

About this Guide

This guide is designed to help boaters enjoy and appreciate the natural and cultural resources in the Loxahatchee River and Jupiter Inlet vicinity. The maps and text display and describe features from the maritime history of the area; resources important to boaters and anglers, including marinas and boat ramps; fish species commonly caught in local waters; the distribution of natural resources, such as sea grass, estuaries, and beaches; and sources of information and assistance.

Do not rely on this guide for navigational purposes. Instead, use the latest charts.

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Developing fishing boat passing Jupiter lighthouse. Postcard image, Florida Photographic Collection.

Navigational, Historical and Environmental Perspective of Jupiter Inlet and the Loxahatchee River



Front cover postcards, courtesy of Lynn L. Drake collection.



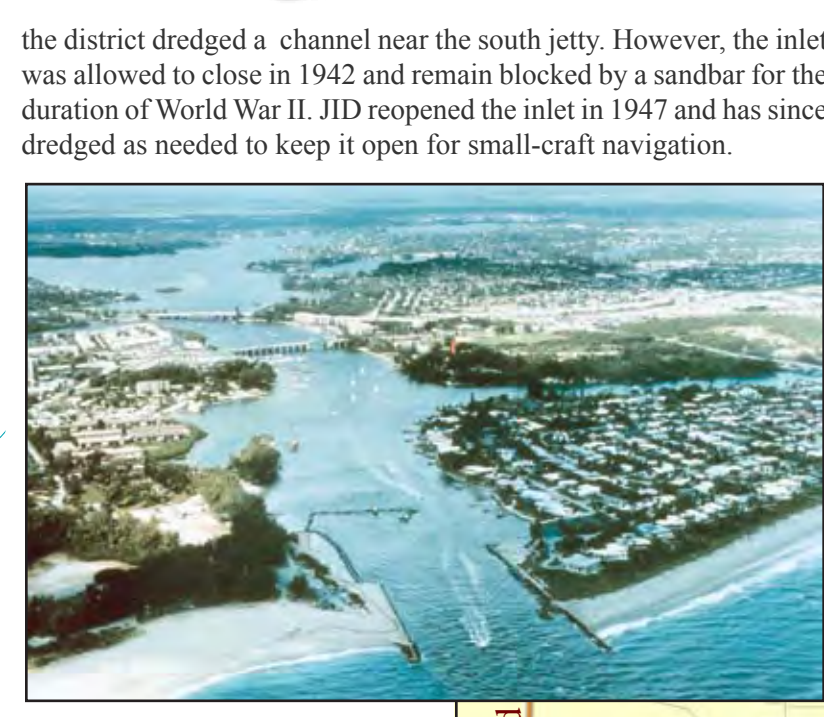
Fishermen take advantage of the south jetty in 1968. (Credit: Jupiter Inlet District)

The Jupiter Inlet District (JID), a special taxing district established in 1921 by the Florida Legislature, is the oldest local government in northern Palm Beach County. The Legislature requires the JID Board to maintain and preserve (1) the Jupiter Inlet, with a specific emphasis on navigability, and (2) the Loxahatchee River and its tributaries. Additionally, JID operates and maintains the northernmost portion of Jupiter Beach Park.

JID built two parallel, 400-foot jetties at the inlet in 1922 and in 1929 extended the north jetty by 200 feet and the south by 75 feet. In 1941,

A Sense of Time and Place

Jupiter Inlet District - An Area of Distinction



In the foreground of this 1977 aerial photograph, a dredge pumps material from the "sand trap" in Jupiter Inlet and deposits it on the beach south of the inlet. To the west, beyond the bridges, are the Loxahatchee River Central Embayment and the river's North and Northwest Forks. Photo credit: National Oceanographic & Atmospheric Administration Photo Library (Mrs. Marge Beaver, photographer)



By the early 1930s, the jetty on the north side of the inlet provided stability. The rock ballast is visible near the left side of the photograph. (LRHS)



