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A vascular plant inventory of Jay B. Starkey Wilderness Park, Pasco County, Florida

Emily Ferguson
University of South Florida

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A Vascular Plant Inventory of Jay B. Starkey Wilderness Park,

Pasco County, Florida

by

Emily Ferguson

A thesis submitted in partial fulfillment
of the requirements for the degree of
Master of Science
Department of Biology
College of Arts and Science
University of South Florida

Major Professor: Richard Wunderlin, Ph.D.
Clinton Dawes, Ph. D.
Frederick Essig, Ph.D.

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A Vascular Plant Inventory of Jay B. Starkey Wilderness Park, Pasco County, Florida

Emily Ferguson

ABSTRACT

Jay B. Starkey Wilderness Park, located in southwestern Pasco County, Florida, contains nearly 7,689.06 hectares (19,000 acres) and includes 18 natural communities. A floristic inventory was conducted on approximately 404.69 hectares (1,000 acres) within Jay B. Starkey Wilderness Park which included 11 community types. A comparison of those 11 communities in the study area with the rest of the park shows that the dominant community types do occur within the study site, making it representative of the entire park. The objective of this study conducted from May 2003 to October 2004 was to compile a list of the vascular plant taxa found within the study area to be used by the Southwest Water Management District to help in their management regimes. A total of 475 taxa were collected, representing 104 families, and 269 genera. Of these 436 are native taxa, 16 endemic taxa, 39 non-native taxa, 32 county records, 7 listed taxa, and 5 commercially exploited taxa. Each natural community is described and an annotated list of the vascular plant taxa is presented.
INTRODUCTION

Florida is a unique state with a relatively flat topography and fast draining, sandy soils. These conditions would presumably lead to a flora with low diversity, but that is not the case. The state is about 100 km long and spans about 6.5° latitude causing the flora to be quite diverse consisting of over 4,100 taxa of native and naturalized non-native vascular species (Wunderlin and Hansen, 2003), the third most diverse in the United States. As Florida is the fourth most populated state, it is important to work to conserve and protect the state’s flora.

Several agencies in Florida work to secure large tracts of land in an effort to prevent development and to establish areas of conservation. The Southwest Florida Water Management District (SWFWMD or the District) owns many parcels of land for a variety of water management practices including the protection and development of potable water supplies, aquifer recharge, water quality enhancement, restoration and protection of natural systems, and structural flood control (SWFWMD, 1990). The property upon which the inventory was conducted is owned and managed by SWFWMD. The results of this research are intended to help the District make knowledge-based management plans for its property.
Site Overview

Physical Location

Jay B. Starkey Wilderness Park is located in southwestern Pasco County, Florida, near the west coast of central Florida (Figure 1). It is 6.4 km (4 mi) northeast of Seven Springs and 4.4 km (2.75 mi) northwest of Odessa. Main access to the Park is Wilderness Road approximately 5.6 km (3.5 mi) from State Road 54. The Park is included within Sections 1–17, 21–24, and 26–27, Township 26 South, Range 17 East and Sections 10–11, 13–15, 22–27, and 33–36, Township 25 South, Range 17 East. It comprises approximately 7,689.06 hectares (19,000 acres). A portion considered to represent the major habitats found within the entire park was selected for this inventory. The entire park consists of 18 natural communities. There are 11 natural communities found within the study area. The research site, consisting of approximately 449.6 hectares (1,111 acres), includes portions of Sections 3–4, 8–10, and 15–17, Township 26 South, Range 17 East. The boundaries surrounding the study site comprise a ruderal power line artery along the western edge, a paved biking trail at the northern boundary, an unpaved road running due south along the eastern edge, and the Anclote River as the southern boundary (Figure 5).
Early Inhabitants

The first humans who lived near the Jay B. Starkey Wilderness Park were aboriginals called the Safety Harbor Culture or the Tocobaga, who inhabited the Florida Gulf coast (Lawson et al., 1981). The period of their inhabitance was from 900 A.D. through the early eighteenth century (Milanich, 1994). The settlement area extended from the Withlacoochee River south to the Charlotte Harbor area, which includes Pasco County (Milanich, 1994). Tocobaga arrowheads have been unearthed on the Starkey property, suggesting their use of the land to hunt (Lawson et al., 1981). Approximately 33 prehistoric archaeological sites have been identified as temporary campsites for hunting within the Jay B. Starkey Wilderness Park (SWFWMD, 1990). Hunters on the Starkey property could have originated from two different sites. The first was a flint workshop located 3.22 km (2 mi) north of the Anclote River along the coastline. Tarpon Springs was the second archeological site considered one of the “most famous of all Gulf Coast mounds,” at the mouth of the Anclote River (Willey, 1949). They cultivated the land and developed pottery. In the eighteenth century after the Spanish established themselves across the state, the remaining Tocobaga were thought to have joined the Creek from further North as they moved south seeking refuge from persecution by the new settlers.

The first legal records pertaining to the ownership of the Jay B. Starkey Wilderness Park date from 1856, when much of the property was turned over to the Internal Improvement Board (Lawson et al., 1981). In 1883, Hamilton Disston’s Florida Land and Improvement Company bought all of the Jay B. Starkey Wilderness Park property except portions where settlers lived. In 1891, the Florida Land and Improvement
Company sold the land to the Pasco Land Company. Difficult financial times caused the
demise of the Pasco Land Company. In 1895, Emily Lyon bought the property. A portion
of the land was bought from her and owned privately. They used the land to harvest
turpentine, to hunt wild game, and to harvest Spanish moss. The area does contain two
historical remains of old turpentine camps. These are identified by the rotting timber, tin
roof, and broken clay vessels (SWFWMD, 1990). In 1910, Lyon Lumber Company was
given the land by Emily Lyon. The Lyon and Dowling Lumber Companies harvested
cypress and pine from the land and extricated the lumber via a narrow gauge railroad. In
1929, the land reverted back to the State for unpaid taxes, before the Phoenix Tax Title
Corporation paid the back taxes and acquired the property (Lawson et al., 1981).

In 1937, Jay B. Starkey and Ernest, Dave, and Howard Cunningham bought over
6070.31 hectares (15,000 acres) for $3.46 per hectare ($1.40 per acre) and assumption of
back taxes (Lawson et al., 1981). The C-S (Cunningham-Starkey) Ranch was used to
raise cattle by both families. As land values went up and cattle yields decreased, the land
was often sold to developers. Jay. B. Starkey, Sr. outlived his partners and sold the cattle
and the equipment to his son Jay. B. Starkey, Jr. The senior Starkey still lived and worked
the land with his son for cattle ranching and later during World War II, and even
converted a smaller portion of land into an orange grove. Over the years, items such as
timber, pine stumps, and resin were sold to provide extra income. In 1975, as the
population increased in the county, Jay B. Starkey, Sr. decided to preserve the land from
development by selling sections to the Southwest Water Management District (Lawson et
al., 1981).
Acquisition History

In 1937, Jay B. Starkey, Sr. and his partners bought 6,070.3 hectares (15,000 acres) that included the land that eventually became Jay B. Starkey Wilderness Park (Starkey, 1980). After buying out his partners and coming to terms with the hardship of making a profit, Jay B. Starkey, Sr. and Jay B. Starkey, Jr. decided to sell part of the land to the Southwest Florida Water Management District (SWFWMD). This process started in 1973 with the understanding that SWFWMD would “maintain the land in its natural state” (Lawson et al., 1981). By 1980, SWFWMD had acquired 1,407.9 hectares (3,479 acres) (Wells, 2004). From 1980 to 1986, the District was able to purchase another 1,358.9 hectares (3,358 acres) and between 1990 and 1999, SWFWMD obtained an additional 584.7 hectares (1,445 acres) to add to the Wilderness Park. The District further purchased 4,210.4 hectares (10,404 acres) in 2000 and 2001. Jay B. Starkey Wilderness Park, managed by SWFWMD, now comprises approximately 18,875.9 acres. Only a small portion of the study area was part of the original transactions in 1975 and 1976. Another small parcel was bought by SWFWMD in 1982. The majority of the study area, contained in Sections 9 and 16, Township 26 South, Range 17 East, was purchased in 1984. Additional pieces were bought in 1990 and 2000.

Figure 2 - Map of Jay B. Starkey Wilderness Park with the study area outlined
**Disturbances Affecting the Study Area**

With the exception of the effects of cattle grazing and other minor improvements, the Jay B. Starkey Wilderness Park has undergone few changes despite the need to accommodate the growing population living in Pasco County. The west boundary for the study site is the right-of-way for the Florida Power Corporation electrical transmission line. This 46 m (150 ft) wide artery was constructed in the 1970’s (SWFWMD, 1990). In order to maintain the right-of-way the area is frequently cleared mechanically. In addition, SWFWMD did build at least 14 active production water wells within the Park (SWFWMD, 1990). These wells pump water from the Park to provide potable water for the city of New Port Richey. There are three production wells within the research area (Figure 5). To maintain Jay B. Starkey’s agreement, the Park remains open for a number of recreational opportunities. In order to provide these recreational activities, SWFWMD constructed a paved road, hiking/biking trails, horse riding trails, primitive camp sites, and semi-primitive road beds. A number of these features occur within the study area as well (Figure 5).

The most recent disruption within the research site was a wildfire that was believed to have started from a lightning strike June 3, 2004. After surviving the night, the wildfire consumed approximately 162 hectares (400 acres) on June 4, many of which were within the study site (Holan, 2004). The fire consumed a band of land through the center of the study area (Figure 5). This fire occurred towards the end of the research collection period and thus had little impact on data collection.
Management Regimes

The management plan devised and implemented by SWFWMD (1990) includes several conceptual land uses. The most important function for the District is to manage the well field withdrawals. The consumptive use permit renewed in 1979 allows the city of New Port Richey to withdraw 30 to 57 million liters per day from the 14 wells within the Park (SWFWMD, 1990). This water withdrawal has produced shorter hydroperiods, lower peak water levels, increased rates of succession into wetland areas, and unusual plant associations (SWFWMD, 1990).

To manage areas of historical significance SWFWMD protects them from disturbance by keeping hiking and horse-riding trails away from them. SWFWMD has opened the Park for “low intensity resource-based” recreation, building facilities for local use (SWFWMD, 1990). These recreational facilities are managed by Pasco County. They include hiking, biking, horse riding, birding, camping, and any other non-motorized activities. The hiking/biking trails are separate from the horse riding trails to avoid safety hazards. Hunting is only permitted under contract from the District.

Land management practices exercised by the SWFWMD include a number of ways to improve or preserve the quality of the property. The District uses prescribed burning to maintain the habitat communities and to restore habitats. During the summer months, there is greater thunderstorm activity causing higher lightning frequency giving way to natural wildfires, which SWFWMD has to contain and control. The District normally burns during the winter months in order to limit and control the fire (SWFWMD, 1990).

