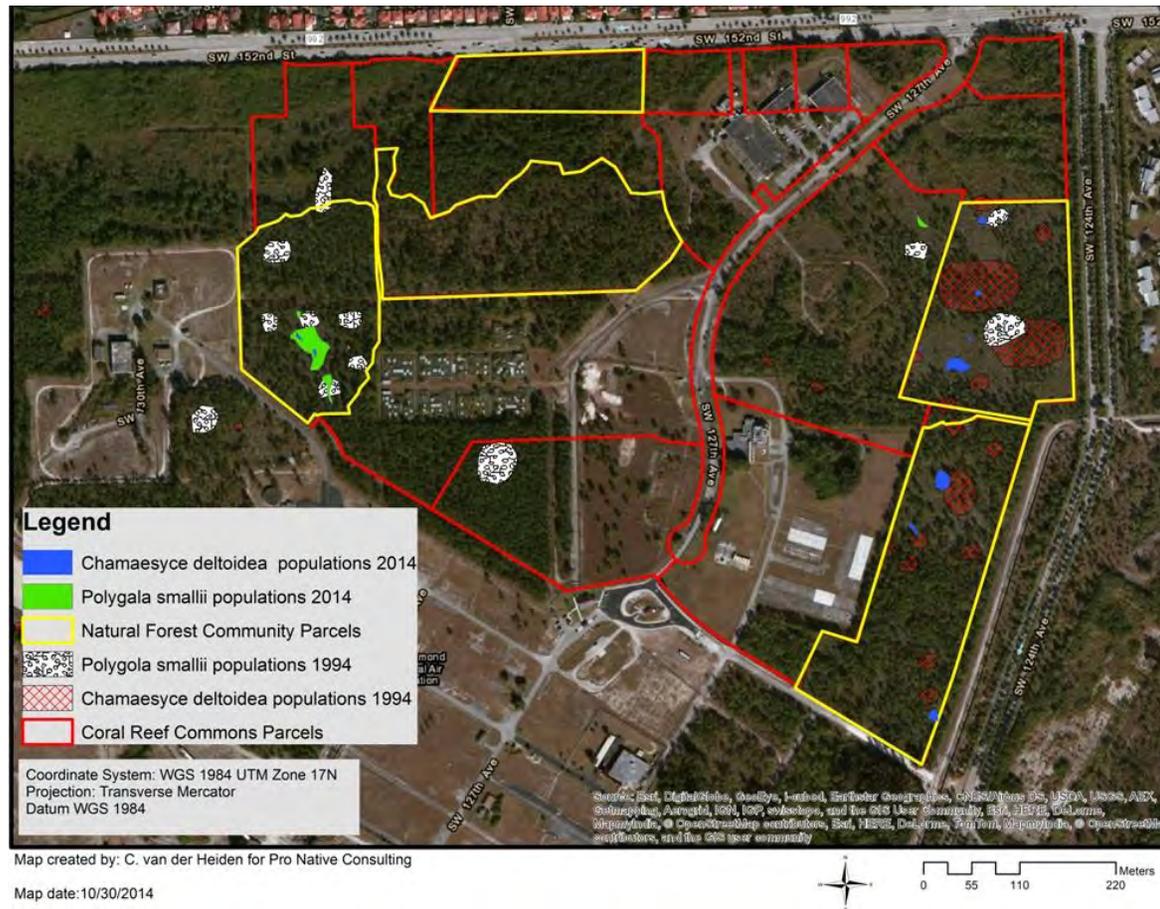
Disturbed Upland is found in various forms, but in almost all cases these are areas that have been mechanically disturbed to some degree. Some areas around the buildings possess ornamental landscaping and introduced lawn. These areas possess no coloring on Map 4. Other areas have had soil disturbance, and became dominated by non-native plant species. A small portion in the northwest corner is an area wholly dominated by exotic plants such as Brazilian-pepper (*Schinus terebinthifolius*) and Shoebuttton Ardisia (*Ardisia elliptica*).

Discussion & Recommendations

The Natural Area at Coral Reef Commons is significant since it contains a large portion of the globally imperiled ecosystem Pine Rockland. Less than 1.5% of this plant community remains in Miami-Dade County outside of Everglades National Park.

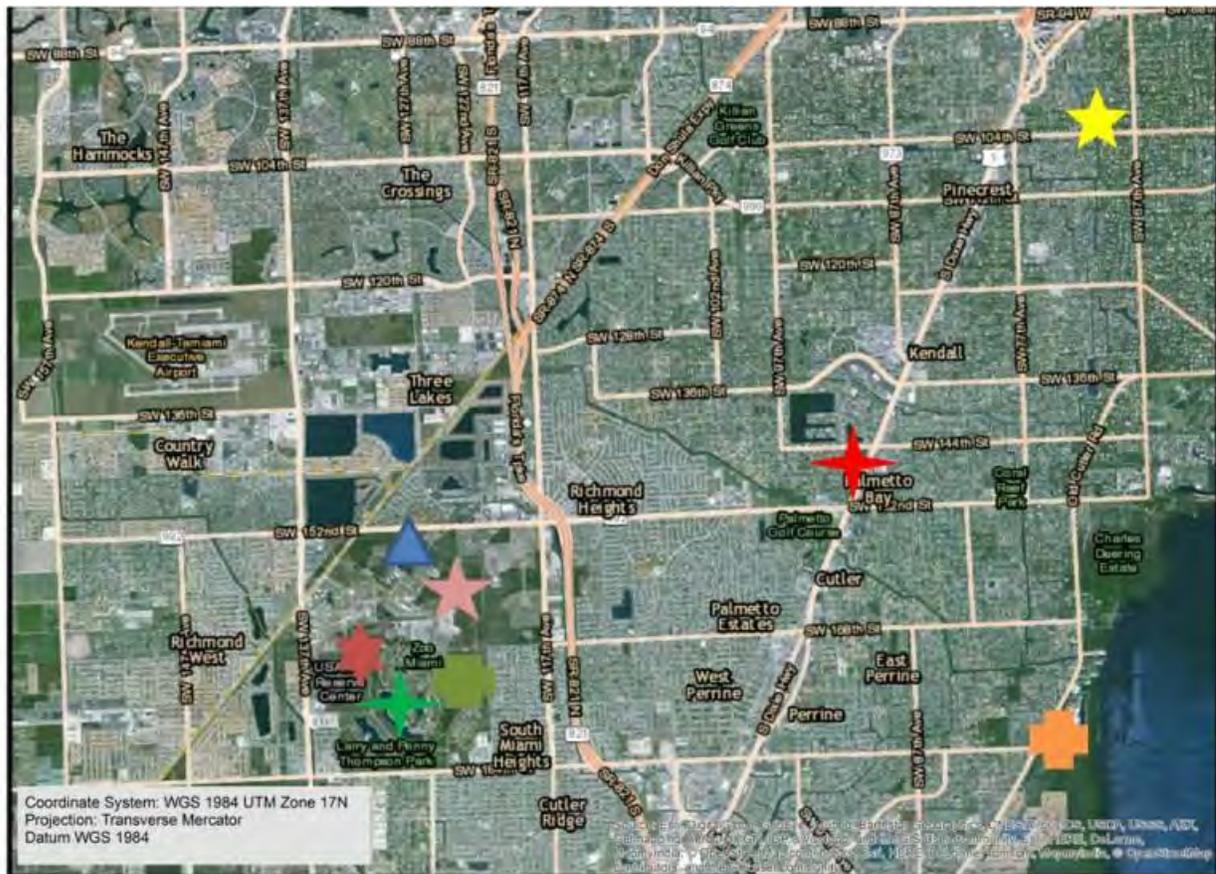
It is apparent that populations of both Tiny Polygala (*Polygala smallii*) and Deltoid Spurge (*Chamaesyce deltoidea* ssp. *deltoidea*) were at one time more abundant at Coral Reef Commons. Both species were mapped on site by Miami-Dade County Department of Environmental Resources in 1994 (Map 5). Populations of both rare species have either shrunk or migrated over time. There is also evidence that these two plant species remain in the seed bank until optimal conditions present themselves to germinate. So, it is possible that they may still occur in the seed bank in some areas where they were historically located (personal communication, Suzanne Kennedy). However, some areas of Coral Reef Commons outside the NFC parcels have fallen into such poor condition, that restoration of these areas may not be feasible. That being said, there are areas, such as the pine rockland containing Tiny Polygala is outside the NFC boundary which could be restored.

