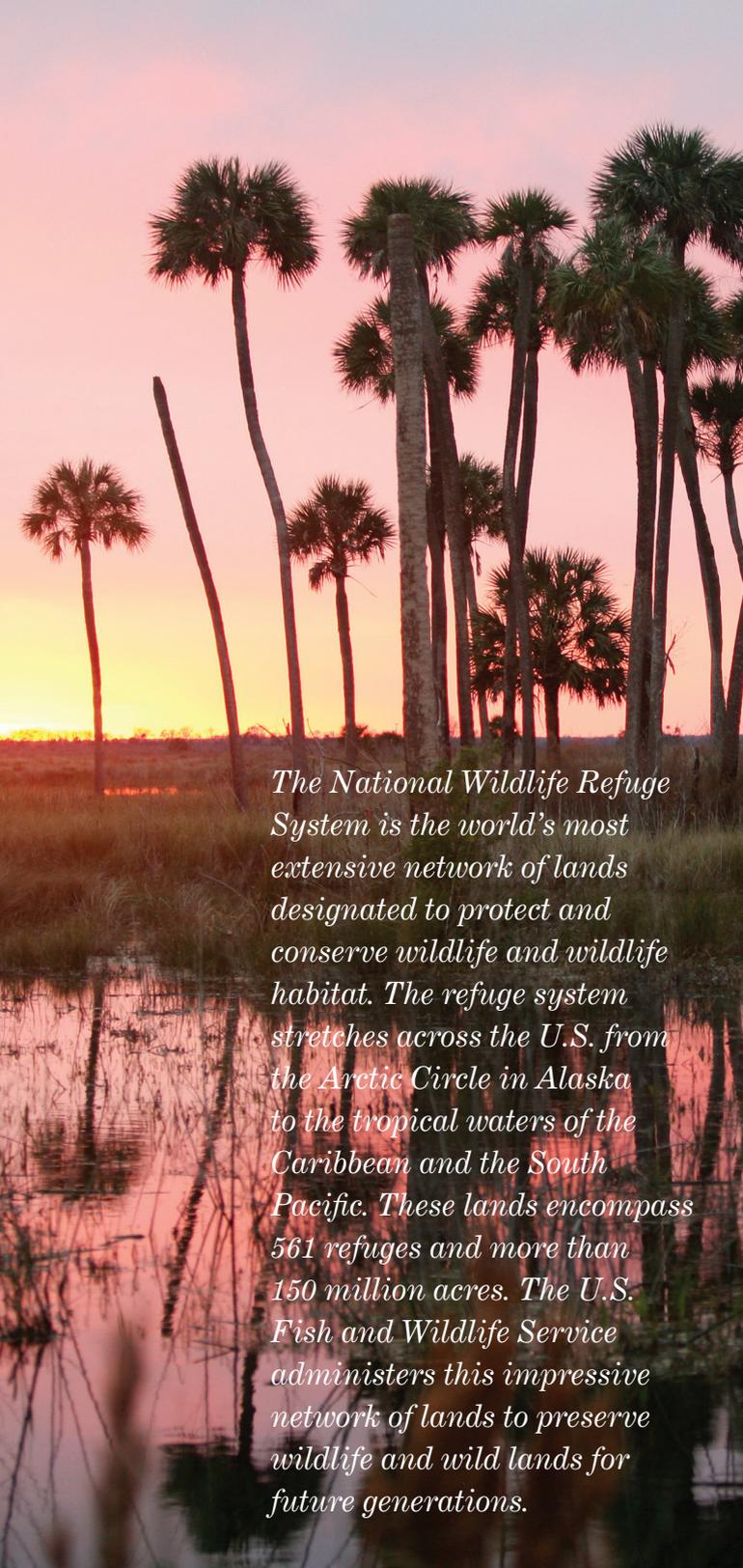


U.S. Fish & Wildlife Service

Lake Woodruff

*National Wildlife
Refuge*





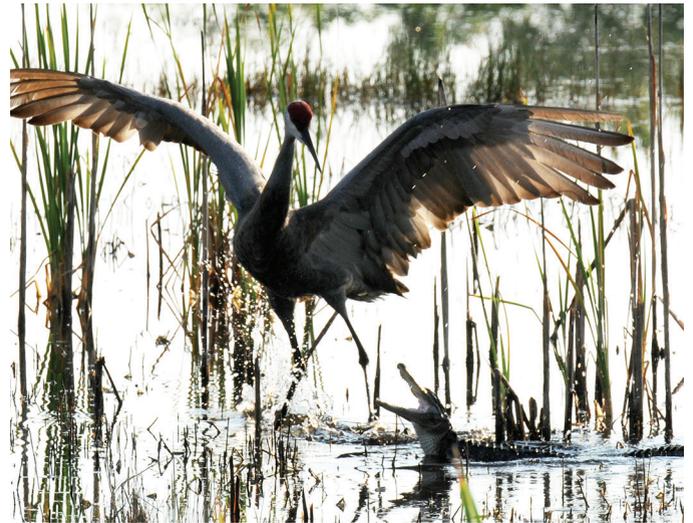
The National Wildlife Refuge System is the world's most extensive network of lands designated to protect and conserve wildlife and wildlife habitat. The refuge system stretches across the U.S. from the Arctic Circle in Alaska to the tropical waters of the Caribbean and the South Pacific. These lands encompass 561 refuges and more than 150 million acres. The U.S. Fish and Wildlife Service administers this impressive network of lands to preserve wildlife and wild lands for future generations.