Lighthouse Keepers

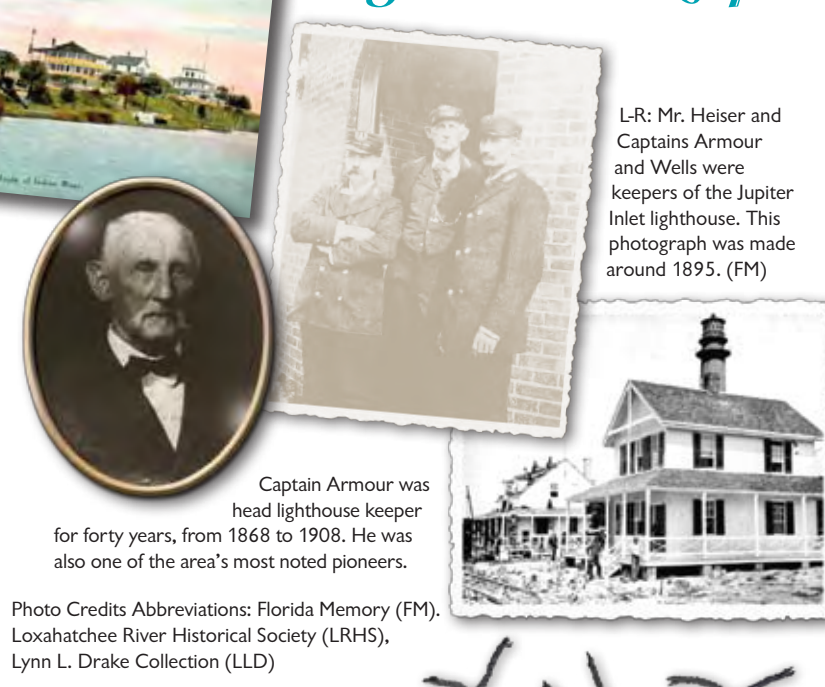


Photo Credits Abbreviations: Florida Memory (FM), Loxahatchee River Historical Society (LRHS), Lynn L. Drake Collection (LDD)

L-R: Mr. Heiser and Captains Armour and Wells were keepers of the Jupiter Inlet lighthouse. This photograph was made around 1895. (FM)

Captain Armour was head lighthouse keeper for forty years, from 1868 to 1908. He was also one of the area's most noted pioneers.

