

Florida's Environment - Northeast Region¹

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Florida's Environment Series

Introduction

Northeast Florida (Fig. 1) is a region centered along the St. Johns River, which is one of the few rivers in the United States that flows north. The river and the floodplains, swamps, and lakes associated with the St. Johns River dominate wetland habitats in this region. Pine flatwoods and hardwood hammocks dominated by live oak make up most of the uplands. Nearly 25% of the region is protected in conservation lands (Table 1).

Large, cypress-lined lakes with dark, tannin-stained water feed the St. Johns River. Most of the swamps in northeast Florida occur within the floodplain of the St. Johns River or the headwaters of the St. Marys and Nassau Rivers.

To the west of the St. Johns River is the southern end of the Trail Ridge, an ancient coastal dune formation that retains the Okefenokee Swamp and defines the path of the St. Marys River. Elevated, sandy soils and clear lakes characterize the Trail Ridge.

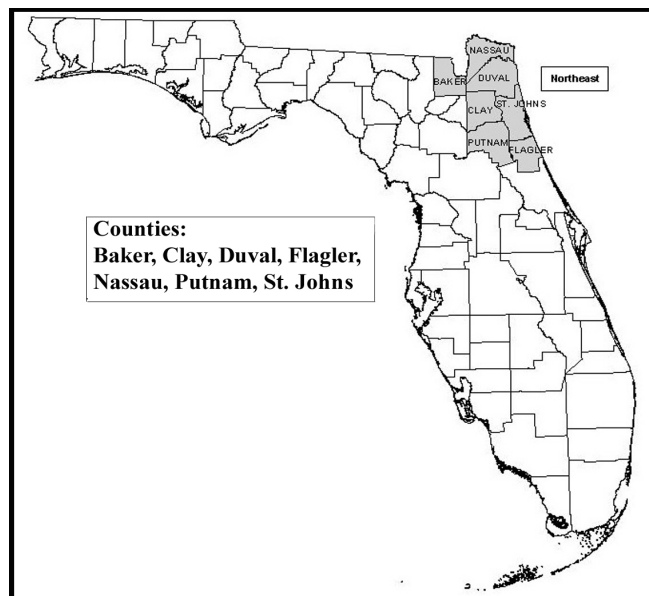


Figure 1. Northeast Florida region with counties. Credits: UF/IFAS

Along the Atlantic coast lays a protective fringe of sea islands, sandy dunes, and beaches that attract large concentrations of shorebirds.

This document summarizes major rivers, lakes and springs, featured natural areas, and cultural aspects of Florida's northeast region. For information

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on other regions in Florida, refer to The Florida Environment: An Overview, and the other seven regional profiles available online (<http://edis.ifas.ufl.edu>).

Table 1. Conservation land acreage in Florida's northeast region.

| County | Conservation Land Acres | % of Total County |
|-----------------------|-------------------------|-------------------|
| Baker | 147,856 | 39% |
| Clay | 124,613 | 30% |
| Duval | 111,258 | 20% |
| Flagler | 36,514 | 11% |
| Nassau | 35,874 | 8% |
| Putnam | 183,751 | 35% |
| St. Johns | 87,824 | 20% |
| Regional Total | 727,691 | 24% |

Based on 2006 Florida Natural Areas Inventory Managed Conservation land database. Florida State University.

Major Rivers and Lakes

The **St. Johns River** flows for approximately 310 miles from its origin in east central Florida to its final destination, the Atlantic Ocean, making it the longest river contained entirely within Florida. Of Florida's 23 major rivers, only the St. Johns and St. Marys drain into the Atlantic Ocean. All others discharge into the Gulf of Mexico or inland lakes. The St. Johns is one of the "flattest" rivers in the world and has the 3rd largest drainage basin in Florida, measuring 5,632 acres. Upland habitats associated with the St. Johns River are home to many of Florida's protected species including the wood stork, eastern indigo snake, scrub jay, black bear, sandhill crane, and crested caracara.