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

Extraordinary Biological Diversity

Lake Woodruff National Wildlife Refuge (NWR) was established in 1964 to preserve, improve and create habitat primarily for migratory birds and waterfowl. It encompasses 21,574 acres of freshwater marshes, lakes, streams and canals, cypress and mixed hardwood swamps, and wooded uplands. It is unique in that it protects one of the largest undeveloped freshwater marsh ecosystems in Florida; approximately 50 percent of the refuge is comprised of cordgrass or mixed cordgrass and sawgrass marsh.

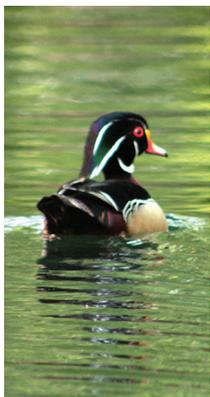


Above: sandhill crane protecting the nest by USFWS/Garry Tucker. At left: refuge at sunset by Arnette Sherman.

The refuge protects over 5,000 surface acres of aquatic habitat encompassing 50 miles of waterways, a complex wetlands system providing extraordinary biological diversity. Three freshwater impoundments provide nesting, overwintering and stopover habitat during migration for neo-tropical songbirds, migratory waterfowl, shorebirds, wading birds and raptors.

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.

Front and back covers: swallow-tailed kites by Peter May



Wood duck by Robyn Koch



King rail by Jerry F. Pace



Red-shouldered hawk by Jerry F. Pace



Green heron by Tom Sykes

More than 230 bird species have been counted on the refuge.

Migratory Birds and Waterfowl

Cypress and mixed hardwood swamps provide the second largest roosting site for the swallow-tailed kite in the United States. As many as 1,000 kites congregate on the refuge from late July through early August, foraging in preparation for a 5,000-mile journey to their wintering grounds in Brazil.

The majestic bald eagle is commonly sighted throughout the winter months. The observant bird-watcher may spot an eagle tending one of several nests atop tall trees. Ospreys can also be observed nesting and fishing.

Twenty-one species of ducks, including blue-winged teal and ring-necked ducks, use the refuge during the fall and winter. The wary fulvous whistling duck and the hooded merganser are sighted occasionally. Others, including the colorful wood duck, are year-round residents.

The northern parula, yellow-rumped and orange-crowned warblers and red-eyed vireos are among the many migrating songbirds that visit the refuge.

Other Wildlife

Lake Woodruff NWR'S 3,400 acres of wooded uplands — pine flatwoods and scrub oak — are a favorite habitat of the gopher tortoise, a protected species in the State of Florida.

More than 23 miles of the 50 miles of waterways within the refuge are designated as manatee protection zones, utilized by the endangered Florida manatee as foraging, breeding and calving areas.



Barred owl by Tom Sykes



Gopher tortoise by USFWS/Shaula Ginger



Black-necked stilt by Arnette Sherman

White-tailed deer and Osceola wild turkey are prevalent; the American alligator and river otter may be observed near or in waterways and ponds. Black bear and bobcat are less-conspicuous residents.

Enjoying the Refuge

The public is encouraged to visit the refuge year-round during daylight hours. The nature trails and levees along

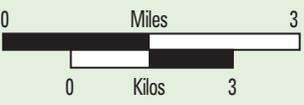
the freshwater impoundments are excellent areas for walking, hiking, bicycling, wildlife observation and photography. The best times for wildlife viewing are early in the morning and before sunset. Insect repellent may be advisable.

The wildlife observation tower provides a beautiful and expansive view over the impoundments, marshes and islands. Large parts of the refuge are accessible only by water; a leisurely trip by canoe may be the most enjoyable way to observe many animals and plants.