A population of feral hogs has disturbed the soil while rooting, causing damage to
some habitats and previously preserved historical sites (Figure 3). Part of the management plan is to reduce or minimize their impact.

**Figure 3** - Disturbance caused by feral hogs
Climate

The climate of Pasco County is humid and subtropical (Chen and Gerber, 1990). The constant cyclical pattern consists of cool, dry winters and warm, humid summers. Annual mean temperature is 22°C (SWFWMD, 1988). During the winter months, December through February, the monthly mean temperature is 16°C. The temperature will usually drop to freezing temperatures at least once a year. During the summer months, from June to September, the monthly mean temperature is about 27°C, with highs reaching about 33°C.

Rainfall in Pasco County varies seasonally, oscillating between the rainy season and the dry season (SWFWMD, 1988). From October to May, rainfall is less than 10.2 cm (4 in) per month. During the summer months, June through September, the area receives about 18.4 cm (7.25 in) of rainfall per month. This accounts for about half of the rainfall for the year. In spring, central Florida, including Pasco County, experiences harsher and longer, dry drought-like conditions than either northern or southern Florida (Chen and Gerber, 1990). The high amounts of rain that fall from June to September are attributed to the convective clouds, sea breezes, and tropical storms. By the beginning of October, the rainfall decreases by about 50 percent from the summer months, indicating the beginning of the dry period.
**Geology**

The geology underlying Jay B. Starkey Wilderness Park is the Suwannee Formation deposited during the Oligocene epoch of the Tertiary period (34 to 24 MYBP) (Scott *et al.*, 2001). This formation is a yellow to white, fossiliferous, fine-grained limestone (Wetterhall, 1964). It is a very porous formation that contains the Upper Floridan Aquifer. Below the Suwannee Formation are the Ocala and Avon Park Formations, both deposited during the Eocene epoch of the Tertiary period (55 to 34 MYBP). Both formations are also important parts of the Floridan aquifer system.

**Soils**

The soils found within the study site represent two general types. The first soil type is Chobee, which is a very poorly drained soil with a nearly level topography, usually found below swamps and river floodplains. This soil type normally has a dark surface layer of sandy loam with layers of calcareous gray and green sandy clay loam about 127 cm (50 in) below the surface layer (Stankey, 1982). The second more predominant soil, found under flatwoods and depressions, is the Pomona-Eaugallie-Sellers, which is poorly drained to very poorly-drained, with an almost level topography. This soil unit consists of about 35 percent Pomona soils, 14 percent Eaugallie soils, 13 percent Sellers soils, and about 38 percent of minor soil types (Stankey, 1982). In the study area the Pomona-Eaugallie-Sellers soil type is made up of nine of the minor soils as well as Pomona and Sellers. The Eaugallie soil type is lacking from the study area.

There are twelve distinct soil types found within the study site (Figure 4). The most dominant types are: (1) Chobee soils, frequently flooded, 1.01 km$^2$ (250 acres); (2) Adamsville fine sand, 0.845 km$^2$ (209 acres); (3) Myakka fine sand, 0.578 km$^2$ (143
acres); (4) Immokalee fine sand, 0.518 km$^2$ (128 acres); and (5) Sellers mucky loamy fine sand, 0.461 km$^2$ (114 acres). The other soil types present are (6) Pomona fine sand, 0.356 km$^2$ (88 acres); (7) Pomello fine sand: 0 to 5 percent slopes, 0.291 km$^2$ (72 acres); (8) Wauchula fine sand: 0 to 5 percent slopes, 0.170 km$^2$ (42 acres); (9) Cassia fine sand: 0 to 5 percent slopes, 0.121 km$^2$ (30 acres); (10) Smyrna fine sand, 0.069 km$^2$ (17 acres); (11) Paola fine sand, 0.040 km$^2$ (10 acres); and (12) Basinger fine sand, 0.036 km$^2$ (9 acres) (Stankey, 1982).
**Figure 4** - Map of soil types in the Jay B. Starkey Wilderness Park study area

**Legend**

- Study Area
- Roads
- Trails
- Stream

Soil types:
- Adamsville fine sand
- Basinger fine sand
- Cassia fine sand
- Chobee soils
- Immokalee fine sand
- Myakka fine sand
- Paola fine sand
- Pomello fine sand
- Pomona fine sand
- Sellers mucky loamy soil
- Smyrna fine sand
- Wauchula fine sand
Topography and Hydrology

Jay B. Starkey Wilderness Park is located in the Gulf Coastal Lowlands physiographic province (SWFWMD, 1988), which is characterized by low elevations and poor drainage. Within the research area, the elevation ranges from 9.14 to 16.76 m (30 to 55 feet) (USGS, 1974) (Figure 5). The swamp and river floodplain area ranged from 9.14 to 10.66 m (30 to 35 feet). The majority of the area has an elevation of 10.66 to 12.19 m (35 to 40 feet). The only area that reaches 15.24 to 16.76 m (50 to 55 feet) in elevation is just above the south hiking/biking trail along the eastern boundary covered by the study area boundary line.

The Anclote River located primarily in Pasco County is about 27.36 km (17 miles) long. About 8.05 km (5 miles) of the Anclote, excluding the south branch, are within the Jay B. Starkey Wilderness Park boundaries (SWFWMD, 1990). The southern border for the study site is an approximately 3.22 km (2 miles) section of the Anclote River (Figure 5).

The Anclote is characterized as a slow moving, turbid, acidic, black water stream. The channel is not more than 6 m wide at any point along the southern boundary of the study area. The heavy shade from hardwoods limits the diversity of aquatic flora.

During low flow stage, the stream is confined to the channel. As the rainy season starts, the Anclote quickly overflows its banks inundating the floodplain forest, which remains this way for two to three months. When the river overflows its banks, the water flowing into the floodplain removes waste and provides nutrients to the floodplain community (FNAI, 1990). The sediment load settles out as the water moves out of the channel. Heavier sediments are deposited first closer to the channel due to their weight,
and finer, lighter sediments settle out more slowly further away from the channel.

Figure 5 - Map of Jay B. Starkey Wilderness Park study area topography including the burn site, trails, and unpaved roads
METHODS

Vascular plant specimen vouchers were collected from May 2003 to October 2004 using standard field collection and herbarium techniques. Notes were made for each collection regarding the habitat and frequency of occurrence. One complete set of voucher specimens was deposited at the University of South Florida Herbarium (USF). The floras of Wunderlin (1998) and Wunderlin and Hansen (2003) were utilized for identifications, followed by verification with specimens in the USF herbarium.

Vascular plants of special interest include those taxa that are Federal and/or State listed species (threatened and endangered) and exotic species listed by the Florida Exotic Pest Plant Council (FLEPPC) (Wunderlin and Hansen, 2004). Plant species that are new county records as determined by the Atlas of Florida Vascular Plants (Wunderlin and Hansen, 2004) are noted.

The classification of communities found within the study area follows those described by Florida Natural Areas Inventory (FNAI) (FNAI, 1990). The different communities are described and include the dominant species found within each layer (overstory, understory, and herbaceous ground layer) of the community. The photographs included were taken from June 2004 through October 2004.
RESULTS AND DISCUSSION

A total of 475 taxa were collected within the study area in Jay B. Starkey Wilderness Park between May 2003 and October 2004. Vouchers were deposited in the University of South Florida Herbarium (USF).

The flora found within the study area is comprised of 104 families and 269 genera (Table 1). The families with the greatest number of taxa are: Asteraceae (66), Poaceae (58), Cyperaceae (37), and Fabaceae (26). The genera with the most abundant taxa are: *Rhyncospora* (12), *Quercus* (10), *Hypericum* (10), *Xyris* (8), *Ludwigia* (8), *Tillandsia* (7), *Dichanthelium* (7), *Panicum* (7), *Paspalum* (7), *Asclepias* (6), and *Polygala* (6).

Approximately 92% of the flora in the study area is native and 8% non-native. Sixteen (3%) of the species found are endemic to Florida (Table 2). Four of the 39 non-native taxa are listed by the Florida Exotic Pest Plant Council (FLEPPC, 2003) (Table 3). Thirty two taxa are county records for Pasco County (Wunderlin and Hansen, 2004). Twelve taxa are listed as threatened, endangered, or commercially exploited (Coile and Garland, 2003) (Table 4). All of the listed vascular plants are listed by the State and do not appear on the Federal list.
Table 1 – Synopsis of the Vascular Plants found in the Jay B. Starkey Wilderness Park study area.

<table>
<thead>
<tr>
<th>Taxa</th>
<th>Genera</th>
<th>Families</th>
<th>Endemics</th>
<th>Non-Native</th>
<th>County Records</th>
</tr>
</thead>
<tbody>
<tr>
<td>Pteridophytes</td>
<td>12</td>
<td>9</td>
<td>7</td>
<td>0</td>
<td>1</td>
</tr>
<tr>
<td>Gymnosperms</td>
<td>7</td>
<td>4</td>
<td>3</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>Monocotyledons</td>
<td>158</td>
<td>69</td>
<td>23</td>
<td>2</td>
<td>17</td>
</tr>
<tr>
<td>Dicotyledons</td>
<td>298</td>
<td>187</td>
<td>71</td>
<td>13</td>
<td>21</td>
</tr>
<tr>
<td><strong>Totals</strong></td>
<td>475</td>
<td>269</td>
<td>104</td>
<td>15</td>
<td>39</td>
</tr>
</tbody>
</table>

Table 2 – Taxa endemic to Florida and occurring in the Jay B. Starkey Wilderness Park study area.

<table>
<thead>
<tr>
<th>Asclepias feayi</th>
<th>Garberia heterophylla</th>
</tr>
</thead>
<tbody>
<tr>
<td>Asimina obovata</td>
<td>Mecardonia acuminata subsp. peninsularis</td>
</tr>
<tr>
<td>Asimina reticulata</td>
<td>Micranthemum glomeratum</td>
</tr>
<tr>
<td>Bigelowia nudata subsp. australis</td>
<td>Phoebanthus grandiflorus</td>
</tr>
<tr>
<td>Callisia ornata</td>
<td>Polygala rugelii</td>
</tr>
<tr>
<td><strong>Carphephorus odoratissimus</strong> var.</td>
<td>Scutellaria arenicola</td>
</tr>
<tr>
<td><strong>subtropicanus</strong></td>
<td></td>
</tr>
<tr>
<td>Chrysopsis subulata</td>
<td>Stipulicida setacea var. lacerata</td>
</tr>
<tr>
<td>Coreopsis leavenworthii</td>
<td>Tillandsia simulata</td>
</tr>
</tbody>
</table>
Table 3 – Non-native taxa found in the Jay B. Starkey Wilderness Park study area listed by the Florida Exotic Pest Plant Council (FLEPPC, 2003)

<table>
<thead>
<tr>
<th>Category I</th>
<th>Category II</th>
</tr>
</thead>
<tbody>
<tr>
<td><em>Panicum repens</em></td>
<td><em>Rhynchelytrum repens</em></td>
</tr>
<tr>
<td><em>Cinnamomum camphora</em></td>
<td><em>Urena lobata</em></td>
</tr>
</tbody>
</table>

Table 4 – Endangered, Threatened, or Commercially Exploited Vascular Plant taxa in the Jay B. Starkey Wilderness Park study area (Coile and Garland, 2003).

