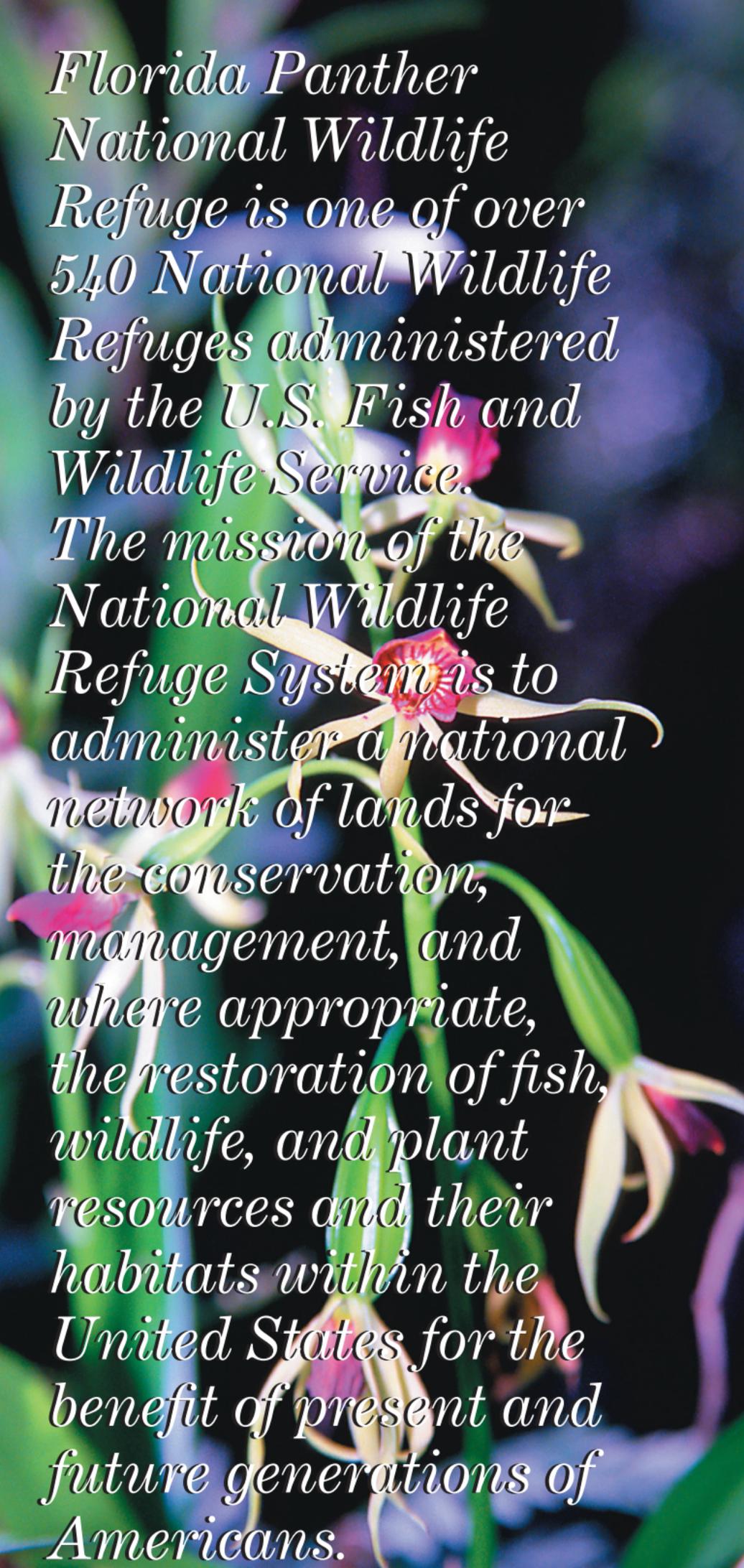


U.S. Fish & Wildlife Service

Florida Panther

National Wildlife





*Florida Panther
National Wildlife
Refuge is one of over
540 National Wildlife
Refuges administered
by the U.S. Fish and
Wildlife Service.*

*The mission of the
National Wildlife
Refuge System is to
administer a national
network of lands for
the conservation,
management, and
where appropriate,
the restoration of fish,
wildlife, and plant
resources and their
habitats within the
United States for the
benefit of present and
future generations of
Americans.*



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



Cypress forests are a dominant habitat type that is flooded for a majority of the year.