Map 5: Historic vs. Current Populations of Tiny Polygala (*Polygala smallii*) and Deltoid Spurge (*Chamaesyce deltoidea*) at Coral Reef Commons



Map 6 contains the locations of the closest occurring natural populations of other USFWS plant species surveyed for at Coral Reef Commons. It is likely that most of the other species have never occurred, or no longer occur vegetatively at Coral Reef Commons. Were any to still be present on site, they could occur in the seed bank. The most likely candidates to remain in the seed bank are those that occur nearby in other tracts within the Richmond Pine Rockland Complex. Below is some reasoning for each species as to why they do not occur or were not discovered at Coral Reef Commons.

Map 6: Locations of closest occurring natural populations of other USFWS plant species surveyed for at Coral Reef Commons



Map created by: C. van der Heiden for Pro Native Consulting

Map date: 10/30/2014

- ▲ RAM Property
- ★ *Amorpha herbacea* var. *crenulata*
- ★ *Argythamnia blodgettii*
- ★ *Brickellia mosieri*
- ★ *Dalea carthagenensis* var. *floridana*
- ★ *Linum arenicola*
- ★ *Linum carteri* var. *carteri*
- ★ *Sideroxylon reclinatum* ssp. *austrofloridense*

One species, the woody shrub Everglades Bully (*Sideroxylon reclinatum* ssp. *astrofloridense*) may have once occurred at Coral Reef Commons. Recline Florida Bully (*Sideroxylon reclinatum* ssp. *reclinatum*) was reported by Bradley et al. (2006), and it is possible that this was a misidentification of Everglades Bully, which is more common in Miami-Dade County. Despite searches, neither were found. It likely occurred near the historic marl prairie or rockland hammock portions of the site. It is recommended that Everglades Bully be considered for introduction to the NFC portion of the site which contains rockland hammock.

Florida Brickell bush (*Brickellia mosieri*) is a perennial forb that senesces during the dry season. This species typically occupies sandy pine rockland, and may still reside in the seed bank. With appropriate management, it might reappear above ground in the pine rockland portions of the site.

Blodgett's silver bush (*Argythamnia blodgettii*) is a short lived perennial evergreen forb that typically is found on the edges of rockland hammock and pine rockland. No "true" hammock occurs at Coral Reef Commons, however it could pop up with appropriate management.

Sand flax (*Linum arenicola*) is a small annual forb which can occupy pine rockland, but more typically occupies fire breaks and scraped areas adjacent to pine rockland. Despite some of the literature, It reproduces year round (personal communication with Craig van der Heiden). It is a small wildflower which can easily go unnoticed, or confused with the more common wildflower Pitted stripeseed (*Piriqueta caroliniana*), which greatly resembles Sand flax, and is abundant at Coral Reef Commons. Knowing this, determined searches were made in the appropriate areas to no avail.

Florida prairie clover (*Dalea carthagenensis* var. *floridana*) is a shortlived subshrub which typically grows along the edges of pine rockland and hammock, as well as coastal strand. It is unlikely that Florida prairie clover ever occurred at Coral Reef Commons given that it has not been recorded anywhere within the Richmond Pine Rockland Complex, and that its closest natural population is four and a half(4.5) miles to the east southeast.

Crenulate leadplant (*Amorpha herbacea* var. *crenulata*) is a perennial subshrub which senesces in the dry season. It historically had a very limited range, mainly from the Miami River south to possibly SW 168th Street. The closest natural population of Crenulate leadplant occurs in Pinecrest, roughly five (5) miles to the northeast of Coral Reef Commons. It likely never occurred on the site. Crenulate leadplant has been planted nearby within the Richmond Pine Rockland Complex

Carter's small-flowered flax (*Linum carteri* var. *carteri*) a small annual forb which can occupy pine rockland, but more typically occupies fire breaks and scraped areas adjacent to pine rockland. It reproduces year round. It is a small wildflower which can easily go unnoticed, or confused with the more common wildflower Pitted stripeseed (*Piriqueta caroliniana*), which greatly resembles Carter's small-flowered flax, and is abundant at Coral Reef Commons. Knowing this, determined

searches were made in the appropriate areas to no avail. The closest natural population occurs at a county owned natural area roughly three (3) miles to the east. Never reported for the Richmond Pine Rockland Complex, it is possible that Carter's small-flowered flax has never occurred at Coral Reef Commons.

It is recommended that before any land alteration commences, that management of the NFC parcels begin. This includes both Fire & exotics management and possibly pine thinning. All management should take into account the presence of listed species. Initial control burns will be easier to implement before people occupy the area. Listed species should be searched for several weeks after fire management. Care should be maintained to not harm these populations during restoration activities. After restoration activities, populations of USFWS species should be searched and mapped.

Proposed development activities will inevitably impact the natural area at Coral Reef Commons. It is good that portions of the site are placed into a conservation easement, and these NFC's contain the majority of the USFWS plants on the site. It is important that management activities including the use of fire be a component of the long term management of these conservation easements. It should be assessed whether any additional healthy pine rockland can be incorporated into one of the existing NFC's.

References

Bradley, K.A., S.W. Woodmansee, and G.D. Gann, 2000. Floristic Survey and Rare Species Assessment of the Non-County Owned Properties In the Richmond Pine Rocklands. Report Submitted to Miami-Dade County Department of Resources Management. The Institute For Regional Conservation, Miami, FL.

Gann, G.D., K.A. Bradley, and S.W. Woodmansee. 2002. Rare Plants of South Florida: Their History, Conservation, and Restoration. Institute for Regional Conservation. Miami, Florida.

Wunderlin, R.P. and B.F. Hansen. 2011. Guide to the Vascular Plants of Florida, Third Edition. University Presses of Florida. Gainesville, FL.