<table>
<thead>
<tr>
<th>Endangered</th>
<th>Threatened</th>
<th>Commercially Exploited</th>
</tr>
</thead>
<tbody>
<tr>
<td><em>Tillandsia utriculata</em></td>
<td><em>Garberia heterophylla</em></td>
<td><em>Encyclia tampensis</em></td>
</tr>
<tr>
<td><em>Lilium catesbaei</em></td>
<td><em>Epidendrum conopseum</em></td>
<td></td>
</tr>
<tr>
<td><em>Lobelia cardinalis</em></td>
<td><em>Osmunda cinnamomea</em></td>
<td></td>
</tr>
<tr>
<td><em>Pteroglossaspis ecristata</em></td>
<td><em>Osmunda regalis var.</em></td>
<td>spectabilis</td>
</tr>
<tr>
<td><em>Spiranthes laciniata</em></td>
<td><em>Zephyranthes atamasca</em></td>
<td></td>
</tr>
<tr>
<td><em>Zephyranthes treatiae</em></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
Jay B. Starkey Wilderness Park consists of 18 natural communities. Within the study area (449.6 hectares or 1,111 acres), there are 11 distinct natural communities. Comparing the park with the study site shows the study area is representative of the entire park (Table 5). The communities that fall outside the boundaries of the study area are not dominant communities making up a large portion of the park. This makes the plant list compiled for the study area representative for the majority of the Jay B. Starkey Wilderness Park.

Table 5 – Summary of Natural Communities (18) in Jay B. Starkey Wilderness Park (SWP) and the selected study area (11) (SA)

<table>
<thead>
<tr>
<th>Natural Community</th>
<th>SWP (hectares)</th>
<th>SA (hectares)</th>
<th>Natural Community</th>
<th>SWP (hectares)</th>
<th>SA (hectares)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Basin Marsh</td>
<td>101.2</td>
<td></td>
<td>Oak Scrub</td>
<td>70.4</td>
<td></td>
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<td>34.4</td>
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<td>Wet Prairie</td>
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<td>Xeric Hammock</td>
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Figure 6 - Map of the natural communities in the Jay B. Starkey Wilderness Park study area

Legend
- Study Area
- Roads
- Trails
- Anclote River

Natural Communities
- Ruderal
- Basin swamp
- Depression marsh
- Dome swamp
- Floodplain forest
- Mesic flatwoods
- Pasture - improved
- Sand pine scrub
- Sandhill
- Scrubby flatwoods
- Wet prairie
- Xeric hammock

Anclote River

0 250 500 1,000 1,500 2,000
Meters
The Natural Communities

The community classification for natural communities found within the study area follows the Florida Natural Areas and Inventory guidelines (FNAI, 1990, 2004). The communities within the study area are discussed from the lowest elevation type to the highest followed by the ruderal and disturbed area.

Floodplain Forest

The floodplain forest community is a forested wetland that consists of 64.3 hectares (159 acres) adjacent to the River. The soil below this community is Chobee soil (Stankey, 1982). Flooding in this community is closely linked to the rain events that persist throughout the summer months (Ewel, 1990).

The dominant tree species that make up the overstory of the floodplain forest are *Taxodium distichum, Sabal palmetto, Ilex cassine, Carpinus caroliniana, Nyssa sylvatica var. biflora, Quercus laurifolia, Quercus virginiana, Persea palustris, Fraxinus caroliniana, Acer rubrum, Ulmus alata, and Ulmus americana*. Some of these species are buttressed due to the long hydroperiods endured throughout the rainy season. Noteworthy epiphytic species are *Tillandsia* spp., *Pleopeltis polypodioides, Encyclia tampensis*, and *Epidendrum conopseum*. The woody understory includes *Toxicodendron radicans, Campsis radicans, Berchemia scandens, Cephalanthus occidentalis, Psychotria nervosa*, and *Psychotria sulzneri*. The herbaceous ground layer consists of a number of pteridophytes including *Blechnum serrulatum, Woodwardia areolata, Woodwardia virginica, Osmunda cinnamomea, Osmunda regalis*, and *Thelypteris interrupta*. Also
common are *Carex gigantea*, *Rhyncospora miliacea*, *Scleria triglomerata*, *Hypoxis curtissii*, *Iris hexagona*, *Spiranthes odorata*, and *Saururus cernuus*. A non-native species found along the unimproved trails into the floodplain forest is *Urena lobata*.

**Figure 7** - Floodplain forest in the southern end of the Jay B. Starkey Wilderness Park study area
**Basin Swamp**

A basin swamp is a large irregularly-shaped depression that is not part of the river, although during the rainy season it may be connected via surface flow to the river (FNAI, 1990). This region is vegetated by species similar to the floodplain forest. The soil types below the basin swamps in the study area are composed of Chobee soil and Sellers mucky loamy fine sand (Stankey, 1982); both of these are frequently inundated with water. The study area contains 61.5 hectares (152 acres) that are delineated as basin swamp. The largest basin swamp in the study area is located in the middle of the lower half of the area and it appears as though it was an oxbow originating from the Anclote River.

The dominant overstory species include *Taxodium distichum, Ilex cassine, Carpinus caroliniana, Nyssa sylvatica* var. *biflora, Diospyros virginiana, Persea palustris, Fraxinus caroliniana, Acer rubrum, Gordonia lasianthus, Ulmus alata*, and *Ulmus americana*. The basin swamp also contains a number of epiphytic species such as *Tillandsia recurvata, Tillandsia simulata, Tillandsia usneoides, Tillandsia x floridana*, and *Pleopeltis polypodioides*. The dominant woody understory species found are *Lyonia lucida, Myrica cerifera*, and *Cephalanthus occidentalis*. The herbaceous ground layer species consists primarily of *Sagittaria lancifolia, Peltandra virginica, Carex spp., Cladium jamaicense, Cyperus spp., Eleocharis spp., Scleria spp., Eriocaulon decangulare, Juncus spp., Amphiarpum muhlenbergianum, Leersia hexandra*, *Panicum hemitomon, Pontederia cordata, Rhexia spp.*, and *Saururus cernuus*.
**Figure 8** - Basin swamp located in the middle of the lower half of the Jay B. Starkey Wilderness Park study area

*Dome Swamp*

Dome Swamps are found throughout the study area. These circular to oblong depressions contain Sellers mucky loamy fine sand, a very poorly-drained soil type (Stankey, 1982). An impermeable clay layer beneath the soil helps maintain water levels in these depressions. The depression is due to the soils slumping into sinkholes formed in the limestone rock (FNAI, 1990). Most of the water found in the swamp is surface runoff from surrounding upland communities. The dome may become completely desiccated at the end of the dry season, exposing the peat layer for a couple of weeks. These areas have
a domed profile from smaller trees in the shallow water near the edge and larger trees in the middle of the swamp in the deeper water (FNAI, 2004). The study area contains 10.5 hectares (26 acres) of dome swamp.

The dominant tree in the dome is *Taxodium ascendens*. Other prominent overstory species include *Ilex cassine, Persea palustris, Nyssa sylvatica* var. *biflora, Diospyros virginiana*, and *Acer rubrum*. Epiphytic species, similar to those of the floodplain forest and basin swamp, include *Tillandsia recurvata, Tillandsia simulata, Tillandsia usneoides, Tillandsia x floridana*, and *Pleopeltis polypodioides*. A rare find in one of the swamps was the epiphytic *Vittaria lineata*. Typical woody understory species are *Smilax laurifolia, Toxicodendron radicans, Myrica cerifera*, and *Lyonia lucida*. The herbaceous ground layer includes pteridophytes *Woodwardia areolata, Woodwardia virginica*, and *Thelypteris interrupta*. Other ground layer species are *Rhynchospora latifolia, Xyris* spp., *Spiranthes laciniata, Helenium pinnatifidum, Drosera capillaries, Polygala cymosa*, and *Polygonum hydropiperoides*. 
**Figure 9** - A dome swamp located within the Jay B. Starkey Wilderness Park study area

**Figure 10** - The inside of a dome swamp within the Jay B. Starkey Wilderness Park study area
Depression Marsh

Depression marshes are similar in vegetation to basin swamps (FNAI, 1990). They are characterized by low depressions in the flatwoods community due to slumping around the edges of a sinkhole or water collecting on top of a hardpan subsurface layer. Two hectares (5 acres) of depression marsh occur in the study area. The soil types found below the depression marshes are Adamsville fine sand and Basinger fine sand.


![Depression marsh](image)
**Wet Prairie**

Four hectares (10 acres) of the study area is covered by an open wetland herbaceous community. This is often found within the mesic flatwoods or surrounding the fringe of a dome or basin swamp. The underlying soil types are Basinger fine sand and Myakka fine sand (Stankey, 1982). The area is poorly drained due to the subsoil layer of hardpan clay.


**Figure 12** – Wet prairie located above the large basin swamp within the Jay B. Starkey Wilderness Park study area
Mesic Flatwoods

The most dominant fire adapted community found in the study area (207 hectares or 512 acres) is mesic flatwoods. This community has a relatively flat topography. The dominant soil types found beneath this community are Immokalee fine sand, Myakka fine sand, and Smyrna fine sand. These soils normally have low levels of nutrients and organic matter (FNAI, 2004). A hardpan clay layer under the soil causes poor water drainage in the rainy season and xeric conditions during the dry season (FNAI, 1990). This is a stressful environment for plants. Plants are either dealing with too much water constantly keeping their roots wet, or too little water available as their roots are unable to penetrate through the hardpan layer.

The overstory layer present in this community is composed of Pinus palustris and Pinus elliottii. These pines are widely spaced across the community allowing for a dense woody understory layer. The understory layer includes Serenoa repens, Ilex glabra, and Lyonia lucida. Smaller understory layer species are Gaylussacia dumosa, Vaccinium corymbosum, Vaccinium myrsinites, and Quercus minima. The rich herbaceous ground layer includes Pteridium aquilinum, Amphicarpum muhlenbergianum, Aristida stricta, Dichanthelium ensifolium, Dichanthelium portoricense, Sorghastrum secundum, Elephantopus elatus, Eupatorium mohrii, Euthamia caroliniana, Pityopsis graminifolia, Pterocauleon pycnostachyum, Seymouria cassioides, Polygala lutea, and Polygala setacea.
Figure 13 – Mesic flatwoods located on the northeast edge of the Jay B. Starkey Wilderness Park study area

Sandhill

The sandhill community makes up 34.3 hectares (85 acres) of the study area. There are two areas; both are high in elevation at 12.19–15.24 m (40–50 ft) that has topography consisting of hills and gentle slopes. The underlying soil beneath both of these sandhill communities is the Adamsville fine sand, which is also found under the scrubby flatwoods community within the park. The deep sandy soils that are easily leached and well drained create xeric characteristics in this community. The overstory layer is intermittent, allowing sunlight to reach the ground layer, which also adds to the
xeric condition.