Cover: Florida Panther; Puma concolor coryi;

All photos USFWS/Larry Richardson unless otherwise indicated.

The National Wildlife Refuge System

For over a century, the National Wildlife Refuge System has been the hidden jewel among our nation's public lands. The Refuge System, since 1903 has grown to nearly 100 million acres and more than 540 refuges.

Florida Panther National Wildlife Refuge

Was established in June 1989 to protect the Florida panther and its habitat. The 26,400 acres are located within the heart of the Big Cypress Basin in southwest Florida, which includes the northern origin of The Fakahatchee Strand, the largest cypress strand in the Big Cypress swamp. The refuge is west of the Big Cypress National Preserve and north of Fakahatchee Strand Preserve State Park and Picayune Strand State Forest.

History

Towering cypress trees as high as 130 feet and 25 feet in circumference dominated the landscape for hundreds of years in what is now Florida Panther National Wildlife Refuge. Logging cypress started in 1944 in response to wartime needs, at a rate of a million board feet per week. Destructive wildfires followed the logging operations, further altering the habitat. Many plant species were diminished, such as the beautiful ghost and cowhorn orchids. In just 13 years, all the old-growth was harvested in southwest Florida, except for the area now known as the Audubon Corkscrew Sanctuary. It was the only remaining stand of virgin cypress within the Big Cypress Basin.

Florida Panthers

The tawny Florida panther (*Puma concolor coryi*), is one of the most endangered mammals in the United States. The Florida panther was eliminated from much of its historic range by the late 1800's by human persecution and habitat destruction. By the time the panther was granted

protection (State-1958; Federal -1967), the animal was already in danger of extinction. *A single wild population of about 100 adults in southern Florida is all that remains of an animal that once ranged throughout most of the southeastern United States.* This remnant population utilizes about 2 million acres, of which about half is in private ownership. Losing more land to development and fragmentation is a major concern.

Where do panthers live?

The basic needs of Panthers for large areas that provide food, water and cover are met in south Florida habitats: pine forests and oak hammocks. This is the preferred habitat for their primary prey: white-tailed deer, wild hogs and other small mammals such as raccoons and armadillos. The Florida Panther National Wildlife Refuge provides this habitat amongst a network of public lands and large private ranches. Panthers generally avoid urban areas and intensively managed agricultural areas. Male panthers have dispersed, being sighted or killed in various places around the State, but the primary breeding area of the panther population seems to be south of the Caloosahatchee River.

What research is being done?

Intensive Florida panther monitoring started in 1981 when the Florida Fish and Wildlife Conservation Commission started radio-collaring and tracking panthers. This research documented their preferred habitat, home range, dispersal, birth rates and causes of death. By the early 1990's, the population was less than 50 due to inbreeding which caused health and reproductive problems, further endangering the species. To restore the genetic health of the Florida panther, in 1995, eight female Texas pumas (*Puma concolor stanleyana*) were relocated to south Florida to breed with male Florida panthers. Since 1995, the population



Florida panther, Puma concolor coryi, remains one of the most endangered mammals in the world.

of Florida panthers has increased from less than 50 to about 100 due to the genetic restoration. Offspring of the Texas pumas are considered to be Florida panthers and are protected under the Endangered Species Act.

What are the threats to panthers?

The most profound threat to their survival is linked to the increasing human population. As habitat disappears due to human development and agriculture, the cats are squeezed into smaller areas. This reduction increases the occurrence of territorial fights, one of the leading cause of panther deaths. Additionally, more development has led to more roads and traffic. In 2007, 15 cats were killed by vehicle collisions. Diseases can also be a threat to panthers. Feline leukemia, transmitted to panthers by domestic cats, is deadly. An outbreak in 2002 resulted in the death of 5 panthers before the spread could be contained the following year.



Top: few people will ever see a Florida panther; but identifying a panther track is a sure sign they are around.

Why is the Refuge important?

The Refuge is important Florida panther habitat. It is the core of several home ranges, and also functions as a travel corridor for panthers traveling between Big Cypress National Preserve and the Fakahatchee Strand State Preserve. From 5-11 radio-collared panthers



utilize the refuge, with females routinely raising kittens here.