APPENDIX A

GUIDELINES FOR CONDUCTING AND REPORTING BOTANICAL INVENTORIES FOR FEDERALLY LISTED, PROPOSED, AND CANDIDATE PLANTS

These guidelines describe protocols for conducting botanical inventories for federally listed, proposed, and candidate plants, and describes minimum standards for reporting results. The U.S. Fish and Wildlife Service (Service) will use, in part, the information outlined below in determining whether the project under consideration may affect any listed, proposed, or candidate plants, and in determining the direct, indirect, and cumulative effects.

Field inventories should be conducted in a manner that will locate listed, proposed, or candidate species (target species) that may be present. The entire project area requires a botanical inventory, except developed agricultural lands. The field investigators should:

1. Conduct inventories at the appropriate times of year when target species are present and identifiable. Inventories will include all potential habitats. Multiple site visits during a field season may be necessary to make observations during the appropriate stage of all target species.
2. If available, use a regional or local reference population to obtain a visual image of the target species and associated habitats. If access to reference populations is not available, investigators should study specimens from local herbaria.
3. List every species observed and compile a comprehensive list of vascular plants for the entire project site. Vascular plants need to be identified to a taxonomic level which allows rarity to be determined.
4. Report results of botanical field inventories that include the following:
 - a. Surveyor names, survey dates and survey methodologies.
 - b. A description of the biological setting, including plant community, topography, soils, potential habitat of target species, and an evaluation of

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environmental conditions, such as timing or quantity of rainfall, which may influence the performance and expression of target species.

- c. A map or aerial photographs of project locations showing scale, orientation, project boundaries, parcel size, and map quadrangle name.
- d. A representative list of all vascular plants occurring on the project site for each habitat type.
- e. Current and historic land uses of the habitats and degree of site alteration.

- f. Presence of target species off site on adjacent parcels, if known.
- g. An assessment of the biological significance or ecological quality of the project site in a local and regional context.

5. If target species are found, report the results, including the following:

- a. A map or aerial photographs showing federally listed, proposed, and candidate species distribution as they relate to the proposed project.
- b. If target species are associated with wetlands, describe the direction and integrity of flow of hydrology. If target species are affected by adjacent off-site hydrological influences, describe these factors.
- c. Describe target species phenology and microhabitat, and an estimate of the number of individuals of each target species per unit area. Identify areas of high, medium and low density of target species over the project site, and provide acres or square feet of occupied habitat of target species. Investigators should provide color slides or photos of target species or representative habitats to support information or descriptions contained in reports.
- d. The degree of impacts of the proposed project as it relates to occupied and potential unoccupied habitat.

6. Document findings of target species by completing field report and submit to: Dave

Bender, U.S. Fish and Wildlife Service, South Florida Ecological Services Office, 1339

20th Street, Vero Beach, FL 32960; also submit report to the Florida Natural Areas Coral Reef Commons Floristic Inventory and Rare Plant Assessment, Woodmansee, 2014

Inventory, 1018 Thomasville Road, Suite 200-C, Tallahassee, Florida 32303.

7. Report as an addendum to the original survey any change in abundance and distribution of target plants in subsequent years. Project sites with inventories older than 3 years from the current date of project proposal submission will likely need additional surveys.

9. Adverse conditions may prevent investigators from determining presence or identifying some target species in potential habitats of target species. Disease, drought, or herbivory may preclude the presence or identification of target species in any year. Additional botanical inventories in subsequent years may be required if adverse conditions occur in potential habitats.

Federally Listed and Candidate Plants

Miami-Dade Pine Rocklands

Documented on RAM parcel

Tiny polygala	<i>(Polygala smallii)</i>	Endangered
Deltoid spurge	<i>(Chamaesyce deltoidea</i> <i>ssp. deltoidea)</i>	Endangered

Proposed Critical Habitat located on RAM parcel

Carter's small-flowered flax	<i>(Linum carteri var. carteri)</i>	Proposed Endangered w/CH
Florida Brickell bush	<i>(Brickelia mosieri)</i>	Proposed Endangered w/CH

Documented in adjacent parcels (may occur on RAM parcel)

Small's milkpea	<i>(Galactia smallii)</i>	Endangered
Crenulate lead-plant	<i>(Amorpha crenulata)</i>	Endangered

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Sand flax	<i>(Linum arenicola)</i>	Candidate
Blodgett's silver bush	<i>(Argythamnia blodgettii)</i>	Candidate
Florida pineland crabgrass	<i>(Digitaria pauciflora)</i>	Candidate
Florida prairie clover	<i>(Dalea carthagenensis var. floridana)</i>	Candidate
Everglades bully	<i>(Sideroxylon reclinatum</i> <i>ssp. austrofloridense)</i>	Candidate

APPENDIX B

Vascular Plants of Coral Reef Commons excluding the University of Miami Site, Miami-Dade County, Florida

Date (if blank, not recorded in 2014)	Group	Family	Scientific Name	Common Name	Reference	Native Status	Pine Rockland	Disturbed Upland	Historic Marl Prairie	Rockland Hammock
9/26/2014	Monocot	Cyperaceae	Abildgaardia ovata	Flatspike sedge	i	N		x	x	
9/28/2014	Dicot	Fabaceae	Abrus precatorius	Rosary-pea	*	E		x		
9/26/2014	Dicot	Fabaceae	Acacia auriculiformis	Earleaf acacia	i	E	x	x		
	Dicot	Fabaceae	Acacia farnesiana	Sweet acacia	i	N				
9/26/2014	Dicot	Euphorbiaceae	Acalypha chamaedrifolia	Three-seeded mercury	i	N	x	x		
9/26/2014	Dicot	Apocynaceae	Aclepias tuberosa	Butterflyweed	i	N	x			
10/10/2014	Pteridophyte	Pteridaceae	Acrostichum danaeifolium	Giant leatherfern	i	N				x
9/26/2014	Dicot	Fabaceae	Aeschynomene viscidula	Sticky joint-vetch	i	N	x	x		
9/26/2014	Dicot	Orobanchaceae	Agalinis fasciculata	Beach false foxglove	i	N	x	x		
9/26/2014	Monocot	Agavaceae	Agave sisalana	Century plant	*	E		x		
9/26/2014	Dicot	Asteraceae	Ageratum conyzoides	Tropical whiteweed	*	E	x	x		
9/26/2014	Dicot	Asteraceae	Ageratum houstonianum	Bluemink	*	E		x		
9/27/2014	Dicot	Apocynaceae	Alstonia macrophylla	Deviltree	i	E	x	x		x
9/26/2014	Dicot	Fabaceae	Alysicarpus vaginalis	White moneywort	i	E	x	x		