The **St. Marys River** (Fig. 2) flows for more than 125 miles and forms a border between Georgia and Florida. It meanders through Florida for 100

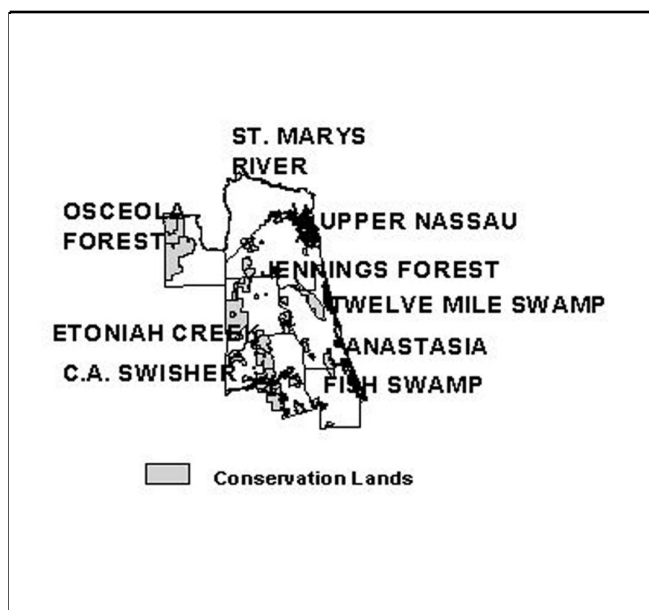


Figure 2. Northeast Florida major conservation lands. Credits: UF/IFAS

miles before it empties into the Atlantic just north of Fernandina beach. There is little development along the river, making this river one of the more pristine blackwater river systems in Florida. Hardwood and pine-palmetto forest communities dominate the upland habitats along the river, gradually changing to a marshy estuarine environment at the river's confluence with Cumberland Sound.

Northeast Florida has both aquifer-linked lakes perched on the sandy Trail Ridge, and the large, blackwater, cypress-lined lakes that feed the St. Johns River. One large lake in this region was created as a reservoir. **Lake Ocklawaha (Rodman Reservoir)** is a 9,200-acre impoundment of the Ocklawaha River along the northern boundary of the Ocala National Forest. This recreational fishing area was created in 1968 by damming the Ocklawaha River.

Featured Natural Areas (see Table 2 for detailed list of natural areas)

Osceola National Forest includes ~200,000 acres of forested woodlands and swamps and offers a wide range of recreational opportunities. Historically logged and burned, the forest is now managed on an ecological basis. A 23 mile section of the Florida National Scenic Trail passes through the forest and through the Olustee historic civil war battlefield.

The **Guana- Tolomato Matanzas National Estuarine Research Reserve** (GTMNERR)

encompasses approximately 60,000 acres of salt marsh and mangrove tidal wetlands, oyster bars, estuarine lagoons, upland habitats (Pine Flatwoods, coastal scrub and hardwood hammocks) and offshore seas in St. Johns and Flagler Counties. GTMNERR contains the northern most extent of mangrove habitat on the east coast of the United States. The coastal waters of the GTMNERR are important calving grounds for the endangered North Atlantic Right Whale. The Reserve is geographically separated into a northern section where the Tolomato and Guana Rivers mix with the waters of the Atlantic Ocean, and a southern section along the Matanzas River, extending from Moses Creek to south of Pellicer Creek.

Welaka State Forest is part of the Great Florida Birding Trail. Pine flatwoods, hammocks, sandhills, and bayheads occur in the forest, and river swamp habitat occurs along the St. Johns River. Three “types” of flatwoods habitat can be found: longleaf pine, slash pine, and pond pine. Sandhill communities are dominated by longleaf pines and wiregrass.

The **Big Gum Swamp** consists of 13,600 acres of nearly level fresh water flats and relatively undisturbed cypress-gum forested swamp with pine flatwoods uplands along the perimeter. The swamp is located just north of Interstate 10 along the Columbia and Baker County junction. Much of the swamp's surface is covered in a thick spongy mat of organic peat creating numerous shallow sloughs where water creeps along to small streams.

The **Okefenokee Swamp** sprawls across southern Georgia and northern Florida for 600 square miles. The buildup of peat and mosses in the swamp creates floating islands that move and tremble under your feet, hence the name given to it by people long ago, Okefenokee, which translates as “trembling earth.” The associated **Pinhook Swamp** is a conservation area connecting the Okefenokee Swamp with the Osceola National Forest. The Okefenokee and Pinhook swamps form the headwaters of the St. Marys River.

Cultural History

Prehistoric Indian sites, middens, and mounds are found along many of north Florida's rivers. Shell middens indicate that Indians were living along the St. Johns as far back as 10,000 years ago. Some of the large shell mounds were commercially mined in the late 19th century to pave roads in nearby towns. Several of the first sites on the St. Johns river date back to 5000 to 3000 BC, the Middle Archaic period. Fish and shellfish were abundant in the St. Johns River system and were important foods to these early inhabitants.