Refuge Habitats

Florida Panther National Wildlife Refuge is characterized by expansive forests, swamps and lush sub-tropical

less than two weeks old, these blue-eyed Florida panther kittens are completely dependent on their mother for every need.

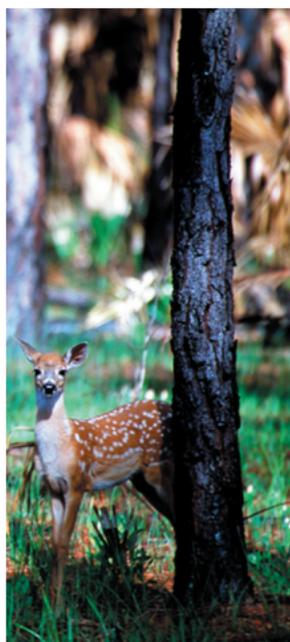
vegetation, primarily governed by seasonal dry and wet cycles and nearly flat topography. Summer brings daily rain showers July through October that flood the refuge. Water slowly moves south across the landscape, recharging the underground aquifers that supply the Refuge's urban neighbors. From around October through April the wet prairies and swamps slowly dry out, until spring's start of thunder showers. There are over 700 species of plants on the Refuge. Rare orchids and bromeliads are mostly found among cypress and mixed swamps. Hammocks of oak, cabbage palm, and gumbo limbo dot the landscape. Slash pine with saw palmetto and grasses underneath are like islands of dryer land adjacent to wet prairies blooming with glades lobelia, tickseed and prairie milkweed.



looking like dancing black bears, these two are probably juveniles sparring with each other until the day when they become serious about territories (photo by Ricky Pires)

Wildlife

The rich diversity of plant life on the Refuge is mirrored by its equally diverse wildlife. Florida panther and black bear prowl the forest while wild turkey and white-tailed deer forage in the hammocks, pinelands, and prairies. Tufted titmouse and the northern parula warbler nest in the oak hammocks, as wood storks and other wading birds utilize the seasonal wetlands for foraging. Pig frogs grunt their chorus from the swamps and swallow-tailed kites soar overhead. As night falls, barred owls silently hunt for prey as bats dive



A curious white-tailed deer fawn and mother feed on tender shoots that spring up just weeks after a prescribed fire in the pines.

after the myriads of mosquitoes. A total of 126 bird species, 50 species of reptiles and amphibians, 22 species of mammals and a variety of fish are found on the Refuge. By protecting habitat for the Florida panther, which require large expanses of wilderness, we protect habitat and water quality for the entire ecosystem. In this way the panther is often called an *umbrella* species.

Habitat Management

All habitat management activities are intended to improve, restore, and maintain optimal conditions for the Florida panther and other animal and plant life on the Refuge. Prescribed fires and exotic/invasive plant removal are two of the most important habitat management techniques.

Why do we burn the refuge?

In Florida, fire is natural and important part of the vegetation communities, such as in pinelands and wet prairies. Prescribed fires, conducted under strict weather conditions to maintain control, allows Refuge staff to mimic a fire's natural benefits like improving forage nutrition for deer and other animals with new fresh growth, and reducing hazardous build up of dead vegetation that can fuel wildfires.

Why do we remove non-native invasive plants from the Refuge?

As people moved into Florida, they brought non-native plants with them. Some of these plants escaped cultivation and became established in natural areas. Several of the most invasive species are Brazilian pepper, Australian pine, Melaleuca, and Old World climbing fern. These species can limit or prevent native plants from growing or change the fire regime by reducing fire in some cases and making it more destructive in others. Through mechanical removal, herbicides, or biological control of non-native plant species, the natural balance of the ecosystem can be restored for both plants and animals.





Above: the butterfly orchid, Encyclia tampensis, is one of the most common epiphytic orchids in the swamps. Below, top: in contrast, the Florida star orchid, Epidendrum floridense, is one of the rarest bottom: Michaux's orchid, Habenaria quinqueseta, is widespread throughout the state.



What research is conducted on Orchards? Orchard Restoration Refuge Staff collect seeds to research how to support reintroduction of rare orchards with their natural range in South Florida.