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	Dicot	Amaranthaceae	Amaranthus viridis	Slender amaranth	i	E				
9/26/2014	Dicot	Asteraceae	Ambrosia artemisiifolia	Common ragweed	i	N		x		
	Dicot	Vitaceae	Ampelopsis arborea	Peppervine	i	N				
9/26/2014	Monocot	Poaceae	Andropogon glomeratus var. pumilus	Common bushy bluestem	i	N	x	x	x	
9/26/2014	Monocot	Poaceae	Andropogon longiberbis	Hairy bluestem	i	N	x			
9/26/2014	Monocot	Poaceae	Andropogon ternarius	Splitbeard bluestem	i	N	x		x	
9/27/2014	Monocot	Poaceae	Andropogon tracyi	Tracy's bluestem	*	N		x		
9/26/2014	Monocot	Poaceae	Andropogon virginicus	Broomsedge bluestem	*	N		x	x	
9/26/2014	Pteridophyte	Schizaceae	Anemia adiantifolia	Pine fern	i	N	x	x	x	x
9/26/2014	Dicot	Apocynaceae	Angadenia berteroi	Pineland golden trumpet	i	N	x	x	x	
9/26/2014	Dicot	Myrsinaceae	Ardisia elliptica	Shoe-button	i	N	x	x	x	x
9/26/2014	Monocot	Poaceae	Aristida beyrichiana	Southern wiregrass	i	N	x			
9/26/2014	Monocot	Poaceae	Aristida purpurascens var. tenuispica	Hillsborough threeawn	i	N	x	x	x	
	Dicot	Apocynaceae	Asclepias viridis	Green antelopehorn	i	N				
10/10/2014	Dicot	Acanthaceae	Asystasia gangetica	Chinese violet	*	A		x		
10/10/2014	Monocot	Poaceae	Axonopus furcatus	Big carpetgrass	*	N	x			
9/26/2014	Dicot	Malvaceae	Ayenia euphrasiifolia	Eyebright ayenia	i	N	x	x	x	
10/10/2014	Dicot	Asteraceae	Baccharis glomeruliflora	Silverling	i	N			x	
	Dicot	Asteraceae	Baccharis halimifolia	Groundsel tree	i	N				
9/28/2014	Dicot	Fabaceae	Bauhinia xblakeana	Hong Kong orchidtree	*	CE		x		
9/26/2014	Dicot	Asteraceae	Bidens alba var. radiata	Spanish needles	i	N	x	x	x	
9/26/2014	Monocot	Orchidaceae	Bletia purpurea	Pinepink	*	N			x	
9/28/2014	Monocot	Poaceae	Bothriochloa pertusa	Pitted beardgrass	i	E		x		

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9/26/2014	Dicot	Orobanchaceae	Buchnera americana	American bluehearts	i	N	x	x	x	
9/26/2014	Monocot	Cyperaceae	Bulbostylis ciliatifolia	Densetuft hairsedge	i	N	x			
9/26/2014	Dicot	Burseraceae	Bursera simaruba	Gumbo Limbo	i	N	x	x		x
9/26/2014	Dicot	Malpighiaceae	Byrsonima lucida	Locustberry	i	N	x	x	x	
9/26/2014	Dicot	Lamiaceae	Callicarpa americanum	American beautyberry	i	N	x	x		x
10/10/2014	Pteridophyte	Polypodiaceae	Campyloneurum phyllitidis	Long strap fern	*	N				x
9/28/2014	Dicot	Fabaceae	Canavalia brasiliensis	Brazilian jackbean	i	N		x		x
11/4/2014	Dicot	Lamiaceae	Cantinoa mutabilis	Tropical bushmint	*	E			x	
9/27/2014	Dicot	Caricaceae	Carica papaya	Papaya	*	N				x
9/26/2014	Dicot	Lauraceae	Cassytha filiformis	Lovevine	i	N	x	x	x	
9/27/2014	Dicot	Casurainaceae	Casuarina equisetifolia	Australian pine	i	E	x	x	x	
11/4/2014	Dicot	Apocynaceae	Catharanthus roseus	Madagascar periwinkle	i	E		x		
9/26/2014	Monocot	Poaceae	Cenchrus gracillimus	Slender sandbur	i	N	x			
9/26/2014	Monocot	Poaceae	Cenchrus spinifex	Coastal sandbur	*	N	x	x		
9/26/2014	Dicot	Fabaceae	Centrosema virginianum	Spurred butterfly-pea	i	N	x	x		
	Dicot	Rubiaceae	Cephalanthus occidentalis	Common buttonbush	i	N				
	Dicot	Solanaceae	Cestrum diurnum	Dayflowering jessamine	i	E				
9/26/2014	Dicot	Fabaceae	Chamaecrista deeringiana	Deering partridge-pea	i	N	x	x		
9/28/2014	Dicot	Fabaceae	Chamaecrista nictitans ssp. aspera	Hairy partridge-pea	i	N		x	x	
9/26/2014	Dicot	Euphorbiaceae	Chamaesyce blodgettii	Limestone sandmat	*			x		
9/26/2014	Dicot	Euphorbiaceae	Chamaesyce conferta	Everglades sandmat	i	N	x	x	x	
9/26/2014	Dicot	Euphorbiaceae	Chamaesyce deltoidea ssp. deltoidea	Wedge sandmat	i	N	x			
	Dicot	Euphorbiaceae	Chamaesyce hirta	Hairy spurge	i	N				

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9/26/2014	Dicot	Euphorbiaceae	Chamaesyce hypericifolia	Eyebane	i	N		x	x	
9/28/2014	Dicot	Euphorbiaceae	Chamaesyce lasiocarpa	Roadside sandmat	i	E		x		
9/26/2014	Dicot	Euphorbiaceae	Chamaesyce mendezii	Mendez's sandmat	i	N		x		
9/28/2014	Dicot	Euphorbiaceae	Chamaesyce ophthalmica	Florida hammock sandmat	*	N		x		
9/26/2014	Dicot	Asteraceae	Chaptalia albicans	White sunbonnets	i	N	x	x	x	x
9/27/2014	Dicot	Rubiaceae	Chiococca alba	Hammock snowberry	i	N			x	x
9/26/2014	Dicot	Rubiaceae	Chiococca parvifolia	Pineland snowberry	i	N	x	x	x	
9/26/2014	Dicot	Asteraceae	Chromolaena odorata	Jack-In-The-Bush	i	N	x	x	x	x
9/26/2014	Dicot	Chrysobalanaceae	Chrysobalanus icaco	Coco-plum	i	N	x	x		x
9/27/2014	Dicot	Asteraceae	Cirsium horridulum	Purple thistle	i	N	x	x	x	
9/28/2014	Dicot	Vitaceae	Cissus verticillata	Possum-grape	*	N		x		
10/10/2014	Monocot	Cyperaceae	Cladium jamaicense	Sawgrass	i	N			x	x
9/28/2014	Dicot	Clusiaceae	Clusia rosea	Pitchapple	*	E*	x	x		x
9/26/2014	Dicot	Euphorbiaceae	Cnidioscolus stimulosus	Tread-softly	i	N	x	x		
9/27/2014	Dicot	Polygonaceae	Coccoloba diversifolia	Pigeonplum	*	N	x			
9/26/2014	Dicot	Polygonaceae	Coccoloba uvifera	Seagrape	i	E*	x			
9/26/2014	Monocot	Arecaceae	Coccothrinax argentata	Silver palm	i	N	x	x	x	
9/27/2014	Monocot	Commelinaceae	Commelina diffusa var. gigas	Climbing dayflower	*	E		x		
9/26/2014	Monocot	Commelinaceae	Commelina erecta	Whitemouth dayflower	i	N	x			
10/10/2014	Dicot	Asteraceae	Conoclinium coelestinum	Blue mistflower	*	N			x	
9/27/2014	Dicot	Asteraceae	Conyza canadensis	Canadian horseweed	i	N	x	x		
9/26/2014	Dicot	Celastraceae	Crossopetalum ilicifolium	Quailberry	i	N	x	x	x	
11/4/2014	Dicot	Fabaceae	Crotalaria pallida var. obovata	Smooth rattlebox	i	E	x			
9/26/2014	Dicot	Fabaceae	Crotalaria pumila	Low rattlebox	i	N	x	x		
9/26/2014	Dicot	Fabaceae	Crotalaria rotundifolia	Rabbitbells	i	N	x	x		x

