U.S. Fish & Wildlife Service

# **Merritt Island**

National Wildlife Refuge







This blue goose, designed by J.N. "Ding" Darling, has become a symbol of the National Wildlife Refuge System.

#### Welcome to America's Most Unique Wildlife Refuge

Merritt Island National Wildlife Refuge is a place like no other. The 140,000 acre refuge shares a common boundary with NASA's Kennedy Space Center, where man began the exploration of space. The Island's mild climate enables many temperate and subtropical plants to intermingle providing habitat for some of the most rare and unusual species of wildlife.

The refuge manages habitat for over 500 species of wildlife, including 21 federal and state listed threatened and endangered species, which is more than any other National Wildlife Refuge. The unique relationship the refuge shares with NASA is testimony that nature and technology can coexist and thrive.



 $Osprey\ chicks$ 

# History

The forces of wind, wave action, and fluctuating sea levels formed the alternating ridges, swales, and marshes of Merritt Island. The land continues to change today as natural forces constantly shape and sculpt the island.

Over the millennium, human occupation of the island has ebbed and flowed. Archaeological data

A common sight through binoculars at Merritt Island National Wildlife Refuge.



suggest the island was home to at least seven distinct Indian cultures beginning as early as 7,000 BC. Their burial mounds and shell middens remain today as a mute reminder of their past civilization. Spanish explorers, British colonists, pioneer citrus growers, and civil war troops all contributed to the history of Merritt Island.

The ever-present salt marsh mosquito kept the island largely uninhabited until the early 1960's, when NASA began to acquire the land that is now John F. Kennedy Space Center. In 1963, the acquisition was complete and NASA turned those lands not vital to the space program over to the US Fish and Wildlife Service. Today, this 43 mile long barrier island is managed by the Department of Interior as a National Wildlife Refuge and a National Seashore.

# © Jem Angy

Merritt Island NWR has one of three strong hold populations of the threatened Florida scrub jay.

#### Habitats for Wildlife

A wide variety of habitats exist on the Refuge, ranging from freshwater impoundments to vast saltwater estuaries. Gradually the marshes give way to hardwood hammocks, pine flatwoods, scrub, and coastal dunes. This diverse landscape provides habitat for over 330 species of birds, 31 species of mammals, 117 species of fish, 68 species of amphibians and reptiles, and over 1,000 species of plants.



Loggerhead sea turtle

The most productive, and therefore diversified wildlife areas are the marshes. These shallow water grasslands provide a home for crabs, worms, clams, and fish, which attract animals higher in the food chain. Scrub is another habitat unique to Florida, and one of the most important habitats for endangered species in the state. The refuge is one of the most important sea turtle nesting beaches in the United States. Over 1,600 loggerhead sea turtles nest each year. Green sea turtles and leatherback sea turtles also nest on the beach, although not in as great of numbers. From the south end of Cape Canaveral Air Station to the North end of Canaveral National Seashore (43 miles) is the longest section of undeveloped beach on Florida's Atlantic coast. This lack of development makes this beach prime for sea turtle nesting.

# Management

Fire and water are the two primary management tools used at the refuge. Historically, wildfires in Florida were a natural part of the ecosystem and occurred every 3-10 years. Prescribed burns have not replaced wildfires, but mimic wildfires for the many beneficial effects. Fire improves habitat and availability of food for many species like the Florida



Torching a prescribed fire in a refuge marsh.



The snowy egret is one of ten egret and heron species found on the refuge.

scrub jay, gopher tortoise, and indigo snake. Water control structures are used to manage the water levels in certain impoundments. The different water levels create wildlife diversity as each species has different habitat needs. For example, shorebirds such as black neck stilts need shallow water to feed where blue wing teal and other waterfowl need higher water levels. The refuge uses fire and water to create habitat diversity for the benefit of wildlife.

#### **Endangered Species**

Blessed with a favorable coastal location, subtropical climate and a diverse range of habitats, Merritt Island remains unsurpassed as a refuge for endangered species. Currently the refuge supports 21 species of wildlife listed as Endangered or Threatened on either the Federal or State lists, more than any other refuge in the US.

Visitor Center

# **Visitor Opportunities**

The Visitor Information Center provides an excellent opportunity for the visitor to become acquainted with the refuge before venturing out, and is highly recommended for first-time visitors. The center offers a variety of displays that describe the habitats and wildlife on the refuge and offers educational resources available for sale through the bookstore. The center is open from 8:00 am to 4:30 pm Monday-Friday, and from 9:00 am to 5:00 pm on weekends. The Center is closed Sundays from April-October and on federal holidays. The center is located 4 miles east of Titusville on SR 402 (Exit 80 off I-95).