The Timucuan Indians, which included subgroups such as the Saturiwa and the Utina, lived along the St. Johns River until the arrival of the French and Spanish in the 1560s. The French attempted to establish a permanent colony in the area in 1562 and built **Fort Caroline** west of present-day Jacksonville. Fort Caroline lasted only 3 years and was lost to Spanish forces sent from St. Augustine in 1565. Fort Caroline National Monument is part of the Timucuan National Preserve. St. Augustine was established by the Spanish in 1565 and is the nation's oldest city.

Florida's rivers formed a natural means of inland transportation during exploration and colonization by Europeans. In an effort to convert native peoples to Christianity and to colonize the area, Spanish missions were built along many of the rivers in the region in the 17th century, particularly in the vicinity of the St. Marys river. Later, the St. Marys region was associated with pirates and other disreputable elements of early colonial history.

Ocean Pond, in the Osceola National Forest, is best known for the historic Battle of Olustee that took place there during the Civil War. The Confederate Army's victory at Olustee ensured the Northern Army's confinement to the coastal areas and left a supply route open to Florida's Confederate neighbors. This success is commemorated at the **Olustee Battlefield State Historic Site**. Each year the skirmishes and battle are re-enacted during President's weekend.

By 1870 the St. Johns River was the gateway to south Florida tourism via paddleboat steamer. The

Table 2. Recreational and cultural opportunities in natural areas in northeast Florida. (NERR = National Estuarine Research Reserve, WMA = Water Management Area)

| County | Natural Areas | Phone | Website |
|--------------|---|----------------|---|
| Baker | St. Marys River Canoe Trail | (912) 843-2688 | http://www.dep.state.fl.us/gwt/guide/regions/north/trails/st_marys_river.htm |
| Baker | Osceola National Forest | (386) 752-2577 | http://www.fs.fed.us/r8/florida/recreation/index_osc.shtml |
| Baker | Okefenokee National Wildlife Refuge | (912) 496-7366 | http://www.fws.gov/okefenokee/ |
| Baker | Olustee Battlefield State Historic Site | (904) 758-0400 | http://www.floridastateparks.org/olustee/ |
| Clay | Mike Roess Gold Head Branch State | (352) 473-4701 | http://www.floridastateparks.org/goldhead/ |
| Clay | Black Creek Ravines | (904) 269-6378 | http://sjr.state.fl.us/programs/outreach/pubs/recguide/n02_black_creek_CA.html |
| Clay | Bayard Conservation Area, St. Johns River | (904) 329-4404 | http://sjr.state.fl.us/programs/outreach/pubs/recguide/n01_bayard_CA.html |
| Clay | Gold Head Branch State Park | (352) 473-4701 | http://www.floridastateparks.org/goldhead/ |
| Clay | Camp Blanding WMA | (904) 682-3104 | http://myfwc.com/recreation/cooperative/camp_blanding.asp |
| Clay/Duval | Jennings State Forest | (904) 291-5530 | http://www.fl-dof.com/state_forests/jennings.html |
| Duval | Little Talbot Island State Park | (904) 251-2320 | http://www.floridastateparks.org/littletalbotisland/ |
| Duval | Ft. George Island Cultural State Park | (904) 251-2320 | http://www.floridastateparks.org/fortgeorgeisland/ |
| Duval | Huguenot Memorial Park | (904) 251-3215 | http://www.coj.net |
| Duval | E. Dale Joyner Nature Preserve | (904) 665-8856 | http://pelotes.jea.com/ |
| Duval | Theodore Roosevelt Area- Timucuan Historic Preserve | (904) 641-7155 | http://www.floridaconservation.org/viewing/sites/site-ne07.html |
| Duval | Kingsley Plantation | (904) 251-3537 | http://www.nps.gov/archive/timu/indepth/kingsley/kingsley_home.htm |
| Duval | Karpeles Jacksonville Museum | (904) 356-2992 | http://www.rain.org/~karpeles/jaxfrm.html |
| Duval/Nassau | Fort Caroline National Monument/ Timucuan National Preserve | (904) 641-7155 | http://www.nps.gov/foca/ |
| Duval/Nassau | Cary State Forest | (904) 266-5021 | http://www.fl-dof.com/state_forests/cary.html |
| Flagler | Lake Disston | (904) 437-0106 | |
| Flagler | Pellicer Creek Aquatic Preserve | (904) 696-5994 | http://www.dep.state.fl.us/coastal/sites/pellicer/ |
| Flagler | Washington Oaks Garden State Park | (386) 446-6780 | http://www.floridastateparks.org/washingtonoaks/ |