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9/26/2014	Dicot	Fabaceae	Crotalaria spectabilis	Showy rattlebox	i	E		x		
9/26/2014	Dicot	Euphorbiaceae	Croton glandulosus	Vente conmigo	i	N	x	x	x	
9/26/2014	Dicot	Euphorbiaceae	Croton linearis	Pineland croton	i	N	x	x	x	
9/26/2014	Dicot	Apocynaceae	Cynanchum blodgettii	Blodgett's swallowwort	i	N	x	x	x	
	Monocot	Poaceae	Cynodon dactylon	Bermuda grass	i	E				
	Monocot	Cyperaceae	Cyperus compressus	Poorland flatsedge	i	N				
9/26/2014	Monocot	Cyperaceae	Cyperus croceus	Baldwin's flatsedge	i	N	x	x		
	Monocot	Cyperaceae	Cyperus filiculmis	Wiry flatsedge	i	N				
	Monocot	Cyperaceae	Cyperus ligularis	Swamp flatsedge	i	N				
9/26/2014	Monocot	Orchidaceae	Cyrtopodium flavum	Parana cowhorn orchid	*	E	x	x	x	
9/27/2014	Monocot	Poaceae	Dactyloctenium aegyptium	Crow's-foot grass	i	E		x		
9/26/2014	Dicot	Fabaceae	Dalbergia sissoo	Indian rosewood	i	N	x	x		
9/26/2014	Dicot	Fabaceae	Dalea carnea var. carnea	Whitetassels	i	N	x			
9/27/2014	Dicot	Fabaceae	Delonix regia	Royal poinciana	*	E		x		
9/26/2014	Dicot	Fabaceae	Desmodium triflorum	Threeflower ticktrefoil	i	E	x	x		
9/26/2014	Dicot	Fabaceae	Desmodium marilandicum	Smooth ticktrefoil	i	N	x			
9/26/2014	Dicot	Fabaceae	Desmodium incanum	Beggar's-ticks	i	E	x	x		
9/27/2014	Dicot	Fabaceae	Desmodium tortuosum	Dixie ticktrefoil	i	E		x		
9/26/2014	Monocot	Poaceae	Dichanthelium aciculare	Needleleaf witch grass	i	N	x	x		
10/10/2014	Monocot	Poaceae	Dichanthelium dichotomum	Cypress witch grass	*	N	x			
	Monocot	Poaceae	Dichanthelium erectifolium	Erectleaf witch grass	i	N				
9/26/2014	Monocot	Poaceae	Dichanthelium ovale	Eggleaf witch grass	i	N	x	x		
9/26/2014	Monocot	Poaceae	Dichanthelium strigosum var. glabrescens	Roughhair witch grass	i	N	x			
	Monocot	Poaceae	Digitaria ciliaris	Southern crabgrass	i	N				

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	Monocot	Poaceae	Digitaria filiformis var. dolichophylla	Caribbean crabgrass	i	N				
9/27/2014	Dicot	Rubiaceae	Diodea teres	Rough buttonweed	i	E	x	x		
9/26/2014	Dicot	Acanthaceae	Dyschoriste angusta	Rockland twinflower	i	N	x	x	x	
9/26/2014	Dicot	Apocynaceae	Echites umbellata	Devil's potato	i	N	x	x	x	
	Monocot	Poaceae	Eleusine indica	Goosegrass	i	E				
9/26/2014	Dicot	Asteraceae	Emilia fosbergii	Red tassleflower	i	E	x	x	x	
	Monocot	Poaceae	Eragrostis ciliaris	Gophertail lovegrass	i	E				
9/26/2014	Monocot	Poaceae	Eragrostis elliottii	Elliott's lovegrass	i	N	x	x	x	
9/26/2014	Monocot	Poaceae	Eremochloa ophiuroides	Centipede grass	i	E		x		
9/27/2014	Dicot	Myrtaceae	Eugenia uniflora	Surinam cherry	*	E				x
11/4/2014	Monocot	Orchidaceae	Eulophia graminea		*	E		x		
9/28/2014	Dicot	Asteraceae	Eupatorium capillifolium	Dog-fennel	i	N		x	x	
	Dicot	Asteraceae	Eupatorium serotinum	Lateflowering thoroughwort	i	N				
9/26/2014	Dicot	Euphorbiaceae	Euphorbia polyphylla	Pineland euphorbia	i	N	x	x		
9/26/2014	Monocot	Poaceae	Eustachys petraea	Common finger grass	i	N	x	x	x	
9/27/2014	Dicot	Convolvulaceae	Evolvulus sericeus	Silver dwarf morningglory	i	N	x		x	
9/27/2014	Dicot	Moraceae	Ficus aurea	Strangler fig	*	N		x	x	x
9/28/2014	Dicot	Moraceae	Ficus benjamina	Weeping fig	*	CE		x		
9/26/2014	Dicot	Moraceae	Ficus citrifolia	Shortleaf fig	i	N	x	x	x	x
9/28/2014	Dicot	Moraceae	Ficus drupacea	Mysore fig	*	CE		x		
9/26/2014	Monocot	Cyperaceae	Fimbristylis cymosa	Hurricane sedge	i	N		x		
9/27/2014	Dicot	Salicaceae	Flacourtia indica	Governor's plum	i	E	x	x		
9/26/2014	Dicot	Asteraceae	Flaveria linearis	Narrowleaf yellowtops	i	N	x	x	x	
10/10/2014	Dicot	Oleaceae	Forestiera segregata	Florida swamp privet	*	N	x		x	

