

U.S. Fish & Wildlife Service

Lake Woodruff

*National Wildlife
Refuge*







*Lake Woodruff National
Wildlife Refuge was
established in 1964 to
preserve, improve and
create habitat primarily
for migratory birds and
waterfowl.*



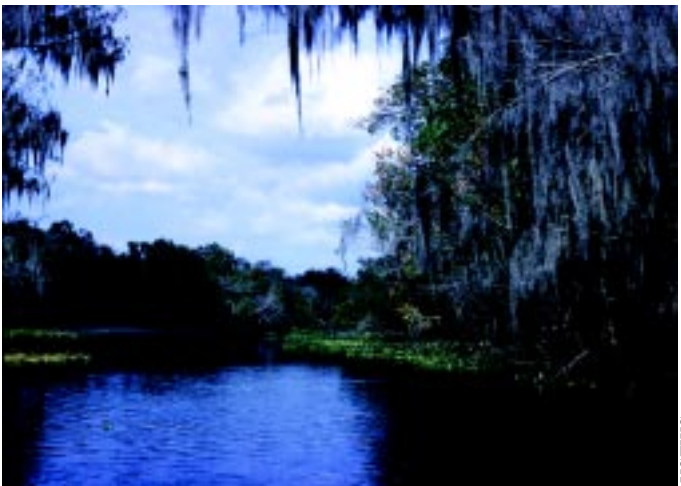
This blue goose, designed by J. N. “Ding” Darling, has become the symbol of the National Wildlife Refuge System.

The Lake Woodruff Refuge was purchased by the U.S. Fish and Wildlife Service with proceeds from the Federal Duck Stamp Program. It is one of more than 530 refuges, following the refuge system’s mission to “administer a national network of lands for the conservation, management, and where appropriate, restoration of the fish, wildlife, and plant resources and their habitats within the United States for the benefit of present and future generations of Americans.”

Historical background

The refuge was named after Major Joseph Woodruff, who acquired the DeLeon Springs property, which was then known as Spring Garden, in 1823. The refuge is located in the western part of Volusia County, Florida, near the community of DeLeon Springs, with the St. Johns River forming its western boundary. The refuge headquarters and a Nature Store are located at the corner of Grand Avenue and Mud Lake Road, one-half mile from DeLeon Springs.

Lake Woodruff Refuge encompasses 21,574 acres, the majority of which are freshwater marshes, streams and lakes, which are bordered by Cypress and mixed hardwood





Gopher tortoise

swamps, a favorite roosting site for Swallow-tailed kite. Over 3,400 acres are wooded uplands, consisting of pine flatwoods and scrub oak, a favorite habitat of the gopher tortoise, a species of special concern by the State of Florida.

Lake Woodruff Refuge is located near the historic DeLeon Springs; once visited by the famous Spanish explorer Ponce DeLeon in his search for the “fountain of youth.” Prior to the Spanish, Timucuan Indians and their predecessors occupied the area for thousands of years. Numerous Indian mounds and middens are located throughout the area and artifacts can be dated as far back as 8,000 B.C. History reveals that the DeLeon Springs area changed hands several times, alternately belonging to the Indians, Spaniards, and British from the early 1500’s through the 1700’s. U.S. interests took command of the area during the early 1800’s, where advertisements promoted DeLeon Springs as a winter resort.

Early owners of the springs harnessed the energy potential of the outflowing water by erecting a large undershot water wheel for powering grist mills and sugar mills, which can still be seen at the State Park.

Fulvous whistling ducks



A magnitude II spring puts forth 19 million gallons of clear water per day at a constant 72 degrees Fahrenheit, contributing to the abundant waters within the refuge.

Migratory birds and waterfowl

The biological diversity of the wetlands provides nesting, overwintering and stopover habitat during migration for neotropical songbirds, migratory waterfowl, shorebirds, wading birds and raptors. The variety of wetland habitats at Lake Woodruff NWR attract a large number of bird species (215 species have been counted). Water levels are managed at the three wading bird and waterfowl impoundments. The water level manipulation provides foraging, breeding and loafing areas for migratory and resident avian wildlife.