Table 2. Recreational and cultural opportunities in natural areas in northeast Florida. (NERR = National Estuarine Research Reserve, WMA = Water Management Area)

| County | Natural Areas | Phone | Website |
|-----------|--|----------------|---|
| Flagler | Gamble Rogers Memorial State Recreation Area | (386) 517-2086 | http://www.floridastateparks.org/gamblerogers/ |
| Flagler | Haw Creek Conservation Area | (904) 446-6786 | http://www.flaglerparks.com/hawcreek/preserve.htm |
| Flagler | Faver-Dykes State Park | (904) 794-0997 | http://www.floridastateparks.org/faver-dykes/ |
| Flagler | Graham Swamp Conservation Area | (904) 329-4404 | http://www.flaglerparks.com/graham/graham.htm |
| Flagler | Bulow Plantation Ruins State Historic Site | (904) 517-2084 | http://www.floridastateparks.org/bulowplantation/ |
| Nassau | Ralph E. Simmons State Forest | (904) 845-3597 | http://www.fl-dof.com/state_forests/ralph_e_simmons.html |
| Nassau | Timucuan National Preserve | (904) 641-7155 | http://www.nps.gov/timu/ |
| Nassau | Nassau-St. Johns River Marshes | (904) 696-5994 | http://www.dep.state.fl.us/coastal/sites/nassau/ |
| Nassau | Ft. Clinch State Park | (904) 277-7274 | http://www.floridastateparks.org/fortclinch/ |
| Nassau | Amelia Island State Park | (904) 251-2320 | http://www.floridastateparks.org/ameliaisland/ |
| Putnam | Caravelle Ranch Wildlife Mgt Area | (904) 329-4404 | http://sjr.state.fl.us/programs/operations/land_mgmt/index.html |
| Putnam | Welaka State Forest | (386) 467-2388 | http://www.fl-dof.com/state_forests/welaka.html |
| Putnam | Dunns Creek Conservation Area | (904) 329-4404 | http://sjr.state.fl.us/programs/outreach/pubs/recguide/n05_dunns_creek_CA.html |
| Putnam | Etoniah Creek State Forest | (904) 467-2740 | http://www.fl-dof.com/state_forests/etoniah_creek.html |
| Putnam | Rodman Reservoir and Recreation Area | (904) 329-3575 | http://www.rodmanreservoir.com/ |
| Putnam | Little Lake George Wilderness Area | (352) 625-7470 | http://www.backpacker.com/places/0,2678,426,00.html |
| Putnam | St. Johns Loop Trail | (904) 328-1503 | http://www.dep.state.fl.us/gwt/guide/regions/crossflorida/cross_florida.htm |
| St. Johns | The Gonzalez-Alvarez (oldest) House | (904) 824-2872 | http://www.staugustinehistoricalsociety.org/ |
| St. Johns | St. Augustine Lighthouse & Museum | (904) 829-0745 | http://www.staugustinelighthouse.com/ |
| St. Johns | Anastasia State Park | (904) 461-2033 | http://www.floridastateparks.org/anastasia/ |
| St. Johns | Ft. Matanzas National Monument | (904) 471-0116 | http://www.nps.gov/foma/ |
| St. Johns | Guana River Marsh Aquatic Preserve | (904) 696-5994 | http://www.dep.state.fl.us/coastal/sites/guana/ |
| St. Johns | Guana - Tolomato - Matanzas NERR | (904) 461-4054 | http://nerrs.noaa.gov/GTM/ |

river also served as a corridor for development, allowing east Florida to progress much faster than the more inaccessible west Florida. With the 20th-century shift from water to land transportation, the populations of some towns along the river declined. This unusual trend continued as late as the 1990s. Development along northern Florida rivers has been limited in large part due to floodplain management ordinances, land use planning, and land acquisition programs designed to conserve and protect important wetland resources.

Reflecting Florida's diverse history, many rivers hold names of Indian or Spanish origin. For example, Okefenokee means "land of trembling earth" in the Seminole language. Ponce De Leon's journeys to find the fountain of youth landed him in a place he called La Florida, meaning "island of flowers."

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