Good Reading

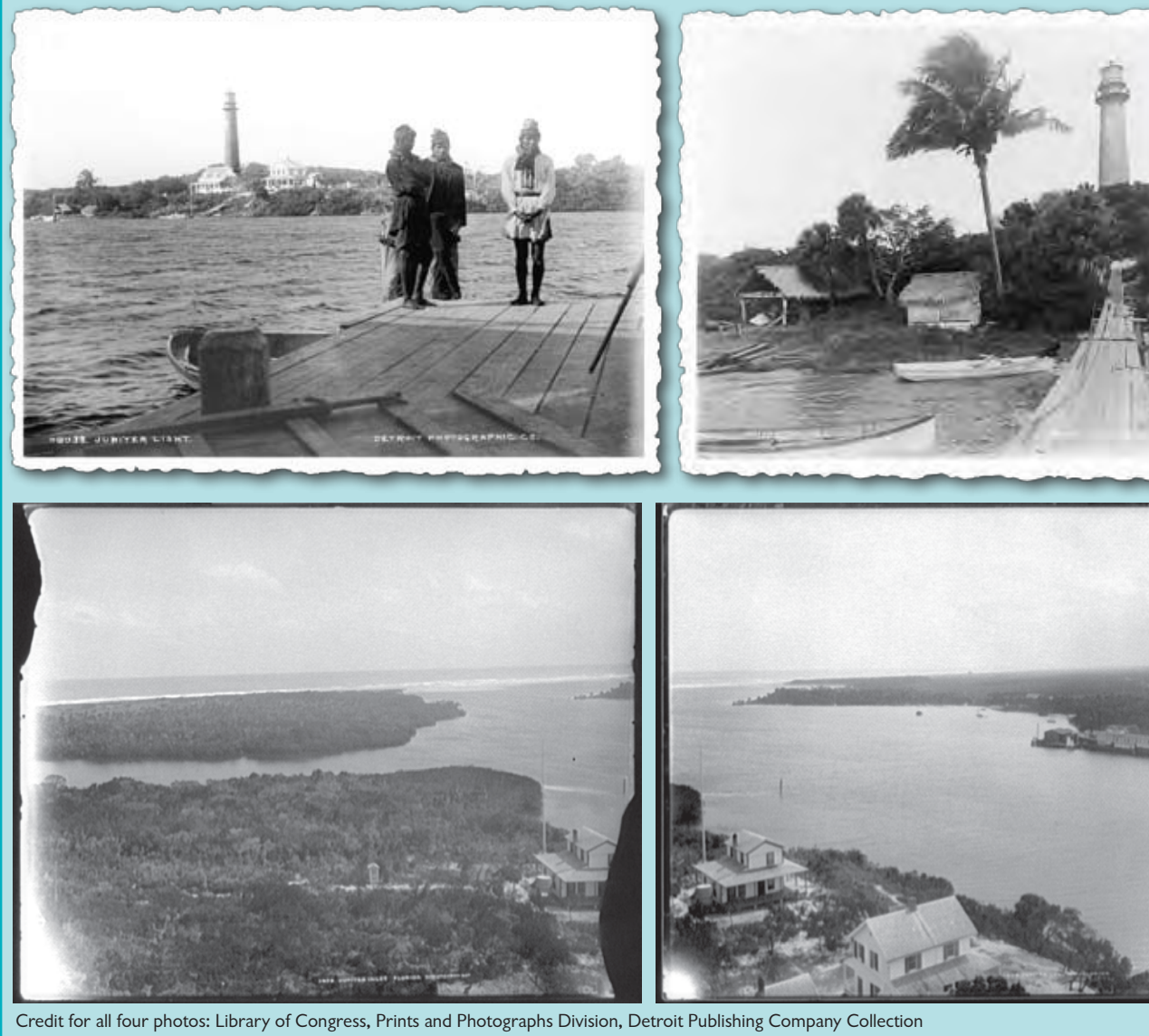
In 1696, the barkentine *Resolution*, with passengers including Philadelphia Quaker Jonathan Dickinson, his wife, and his infant son, ran aground in a storm on the beach of Jupiter Island, about five miles north of the inlet. In his diary, Dickinson recorded an account of the wreck, encounters of the survivors with the native Jeaga Indians, and their eventual rescue following an arduous trek north to Spanish St. Augustine. Convinced the party's salvation resulted from divine intervention, Dickinson published an account of the journey in 1699. Usually called simply *Jonathan Dickinson's Journal*, the volume became an immediate success and has been reprinted many times.



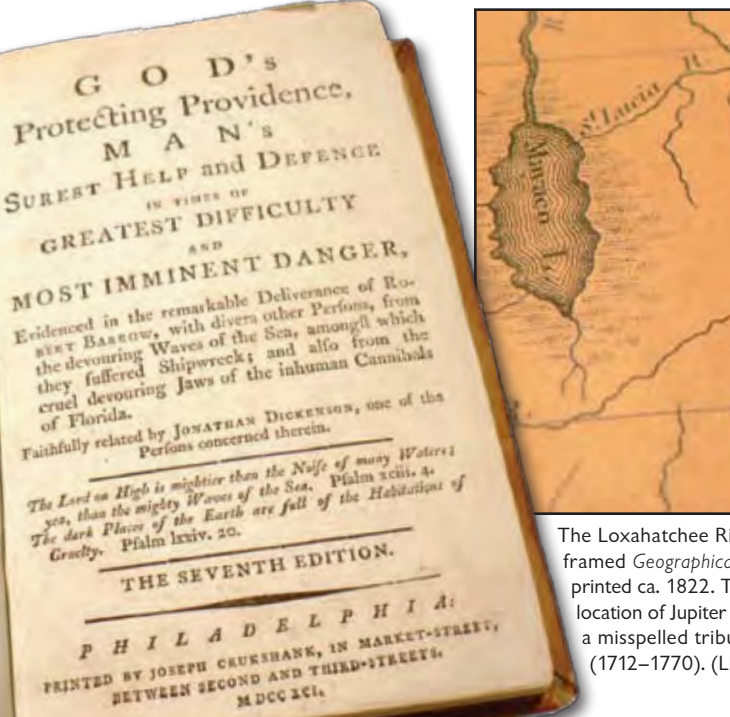
This postcard image, taken from the lighthouse, looks east to Jupiter Inlet, with the U.S. Weather Bureau meteorological station in the foreground (inlet ca. 1913). (LRHS)

Jupiter Inlet Views by William Henry Jackson

These photographs, made by William Henry Jackson (1843 - 1942), are from the Library of Congress. The works of Jackson influenced the establishment of Yellowstone and other early national parks. His extensive travels included working visits to many sites in Florida, including the vicinity of Jupiter.