Wildlife Drive

Black Point Wildlife Drive is a sevenmile, one way, self-guided auto tour through salt and freshwater marshes. The drive offers several stops, which are described in a brochure that can be picked up at the Visitor Center or the entrance to the drive. Wading birds, shorebirds, raptors, waterfowl, alligators, otters, and other species of wildlife can be spotted along the drive. The Cruickshank Trail and Tower are located at stop #8 on the drive, and offers a view of the surrounding marshes. The entrance to the drive is located on SR 406, one mile east of the intersection of SR 402 and SR 406.

Foot Trails

Hiking the refuge is most pleasant in the fall, winter and early spring. The 1/4-mile boardwalk behind the visitor center offers a short walk with interpretive panels. Oak Hammock Trail (1/2 mile) and Palm Hammock Trail (2 miles) share a common parking lot 1-mile east of the Visitor Center. Oak Hammock Trail's interpretive signs explain the ecology of the hammock's plant community. Cruickshank Trail (5 miles) is located at stop #8 on Black Point Wildlife Drive. The Scrub Trail (1-mile) is located north of SR 406 on SR 3.

Manatee Observation Deck The endangered west indian manatee frequent this spot at Haulover Canal year round but is most likely to be seen in the fall and spring. The observation deck is located on SR 3 on the northeast side of Haulover Canal, 10.5 miles from the Visitor Center.



Merritt Island NWR is home to the largest population of Florida's east coast manatees.



**Boating** 

An excellent way to view the refuge is by canoe or kayak. Motor boats, canoes, and kayaks may be used for hunting, fishing, and other recreational uses. Boat launching is limited to designated launch areas. No personal watercrafts or air thrust boats are allowed in refuge waters. Check at the Visitor Center for other regulations.

The refuge and seashore encompass 43 miles of undeveloped beach.



Fishing

Merritt Island NWR is a great place for saltwater anglers to try their luck. Sea trout, red drum, black drum, snook, and tarpon are the main catch. A fishing brochure describing the refuge regulations and a map can be obtained at the Visitor Center. Other regulations are set by the Florida Fish and Wildlife Conservation Commission.

Can averalNational Seashore

Canaveral National Seashore is managed by the National Park Service and is located 7.5 miles east of the refuge's Visitor Center. Swimming, sunbathing, fishing, and surfing are all allowed on this beautiful undeveloped beach. An entrance fee of \$5.00 per vehicle is required. Golden Passports are accepted for the entrance fee. Camping and horseback riding are permitted under special permits during the months of November-April. Call the National Park Service at 321/267 1110 for more information regarding the seashore.

Hunting

Waterfowl hunting is allowed on the refuge on Saturdays, Sundays, Wednesdays and federal holidays from mid-November through mid-January. An early teal season is usually set for one week in late September. A hunting brochure describing refuge regulations and permits can be obtained at the Visitor Center.

**Satellite Refuges** 

Merritt Island manages four satellite refuges.

Jim Angy

Lake Wales

Pelican Island

NWR

American's first NWR, established in 1903 as one of the last bird rookery islands, is located south of Sebastion Inlet in the Indian River Lagoon. Public facilities are under development and are expected to open for the century celebration in 2003.

Ridge NWR

The only national wildlife refuge managed specifically for endangered plant species. The refuge is not open to the public. Approximately a dozen scattered sites are being acquired throughout central Florida to protect this rare plant community.

The refuge attracts over 23 wintering migratory waterfowl species including the blue wing teal. St. Johns NWR

Has two separate units, one is located west of I-95 near Titusville, and another is North of Highway 528. This refuge was set aside for the Dusky Seaside Sparrow, which is now extinct. The refuge is now managed for freshwater marsh habitat and is home to black rails and many other marsh birds. The refuge is not open to the public, although public facilities are being planned.

Archie Carr NWR This refuge is located on the Atlantic coast in South Brevard and Indian River Counties. The refuge was established to protect the most important sea turtle nesting site in North America. Thirty five percent of all sea turtle nests in the US occur along this stretch of beach. Visitors can access this area by several local and state parks.

# **Refuge Regulations**

All recreational use is limited to daylight hours only, year-round. Portions of the refuge may be closed from time to time due to NASA's launch activities.

Airboats, jet skis, wave runners and ATV's are prohibited.