The dominant overstory species include *Pinus palustris*, *Quercus laevis*, *Quercus incana*, and *Quercus margaretta*. Understory species include *Serenoa repens*, *Rhus copallinum*, *Asimina obovata*, *Asimina reticulata*, *Licania michauxii*, *Diospyros virginiana*, *Gaylussacia dumosa*, *Quercus minima*, and *Myrica cerifera*. The herbaceous ground cover layer consists primarily of *Rhynchospora megalocarpa*, *Aristida stricta*, *Dichanthelium portoricense*, *Sorghastrum secundum*, *Asclepias humistrata*, *Balduina angustifolia*, *Phoebanthus grandiflorus*, *Pityopsis graminifolia*, and *Pterocaulon pycnostachyum*.

![Figure 14 – Sandhill community inside the northwest section of the Jay B. Starkey Wilderness Park study area](image-url)
Scrubby Flatwoods

Forty hectares (100 acres) of scrubby flatwoods occur within the study area. The community found in the study area is encircled by the bridle path (Figure 5). The soil type under the scrubby flatwoods is Adamsville fine sand (Stankey, 1982). The vegetation is made up of a mixture of mesic flatwoods and sand pine scrub species. It is characterized by an open pine canopy with sparse scattered clumps of oak species and patches of open sand (FNAI, 1990). In the study area a number of the Pinus palustris had the epiphyte Tillandsia x floridana growing on them (Figure 16).

The species found in the overstory of this community include Pinus palustris, Pinus clausa, Quercus chapmanii, Quercus geminata, and Quercus myrtifolia. The dense understory layer contains Serenoa repens, Garberia heterophylla, Lyonia ferruginea, Lyonia fruticosa, and Ximenia americana. The herbaceous ground layer is contains Pteridium aquilinum, Rhynchospora megalocarpa, Aristida spiciformis, Aristida stricta, Dichanthelium portoricense, Carphephorus corymbosus, and Lupinus diffusus.
**Figure 15** – Scrubby flatwoods found within the loop in the southeast section of the Jay B. Starkey Wilderness Park study area

**Figure 16** - *Pinus palustris* with the epiphyte *Tillandsia x floridana*
Sand Pine Scrub

This community develops along the ridgeline of ancient dune formations composed of very fine sand sometimes referred to as “sugar sand.” There is one area containing a scrub community totaling 20.2 hectares (50 acres) within the study area along the western boundary. The soil under the sand pine scrub is Pomello fine sand (Stankey, 1982). These fine sands allow rain water to quickly percolate down to the aquifer creating a xeric growing condition (FNAI, 1990). The scrub can have an open or closed canopy consisting of Pinus clausa with various oaks and shrubs dominating the understory. Normally this community type exhibits patches of exposed sand, however in the study area there are very few. The scrub found within the study area has mature Pinus clausa, an indication of fire suppression.

Under the Pinus clausa, the dominant overstory consists of Quercus geminata, Quercus myrtifolia, and Quercus chapmanii. The understory shrub layer contains Serenoa repens, Asimina obovata, Garberia heterophylla, Licania michauxii, Ceratiola ericoides, Lyonia ferruginea, Lyonia fruticosa, and Ximenia americana. The herbaceous ground cover is sparse; however some common herbs found there are Rhynchospora megalocarpa Pityopsis graminifolia, and Palafoxia intergrifolia.
Xeric Hammock

Xeric hammock is considered a degraded fire-excluded scrub or sandhill community (FNAI, 1990). The xeric hammock in the study area is an advanced sandhill community. Four hectares (10 acres) of this community is found on the fringes of the northern sandhill community (Figure 5). The hammock occurs on two soil types: Adamsville fine sand and Immokalee fine sand. The community lacks a closed overstory canopy. A low canopy is present from the shrub layer dominated by oaks.

The overstory species consist of *Pinus palustris* (few), *Quercus geminata*, and
*Quercus laevis.* The dense woody understory consists primarily of *Serenoa repens,* *Licania michauxii,* *Lyonia fruticosa,* *Quercus chapmanii,* and *Quercus myrtifolia.* The herbaceous ground layer includes *Pteridium aquilinum,* *Rhynchospora megalocarpa,* *Aristida stricta,* *Dichanthelium portoricense,* and *Galactia elliotii.*

**Figure 18** – The xeric hammock found within the Jay B. Starkey Wilderness study area
Ruderal and Disturbed Sites

The ruderal area within the study area includes areas of disturbance due to anthropogenic changes. This encompasses paved roads, unpaved roads, hiking trails, horse riding trails, well pump houses, improved pasture, and the fringe of the power line artery. Ruderal areas generally have the highest number of non-native species growing in or along them. The improved pasture about half a hectare in the study area is where the native habitat was converted into grazing land by clearing and planting non-native species. The ruderal roads, trails, and power line sites contain a high number of non-native species because of the recent disturbances caused by their construction and subsequent use.

The most prominent non-native is *Paspalum notatum* followed by *Crotalaria* spp., *Indigofera hirsuta*, and *Ludwigia peruviana*. The Southwest Water Management District has worked to manage these ruderal areas to encourage native species to re-colonize the area.
Figure 19 – The improved pasture area in Jay B. Starkey Wilderness Park study area

Figure 20 - Ruderal disturbed area along the west side of the Jay B. Starkey Wilderness Park study area
Annotated List of the Vascular Flora

The vascular flora of the study area at Jay B. Starkey Wilderness Park in the following list is documented by vouchered specimen in the USF Herbarium. The list is divided into four major sections: pteridophytes, gymnosperms, monocotyledons, and dicotyledons. Within these sections the list is then arranged alphabetically by family, genus, and species. The nomenclature follows the *Atlas of Florida Vascular Plants* (Wunderlin and Hansen, 2004).

Each species and infraspecific taxon is followed by a common name and its frequency of occurrence. The frequency of occurrence is given as: R, rare, less than four individuals found; O, occasional, between four and 15 plants noted; and C, common, more than 15 plants in the immediate area. Following the frequency of occurrence, the natural community from which the species was collected is noted. The natural communities include: BS, basin Swamp; DM, depression marsh; DS, dome swamp; FF, forest floodplain; MF, mesic flatwoods; RD, ruderal and disturbed areas include the power lines, road beds, and improved pasture; SH, sandhill; SF, scrubby flatwoods; SP, sand pine scrub; WP, wet prairie; and XH, xeric hammock. The numbers in brackets at the end of each species are the collector number(s).

Species of special note are indicated using specific symbols or font. Species endemic to Florida are listed in bold font. Non-native species are marked with an asterisk. New records for Pasco County are indicated by an underline. Those exotic species listed by the Florida Exotic Pest Plant Council are listed with their ranking. Category I species
alter Florida’s natural plant community by displacing native species and changing the structure of the community (FLEPPC, 2003). Category II species have the ability in the future to alter Florida’s natural plant communities by displacing natives and changing the community structure (FLEPPC, 2003).

Pteridophytes (Ferns and Fern allies)

**Blechnaceae**

*Blechnum serrulatum* Rich.—toothed midsorus fern; C; DS (116, 498, 538)

*Woodwardia areolata* (L.) T. Moore—netted chain fern; C; FF (552, 822)

*Woodwardia virginica* (L.) Sm.—Virginia chain fern; C; FF (523, 499, 418)

**Dennstaedtiaceae**

*Pteridium aquilinum* (L.) Kuhn var. *pseudocaudatum* (Clute) A. Heller—tailed bracken fern; C; MF (249, 823)

**Lycopodiaceae**

*Lycopodiella alopecuroides* (L.) Cranfill—foxtail club-moss; R; BS (266)

**Osmundaceae**

*Osmunda cinnamomea* L.—cinnamon fern; C; FF (347)

*Osmunda regalis* L. var. *spectabilis* (Willd.) A.Gray—royal fern; O; FF (553, 655)

**Polypodiaceae**

*Phlebodium aureum* (L.) J. Sm.—golden polypody; O; DS (579)


**Thelypteridaceae**

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*Thelypteris dentata* (Forssk.) E.P. St. John—downy maiden fern; O; FF (554, 803)

*Thelypteris interrupta* (Willd.) K. Iwats.—hottentot fern; C; FF (354)

Vittariaceae

*Vittaria lineata* (L.) Sm.—shoestring fern; R; DS (765)

Gymnosperms

Cupressaceae

*Juniperus virginiana* L.—red cedar; R; RD (782)

*Taxodium ascendens* Brongn.—pond-cypress; C; DS (170)

*Taxodium distichum* (L.) Rich.—bald-cypress; C; FF (108)

Pinaceae

*Pinus clausa* (Chapm. ex Engelm.) Vasey ex Sarg.—sand pine; C; SF (290)

*Pinus elliottii* Engelm.—slash pine; C; MF (595)

*Pinus palustris* Mill.—longleaf pine; C; MF (581)

Zamiaceae

*Zamia pumila* L.—Florida arrowroot; R; MF (310)

Monocotyledons

Agavaceae

*Yucca filamentosa* L.—Adam’s needle; O; SH (91)

Alismataceae

*Sagittaria graminea* var. *chapmanii* J.G. Sm.—Chapman’s arrowhead; O; FF (480)

*Sagittaria graminea* Michx. var. *graminea*—grassy arrowhead; O; DS (115, 380)
Sagittaria lancifolia L.—bulltongue arrowhead; C; DS (528, 716)

Amaryllidaceae

Zephyranthes atamasca (L.) Herb. var. treatiae (S. Watson) Meerow—Treat’s rainlily; R; FF (665)

Araceae

Arisaema triphyllum (L.) Schott—Jack-in-the-pulpit; R; FF (740)

Lemna valdiviana Phil.—Valdivia duckweed; C; BS (215)

Peltandra virginica (L.) Schott—green arrow arum; R; BS (776)

Arecales

Sabal minor (Jacq.) Pers.—dwarf palmetto; C; FF (316)

Sabal palmetto (Walter) Lodd. ex Schult. & Schult.f.—cabbage palm; O; FF (794)

Serenoa repens (W. Bartram) Small—saw palmetto; C; MF (80)

Bromeliaceae

Tillandsia bartramii Elliott—Bartram’s airplant; C; SH (494)