Credit for all four photos: Library of Congress, Prints and Photographs Division, Detroit Publishing Company Collection



The Loxahatchee River Historical Society collection includes a framed Geographical, Statistical, and Historical Map of Florida, evidently printed ca. 1822. The map labels a feature "Grenville Inlet" at the location of Jupiter Inlet. Who was Grenville? Perhaps the name was a misspelled tribute to British statesman George Grenville (1712-1770). (LRHS)

The Loxahatchee River Historical Society's collection includes a seventh edition of Jonathan Dickinson's journal, published in 1791.

Dr. James A. Henshall, author of the guide *Camping and Cruising in Florida*, caught this 360-pound jewfish (Goliath Grouper) off the Jupiter Lighthouse dock during a visit in 1884. Anglers, including lighthouse tenders Capt. James A. Armour and his son-in-law, Capt. Joseph Wells, caught many jewfish and sawfish in the area during the late 1800's. (LDD)



A German submarine torpedoed this ship off Jupiter Inlet—one of the 111 ships lost to U-boats in the Gulf Stream, Gulf of Mexico, and the Caribbean during World War II. (LRHS)



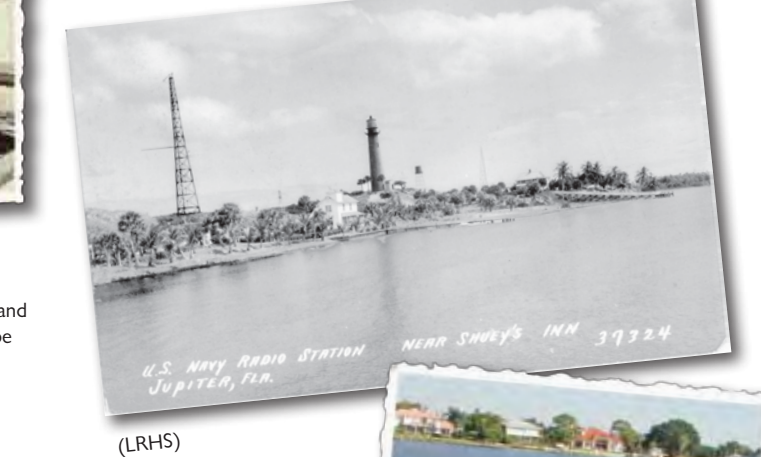
By the mid-1940s, a bridge for U.S. 1 spanned the inlet. Part of the bridge remains today as a fishing pier. The more distant road and railroad bridges cross the lower Loxahatchee River. The Central Embayment is visible in the background. (LRHS)

Telecommunications Facilities Defend the Coast

In October 1905, construction of the U.S. Navy's Jupiter Wireless Telegraph Station was "nearly complete." Assigned call letters "RA," the station soon joined the Navy's growing roster of wireless installations. (<http://earlyradiohistory.us/navy1.htm>)

The primary function of Navy wireless telegraph stations was communication with warships at sea. The stations provided another valuable service as well: transmission of accurate time signals, which were of great assistance in the days of celestial navigation. Starting in 1913, station RA also handled commercial radio traffic, both as a public service and to provide Navy operators abundant practice messages.

The Navy continued to operate radio communication and direction finding stations at Jupiter Inlet during World War II. Wire antenna elements are visible in the original of this photograph, made in the 1940s. More recent installations at the inlet included the U.S. Air Force TEL-4 telemetry station (for communicating with missiles and spacecraft launched from Cape Canaveral) and U.S. Coast Guard LORAN stations.