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9/26/2014	Dicot	Fabaceae	Galactia pinetorum	Pineland milkpea	i	N	x	x		
9/27/2014	Dicot	Fabaceae	Galactia volubilis	Eastern milkpea	i	N		x	x	
	Dicot	Rubiaceae	Galium hispidulum	Coastal bedstraw	i	N				
9/27/2014	Dicot	Onagraceae	Gaura angustifolia	Southern beeblossum	*	N		x		
9/26/2014	Dicot	Rubiaceae	Guettarda scabra	Rough velvetseed	i	N	x	x		
9/28/2014	Monocot	Orchidaceae	Habenaria quinqueseta	Longhorn false reinorchid	*	N	x			
9/27/2014	Dicot	Boraginaceae	Heliotropium polyphyllum	Pineland heliotrope	i	N		x	x	
9/27/2014	Dicot	Asteraceae	Hieracium megacephalon	Coastal Plain hawkweed	i	N	x			
	Monocot	Amaryllidaceae	Hymenocallis palmeri	Alligatorlily	i	N				
10/10/2014	Dicot	Clusiaceae	Hypericum hypericoides	St. Andrew's-cross	*	N			x	
	Monocot	Hypoxidaceae	Hypoxis sessilis	Glossyseed yellow stargrass	i	N				
9/27/2014	Dicot	Aquifoliaceae	Ilex cassine	Dahoon holly	*	N			x	x
11/4/2014	Monocot	Poaceae	Imperata brasiliensis	Brazilian satintail	*	N	x			
9/27/2014	Dicot	Fabaceae	Indigofera miniata var. floridana	Florida coastal indigo	i	N		x		
9/27/2014	Dicot	Fabaceae	Indigofera spicata	Creeping indigo	i	E		x		
	Dicot	Fabaceae	Indigofera suffruticosa	Shrub indigo	i	E				
9/27/2014	Dicot	Convolvulaceae	Ipomoea hederifolia	Scarletcreeper	*	N		x		
9/28/2014	Dicot	Convolvulaceae	Ipomoea indica	Oceanblue morning glory	*	N		x		
9/27/2014	Dicot	Convolvulaceae	Ipomoea microdactyla	Man-in-the-ground	i	N		x		
	Dicot	Convolvulaceae	Ipomoea tenuissima	Rockland morning glory	i	N				
9/28/2014	Dicot	Convolvulaceae	Ipomoea triloba	Littlebell	*	E		x		
9/28/2014	Dicot	Rubiaceae	Ixora coccinea	Scarlet jungleflame	*	CE		x		
9/26/2014	Dicot	Convolvulaceae	Jacquemontia curtisii	Pineland clustervine	i	N	x	x	x	
9/28/2014	Dicot	Crassulaceae	Kalanchoe daigremontiana	Devil's backbone	*	E		x		

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9/28/2014	Dicot	Bignoniaceae	Kigelia africana	Sausagetree	*	CE		x		
9/26/2014	Dicot	Verbenaceae	Lantana camara	Shrubverbena	i	E	x	x		
9/26/2014	Dicot	Verbenaceae	Lantana depressa var. depressa	Pineland shrubverbena	i	N	x	x		
9/26/2014	Dicot	Verbenaceae	Lantana involucrata	Wild-sage	i	N	x	x	x	
10/10/2014	Dicot	Cistaceae	Lechea sessiliflora	Pineland pinweed	i	N	x			
9/27/2014	Dicot	Fabaceae	Leucaena leucocephala	White leadtree	i	E		x	x	
9/27/2014	Dicot	Asteraceae	Liatris gracilis	Slender gayfeather	i	N	x			
9/26/2014	Dicot	Asteraceae	Liatris tenuifolia var. tenuifolia	Shortleaf gayfeather	i	N	x			
9/26/2014	Dicot	Chrysobalanaceae	Licania michauxii	Gopher apple	i	N	x	x		
9/28/2014	Monocot	Ruscaceae	Liriope muscari	Big blue lilyturf	*	CE		x		
11/4/2014	Dicot	Ericaceae	Lyonia fruticosa	Coastal Plain staggerbush	i	N	x			
9/28/2014	Dicot	Fabaceae	Lysiloma latisiliquum	Wild-tamarind	i	N	x	x		
9/26/2014	Dicot	Fabaceae	Macroptilium lathyroides	Wild-bean	i	E		x		
9/28/2014	Dicot	Plantaginaceae	Mecardonia acuminata ssp. peninsularis	Axilflower	i	N		x	x	
9/27/2014	Dicot	Fabaceae	Medicago lupulina	Black medic	*	E				x
9/27/2014	Dicot	Myrtaceae	Melaleuca quinquenervia	Cajeput tree	*	E		x		
9/26/2014	Dicot	Asteraceae	Melanthera parvifolia	Black anthers	*	N	x	x		
9/26/2014	Monocot	Poaceae	Melinis repens	Rose Natalgrass	i	E	x	x		
9/27/2014	Dicot	Cucurbitaceae	Melothria pendula	Creeping cucumber	*	N				x
9/26/2014	Dicot	Convolvulaceae	Merremia dissecta	Baby woodrose	i	N	x	x		
9/27/2014	Dicot	Convolvulaceae	Merremia tuberosa	Yellow-morningglory	*	E		x		
9/26/2014	Dicot	Anacardiaceae	Metopium toxiferum	Poisonwood	i	N	x	x	x	x

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10/10/2014	Dicot	Asteraceae	Mikania scandens	Climbing hempweed	i	N				x
9/27/2014	Dicot	Cucurbitaceae	Momordica charantia	Wild balsam-pear	i	N				x
9/26/2014	Dicot	Rubiaceae	Morinda royoc	Yellowroot	i	N	x	x	x	x
9/26/2014	Dicot	Myrtaceae	Mosiera longipes	Longstalked-stopper	i	N	x	x		
9/27/2014	Monocot	Poaceae	Muhlenbergia capillaris	Muhlygrass	i	N	x	x	x	
9/28/2014	Monocot	Musaceae	Musa xparadisiaca	Common banana	i	CE		x		
9/26/2014	Dicot	Myricaceae	Myrica cerifera	Wax myrtle	i	N	x	x	x	x
9/26/2014	Dicot	Myrsinaceae	Myrsine cubana	Myrsine	i	N	x	x	x	x
	Dicot	Hydrophyllaceae	Nama jamaicense	Jamaicanweed	i	N				
9/27/2014	Pteridophyte	Nephrolepidaceae	Nephrolepis exaltata	Wild Boston fern	i	N				x
9/27/2014	Pteridophyte	Nephrolepidaceae	Nephrolepis multiflora	Asian sword fern	i	E		x	x	x
9/28/2014	Dicot	Fabaceae	Neptunia pubescens	Tropical-puff	i	N		x		
9/26/2014	Monocot	Poaceae	Neyraudia reynaudiana	Burma reed	i	E	x	x		
9/27/2014	Monocot	Orchidaceae	Oeceoclades maculata	Monk orchid	i	E				x
9/26/2014	Dicot	Cactaceae	Opuntia humifusa	Pricklypear	i	N	x			
	Dicot	Oxalidaceae	Oxalis corniculata	Lady's-sorrel	i	N				
9/28/2014	Monocot	Poaceae	Panicum maximum	Guinea grass	*	E		x		
	Monocot	Poaceae	Panicum virgatum	Switch grass	i	N				
9/27/2014	Dicot	Vitaceae	Parthenocissus quinquefolia	Virginia-creeper	i	N	x	x		x
9/26/2014	Monocot	Poaceae	Paspalum caespitosum	Blue paspalum	i	N	x	x	x	
	Monocot	Poaceae	Paspalum monostachyum	Gulfdune paspalum	i	N				
9/27/2014	Monocot	Poaceae	Paspalum notatum	Bahia grass	i	E		x		
9/26/2014	Dicot	Passifloraceae	Passiflora suberosa	Corkystem passionflower	i	N	x	x	x	
9/26/2014	Dicot	Asteraceae	Pectis glaucescens	Tea-blinkum	i	N	x	x		
	Monocot	Poaceae	Pennisetum purpureum	Napier grass	i	E				