Tillandsia recurvata (L.) L.—ballmoss; C; SH (270)

Tillandsia setacea Sw.—southern needleleaf; C; FF (751)

Tillandsia simulata Small—airplant; C; FF (305, 351, 577)

Tillandsia usneoides (L.) L.—Spanish moss; C; SH (452)

Tillandsia utriculata L.—giant airplant; O; SH (837)

Tillandsia x floridana (L.B. Sm.) H. Luther; C; SF (306)

Burmanniaceae

Burmannia capitata (J.F. Gmel.) Mart.—southern bluethread; O; DS (509)

Commelinaceae
*Callisia ornata* (Small) G.C. Tucker—Florida scrub roseling; O; MF (75, 138)

*Commelina erecta* L.—whitemouth dayflower; O; RD (781)

*Commelina diffusa* Burm. F.—common dayflower; O; RD (77)

Cyperaceae

*Bulbostylis barbata* (Rottb.) C.B. Clarke—watergrass; O; RD (838)

*Carex gigantea* Rudge—giant sedge; C; FF (556, 661)

*Carex longii* Mack.—Long’s sedge; C; FF (546, 558, 602, 830)

*Carex verrucosa* Muhl.—warty sedge; C; DS (383, 690, 706)

*Cladium jamaicense* Crantz—Jamaica swamp sawgrass; C; DS (532)

*Cyperus croceus* Vahl—Baldwin’s flatsedge; C; DS (224, 330)

*Cyperus haspan* L.—haspan flatsedge; C; DM (571, 539)

*Cyperus odoratus* L.—fragrant flatsedge; C; FF (545, 774)

*Cyperus polystachyos* Rottb.—manyspike flatsedge; C; DM (160, 243, 295)

*Cyperus retrorsus* Chapm.—pinebarren flatsedge; C; DM (136, 247, 293, 410)

*Cyperus surinamensis* Rottb.—tropical flatsedge; C; DM (104, 232, 294, 437)

*Eleocharis baldwinii* (Torr.) Chapm.—Baldwin’s spikerush; C; DS (423, 430)

*Eleocharis flavescens* (Poir.) Urb.—yellow spikerush; C; WP (231, 547)

*Eleocharis vivipara* Link—viviparous spikerush; C; RD (836)

*Fimbristylis caroliniana* (Lam.) Fernald—Carolina fimbry; C; WP (221, 864)

*Fimbristylis cynosa* R. Br.—hurricanegrass; O; DS (515)

*Fimbristylis schoenoides* (Retz.) Vahl—ditch fimbry; O; RD (851)

*Fuirena breviseta* (Coville) Coville—saltmarsh umbrellasedge; C; DS (169, 513)

*Fuirena pumila* (Torr.) Spreng.—dwarf umbrellasedge; C; DS (233)
*Fuirena scirpoidea* Michx.—southern umbrellasedge; C; DS (429)

*Lipocarpha maculata* (Michx.) Torr.—American halfcaff sedge; O; DS (847)

*Rhynchospora cephalantha* A. Gray—bunched beaksedge; C; FF (521, 573, 831)

*Rhynchospora colorata* (L.) H. Pfeiff.—starrush whitetop; O; WP (111)

*Rhynchospora corniculata* (Lam.) A. Gray—shortbristle horned beaksedge; O; RD (833)

*Rhynchospora fascicularis* (Michx.) Vahl—fascicled beaksedge; C; DM (122, 135, 182, 255, 365, 417, 485)

*Rhynchospora fernaldii* Gale—Fernald’s beaksedge; C; MF (329)

*Rhynchospora intermedia* (Chapm.) Britton—pinebarren beaksedge; C; SH (189)

*Rhynchospora inundata* (Oakes) Fernald—narrowfruit horned beaksedge; C; DS (223, 228, 425)

*Rhynchospora latifolia* (Baldwin) W.W. Thomas—giant whitetop; O; DS (758)

*Rhynchospora megalocarpa* A. Gray—sandyfield beaksedge; C; SP (432, 786)

*Rhynchospora microcarpa* Baldwin ex A. Gray—southern beaksedge; C; DM (529)

*Rhyncospora miliacea* (Lam.) A. Gray—millet beaksedge; C; FF (352)

*Rhynchospora plumosa* Elliott—plumed beaksedge; C; MF (416, 678, 681)

*Scirpus cyperinus* (L.) Kunth—woolgrass; O; DM (780)

*Scleria baldwinii* (Torr.) Steud.—Baldwin’s nutrush; C; WP (742)

*Scleria reticularis* Michx.—netted nutrush; C; WP (428, 859)

*Scleria triglomerata* Michx.—tall nutgrass; C; SP (187)

Eriocaulaceae
Eriocaulon compressum Lam.—flattened pipewort; C; WP (510)

Eriocaulon decangulare L.—tenangle pipewort; O; DS (225, 505)

Lachnocaulon anceps (Walter) Morong—whitehead bogbutton; C; RD (85, 334, 526)

Syngonanthus flavidulus (Michx.) Ruhland—yellow hatpins; C; MF (674, 703)

Haemodoraceae

Lachnanthes caroliana (Lam.) Dandy—Carolina redroot; O; MF (200)

Hypoxidaceae

Hypoxis curtissii Rose—common yellow stargrass; C; FF (312)

Hypoxis juncea Sm.—fringed yellow stargrass C; MF (97, 300, 656)

Iridaceae

Iris hexagona Walter—Dixie iris; C; FF (660)

Sisyrinchium nashii E.P. Bicknell—Nash’s blue-eyed grass; C; MF (668, 729)

*Sisyrinchium rosulatum E.P. Bicknell—annual blue-eyed grass; R; RD (653)

Juncaceae

Juncus dichotomus Elliott—forked rush; O; DM (548)

Juncus effusus L.—soft rush; C; DS (402, 537)

Juncus elliottii Chapm.—bog rush; C; DS (328)

Juncus marginatus Rostk.—shore rush; C; WP (144, 484, 435, 572)

Juncus megacephalus M.A. Curtis—bighead rush; C; DM (242)

Juncus scirpoides Lam.—needlepod rush; C; DS (258, 192, 205, 327)

Liliaceae

Lilium catesbaei Walter—Catesby’s lily; O; MF (371)
Melanthiaceae

*Stenanthium densum* (Desr.) Zomlefer & Judd—crowpoison; R; MF (805)

Nartheciaceae

*Aletris lutea* Small—yellow colicroot; O; MF (238, 723)

Orchidaceae

*Calopogon tuberosus* (L.) Britton et al.—tuberous grasspink; R; MF (793)

*Encyclia tampensis* (Lindl.) Small—florida butterfly orchid; O; FF (662)

*Epidendrum conopseum* R. Br.—green-fly orchid; O; FF (350)

*Habenaria floribunda* Lindl.—toothpetal false reinorchid; C; BS (594)

*Pteroglossaspis ecristata* (Fernald) Rolfe—giant orchid; O; MF (817)

*Spiranthes laciniata* (Small) Ames—lacelip ladiesestresses; O; DS (764)

*Spiranthes odorata* (Nutt.) Lindl.—fragrant ladiesestresses; O; FF (566)

*Spiranthes praecox* (Walter) S. Watson—greenvein ladiesestresses; O; MF (745)

*Zeuxine strateumatica* (L.) Schltr.—soldier’s orchid; R; MF (600)

Poaceae

*Amphicarpum muhlenbergianum* (Schult.) Hitchc.—blue maidencane; C; BS (427, 514, 549)

*Andropogon brachystachyus* Chapm.—shortspike bluestem; O; MF (563)

*Andropogon glomeratus* (Walter) Britton et al. var. *glomeratus*—bushy bluestem; O; DS (436)

*Andropogon glomeratus* (Walter) Britton et al. var. *glaucopsis* (Elliott) C. Mohr.—purple bluestem; O; MF (476, 536)

*Andropogon gyrans* Ashe—Elliott’s bluestem; C; SH (355, 486, 493, 870)
Andropogon ternarius Michx.—splitbeard bluestem; C; SF (469, 475, 492)

Andropogon virginicus L. var. decipiens C.S. Campb.—broomsedge bluestem; C;

   MF (471)

Aristida palustris (Chapm.) Vasey—longleaf threeawn; O; MF (845)

Aristida patula Chapm. ex. Nash—tall threeawn; C; DS (407)

Aristida purpurascens Poir. var. tenuispica (Hitchc.) Allred—Hillsboro threeawn;

   C; MF (562, 596, 680)

Aristida spiciformis Elliott—bottlebrush threeawn; C; MF (308, 364, 415, 474)

Aristida stricta Michx. var. beyrichiana (Trin. & Rupr.) D.B. Ward—wiregrass;

   C; MF (488, 596)

Axonopus furcatus (Flüggé) Hitchc. —big carpetgrass; C; RD (801, 829)

Axonopus fissifolius (Raddi) Kuhlm.—common carpetgrass; O; RD (857)

Cenchrus spinifex Cav.—coastal sandbur; C; MF (307, 319, 409)

Ctenium aromaticum (Walter) A.W. Wood—toothache grass; O; MF (519)

*Cynodon dactylon (L.) Pers.—Bermudagrass; O; RD (842)

*Dactyloctenium aegyptium (L.) Willd. ex Asch. & Schweinf.—durban
crowfootgrass; C; MF (525)

Dichanthelium commutatum (Schult.) Gould—variable witchgrass; C; MF (861)

Dichanthelium dichotomum (L.) Gould—cypress witchgrass; C; MF (363, 401,

   557)

Dichanthelium ensifolium var. ensifolium (Baldwin ex Elliott) Gould—

   witchgrass; C; WP (190, 411, 540, 675, 712, 865)

Dichanthelium ensifolium (Baldwin ex Elliott) Gould var. unciphyllum (Trin.)
B.F. Hansen & Wunderlin—cypress witchgrass; O; MF (666)

*Dichanthelium erectifolium* (Nash) Gould & C.A. Clark—erectleaf witchgrass; C; MF (220)

*Dichanthelium laxiflorum* (Lam.) Gould—openflower witchgrass; O; MF (800)

*Dichanthelium portoricense* (Desv. ex Ham.) B.F. Hansen & Wunderlin—hemlock witchgrass; C; MF (605, 667, 676, 684, 713)

*Digitaria ciliaris* (Retz.) Koeler—southern crabgrass; O; RD (856)

*Eleusine indica* (L.) Gaertn.—Indian goosegrass; O; RD (841)

*Eragrostis atrovirens* (Desf.) Trin. ex Steud.—thalia lovegrass; C; WP (229, 257, 575, 583, 844)

*Eragrostis elliottii* S. Watson—Elliott’s lovegrass; C; MF (412, 414, 438, 459, 543)

*Eragrostis secundiflora* J. Presl subsp. *oxylepis* (Torr.) S.D. Koch—red lovegrass; O; MF (811)