Frank McGinnis, a well known fisherman and charter boat captain in Jupiter, kept a dock on the NW side of the original U.S. Highway 1 Bridge behind Shuey's Inn. Shuey's had a restaurant, heated cottages, gas station, and fishing pier where "Everything for the fisherman may be bought or rented." (LDD)

Natural Features of the Area

Popular Fishes

- DOLPHIN (MAHI-MAHI):** Offshore, especially in Gulf Stream, often under floating cover. Feeds on flying fish and squid.
- GAG GROUPER:** Usually offshore, on rocks and reefs, but occasionally inshore and in estuaries.
- KING MACKEREL:** Nearshore and offshore, sometimes from piers and in the surf.
- MUTTON SNAPPER:** Offshore wrecks and reefs. Inshore sea grass beds, mangrove shore, and canals. Check latest regulations for size and season limits.
- BLUEFISH:** Nearshore, inlet, and surf. Migratory; best in winter. Be careful with sharp teeth and strong jaws.
- SHEEPSHEAD:** Inshore around oyster bars, seawalls, and pilings and in tidal creeks; nearshore in late winter and early spring, gathering over rocks and artificial reefs and around navigation markers.
- SNOOK:** Usually inshore in coastal and brackish waters, along mangrove shorelines, seawalls, and bridges; also on reefs and pilings. Check latest regulations for size and season limits.
- SPOTTED SEATROUT:** Inshore and/or nearshore over grass, sand, and sandy mud bottoms; move into slow-moving or still, deep waters in cold weather.
- CREVALLE JACK:** Beaches, inlet, estuaries, and rivers. Generally not prized for the table, but challenging and fun to catch and release.

Sea Grass Beds and Oyster Bars



Credit: Adapted from Myers, Ronald L. and Ewel, John J., *Ecosystems of Florida*, University of Central Florida Press, Orlando, 1990

Sea grass beds are among the most productive communities on earth. They provide habitat for small invertebrates and fishes; serve as nurseries and feeding grounds for species such as drums, sea bass, and snappers; and efficiently convert nutrients in their environments to organic matter vital to the base of the food chain. Among the sea grass species present in the Loxahatchee River estuary, Jupiter Inlet, and nearby Intracoastal Waterway are manatee grass (*Syringodium filiforme*) and turtle grass (*Thalassia testudinum*), named for its appeal to green sea turtles. A variety of wading and diving birds also use sea grass beds as feeding grounds. Healthy sea grasses in estuaries are essential to commercial and recreational fisheries, including that of the pink shrimp, economically one of the most important in Florida.

Grass bed extent varies seasonally, as well as over longer time spans, responding to changes in water salinity, temperature, turbidity, and quality. Denuded seabed scars caused by boat anchors and propellers take many years to heal. Boaters can help to maintain healthy sea grass beds by just not anchoring in grass—which generally offers relatively poor holding anyway—and by using a pole or oars to move vessels over grass when the water is too shallow to avoid prop scarring under power. This map shows distribution of sea grass beds in the lower Loxahatchee, Jupiter Inlet, and the Intracoastal Waterway, but remember to look out for grass wherever you anchor and when venturing into shallow water.

Oysters (*Crassostrea virginica*) are filter feeding, sedentary invertebrates found mostly in estuary areas with firm substrates, such as mud/shell bottom. Oysters provide food and habitat for a variety of estuarine species, including sponges, mollusks, worms, and crustaceans. Freshwater runoff provides food for oysters, limits predation, and reduces disease, so oyster beds are associated with areas of lower salinity.