Peter G. May

Baby Limpkins

Limpkin



Pat Halliday

Twenty-one species of ducks use the refuge during the fall and winter seasons, while the colorful Wood duck, which nests in tree cavities, is a year-round resident. Ring-necked ducks and Blue-winged teal are the most common of the wintering waterfowl population. The wary Fulvous whistling duck and the Hooded merganser can be sighted occasionally. Wading birds abound in the winter months, and birders enjoy flocks of ibises (including the Glossy ibis), egrets and herons. The refuge is also home to a White egret and Little blue heron rookery. The rarely seen Limpkin is unusually abundant at Lake Woodruff NWR. One can often hear the bird's eerie call before it can be seen. Apple snails are its staple diet, which the Limpkin carries to land in order to break open with its beak. The snails need a requisite amount of submerged aquatic vegetation and good water quality.

An array of songbirds visit the refuge to replenish their energy for their long journeys, such as Northern



Immature Anhingas

Parula, Yellow-rumped and Orange-crowned warbler, or Red-eyed vireos, just to name a few.

Lake Woodruff is host to the second largest premigration roosting colony of Swallow-tailed kites in the southeastern U.S. Approximately 500 kites congregate on the refuge from late July through early August, foraging in preparation for a 5,000-mile journey, taking them back to their wintering grounds in Brazil.

No longer on the endangered species list, the majestic Southern bald eagle is commonly sighted throughout the winter months. Several nests are located in the area and the future for this magnificent national symbol appears to be good. Along lakes and waterways you can also observe Ospreys nesting and fishing.

The impressive Sandhill cranes visit the refuge's marshes frequently and their blaring trumpet like calls can be heard over great distances.

Sandhill crane with young

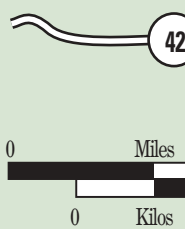
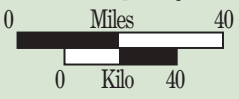




Lake Woodruff National Wildlife Refuge



Vicinity Map





17

Ponce DeLeon Boulevard

Audubon Avenue

To Deland
2 Miles

Grand Avenue



Atlantic Coast Line Railroad

44

White Hair Bridge

To Eustis
20 Miles

LEGEND

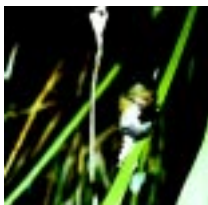
-  Refuge Boundary
-  Roads
-  Nature Trails
-  Vehicle Parking Area
-  Refuge Headquarters and Nature Store
-  Lookout Tower
-  Hiking Area
-  Bicycle Area



Endangered and threatened species

The refuge contains over 5,000 acres of fresh water and more than 50 miles of waterways, which are utilized by the endangered Florida manatees as foraging, breeding and calving areas. More than 23 miles are designated as manatee protection zones.

USFWS



Apple snail

Other federally endangered or threatened species which are to be found on the refuge include the Eastern indigo snake, American alligator, Wood stork, and the Snail kite, a very specialized raptor, feeding only on Apple snails, like the Limpkin, described earlier.

Wildlife you may see on the refuge

The White-tailed deer and the Eastern wild turkey are prevalent, while the Black bear and Bobcat occur in the area, but are less conspicuous. Most other wildlife common to central Florida are present in sufficient numbers for viewing by refuge visitors.

West Indian manatee

American alligator



USFWS



Marion Weber

Management

Managing the array of refuge habitats focuses on maintaining and enhancing the natural qualities of the area and providing optimum habitat for wildlife, especially endangered and threatened species, plants and for people to enjoy. Present management techniques center around wetlands, freshwater and upland areas. Water levels are manipulated in the impoundments to discourage undesirable vegetation while encouraging desirable plant species. The flooding or draining of these areas also benefits waterfowl, such as wading birds and ducks.