*Eragrostis virginica* (Zuccagni) Steud.—coastal lovegrass; C; WP (569)

*Eustachys petraea* (Sw.) Desv.—pinewoods fingergrass; C; MF (164, 244)

*Leersia hexandra* Sw.—southern cutgrass; C; DM (542)

*Panicum anceps* Michx.—beaked panicum; C; DS (252, 137, 406, 835)

*Panicum dichotomiflorum* Michx.—fall panicgrass; O; DM (843)

*Panicum hemitomon* Schult.—maidencane; C; DS (753)

*Panicum repens* L.—torpedograss; C; RD; FLEEPC-I (827)

*Panicum rigidulum* Bosc ex Nees—redtop panicum; C; BS (439, 490, 848)

*Panicum verrucosum* Muhl.—warty panicgrass; C; FF (420)
Panicum virgatum L.—switchgrass; C; MF (568)

Paspalum floridanaum Michx.—Florida paspalum; O; DS (246)

Paspalum laeve Michaux—field paspalum; O; WP (184)

*Paspalum notatum Flüggé—bahiagrass; O; MF (186)

*Paspalum notatum Flüggé var. saurae Parodi—bahaigrass; C; MF (756)

Paspalum praecox Walter—early paspalum; C; MF (226, 256)

Paspalum setaceum Michx.—thin paspalum; C; MF (421, 433, 489, 530, 806)

*Paspalum urvillei Steud.—vaseygrass; C; WP (245, 757)

*Rhynchelytrum repens (Willd.) C.E. Hubb.—rose natalgrass; C; MF; FLEPPC-II (809)

Saccharum giganteum (Walter) Pers.—sugarcane plumegrass; C; DS (424, 550, 582)

*Sacciolepis indica (L.) Chase—Indian cupscale; C; DM (862)

Sacciolepis striata (L.) Nash—American cupscale; C; FF (534)

Setaria parviflora (Poir.) Kerguelen—yellow bristlegrass; C; MF (172, 298)

Sorghastrum secundum (Elliott) Nash—lopsided indiangrass; C; MF (391)

Sphenopholis obtusata (Michx.) Scribn.—prairie wedgescale; C; FF (692)

Sporobolus floridanus Chapm.—Florida dropseed; O; MF (431, 863)

*Sporobolus indicus (L.) R. Br.—smutgrass; C; MF (434)

Sporobolus junceus (P.Beauv.) Kunth—pineywoods dropseed; O; MF (763)

Urochloa platyphylla (Munro ex C. Wright) R.D. Webster—broadleaf signalgrass; O; RD (883)

Pontederiaceae
*Pontederia cordata* L.—pickerelweed; C; BS (109)

**Smilacaceae**

*Smilax auriculata* Walter—earleaf greenbrier; C; SH (315)

*Smilax bona-nox* L.—saw greenbrier; C; FF (555, 672)

*Smilax glauca* Walter—cat greenbrier; O; FF (818)

*Smilax laurifolia* L.—laurel greenbrier; C; BS (522, 561, 592)

*Smilax pumila* Walter—sarsaparilla vine; O; SF (689)

**Typhaceae**

*Typha latifolia* L.—broadleaf cattail; O; WP (773)

**Xyridaceae**

*Xyris ambigua* Beyr. ex Kunth—coastalplain yelloweyed grass; C; MF (145, 165)

*Xyris brevifolia* Michx.—shortleaf yelloweyed grass; O; RD (644)

*Xyris caroliniana* Walter—Carolina yelloweyed grass; C; MF (139, 814)

*Xyris difformis* Chapm.—bog yelloweyed grass; O; FF (166)

*Xyris elliottii* Chapm.—Elliott’s yelloweyed grass; C; WP (133)

*Xyris fimbriata* Elliott—fringed yelloweyed grass; C; DS (389)

*Xyris jupicai* Rich.—Richard’s yelloweyed grass; C; RD (544)

*Xyris platylepis* Chapm.—tall yelloweyed grass; C; WP (214)

**Dicotyledons**

**Acanthaceae**

*Dyschoriste oblongifolia* (Michx.) Kuntze—oblongleaf twinflower; O; SH (750)

*Ruellia ciliosa* Pursh—ciliate wild petunia; O; SH (322)

**Adoxaceae**

50
Sambucus nigra L. subsp. canadensis (L.) Bolli—American elder; O; BS (769)

Viburnum obovatum Walter—Walter’s viburnum; C; FF (346, 686)

Amaranthaceae

*Chenopodium ambrosioides* L.—Mexican tea; C; RD (789)

Froelichia floridana (Nutt.) Moq.—cottonweed; C; SH (194)

Anacardiaceae

Rhus copallinum L.—winged sumac; O; SH (361)

Toxicodendron radicans (L.) Kuntze—eastern poison ivy; C; DS (533)

Annonaceae

Asimina angustifolia Raf.—slimleaf pawpaw; O; SH (718)

Asimina obovata (Willd.) Nash—big flower pawpaw; C; SP (650, 704, 785)

Asimina reticulata Shuttlew. ex Chapm.—netted pawpaw; C; SH (449, 636)

Apocynaceae

Asclepias feayi Chapm. ex A. Gray—Florida milkweed; C; MF (78, 96)

Asclepias humistrata Walter—pinewoods milkweed; C; SH (696)

Asclepias longifolia Michx.—longleaf milkweed; O; WP (227)

Asclepias pedicellata Walter—Savannah milkweed; O; MF (212)
Asclepias tomentosa Elliott—velvetleaf milkweed; O; SH (810)

Asclepias tuberosa L.—butterflyweed; O; SH (88)

Aquifoliaceae

Ilex cassine L.—dahoon; C; FF (397)

Ilex glabra (L.) A. Gray—gallberry; C; DM (259, 362, 450)

Araliaceae

Centella asiatica (L.) Urb.—spadeleaf; C; DS (819)

Hydrocotyle umbellata L.—manyflower marshpennywort; C; DS (654, 721)

Hydrocotyle verticillata Thunb.—whorled marshpennywort; O; FF (804)

Asteraceae

Acmella oppositifolia (Lam.) R.K. Jansen var. repens (Walter) R.K. Jansen—oppositeleaf spotflower; O; DM (468)

Ambrosia artemisiifolia L.—common ragweed; C; MF (296, 318)

Baccharis halimifolia L.—groundsel tree; C; SH (455, 477)

Balduina angustifolia (Pursh) B.L. Rob—coastalplain honeycombhead; C; SH (208, 267, 271)

Bidens alba (L.) DC. var. radiata (Sch. Bip) R.E. Ballard ex Melchert—beggarticks; C; RD (285)

Bigelowia nudata (Michx.) DC. subsp. australis L.C. Anderson—pineland rayless goldenrod; C; MF (374, 727)

Boltonia diffusa Elliott—smallhead doll’s daisy; C; RD (481)

Carphephorus corymbosus (Nutt.) Torr. & A. Gray—coastalplain chaffhead; O; SF (291)
*Carphephorus odoratissimus* (J.F. Gmel.) H. Hebert var. *subtropic anus*  
(DeLaney et al.) Wunderlin & B.F. Hansen—vanillaleaf; C; MF (303)

*Carphephorus paniculatus* (J.F. Gmel.) H. Hebert—hairy chaffhead; C; WP (495)

*Chaptalia tomentosa* Vent.—woolly sunbonnets; C; DM (580, 611)

*Chrysopsis mariana* (L.) Elliott—Maryland goldenaster; C; MF (791)

*Chrysopsis subulata* Small—scrubland goldenaster; C; MF (161, 197, 207, 815)

*Cirsium horridulum* Michx.—purple thistle; O; MF (691)

*Cirsium nuttallii* DC.—Nuttall’s thistle; O; MF (195, 203)

*Conyza canadensis* (L.) Cronquist var. *canadensis*—Canadian horseweed; O; RD (171)

*Conyza canadensis* (L.) Cronquist var. *pusilla* (Nutt.) Cronquist—dwarf Canadian horseweed; C; RD (317, 358)

*Coreopsis leavenworthii* Torr. & A. Gray—Leavenworth’s tickseed; O; MF (158)

*Croptilon divaricatum* (Nutt.) Raf.—slender scratchdaisy; C; RD (551)

*Elephantopus elatus* Bertol.—tall elephantsfoot; C; SH (152, 283, 325)

*Erechites hieraciifolius* (L.) Raf. ex DC. –fireweed; C; DS (146, 254)

*Erigeron quercifolius* Poir.—oakleaf fleabane; C; MF (657)

*Erigeron strigosus* Muhl. ex Willd.—prairie fleabane; C; MF (100)

*Erigeron vernus* (L.) Torr. & A. Gray—early whitetop fleabane; C; MF (162, 372, 574, 747)

*Eupatorium capillifolium* (Lam.) Small ex Porter & Britton—dogfennel; C; MF (483)

*Eupatorium compositifolium* Walter—yankeeweed; C; DS (441, 458, 478)
Eupatorium mohrii Greene—Mohr’s throughwort; C; MF (121, 448, 777)
Eupatorium rotundifolium L.—roundleaf throughwort; C; MF (209, 235)
Eupatorium serotinum Michx.—lateflowering throughwort; C; DM (344)
Euthamia caroliniana (L.) Greene ex Porter & Britton—slender flattop goldenrod; C; MF (442, 467)
Gaillardia pulchella Foug.—firewheel; O; RD (90, 181)
Gamochaeta falcata (Lam.) Cabrera—narrowleaf purple everlasting; O; RD (640)
Gamochaeta pensylvanica (Willd.) Cabrera—Pennsylvania everlasting; O; RD (641)
Garberia heterophylla (W. Bartram) Merr. & F. Harper—garberia; O; SP (512)
Helenium pinnatifidum (Schwein. ex Nutt.) Rydb.—southeastern sneezeweed; O; DS (725)
Helianthus angustifolius L.—narrowleaf sunflower; C; DS (464, 576)
Helianthus radula (Pursh) Torr. & A. Gray—stiff sunflower; O; MF (356)
Heterotheca subaxillaris (Lam.) Britton & Rusby—camphorweed; C; SH (366, 444, 535)
Hieracium gronovii L.—queendevil; O; SH (454, 603)
Hieracium megacephalon Nash—coastalplain hawkweed; C; MF (174, 193, 260, 264)
Iva microcephala Nutt.—piedmont marshelder; C; DS (466, 531)
Krigia virginica (L.) Willd.—Virginia dwarfdandelion; C; RD (637)
Lactuca graminifolia Michx.—grassleaf lettuce; C; RD (720, 760)
Liatris gracilis Pursh—slender gayfeather; C; SH (250, 375, 392)
Liatris pauciflora Pursh—fewflower gayfeather; O; SH (324)