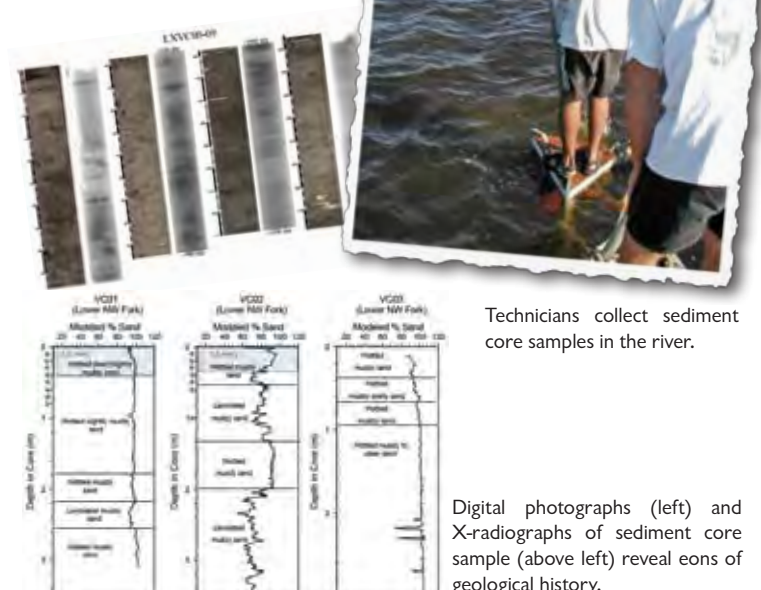
Found in the northwest and southwest forks of the Loxahatchee, oyster bars (red on the map) are productive fishing spots that attract adult snook. Exercise caution in these areas; oyster bars severely damage boat hulls and prows. The sharp shells are treacherous for people wading or swimming.

Geology of the Lower Loxahatchee River

The Loxahatchee River flows in a "barrier-impounded, drowned river valley." That is, the present valley is the upper reach of a larger, longer valley that likely formed when sea level was much lower—most recently in the Pleistocene glaciation (Ice Ages) that ended about 10,000 years ago. The river can flow freely to the ocean, and tidal currents can efficiently flush the river's lower reaches, but only when Jupiter Inlet is open through the coastal barrier island. Studies of sediments in the river by University of Florida scientists, in partnership with the Jupiter Inlet District, reveal a complex history over thousands of years, affected by sea level change, many natural closings and openings of the inlet, and, recently, the actions of humans.

Over geologic time, sediment deposition has kept the riverbed elevation nearly in equilibrium with sea level. However, in the 1930s, the Northwest Fork (the main river channel) was dammed. In the 1950s, channelization of the Southwest Fork and a new sluice-gated control structure began to affect the natural stream flow and sediment sources. When the inlet was closed in the past, the limited tidal flushing likely created a stratified, stagnant water body with low dissolved oxygen concentrations that reduced biological activity within the sediments. Jupiter Inlet has been stabilized and open continuously since 1947.

These changes, along with significant alteration in use of the nearby lands due to increasing population, modify the river's sediment



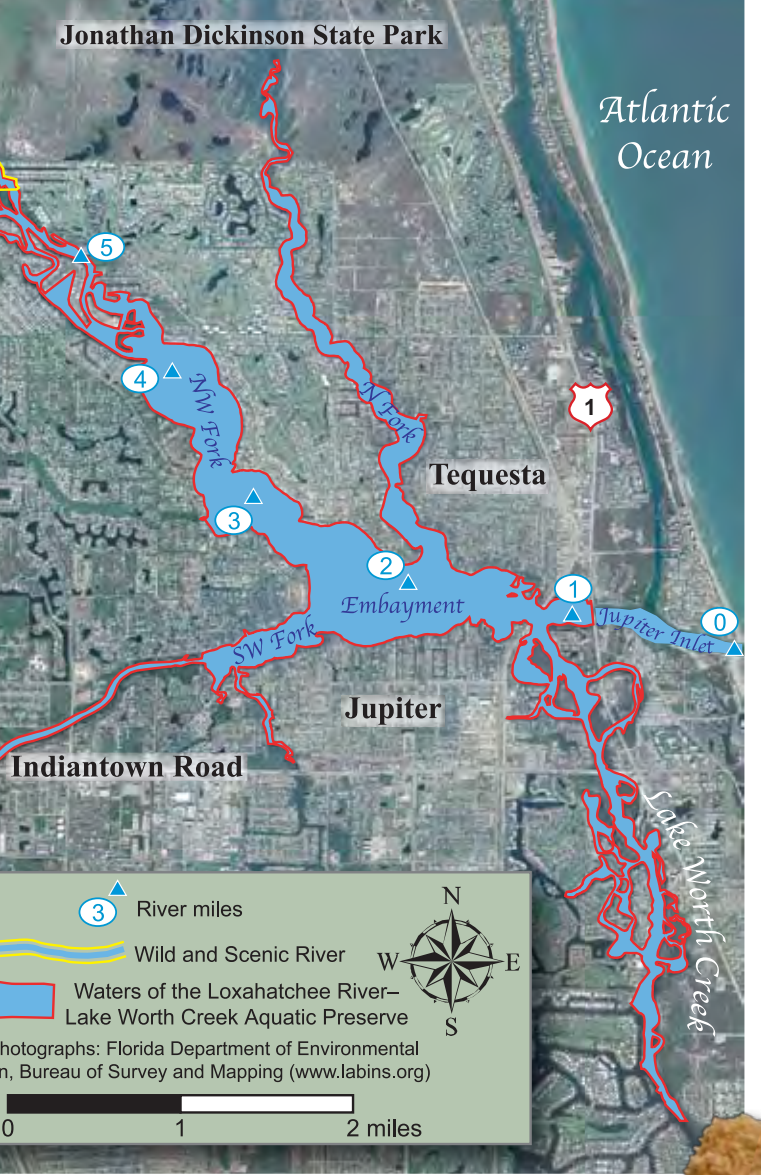
Technicians collect sediment core samples in the river.