USFWS

Great horned owl

Good effective forest management practices, such as selective harvesting of some trees and controlled burning, allow for more openings on the forest floor, which in turn encourages the growth of shrubs and other small plants that are beneficial to wildlife.

Friends Group

The “Friends of Lake Woodruff NWR” was founded in 1999. The volunteers support the refuge in many positive ways, such as building trails, assisting in research, publishing newsletters, educating the general public and much more. The Friends’ well stocked Nature Store at the refuge headquarters has something for everyone.

Prescribed fire



USFWS



Enjoy the refuge

The public is encouraged to visit the refuge year-round during daylight hours. The nature trails and levees along the impoundments are excellent areas for walking, hiking, bicycling, wildlife observation and photography. The best time for nature studies is early in the morning and before sunset. Insect repellent may be advisable.

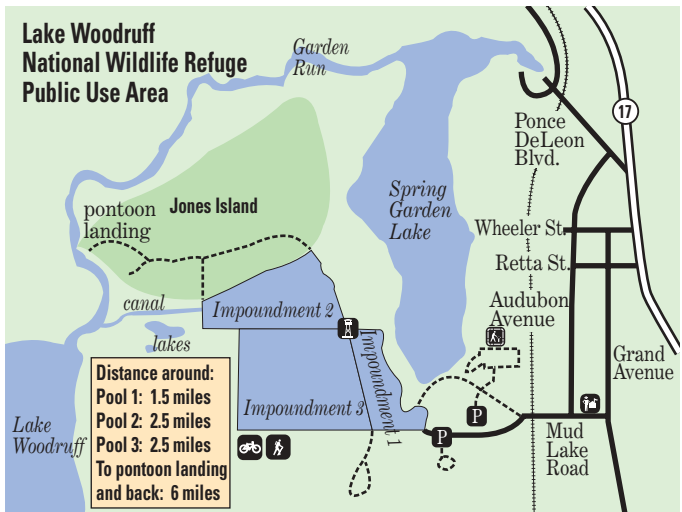


The wildlife observation tower has a fixed binocular and provides a beautiful and vast view over the impoundments, marshes and islands. Large parts of the refuge can only be reached by water and a slow canoe ride can be the most enjoyable way of observing many animals and plants.

USFWS



Jerry F. Pace



Fishing

Fishing is permitted year round in accordance with State regulations and the possession of a Florida fishing license. Popular species are Bass, Bream and Crappie.

Hunting

Limited hunting is permitted on the Refuge on a permit basis. Hunting is restricted to the use of bow and arrows and to primitive guns. Consult the refuge hunting brochure for detailed information.

Environmental education and group tours

Group programs and tours can be arranged by contacting the refuge headquarters in advance. Lake Woodruff NWR provides many wide ranging educational opportunities for all ages in an effort to increase awareness and appreciation for the wild.



Black-necked stilt

Jerry F. Pace



USFWS

Restricted activities

Motorized vehicles are restricted to refuge parking areas and roads leading to them.

Fires are prohibited at all times.

Firearms are prohibited except during hunting seasons, see the hunting brochure for information.

Camping is not allowed on the refuge.

Collecting is prohibited. Do not gather plants, wildlife or artifacts on the refuge. Take nothing but photographs and good memories.

Pets are not allowed on the refuge.

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



Lake Woodruff National Wildlife Refuge
P. O. Box 488
DeLeon Springs, FL 32130-0488
Phone: 386/985 4673
Fax: 386/985 0926
E-mail: FW4RWLakeWoodruff@fws.gov

U.S. Fish & Wildlife Service
1 800/344 WILD
<http://www.fws.gov>

July 2002



CELEBRATING A
CENTURY
of CONSERVATION

