

Little Talbot Island State Park

(Duval County)

SALT MARSH

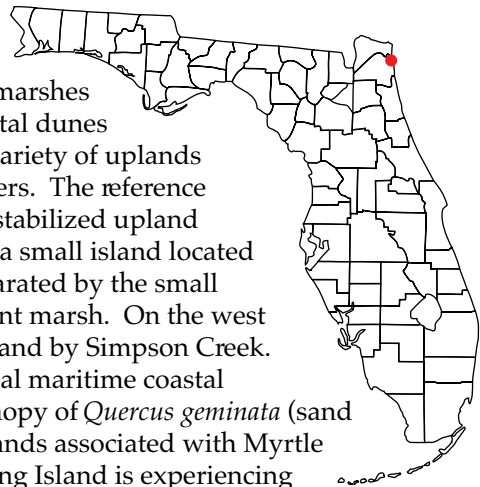


Northeast view of the delineation site

LOCATION

Little Talbot Island State Park consists of coastal islands located north of the mouth of the St. Johns River in Duval County. The park is south of Amelia Island in Nassau County and Big Talbot Island in Duval, and north of Ft.

George Island. The park is located between the marshes of the Fort George River to the west and the coastal dunes of the Atlantic Ocean to the east and includes a variety of uplands and tidally influenced wetlands and surface waters. The reference site represents the interface of a salt marsh with stabilized upland dune system. The barrier island, Long Island, is a small island located immediately west of Little Talbot Island and separated by the small intertidal waterway, Myrtle Creek, and its adjacent marsh. On the west side, Long Island is separated from Big Talbot Island by Simpson Creek. Uplands on Long Island are comprised of a typical maritime coastal hammock community with a well developed canopy of *Quercus geminata* (sand live oak) on a stabilized dune system. The wetlands associated with Myrtle Creek are inundated twice daily by the tides. Long Island is experiencing continued erosion due to the constant movement of sand with the tides.



Erosion is evident along the north side of Long Island where the roots of sand live oaks are exposed. This activity of nature is not expected to dramatically change the wetland boundary as described here for several years barring the effects of an extraordinary event.

ACCESS

The reference site is located on the west shoreline of Long Island approximately one thousand feet north of U.S. Highway A1A. Parking is available along the highway. Although the access is open, the site may be inundated, depending on tidal stage. The wetland boundary is marked by concrete monuments.



Salt marsh dominated by *Spartina alterniflora* (smooth cordgrass) and *Juncus roemerianus* (black needle rush)

COMMUNITY CHARACTERIZATION

The reference site is part of the Simpson Creek salt marsh, which is adjacent to a xeric-mesic coastal hammock on Long Island. Simpson Creek flows between Big Talbot Island and Long Island. The central area of the salt marsh, referred to as the low marsh, is dominated by *Spartina alterniflora* (smooth cordgrass) and *Juncus roemerianus* (black needle rush). As the elevation of the gentle sloping shoreline increases, the vegetative community shifts to a greater diversity of herbaceous plants including *Sesuvium maritima* (sea-purslane), *Sporobolus virginicus* (seashore dropseed), and *Spartina patens* (salt-meadow cordgrass). This area is generally referred to as the high marsh. The vegetative



Interior view of maritime hammock, note the *Quercus geminata* (sand live oak) and *Serenoa repens* (saw palmetto)

composition of the high marsh at its landward extent includes *Iva frutescens* (tall marsh elder) and *Ilex vomitoria* (yaupon). Landward of this point, the community abruptly shifts to an upland community dominated by mesic vegetation and then mixed mesic-xeric vegetation along the slopes of the dune. Similarly, the soil shows a quick transition from hydric to non-hydric conditions between the high marsh and the mesic coastal hammock community.

DELINEATION PROCEDURE

Beginning in the low marsh, a wetland identified by the use of the definition in subsection 62-340.200(19), F.A.C. The dominance of obligate and facultative wet vegetation is followed landward, examining the presence of either hydric soils or hydrologic indicators. The marsh vegetation is dominated by salt marsh species such as *Spartina alterniflora* (smooth cordgrass) and *Spartina patens* (salt meadow cordgrass). The provisions of subsections 62-340.300(2)(a) and (b), F.A.C., are used up to the ecotone between the high marsh and maritime hammock. The transition between these plant

communities is often abrupt. In addition to vegetative dominance by hydrophytic species and the presences of hydric soils, hydrologic indicators, in the form of fiddler crab burrows, are abundant throughout the high marsh. Through the use of subsection 62-340.300(2)(a), F.A.C., the wetland boundary is placed within the ecotone of high marsh and the coastal maritime hammock at the point where dominance by hydrophytic vegetation and the presence of hydric soil indicators ceases.