Digital photographs (left) and X-radiographs of sediment core sample (above left) reveal eons of geological history.

Adapted from manuscript by Jaeger, John M., Ashish Mehta, Richard Faas, and Michael Grela, *Anthropogenic Impacts on Sedimentary Sources and Processes in a Small Urbanized Subtropical Estuary, Florida*, 2005.

Waters of the Loxahatchee River-Lake Worth Creek Aquatic Preserve and the Wild and Scenic Loxahatchee River

The Loxahatchee River-Lake Worth Creek Aquatic Preserve (outlined in red on the map) includes the three forks and central embayment of the Loxahatchee River, the waterway that continues south of the barrier islands. The 9,000-acre preserve was established in 1984 and comprises two sections: Wilderness and Urban. The Wilderness Preserve—upstream from mile 5.5 of the Loxahatchee River Northwest Fork—is managed to maintain the existing wilderness condition. Management goals for the Urban Preserve are to restore and enhance the natural condition of the resources.



Several miles of the Loxahatchee River's Northwest Fork slowly meander through one of the last vestiges of native cypress river swamp in southeast Florida. In 1985, the federal government designated 9.5 miles of the fork as Florida's first National Wild and Scenic River (outlined in yellow on the map)—one of only two rivers in the state so designated. Large sections of the river corridor and watershed are within Jonathan Dickinson State Park, which contains outstanding examples of the region's natural biological communities.

Visitors to the area enjoy fishing, boating, and watching animals, such as manatees and birds, in their natural environment. The three forks of the Loxahatchee are freshwater tributaries, characterized by riverine communities such as freshwater and tidal marshes. Near and within the estuary, mangrove communities are predominant with submerged resources including tidal flats, sea grass beds, and oyster bars. The preserve hosts recreationally and commercially important species such as blue crabs, mullet, snook, and tarpon, as well as unusual fish species such as the bigmouth sleeper and the opossum pipefish, a "species of concern."