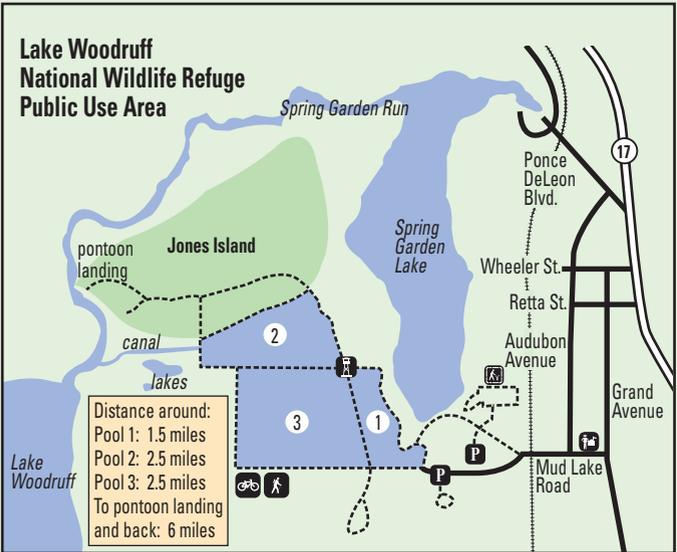
Fishing and Hunting

Fishing is permitted year-round, with a Florida fishing license, in accordance with state regulations. Popular species are bass, bream, catfish and crappie.

Limited hunting, restricted to bow-and-arrow and primitive guns, is allowed on the refuge by permit. Consult the refuge hunting brochure for additional information.



Lake Woodruff National Wildlife Refuge



LEGEND	
	Refuge Boundary
	Roads
	Nature Trails
	Vehicle Parking Area
	Refuge Headquarters
	Lookout Tower
	Hiking Area
	Bicycle Area



Fishing on the refuge by Robyn Koch

Boating

De Leon Springs State Park is contiguous to the northeast boundary of the refuge and provides a boat ramp and easy access to Spring Garden Run. Canoe, kayak and paddleboat rentals are available at the park throughout the year.



Common yellowthroat by Jerry F. Pace

Refuge Management

Refuge management focuses on preserving and enhancing the natural qualities of the area and providing optimum habitat for a diversity of native wildlife, especially endangered and threatened species.

Fire and water form the core of management tools employed at the refuge. Historically, wildfires have been a natural element in the Florida ecosystem, occurring every three to ten years. Prescribed burns have not replaced wildfires, but they mimic wildfires for their beneficial effects, encouraging the growth of native shrubs and small plants and improving habitat for many species, including the gopher tortoise and eastern indigo snake, a federally listed threatened species.



Prescribed fire by USFWS

Water levels are manipulated in the freshwater impoundments (pools 1, 2 and 3) to discourage undesirable vegetation while encouraging

desirable plant species, benefitting wading birds, ducks and other wildlife.

Initiatives to control invasive species, such as the persistent air potato, and thus protect and encourage the vitality of native vegetation and wildlife, are continually under way.

By ensuring compliance with regulations designed to protect the refuge and its natural resources, law enforcement resources also play a vital role in refuge management.

Environmental Education and Group Tours



Students learn about the environment by USFWS

Lake Woodruff NWR provides a wide range of educational opportunities for all ages to increase awareness and appreciation of wildlife and its habitats. Group programs and

tours can be arranged in advance by contacting refuge headquarters.



Great blue heron by Robyn Koch



River otter with catch by USFWS

History of Lake Woodruff NWR

Purchased by the U.S. Fish and Wildlife Service with proceeds from the Federal Duck Stamp Program, Lake Woodruff NWR is one of 561 national wildlife refuges committed to a shared 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 in the United States for the benefit of present and future generations of Americans.”

The refuge was named for Major Joseph Woodruff, who acquired the property, then known as Spring Garden, in 1823. It is located in the western part of Volusia County, Florida, near the community of De Leon Springs, with the St. Johns River forming its western boundary. The refuge headquarters is located on Mud Lake Road near its intersection with Grand Avenue.



Sandhill crane with chicks by USFWS

History of the Region

Lake Woodruff NWR is located near De Leon Springs State Park, which preserves the historic site once visited by the Spanish explorer Juan Ponce de Leon 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, some of which can be viewed in Lake Woodruff NWR’s headquarters, date as far back as 8,000 B.C.



White ibis with amphiuma by Bill Tucker

History reveals that the De Leon Springs area changed hands several times from the early 1500s through the 1700s, alternately belonging to the Indians, Spaniards and British. U.S. interests took command of the

area during the early 1800s. 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 still can be seen at De Leon Springs State Park.

Restricted Activities

Alcohol – The use or possession of alcoholic beverages is prohibited.

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.

Firearms/weapons – Persons possessing, transporting or carrying firearms must comply with all provisions of state and local law. Firearms may be discharged only in accordance with refuge hunting regulations.

Fires are prohibited at all times.

Horses – Horses are permitted only on the Volusia Tract portion of the refuge.

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

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

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
2045 Mud Lake Road
DeLeon Springs, FL 32130
Phone: 386/985 4673
Fax: 386/985 0926
E-mail: lakewoodruff@fws.gov
www.facebook.com/
LakeWoodruffNationalWildlifeRefuge

U.S. Fish & Wildlife Service
1 800.344.WILD
<http://www.fws.gov>