Weapons and fireworks are prohibited. Firearms are prohibited other than for authorized waterfowl hunting activities.



Female alligator guarding her nest.

Feeding, enticing or disturbing manatees, alligators and other wildlife is prohibited.

Littering is prohibited. Please take your litter off the refuge and dispose of properly.

Camping and fires are not permitted on the refuge, but is available to scout groups by permit only.

Pets are permitted but must be on leash and under control by owner at all times.

Horses are not permitted on the refuge but are permitted on Canaveral National Seashore November 1 through April 30 by permit.

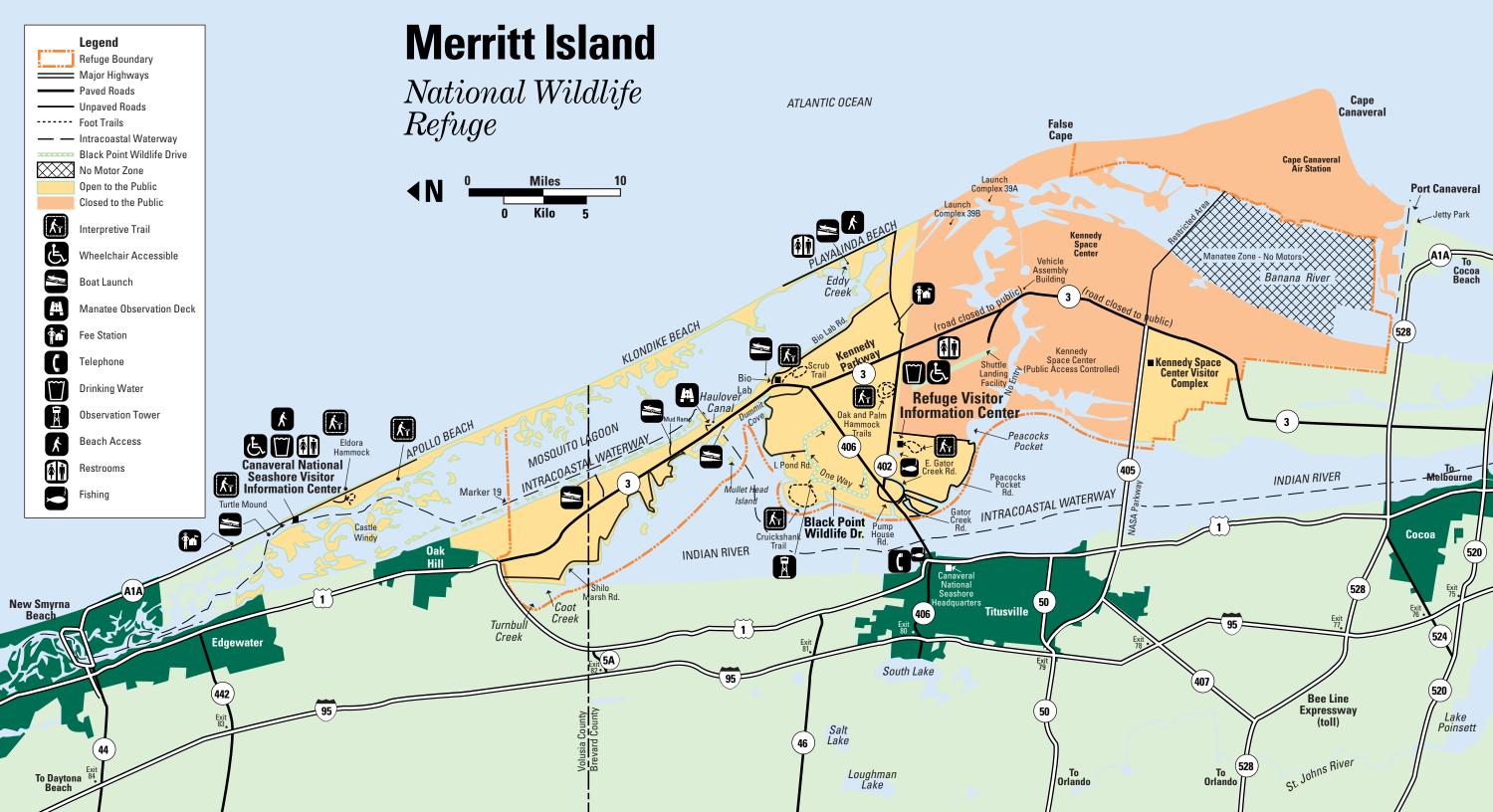
Releasing of any wild or domestic animals is prohibited.