Resources Directory

- Florida Fish and Wildlife Conservation Commission**
 Information: (352) 732-1225, myfwc.com
 Fish Kill Hotline: (800) 636-0511
 Fish tag reports: (800) 367-4461
 Fishing regulations: myfwc.com/RULESANDREGS/
 Licenses: myfwc.com/recreational/saltwater-fishing/
 Species ID: myfwc.com/wildlifehabitats/profiles/
 Violations: (888) 404-3922 (Cell: *FWC or FWFC)
 Toxic spills: (800) 320-0519
- Florida Department of Environmental Protection (DEP)**
 Clean Marina Program: (850) 245-2100, www.dep.state.fl.us/cleanmarina/
- US Coast Guard**: www.uscg.mil/47/
- US Coast Guard Auxiliary, Florida 5-2**:
www.uscgaux.info/content.php?unit=070-05-02
- NOAA** VHF Weather: 162.55, 162.425
- Tides and weather**
 Extended tide forecasts:
www.saltwaterfishing.com/dynamic.dir/floridaatlantic.htm
 National Hurricane Center: www.nhc.noaa.gov
 National Weather Service: www.srh.noaa.gov/mia
- Jupiter Inlet District**: www.jupiterinletdistrict.org
- Loxahatchee River District**: www.loxahatcheeriver.org
- Florida Sea Grant**: (352) 392-1837, www.flseagrant.org
- Marin County Sheriff's Department**:
 Emergency: Dial 911 Non-emergency: (772) 220-7000
- Palm Beach County Sheriff's Department**:
 Emergency: Dial 911 Non-emergency: (561) 688-3000
- Jupiter Vicinity Information Websites**:
www.tcpalm.com/news/newslocal/
 (service of the Jupiter Courier newspaper)
www.jupiterfloridausa.com
 (visitor information)
- Loxahatchee River Historical Society**:
www.lrhs.org (561) 747-8380

Recycle Your Fishing Line

Monofilament fishing line can last for centuries in the water, out of the sun's ultra-violet rays. Each year, thousands of animals and many boat propellers become tangled in discarded fishing line. Shorebirds, sea turtles, and manatees can starve to death, lose limbs, or drown because of entanglement. Human divers can also become tangled in line.

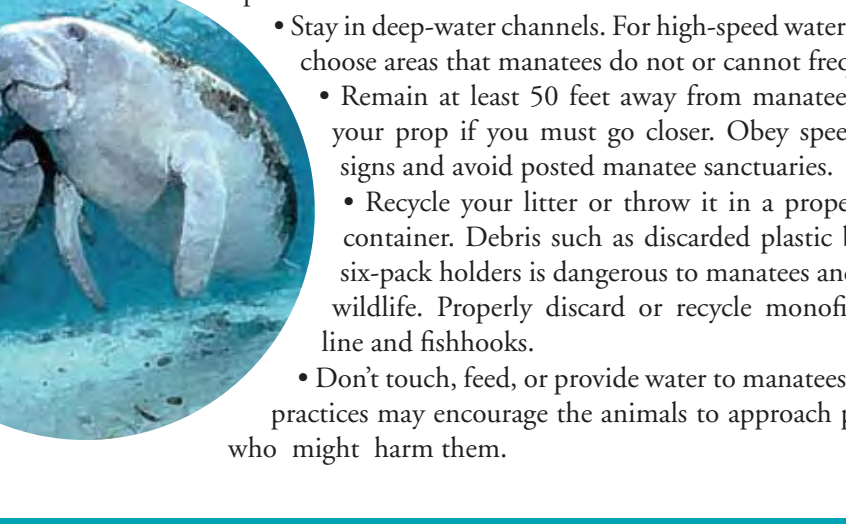
Please dispose used fishing line in designated recycling containers.



Manatees, Our Gentle Giants

Some helpful tips for boaters:

- Wear polarized sunglasses and look for a snout, back, tail, or flipper breaking the surface. A swimming manatee's tail creates whirls or flat spots on the water.
- Stay in deep-water channels. For high-speed water sports, choose areas that manatees do not or cannot frequent.
- Remain at least 50 feet away from manatees. Stop your prop if you must go closer. Obey speed zone signs and avoid posted manatee sanctuaries.
- Recycle your litter or throw it in a proper trash container. Debris such as discarded plastic bags or six-pack holders is dangerous to manatees and other wildlife. Properly discard or recycle monofilament line and fishhooks.
- Don't touch, feed, or provide water to manatees. These practices may encourage the animals to approach persons who might harm them.



West Indian manatees are large, gray aquatic mammals. An adult manatee may be almost 10 feet long and weigh 800-1200 pounds. Manatees live in rivers, estuaries, saltwater bays, and canals. Manatees have no natural enemies; however, many deaths result from collisions with watercraft. Manatees are protected under federal and Florida state law. It is unlawful to feed, touch, or disturb any manatee. State penalties are a maximum fine of \$500 and/or imprisonment for up to 60 days. A federal penalty may be \$100,000 and/or one year in prison.