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	Dicot	Apocynaceae	Pentalinon luteum	Wild allamanda	i	N				
9/27/2014	Dicot	Lauraceae	Persea palustris	Swamp bay	i	N			x	x
9/28/2014	Monocot	Araceae	Philodendron bipinnatifidum	Tree philodendron	*	CE		x		
9/26/2014	Pteridophyte	Polypodiaceae	Phlebodium aureum	Golden polypody	i	N	x		x	x
9/26/2014	Dicot	Verbenaceae	Phyla nodiflora	Frog fruit	i	N	x	x		
9/26/2014	Dicot	Phyllanthaceae	Phyllanthus caroliniensis ssp. saxicola	Rock Carolina leafflower	i	N			x	
9/26/2014	Dicot	Phyllanthaceae	Phyllanthus pentaphyllus var. floridanus	Florida five-petaled leafflower	i	N	x	x	x	
10/10/2014	Dicot	Solanaceae	Physalis angustifolia	Coastal groundcherry	*	N		x		
9/26/2014	Dicot	Solanaceae	Physalis walteri	Walter's groundcherry	i	N	x	x	x	
9/27/2014	Dicot	Phytolaccaceae	Phytolacca americana	American pokeweed	*	N				x
9/26/2014	Dicot	Urticaceae	Pilea microphylla	Artillery plant	*	N		x		
9/27/2014	Dicot	Lamiaceae	Piloblephis rigida	Wild pennyroyal	i	N	x			
9/26/2014	Gymnosperm	Pinaceae	Pinus elliottii	Slash pine	i	N	x	x	x	
9/26/2014	Dicot	Turneraceae	Piriqueta caroliniana	Pitted stripeseed	i	N	x	x		
9/26/2014	Dicot	Asteraceae	Pityopsis graminifolia	Narrowleaf silkgrass	i	N	x	x	x	
10/10/2014	Pteridophyte	Polypodiaceae	Platyterium bifurcatum	Staghorn fern	*	E				x
9/27/2014	Pteridophyte	Polypodiaceae	Pleopeltis polypodioides var. michauxiana	Resurrection fern	i	N	x			x
10/10/2014	Dicot	Asteraceae	Pluchea baccharis	Rosy camphorweed	i	N			x	
9/26/2014	Dicot	Asteraceae	Pluchea caroliniana	Cure-for-all	i	N	x	x	x	x
9/28/2014	Dicot	Apocynaceae	Plumeria obtusa	Frangipanni	*	CE		x		
9/26/2014	Dicot	Euphorbiaceae	Poinsettia cyathophora	Paintedleaf	i	N	x	x	x	x
9/26/2014	Dicot	Euphorbiaceae	Poinsettia heterophylla	Fiddler's spurge	i	N		x		

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9/26/2014	Dicot	Polygalaceae	Polygala grandiflora	Candyweed	i	N	x	x	x	
9/27/2014	Dicot	Polygalaceae	Polygala smallii	Small's milkwort	ii	N	x			
9/26/2014	Dicot	Tetrachondraceae	Polypremum procumbens	Rustweed	i	N	x	x		
	Dicot	Portulacaceae	Portulaca oleracea	Little hogweed	i	N				
9/27/2014	Dicot	Myrtaceae	Psidium guajava	Guava	*	E				x
9/26/2014	Pteridophyte	Psilotaceae	Psilotum nudum	Whisk-fern	i	N	x			
10/10/2014	Dicot	Rubiaceae	Psychotria nervosa	Shiny leaf wildcoffee	*	N	x			x
10/10/2014	Dicot	Rubiaceae	Psychotria sulzneri	Dull leaf wildcoffee	i	N				x
9/26/2014	Pteridophyte	Dennstaedtiaceae	Pteridium aquilinum var. caudatum	Lacy braken fern	i	N	x	x		
9/26/2014	Pteridophyte	Pteridaceae	Pteris bahamensis	Bahama ladderbrake	i	N	x	x	x	
9/26/2014	Pteridophyte	Pteridaceae	Pteris vittata	China brake	i	E		x	x	x
9/28/2014	Pteridophyte	Pteridaceae	Pteris xdelchampsii	Delchamp's ladderbrake	*	N		x	x	
11/4/2014	Dicot	Asteraceae	Pterocaulon pycnostachyum	Blackroot	i	N	x			
9/27/2014	Monocot	Arecaceae	Ptychosperma elegans	Solitaire palm	*	E				x
9/26/2014	Dicot	Fagaceae	Quercus minima	Dwarf live oak	i	N	x	x		
9/26/2014	Dicot	Fagaceae	Quercus pumila	Running oak	i	N	x	x		
9/26/2014	Dicot	Fagaceae	Quercus virginiana	Virginia live oak	i	N	x	x		x
9/26/2014	Dicot	Rubiaceae	Randia aculeata	White Indigoberry	i	N	x	x	x	
9/26/2014	Dicot	Anacardiaceae	Rhus copallinum	Winged sumac	i	N	x	x		x
9/26/2014	Dicot	Fabaceae	Rhynchosia cinerea	Brownhair snoutbean	i	N	x			
9/26/2014	Dicot	Fabaceae	Rhynchosia minima	Least snoutbean	i	N	x	x		
9/26/2014	Dicot	Fabaceae	Rhynchosia reniformis	Dollarleaf	i	N	x	x		
9/26/2014	Monocot	Cyperaceae	Rhynchospora colorata	Starrush whitetop	i	N		x	x	
9/27/2014	Monocot	Cyperaceae	Rhynchospora divergens	Spreading beaksedge	i	N		x	x	

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9/26/2014	Monocot	Cyperaceae	Rhynchospora floridensis	Florida whitetop	i	N	x	x		
9/26/2014	Monocot	Cyperaceae	Rhynchospora grayi	Gray's beaksedge	i	N	x			
10/10/2014	Dicot	Rubiaceae	Richardia brasiliensis	Tropical Mexican clover	*	E	x			
9/27/2014	Dicot	Rubiaceae	Richardia grandiflora	Largeflower Mexican clover	i	E	x	x		
10/10/2014	Dicot	Euphorbiaceae	Ricinus communis	Castorbean	*	E				x
9/28/2014	Dicot	Acanthaceae	Ruellia blechum	Browne's wild petunia	*	E		x		
	Dicot	Acanthaceae	Ruellia ciliatiflora	Hairyflower wild petunia	i	E				
9/26/2014	Dicot	Acanthaceae	Ruellia succulenta	Thickleaf wild petunia	i	N	x	x		
9/26/2014	Monocot	Arecaceae	Sabal palmetto	Cabbage palm	i	N	x	x	x	x
	Monocot	Poaceae	Saccharum giganteum	Sugarcane plume grass	i	N				
9/26/2014	Dicot	Asteraceae	Sachsia polycephala	Bahama sachsia	i	N	x	x		
9/27/2014	Dicot	Primulaceae	Samolus ebracteatus	Water pimpernel	i	N		x	x	
9/26/2014	Dicot	Araliaceae	Schefflera actinophylla	Australian umbrellatree	i	E	x	x		
9/28/2014	Dicot	Araliaceae	Schefflera arboricola	Dwarf umbrellatree	*	E		x		
9/26/2014	Dicot	Anacardiaceae	Schinus terebinthifolius	Brazilian pepper	i	E	x	x	x	x
9/26/2014	Monocot	Poaceae	Schizachyrium gracile	Wire bluestem	i	N	x	x	x	
9/26/2014	Monocot	Poaceae	Schizachyrium rhizomatum	Rhizomatous bluestem	i	N	x	x	x	
9/26/2014	Monocot	Poaceae	Schizachyrium sanguineum	Crimson bluestem	i	N	x	x	x	
9/26/2014	Monocot	Cyperaceae	Scleria ciliata var. ciliata	Fringed nutrush	i	N	x	x		
10/10/2014	Dicot	Fabaceae	Senna obtusifolia	Sicklepod	*	N				x
9/26/2014	Monocot	Arecaceae	Serenoa repens	Saw palmetto	i	N	x			
9/26/2014	Monocot	Poaceae	Setaria parviflora	Knotroot foxtail	i	N		x		
9/26/2014	Dicot	Malvaceae	Sida acuta	Common fanpetals	i	N	x	x		
	Dicot	Sapotaceae	Sideroxylon reclinatum ssp. reclinatum	Recline Florida bully	i	N				