Liatris spicata (L.) Willd.—dense gayfeather; O; SH (378)

Liatris tenuifolia Nutt.—shortleaf gayfeather; C; SH (403)

Lygodesmia aphylla (Nutt.) DC.—rose-rush; C; MF (81, 302)

Mikania scandens (L.) Willd.—climbing hempvine; O; FF (110, 382, 869)

Oclemena reticulata (Pursh) G.L. Nesom—white-topped aster; C; DS (156, 447, 496, 711)

Palafoxia intergrifolia (Nutt.) Torr & A. Gray—coastalplain palafox; O; SH (154)

Phoebanthus grandiflorus (Torr. & A. Gray) S.F. Blake—Florida false sunflower; C; MF (129, 311, 587)

Pityopsis graminifolia (Nutt.) Michx.—narrowleaf silkgrass; C; MF (261, 599)

Pluchea foetida (L.) DC.—stinking camphorweed; O; DS (343)

Pluchea rosea R.K. Godfrey—rosy camphorweed; C; FF (101, 149, 198, 820)

Pseudognaphalium obtusifolium (L.) Hilliard & B.L. Burtt—sweet everlasting; C; MF (393)

Pterocaulen pycnostachyum (Michx.) Elliott—blackroot; C; MF (79)

Pyrrhopappus carolinianus (Walter) DC.—Carolina desertchicory; O; XH (394)

Sericocarpus tortifolius (Michx.) Ness—whitetop aster; C; MF (178, 445, 516)

Solidago fistulosa Mill.—pinebarren goldenrod; C; MF (443, 456)

Solidago odora Aiton var. chapmanii (Torr. & A. Gray) Cronquist—Chapman’s goldenrod; C; SH (153, 282)

Solidago stricta Aiton—wand goldenrod; C; MF (503)

Symphyotrichum adnatum (Nutt.) G.L. Nesom—scaleleaf aster; O; MF (597)
Symphyotrichum carolinianum (Walter) Wunderlin & B.F. Hansen—climbing aster; O; FF (586)

Symphyotrichum dumosum (L.) G.L. Nesom—rice button aster; C; SH (491, 504, 731)

Vernonia gigantea (Walter) Trel. ex Branner & Coville—giant ironweed; O; FF (860)

Betulaceae

Carpinus caroliniana Walter—American hornbeam; O; FF (341)

Bignoniaceae

Campsis radicans (L.) Seeman ex Bureau—trumpet creeper; O; FF (313)

Brassicaceae

Lepidium virginicum L.—Virginia pepperweed; C; RD (652)

Cactaceae

Opuntia humifusa (Raf.) Raf.—pricklypear; C; SH (217)

Campanulaceae

Lobelia cardinalis L.—cardinalflower; O; FF (396)

Lobelia glandulosa Walter—glade lobelia; O; MF (507)

Lobelia paludosa Nutt.—white lobelia; C; MF (275, 722, 821)

Triodanis perfoliata (L.) Nieuwl.—clasping Venus’s lookingglass; O; RD (714)

*Wahlenbergia marginata (Thunb.) A. DC.—southern rockbell; C; RD (216, 715)

Caryophyllaceae

Drymaria cordata (L.) Willd. Ex Schult. —West Indian chickweed; O; RD (607)

Stipulicida setacea Michx. var. lacerata C.W. James—pineland scalypink; C; SP
Chrysobalanceae

*Licania michauxii* Prance—gopher apple; C; SH (95)

Cistaceae

*Helianthemum carolinianum* (Walter) Michx.—Carolina frostweed; C; MF (634, 761)

*Helianthemum corymbosum* Michx.—pinebarren frostweed; C; SH (180, 616, 639)

*Lechea mucronata* Raf.—hairy pineweed; C; SH (191)

*Lechea torreyi* (Chapm.) Legg. ex Britton—piedmont pineweed; C; MF (210, 629, 853)

Clusiaceae

*Hypericum cistifolium* Lam.—roundtop St. John’s-wort; C; WP (117, 213, 335, 157, 646)

*Hypericum crux-andreae* (L.) Crantz—St. Peter’s-wort; O; WP (348)

*Hypericum fasciculatum* Lam.—peelbark St. John’s-wort; C; DS (234, 520)

*Hypericum gentianoides* (L.) Britton et al.—pineweeds; C; DS (196, 239, 279, 570)

*Hypericum hypericoides* (L.) Crantz—St. Andrew’s-cross; C; DS (142, 446, 834)

*Hypericum mutilum* L.—dwarf St. John’s-wort; C; DS (99, 112)

*Hypericum myrtifolium* Lam.—myrtleleaf St. John’s-wort; C; WP (86, 177)

*Hypericum reductum* (Svenson) W.P. Adams—Atlantic St. John’s-wort; O; SH (796)
Hypericum setosum L.—hairy St. John’s-wort; O; DS (373)

Hypericum tetrapetalum Lam.—fourpetal St. John’s-wort; C; MF (176, 206)

Convolvulaceae

Ipomoea sagittata Poir.—saltmarsh morning-glory; O; DS (812)

Stylisma patens (Desr.) Myint—coastalplain dawnflower; O; SH (269, 272)

Cornaceae

Cornus foemina Mill.—swamp dogwood; O; FF (685)

Nyssa sylvatica Marshall var. biflora (Walter) Sarg.—swamp tupelo; C; FF (705, 728, 779)

Droseraceae

Drosera capillaris Poir.—pink sundew; C; DS (120, 726)

Ebenaceae

Diospyros virginiana L.—common persimmon; C; SF (702)

Ericaceae

Bejaria racemosa Vent.—tarflower; C; SF (118, 292, 487)

Ceratiola ericoides Michx.—Florida rosemary; O; SP (787)

Gaylussacia dumosa (J. Kenn.) Torr. & A. Gray—dwarf huckleberry; C; SH (649, 669, 738, 795)

Lyonia ferruginea (Walter) Nutt.—rusty staggerbush; O; SF (732)

Lyonia fruticosa (Michx.) G.S. Torr.—coastalplain staggerbush; O; SF (612, 733)

Lyonia lucida Lam.—fetterbush; C; DS (287, 560, 591, 613)

Vaccinium corymbosum L.—highbush blueberry; O; MF (627)

Vaccinium myrsinites Lam.—shiny blueberry; C; MF (76, 615, 642)
Vaccinium stamineum L.—deerberry; O; SH (651, 673)

Euphorbiaceae

Acalypha gracilens A. Gray—slender threeseed mercury; O; RD (802)
Chamaesyce hirta (L.) Millsp.—pillpod sandmat; O; RD (839)
Chamaesyce hyssopifolia (L.) Small—hyssopleaf sandmat; C; RD (387)
Chamaesyce maculata (L.) Small—spotted sandmat; O; RD (866)
Cnidoscolus stimulosus (Michx.) Engelm. & A. Gray—tread-softly; O; SH (253)
Croton glandulosus L.—vente conmigo; O; RD (840)
Croton michauxii G.L. Webster—rushfoil; C; SH (131, 788, 816)
*Phyllanthus urinaria L.—chamber bitter; O; RD (855)
Stillingia aquatica Chapm.—water toothleaf; O; BS (222)
Stillingia sylvatica L.—queen’s delight; O; SH (102, 168)

Fabaceae

Amorpha herbacea Walter—clusterspike false indigobush; O; SH (94)
Apios americana Medik.—groundnut; O; DS (813)
Centrosema virginianum (L.) Benth.—spurred butterfly pea; (92, 284)
Chamaecrista fasciculata (Michx.) Greene—partridge pea; C; SH (163, 278)
Chamaecrista nictitans (L.) Moench var. aspera (Muhl. ex Elliott) H. S. Irwin &
Barneby—sensitive pea; C; SH (321)
Clitoria mariana L.—Atlantic pigeonwings; O; MF (323)
*Crotalaria lanceolata E. Mey—lanceleaf rattlebox; O; RD (236, 850)
*Crotalaria pallida Aiton var. obovata (G. Don) Polhill—smooth rattlebox; O; 
RD (218)
*Crotalaria spectabilis* Roth—showy rattlebox; C; RD (479)

*Desmodium incanum* DC.—tickfoil; C; RD (248, 386, 470)

*Desmodium paniculatum* (L.) DC.—paniced ticktrefoil; O; SH (408)

*Desmodium triflorum* (L.) DC.—threeflower tickfoil; O; RD (807)

*Galactia elliottii* Nutt.—Elliott’s milkpea; O; SH (159, 749)

*Galactia regularis* (L.) Britton et al.—eastern milkpea; O; MF (824, 854)

*Galactia volubilis* (L.) Britton—downy milkpea; C; SH (357, 767, 784)

*Indigofera hirsuta* L.—hairy indigo; C; RD (457)

*Indigofera spicata* Forssk. —trailing indigo; O; RD (826)

*Lupinus diffusus* Nutt.—skyblue lupine; O; SH (635)

*Macroptilium lathyroides* (L.) Urb.—wild bushbean; O; RD (124)

*Medicago lupulina* L.—black medick; O; RD (710)

*Mimosa quadrivalvis* L. var. *angustata* (Torr. & A. Gray) Barneby—sensitive brier; O; SH (268)

*Rhynchosia michauxii* Vail—Michaux’s snoutbean; O; SH (671)

*Senna obtusifolia* (L.) H.S. Irwin & Barneby—coffeeweed; O; RD (868)

*Tephrosia chrysophylla* Pursh—scurf hoarypea; O; RD (867)

*Vicia acutifolia* Elliott—fourleaf vetch; O; FF (708)

**Fagaceae**

*Quercus chapmanii* Sarg.—Chapman’s oak; O; SF (695, 701)

*Quercus geminata* Small—sand live oak; C; SH (453)

*Quercus incana* W. Bartram—bluejack oak; O; SH (694)
Quercus laevis Walter—turkey oak; C; SH (472, 473)

Quercus laurifolia Michx.—laurel oak; O; FF (314, 463)

Quercus margaretta Ashe ex Small—sand post oak; R; SH (762)

Quercus minima (Sarg.) Small—dwarf live oak; C; SH (179, 320, 419)

Quercus myrtifolia Willd.—myrtle oak; C; SF (333, 462)

Quercus nigra L.—water oak; O; MF (309)

Quercus virginiana Mill.—live oak; O; DS (746)

Gelsemiaceae

Gelsemium sempervirens (L.) W.T. Aiton—yellow jessamine; O; SF (620)

Gentianaceae

Sabatia brevifolia Raf.—shortleaf rosegentian; O; MF (286, 301)

Sabatia calycina (Lam.) A. Heller—coastal rosegentian; O; FF (739)

Sabatia grandiflora (A. Gray) Small—largeflower rosegentian; C; DM (262, 390, 518)

Geraniaceae

Geranium carolinianum L.—Carolina cranesbill; O; RD (709)