Because the reference site is a surface water body subjected to direct tidal effects, the provisions of section 62-340.600, F.A.C., need to be addressed with respect to the mean high water line (MHWL). Mean high water can represent the boundary of a surface water, but only when it extends beyond the provisions for wetland delineation. In other words, the MHWL is applicable only if the wetland boundary does not extend landward of the MHWL elevation. The MHWL is clearly located where the dominance shifts from *Spartina patens* to *Batis maritima*, and *Salicornia virginica*.

The following plant lists with corresponding soils descriptions were prepared during the visit to the delineation site on December 6, 1994. The common plant species observed waterward and landward of the wetland boundary are listed in the following tables. A note about cordgrass: *Spartina alterniflora* grows in a two forms, tall and short. The tall form grows close to the creek channels in the deepest portion of the salt marsh. The short form is observed more landward than the tall form.

Vegetation of the salt marsh, immediately waterward of the wetland boundary.

Ground cover

<i>Aster tenuifolius</i>	OBL	saltmarsh aster
<i>Atriplex pentandra</i> (= <i>A. arenaria</i>)	UPLAND	seabeach orach
<i>Batis maritima</i>	OBL	saltwort
<i>Borrchia frutescens</i>	OBL	sea oxeye
<i>Fimbristylis castanea</i>	OBL	saltmarsh fimbristylis
<i>Juncus roemerianus</i>	OBL	black needle rush
<i>Lycium carolinianum</i>	OBL	wolf-berry
<i>Muhlenbergia capillaris</i>	OBL	long-awn muhly
<i>Salicornia virginica</i>	OBL	glasswort
<i>Sesuvium maritima</i>	FACW	sea-purslane
<i>Solidago sempervirens</i>	FACW	seaside goldenrod
<i>Spartina alterniflora</i>	OBL	smooth cordgrass
<i>Spartina patens</i>	OBL	saltmeadow cordgrass
<i>Sporobolus virginicus</i>	OBL	seashore dropseed

Vegetation of the maritime hammock, immediately landward of the wetland boundary.

Canopy

<i>Quercus geminata</i>	UPLAND	sand live oak
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Subcanopy

<i>Quercus geminata</i>	UPLAND	sand live oak
<i>Quercus myrtifolia</i>	UPLAND	myrtle oak
<i>Myrica cerifera</i>	FAC	wax myrtle

Ground cover

<i>Fimbristylis</i> sp.	FACW	fringe grass
<i>Galactea elliotii</i>	VINE	milk-pea
<i>Ilex ambigua</i>	UPLAND	Carolina holly
<i>Ilex opaca</i>	FAC	American holly
<i>Ilex vomitoria</i>	FAC	yaupon
<i>Myrica cerifera</i>	FAC	wax myrtle
<i>Panicum ciliaris</i>	FAC	panic grass
<i>Persea borbonia</i>	UPLAND	red bay
<i>Pinus elliotii</i>	UPLAND	slash pine
<i>Quercus geminata</i>	UPLAND	sand live oak
<i>Quercus virginiana</i>	UPLAND	live oak
<i>Scleria triglomerata</i>	FACW	nut-rush
<i>Serenoa repens</i>	UPLAND	saw palmetto
<i>Smilax</i> spp.	VINE	green briar
<i>Solidago odora</i>	UPLAND	woods goldenrod
<i>Toxicodendron radicans</i>	VINE	poison ivy

SOIL DESCRIPTIONS

USDA-NRCS Soil Survey of City of Jacksonville, Duval County - Sheet 20

The wetland soil is mapped as Tisonia mucky peat (mapping unit #34).

- 90% - Tisonia soil hydric component
- 5% - Pamlico soil hydric inclusion
- 5% - Pottsburg soil hydric inclusion

The upland soil is mapped as Kureb fine sand, 8 to 20 percent slope (mapping unit #15).

Soil Profile Descriptions

Point 1. Thirteen feet waterward of the wetland boundary line (water table - nine inches).

<u>Horizon</u>	<u>Depth (in)</u>	
A	0-7	very dark gray (10YR 3/1) fine sand, many fine and medium roots
C	7-15+	very dark gray (10YR 3/1) fine sand with gray (10YR 5/1) mottles, few fine roots

Hydric soil: Yes

Hydric soil field indicators: sulfidic odor in both the A and C horizons; oxidized rhizospheres in the A horizon.



Point 1: wetland soil

Point 2. Fifteen feet landward of the wetland boundary line (water table - 39 inches).

<u>Horizon</u>	<u>Depth (in)</u>	
Oi	1-0	litter
A	0-5	dark gray (10YR 4/1) fine sand with gray (10YR 6/1) mottles, common medium roots
E or C	5-15+	light gray (10YR 7/1) fine sand, few fine and large roots

Hydric soil: No

Hydric soil field indicators: none, the A horizon has a salt and pepper appearance.



Point 2: upland soil