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9/26/2014	Dicot	Sapotaceae	Sideroxylon salicifolium	Willow-bustic	i	N	x	x	x	x
9/26/2014	Dicot	Simaroubaceae	Simarouba glauca	Paradisetrete	*	N	x			
9/26/2014	Monocot	Smilacaceae	Smilax auriculata	Earleaf greenbrier	i	N	x	x	x	x
9/27/2014	Monocot	Smilacaceae	Smilax bona-nox	Saw greenbrier	i	N				x
9/26/2014	Monocot	Smilacaceae	Smilax havanensis	Havana greenbrier	i	N	x	x		
	Dicot	Solanaceae	Solanum americanum	American nightshade	i	N				
9/27/2014	Dicot	Asteraceae	Solidago leavenworthii	Giant goldenrod	i	N		x	x	
9/26/2014	Dicot	Asteraceae	Solidago odora var. chapmanii	Chapman's goldenrod	i	N	x	x		
	Dicot	Asteraceae	Solidago stricta	Wand goldenrod	i	N				
9/26/2014	Monocot	Poaceae	Sorghastrum secundum	Lopsided Indiangrass	i	N	x	x		
9/26/2014	Dicot	Rubiaceae	Spermacoce assurgens	Woodland false buttonweed	i	N	x	x	x	x
9/26/2014	Dicot	Rubiaceae	Spermacoce prostrata	Prostrate false buttonweed	i	N	x			
9/26/2014	Dicot	Rubiaceae	Spermacoce terminalis	Everglades Keys false buttonweed	i	N	x			
9/26/2014	Dicot	Rubiaceae	Spermacoce verticillata	Shrubby false buttonweed	i	E	x	x	x	
9/27/2014	Dicot	Asteraceae	Sphagneticola trilobata	Creeping oxeye	i	E		x		
9/26/2014	Dicot	Loganiaceae	Spigelia anthelmia	West Indian pinkroot	i	N	x	x		
	Monocot	Orchidaceae	Spiranthes torta	Southern ladies tresses	ii	N				
9/26/2014	Monocot	Poaceae	Sporobolus indicus var. pyramidalis	West Indian dropseed	i	E		x		
9/26/2014	Monocot	Poaceae	Sporobolus junceus	Pineywoods dropseed	i	N	x			
9/26/2014	Dicot	Verbenaceae	Stachytarpheta jamaicensis	Blue porterweed	i	N		x		
9/26/2014	Monocot	Poaceae	Stenotaphrum secundatum	St. Augustine grass	i	E*		x		
9/26/2014	Dicot	Euphorbiaceae	Stillingia sylvatica	Queensdelight	i	N	x	x		
9/26/2014	Dicot	Fabaceae	Stylosanthes hamata	Pencilflower	i	N	x	x		

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9/26/2014	Dicot	Meliaceae	Swietenia mahagoni	West Indian mahogany	i	E*	x	x	x	
9/26/2014	Dicot	Asteraceae	Symphyotrichum adnatum	Clasping aster	i	N	x	x		
9/26/2014	Dicot	Asteraceae	Symphyotrichum concolor	Eastern silver aster	i	N	x			
9/28/2014	Dicot	Myrtaceae	Syzygium cumini	Jambolan-plum	i	E		x		
9/26/2014	Dicot	Fabaceae	Tephrosia florida	Florida hoarypea	i	N	x			
9/28/2014	Dicot	Combretaceae	Terminalia catappa	West Indian almond	*	E		x		
9/28/2014	Dicot	Combretaceae	Terminalia muelleri	Australian almond	i	CE		x		
9/26/2014	Dicot	Melastomaceae	Tetrazygia bicolor	West Indian-lilac	i	N	x	x		
9/26/2014	Pteridophyte	Thelypteridaceae	Thelypteris kunthii	Southern shield fern	i	N	x	x		x
9/26/2014	Dicot	Anacardiaceae	Toxicodendron radicans	Poison ivy	i	N	x	x		x
9/28/2014	Monocot	Commelinaceae	Tradescantia spathacea	Oysterplant	i	E		x		
9/26/2014	Dicot	Euphorbiaceae	Tragia saxicola	Florida Keys noseburn	i	N	x	x		
9/26/2014	Dicot	Euphorbiaceae	Tragia urens	Wavyleaf noseburn	i	N	x			
9/28/2014	Dicot	Cannabaceae	Trema lamarckiana	West Indian trema	*	N		x		
9/26/2014	Dicot	Cannabaceae	Trema micranthum	Florida trema	i	N	x	x		x
9/26/2014	Dicot	Asteraceae	Tridax procumbens	Brittleweed	i	E		x		
10/10/2014	Dicot	Turneraceae	Turnera ulmifolia	Yellow alder	*	E		x	x	
9/26/2014	Dicot	Ericaceae	Vaccinium myrsinites	Shiny blueberry	i	N	x			
9/27/2014	Dicot	Asteraceae	Vernonia blodgettii	Florida ironweed	i	N	x	x		
9/27/2014	Dicot	Vitaceae	Vitis cinerea var. floridana	Florida grape	i	N		x		x
9/27/2014	Dicot	Vitaceae	Vitis rotundifolia	Muscadine	i	N		x		x
9/27/2014	Pteridophyte	Vittariaceae	Vittaria lineata	Shoestring fern	i	N				x
9/26/2014	Dicot	Malvaceae	Waltheria indica	Sleepy morning	i	N	x	x		
9/26/2014	Monocot	Agavaceae	Yucca aloifolia	Spanish bayonet	*	E*		x		
9/26/2014	Gymnosperm	Zamiaceae	Zamia integrifolia	Coontie	i	N	x	x		x

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	Dicot	Fabaceae	Zornia bracteata	Viperina	i	N				
9/26/2014	Monocot	Poaceae	Zoysia tenuifolia	Mascarene templegrass	i	E		x		
		Native Status								
		N =	Native to Florida							
		E =	Not Native to Florida							
		CE =	Cultivated Exotic							
		E* =	Native to Florida, not native to the site							
		Reference								
		i =	Bradley, K.A., S.W. Woodmansee, and G.D. Gann, 2000. Floristic Survey and Rare Species Assessment of the Non-County Owned Properties In the Richmond Pine Rocklands. Report Submitted to Miami-Dade County Department of Resources Management. The Institute For Regional Conservation, Miami, FL. NOTE: field data collected August 3-4, 2000 by Bradley, Woodmansee, and David Hall							
		ii =	Possley observations June and July 2014							
		* =	Newly recorded for the site							

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