Haloragaceae

Proserpinaca pectinata Lam.—combleaf mermaidweed; O; DM (564, 741, 768)

Iteaceae

Itea virginica L.—Virginia willow; O; BS (664)

Lamiaceae

Callicarpa americana L.—American beautyberry; O; MF (119)

Hyptis alata (Raf.) Shinners—musky mint; C; DM (274, 331, 345)
*Hyptis mutabilis* (Rich.) Briq.—tropical bushmint; O; FF (173, 276)

*Piloblephis rigida* (W. Bartram ex Benth.) Raf.—wild pennyroyal; O; MF (630)

*Salvia lyrata* L.—lyreleaf sage; O; BS (606)

*Scutellaria arenicola* Small—Florida scrub skullcap; C; SH (132)

*Teucrium canadense* L.—woodsage; C; DM (113)

*Trichostema dichotomum* L.—forked bluecurls; C; MF (377)

Lauraceae

*Cinnamomum camphora* (L.) J. Presl—camphortree; R; BS; FLEPPC-I (734)

*Persea palustris* (Raf.) Sarg.—swamp bay; C; FF (289, 353)

Lentibulariaceae

*Pinguicula pumila* Michx.—small butterwort; O; MF (588)

*Utricularia foliosa* L.—leafy bladderwort; O; DS (527, 771)

*Utricularia inflata* Walter—floating bladderwort; O; BS (626)

*Utricularia juncea* Vahl.—southern bladderwort; O; DM (369)

*Utricularia subulata* L.—zigzag bladderwort; O; WP (273)

Linaceae

*Linum medium* (Planch.) Britton var. *texanum* (Planch.) Fernald—stiff yellow flax; O; WP (797)

Loganiaceae

*Mitreola petiolata* (J.F. Gmel) Torr. & A. Gray—lax hornpod; O; DS (497)

*Mitreola sessilifolia* (J.F. Gmel.) G. Don—swamp hornpod; C; WP (148, 370, 379, 852)

Lythraceae
*Cuphea carthagenensis* (Jacq.) J.F. Macbr.—Colombian waxweed; C; FF (219, 508, 799)

*Lythrum alatum* Pursh var. *lanceolatum* (Elliott) Torr. & A. Gray ex Rothr.—winged loosestrife; O; MF (277)

Magnoliaceae

*Magnolia virginiana* L.—sweetbay; R; DS (658)

Malvaceae

*Urena lobata* L.—ceasarweed; C; FF; FLEPPC-II (500)

Melastomataceae

*Rhexia cubensis* Griseb.—West Indian meadowbeauty; O; DS (183)

*Rhexia mariana* L.—pale meadowbeauty; C; DS (84, 697, 744)

*Rhexia nuttallii* C.W. James—Nuttall’s meadowbeauty; O; MF (185, 506)

Menyanthaceae

*Nymphoides aquatica* (J.F. Gmel.) Kuntze—big floatingheart; O; RD (832)

Myricaceae

*Myrica cerifera* L.—wax myrtle; C; MF (332, 693)

Nymphaeaceae

*Nymphaea odorata* Aiton—American white waterlily; O; BS (752)

*Nuphar advena* (Aiton) Aiton f.—spatterdock; O; BS (754)

Oleaceae

*Ximenia americana* L.—tallow wood; O; SP (460)

Oleaceae

*Fraxinus caroliniana* Mill.—Carolina ash; C; FF (107, 337, 778)
Onagraceae

*Gaura angustifolia* Michx.—southern beeblossom; O; MF (125, 128)

*Ludwigia linearis* Walter—narrowleaf primrosewillow; C; DS (280, 385, 451)

*Ludwigia linifolia* Poir.—southeastern primrosewillow; C; DM (265, 699)

*Ludwigia maritima* R.M. Harper—seaside primrosewillow; O; MF (147, 201, 263)

*Ludwigia microcarpa* Michx.—smallfruit primrosewillow; O; DS (297)

*Ludwigia octovalvis* (Jacq.) Raven—Mexican primrosewillow; O; DM (384, 541)

*Ludwigia peruviana* (L.) H. Hara—Peruvian primrosewillow; O; RD (825)

*Ludwigia repens* J.R. Forst.—creeping primrosewillow; C; FF (772)

*Ludwigia suffruticosa* Walter—shrubby primrosewillow; O; DS (240)

*Oenothera humifusa* Nutt.—seabeach eveningprimrose; O; RD (638)

*Oenothera laciniata* Hill—cutleaf eveningprimrose; O; RD (204)

Orobanchaceae

*Agalinis fasciculata* (Elliott) Raf.—beach false foxglove; C; MF (359, 381, 502)

*Agalinis linifolia* (Nutt.) Britton—flaxleaf false floxglove; O; DM (846)

*Buchnera americana* L.—American bluehearts; O; MF (123, 755)

*Seymeria cassioides* (J.F. Gmel.) S.F. Blake—yaupon blacksenna; O; MF (376, 422)

*Seymeria pectinata* Pursh—piedmont blacksenna; O; SH (368)

Oxalidaceae

*Oxalis corniculata* L.—common yellow woodsorrel; O; RD (617)

Passifloraceae

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Passiflora incarnata L.—purple passionflower; O; RD (155)

Plantaginaceae

Plantago virginica L.—Virginia plantain; O; RD (648)

Polygalaceae

Polygala cymosa Walter—tall pinebarren milkwort; O; DS (724)

Polygala lutea L.—orange milkwort; C; MF (83, 188)

Polygala nana (Michx.) DC.—candyroot; C; MF (82, 281)

Polygala rugelii Shuttlew. ex Chapm.—yellow milkwort; O; WP (175)

Polygala setacea Michx.—coastalplain milkwort; C; MF (98, 211, 748)

Polygala violacea Aubl. —showy milkwort; C; MF (93)

Polygonaceae

Polygonella gracilis Meisn.—tall jointweed; O; SH (367, 404, 567)

Polygonella polygama (Vent.) Engelm. & A. Gray—October flower; C; SH (395, 461)

Polygonum hydropiperoides Michx.—swamp smartweed; C; DS (114, 399, 482)

Polygonum punctatum Elliott—dotted smartweed; C; RD (400)

Rumex hastatulus Baldwin—heartwing dock; O; RD (719)

Portulacaceae

*Portulaca amilis Speg.—Paraguayan purslane; O; RD (808)

Primulaceae

Samolus valerandi L. subsp. parviflorus (Raf.) Hulten—pineland pimpernel; O; FF (349)

Rhamnaceae
Berchemia scandens (Hill) K. Koch.—rattan vine; O; FF (336)

Rosaceae

Photinia pyrifolia (Lam.) K.R. Robertson & J.B. Phipps—red chokecherry; O; DS (628)

Prunus caroliniana (Mill.) Aiton—Carolina laurelcherry; O; RD (631)

Prunus serotina Ehrh.—black cherry; O; RD (632)

Rubus argutus Link—sawtooth blackberry; C; DS (645, 663)

Rubus cuneifolius Pursh—sand blackberry; C; MF (730)

Rubus trivialis Michx.—southern dewberry; O; FF (792)

Rubiaceae

Cephalanthus occidentalis L.—common buttonbush; C; DS (524, 770)

Diodia teres Walter—rough buttonweed; C; SH (304)

Diodia virginiana L.—Virginia buttonweed; C; BS (106, 199, 388)

Galium hispidulum Michx.—coastal bedstraw; C; RD (598)

Houstonia procumbens (J.F. Gmel.) Standl.—innocence; C; MF (589, 604)

Mitchella repens L.—partridgeberry; O; FF (340, 688)

Oldenlandia uniflora L.—clustered mille graine; C; DS (103, 413)

Psychotria nervosa Sw.—wild coffee; C; FF (339)

Psychotria sulzneri Small—shortleaf wild coffee; C; FF (338)

*Richardia brasiliensis Gomes—tropical Mexican clover; C; RD (202)

Spermacoce assurgens Ruiz & Pav.—woodland false buttonweed; O; DM (241, 511)

Spermacoce prostrata Aubl.—prostrate false buttonweed; O; FF (299)
Salicaceae

*Salix caroliniana* Michx.—Carolina willow; C; RD (633)

Sapindaceae

*Acer rubrum* L.—red maple; C; FF (590)

Saururaceae

*Saururus cernuus* L.—lizard’s tail; C; FF (585)

Solanaceae

*Solanum americanum* Mill.—American black nightshade; O; FF (593)

Tetrachondraceae

*Polypremum procumbens* L.—rustweed; C; RD (130)

Theaceae

*Gordonia lasianthus* (L.) J. Ellis—loblolly bay; O; BS (288, 559)

Ulmaceae

*Ulmus alata* Michx.—winged elm; O; FF (619, 682)

*Ulmus americana* L.—American elm; O; FF (735)

Urticaceae

*Boehmeria cylindrica* (L.) Sw.—false nettle; C; DS (342, 584)

Verbenaceae

*Phyla nodiflora* (L.) Greene—turkey tangle fogfruit; C; RD (89)

*Verbena brasiliensis* Vell.—Brazilian vervain; O; RD (775)

*Verbena scabra* Vahl—sandpaper vervain; O; MF (849)

Veronicaceae

*Bacopa monnieri* (L.) Pennell—herb-of-grace; O; DM (625)
Gratiola hispida (Benth. ex Lindl.) Pollard—rough hedgehyssop; O; MF (140, 141)

Gratiola pilosa Michx.—shaggy hedgehyssop; O; BS (167, 766)

Gratiola ramosa Walter—branched hedgehyssop; O; DS (698)

Linaria canadensis (L.) Chaz.—Canadian toadflax; C; DS (622, 643)

*Lindernia crustacea (L.) F. Muell.—Malaysian false pimpernel; O; RD (440)

Mecardonia acuminata (Walter) Small subsp. peninsularis (Pennell) Rossow—
axilflower; C; WP (230, 743)

Micranthemum glomeratum (Chapm.) Shinners—manatee mudflower; O; WP
(623)

Scoparia dulcis L.—sweetbroom; C; MF (151)

Violaceae

Viola lanceolata L.—bog white violet; O; DS (624)

Viola palmata L.—early blue violet; O; MF (647)

Viola primulifolia L.—primroseleaf violet; C; DS (601, 614, 618)

Viola sororia Willd.—common blue violet; O; FF (621)

Viscaceae

Phoradendron leucarpum (Raf.) Reveal & M.C. Johnst.—oak mistletoe; O; BS
(465)

Vitaceae

Ampelopsis arborea (L.) Koehne—peppervine; O; DS (150)

Parthenocissus quinquefolia (L.) Planch.—Virginia creeper; O; MF (783)

Vitis rotundifolia Michx.—muscadine; C; MF (360)
*Vitis shuttleworthii* House—calloose grape; O; MF (736)
Literature Cited


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