Public Use Opportunities

Public access to the refuge is limited since various outdoor recreational activities could conflict with the refuge purpose of providing optimal panther habitat and protection.

Please use caution as you walk the trails. Bring water, insect repellent and sunscreen. Please do not leave valuables in your vehicle, and allow time to return to your vehicle and leave the refuge before the entrance gate closes at sunset

Refuge Hours

The trails are open daily during daylight hours only. There is no charge for use of the trails. Please contact the Refuge for current trail conditions (239.353.8442).

Keep in mind that all plants and animals are protected. All government property including natural, historic, and archaeological features are protected by Federal Law.

Firearms

Firearms are prohibited on the Refuge.

Pets

Pets of any kind are prohibited.

Littering

Please do not litter. Trash attracts wildlife unnecessarily, and potentially spreads disease, so please help "Leave No Trace" -if you "Pack it in, pack it out."

Vehicle Access

Off-road vehicles are not permitted on the trails.



The much-renowned ghost orchid, Dendrophylax lindenii, is one of three leafless species at home in the swamps.

Volunteering on the Refuge

Volunteers help the refuge generate more excitement about wildlife and wild places by leading guided tours, educating others at public events, and contributing articles to Friends of Florida Panther newsletters and updates. Refuge volunteers assist with year-round trail and vehicle maintenance as well as special projects. There are administrative opportunities in the office or with the Friends group. Opportunities for the Ten Thousand Islands Refuge, which is managed by the same office, also offer tasks for all skill levels and interests. For more information, contact the Refuge headquarters (239.353.8442) or visit www.fws.gov/floridapanther.

The Friends of the Florida Panther Refuge, a non-profit organization dedicated to the support of the Refuge and the preservation of the Florida panthers, focuses on environmental education, public awareness, and advocacy. While working with government officials at all levels to mitigate the loss of panther habitat, the Friends engage members and supporters throughout the country to take action to protect the remaining Florida panthers left in the wild. Those interested in joining this cause can learn of the volunteer opportunities by visiting <http://www.foridapanther.org> and going to the Support Us page.



saw palmetto, Serenoa repens, is a native species that can be harmed by encroaching exotic vegetation. Its berries are a valuable food source for bears and deer.

The “Florida Panther Posse” is a partnership between the Friends of the Florida Panther Refuge, Florida Fish and Wildlife Conservation Commission Panther Team, CREW, Collier County Audubon Society, SF Water Management District, and was created and presented by the **Florida Gulf Coast University’s “Wings of Hope” program**. FGCU students educate elementary students, teachers and the community about the endangered Florida panther and its habitat. For more information & to support this program, visit www.fgcu.



a florida black bear radio-telemetry study in the early 90's indicated that the Florida black bear was popular on the Refuge and took advantage of the rich vegetative communities as its major food source.



a great egret, in breeding plumage, stands majestically between feedings of small fish.

the American alligator, once endangered, is a popular swamp inhabitant



edu/CAS/WingsofHope/index.html.

Administrative Office

The Refuge headquarters is located 30 minutes away within the Comfort Inn at 3860 Tollgate Blvd, Suite 300, Naples, Florida, exit 101, off of I-75.



use caution and keep your distance if you encounter the seldom seen eastern diamondback rattlesnake. Remember that they are protected too

Hiking Trails

Two hiking trails provide public access to the Refuge daily from sunrise to sunset. These trails are located in an area that receives very little panther use. The chances of seeing a panther are slim. The trails are accessible from State Road 29, approximately 0.25 miles north of Alligator Alley (I-75). The system consists of two loop trails, including an unimproved 1.3 mile trail that may be closed seasonally due to flooding, and a 0.3 mile improved trail that is wheelchair accessible. There is no charge for use of the trails. Nature observation and photography are encouraged. Watch the ground for bobcat, bear and deer tracks and the sky for red-shouldered hawks.

Florida Panther National Wildlife Refuge

Big
Cypress
National
Preserve



0 Feet 1000

I-75 (Alligator Alley)

Fakahatchee
Strand
State
Preserve

Big
Cypress
National
Preserve

**Florida Panther
National Wildlife Refuge
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Naples, FL 34114
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**U.S. Fish & Wildlife Service
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<http://www.fws.gov>**

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