Searching or collecting for artifacts, natural features, animals and plants is prohibited, other than legally taken fish or waterfowl.

Fishing and crabbing is permitted on the refuge in accordance with state regulations in the open waters of the Indian River, Banana River, Mosquito Lagoon, refuge impoundments, and interior lakes except for the NASA security area. A special permit is required for night fishing (by boat only) and commercial fishing.

Waterfowl hunting is permitted November through January in designated hunt areas. Refuge permits are required and all state, federal, and refuge regulations apply.

Equal opportunity to participate in and benefit from programs and activities of the U.S. Fish & Wildlife Service is available to all individuals regardless of physical or mental disability. For more information please contact the U.S. Department of the Interior, Office for Equal Opportunity, 1849 C Street, NW, Washington, D.C. 20240



#### Wildlife Calendar

Fall, winter, and spring are the best times for visiting the refuge. During these times wildlife populations are highest and the weather is more cooperative. During the summer (June-August), you are likely to experience mosquitoes, high temperatures and frequent thunderstorms.

# January

Waterfowl concentrations peak with blue-winged teal, pintail, wigeon, shoveler, and scaup being the most common. Bald eagles are incubating their eggs. Large numbers of songbirds, including tree swallows and yellow-rumped warblers, may be seen moving through the refuge.

#### *February*

Various raptors such as red-tailed hawks, red-shouldered hawks, ospreys, merlins, and American kestrels can be seen hunting for food. Another raptor, the American bald eagle, is actively feeding its young. Warmer days through the winter months offer a good opportunity to see alligators basking in the sun.

#### March

Most waterfowl have returned to their northern breeding grounds except for northern shoveler and blue-winged teal, which are in full breeding plumage. Northbound migration is in full swing for warblers and shorebirds. Wood storks begin nesting. Egrets and heron are in breeding plumage. Bald eagle young are taking their first flight from the nest. Ospreys begin nesting.

# April

Manatee peak population occurs in the waters of the refuge. Northbound migration of willets, sandpipers, plovers, greater and lesser yellowlegs, dunlins, and many other shorebirds is taking place. Black-necked stilts return and begin nesting. Alligator breeding activity begins. Neotropical migrants are still moving through the area. An annual song bird festival is hosted with the Florida Fish and Wildlife Conservation Commission and the National Park Service.

# May

Loggerhead sea turtles begin nesting. Anhingas, little blue herons, roseate spoonbills, reddish egrets, tri-colored herons, and other residential colonial nesting birds are busy in their rookeries. Most eagles have left for the summer.

#### June

Alligators become more secretive as temperatures increase and nesting activity begins. Rainy season weather pattern begins—thunderstorms are quite frequent with



hot, muggy afternoons. This weather pattern continues through September. Rainy weather and mosquitoes make preparation for visiting during the summer months a must. Amphibians and reptiles are abundant in freshwater areas. Turtle Watch Programs are offered through June and July.

### July

Many resident bird species are abundant. Including common

moorhen, boat-tailed grackle, red-winged blackbird, fish crow, Florida scrub jay, pileated woodpecker, mottled duck, barred owl, and double-crested cormorant along with most species of egrets and herons. Nesting of sea turtles and wading birds reaches peak.

#### August

Young resident birds are dispersing throughout the refuge after leaving their nests. Many of the early migrants begin appearing, including common terns, caspian terns, royal terns, ruddy turnstones and sanderlings.

#### September

Early migrating blue-winged teal begin arriving. Black skimmers are abundant. Bald eagles return to Merritt Island for the winter months.

#### October

The return of cooler temperatures marks the first major influx of migratory birds including many puddle ducks such as northern shovelers, American wigeons and pintails. This first of many migratory bird waves begin arriving, including shorebirds, songbirds and raptors. National Wildlife Refuge Week is celebrated with many programs for families and wildlife enthusiasts.

#### November

The cool sunny days of early winter provide great opportunities for walking refuge trails and ushers in the peak season for bird watching. Peregrine falcons can be seen migrating along the coastline. White pelicans begin to arrive after their long migration. The Space Coast Birding and Wildlife Festival is celebrated with a birding competition, educational programs and much more.

#### December

Many rails spend the winter months on the refuge. These include king, clapper, Virginia and sora rails. Winter concentrations of shorebirds, wading birds, waterfowl and raptors are nearing their peak. Local Audubon affiliates conduct the annual Christmas bird count.

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