

Florida Panther
National Wildlife Refuge
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<https://fws.gov/refuge/florida-panther>

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U.S. Fish & Wildlife Service

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*National Wildlife
Refuge*



Florida Panther, Puma concolor coryi

The National Wildlife Refuge System administers a national network of lands and waters 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.

The National Wildlife Refuge System, since 1903, has grown to almost one billion acres of lands and waters. Today, there are over 565 refuges, 35 wetland management districts and 5 marine national monuments.



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



An aerial view of the Florida Panther NWR with rounded cypress domes and green pine forests interspersed.



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

*All photos
USFWS/ Larry
Richardson or
Mark Danaher
unless specified*

Florida Panther National Wildlife Refuge

The Refuge was established in June 1989 to protect the Florida panther and its habitat. The 26,605-acre refuge is located within the heart of the Big Cypress watershed in southwest Florida, and includes the northern origin of the Fakahatchee Strand, the largest cypress strand in the Big Cypress swamp. The Refuge is located west of 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 the Florida Panther National Wildlife Refuge. Logging of the cypress started in 1944, in response to wartime needs, at a rate of one 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 cigar 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 is the only remaining stand of virgin cypress within the Big Cypress watershed.

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 its historic range by the late 1800's due to 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 population of about 200



A cypress log, cut and left in the swamps over 60 years ago, symbolizes an era long gone.

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. Habitat loss remains a major threat to the recovery of the Florida panther.

Where do panthers live?

Florida panthers are primarily found in southwest Florida; however, a few females have been documented north of the Caloosahatchee River since 2016. Panthers need large home ranges from 75-200 square miles with a diversity of habitat types that provide hunting and hiding cover. Preferred habitats include pine flatwoods, prairies, forested wetlands, and hardwood hammocks.



Habitats on the Refuge, like hammocks, include dense undergrowth and brush ideal for panthers to rest and make their dens.

The pine flatwoods provide saw palmetto thickets for primary panther denning habitat and prairies provide grasslands for the panthers' primary prey, whitetailed deer.

Panthers use these habitats across the landscape. They move between public conservation lands that include the Refuge, Big Cypress National Preserve, Fakahatchee Strand Preserve State Park and Picayune Strand State Forest to large tracts of undeveloped private ranching lands.

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 habitats, 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



Godfrey's obedient plant blooming 6 weeks after a fire.



Less than two weeks old, this blue-eyed Florida panther kitten is being examined, weighed and marked as a new member of the population.

and reproductive problems, further endangering the species.

In 1995, to restore the genetic health of the Florida panther, eight female Texas pumas (*Puma concolor stanleyana*) were relocated to south

Florida to breed with male Florida panthers. Since then, the population of Florida panthers has increased to about 200 due to the genetic restoration. Offspring of the Texas pumas are considered to be Florida panthers and are protected under the Endangered Species Act.



A collared Florida Panther is released back into the wild after rehabilitation from a vehicle strike.

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, the cats are squeezed into smaller areas, increasing the occurrence of territorial fights, one of the leading causes of panther deaths. Additionally, more development has led to more roads and traffic. Vehicle strikes are another leading cause of panther mortality. Diseases can also be a threat

to panthers. Feline leukemia, transmitted to panthers by domestic cats, is also deadly. An outbreak in 2002 resulted in the death of five panthers.



Trail camera photo of a young female Florida Panther moving through South Florida conservation lands.

Why is the Refuge important?

The Refuge provides

important habitat for the Florida panther and other unique wildlife. The Refuge serves as the core home range



The endangered Florida bonneted bat is found in pine flatwoods and wetland forests across the Refuge. This endemic bat species requires frequent fire to provide burned out "snag" trees for roosting and open grassland for foraging. Credit: FWC/ Kathleen Smith



Terrestrial orchids like this grass pink thrive in fire maintained pine flatwoods and prairies, and can be found blooming anytime between February-July.



During 2019, two pairs of endangered red-cockaded woodpeckers were translocated to the Refuge from the hurricane and fire-damaged Picayune Strand State Forest. This bird, which had not been documented on the Refuge since its establishment in 1989, is now a permanent resident.

for numerous panthers throughout the year, and also functions as a critical wildlife travel corridor between Big Cypress National Preserve, Fakahatchee Strand State Preserve, Picayune Strand State Forest and adjacent private natural areas. Female panthers routinely den and raise kittens on the Refuge.

Refuge Habitats

The Refuge is characterized by expansive forests, swamps and lush sub-tropical vegetation supporting over 700 species of plants. The Fakahatchee Strand essentially originates on the Refuge, flowing for approximately 22 miles through Fakahatchee Strand Preserve State Park before discharging into the Ten Thousand Islands. Often referred to as the "Amazon of North America", the Fakahatchee Strand supports the highest diversity of orchids in the conterminous United States. Hammocks of oak, cabbage palm, and gumbo limbo dot the landscape. Pine flatwoods with saw palmetto are adjacent to wet prairies blooming with glades lobelia, tickseed and prairie milkweed.

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 after the myriads of mosquitoes. A total of 126 bird species, 50 reptile and amphibian species, 22 mammalian species and a variety of fish are found on the Refuge. By protecting habitat for the Florida panther, which require large expanses



Swallow-tailed kites migrate to the Southeastern United States in February. Several breeding pairs nest and raise young on the Refuge before returning to South America in August.



Prescribed fires, like this one, actually help to maintain a healthy ecosystem.



Muhly grass blooming in the pine flatwoods after a Spring burn.

of wilderness, we protect habitat and water quality for the entire ecosystem. Because of its connection to the survival of other species, the panther is often called an umbrella species.

Habitat Management

Habitat management activities improve, restore, and maintain optimal conditions for the Florida panther and other native wildlife and plant species. Prescribed fire and exotic/invasive plant removal are the most important habitat management techniques used on the Refuge.

Why do we conduct prescribed burning on the refuge?

In Florida, fire is a natural and important part of maintaining healthy vegetative communities such as pinelands and wet prairies. Prescribed fires, conducted under specific weather conditions with specially trained staff, mimic natural fires. Mosaics of burned and unburned vegetation benefit panther, bear and deer by increasing habitat diversity. Nutritious growth appears immediately after a burn, providing forage for many species of wildlife. Prescribed fire also reduces the hazardous build-up of dead vegetation that can fuel destructive wildfires.

Why do we manage invasive species on the Refuge?

Invasive plants and animals disrupt the natural balance in our native habitats. Invasive exotic plant species on the Refuge such as Brazilian pepper, old world climbing fern and cogongrass replace native plants, causing changes in plant structure and fire behavior in the ecosystem. The Refuge uses a combination of



At first glance Old World climbing fern is delicate and pretty; but also notorious as one of the Refuge's worst exotic pest plants.



The beautiful ghost orchid is one of many epiphytic orchids found on the Refuge. Rare orchid research has been ongoing at the Refuge since the early 2000's.



White-tailed deer take notice of visitors between bites of forage

mechanical removal, herbicides and biological control to reduce these infestations.

Invasive animals directly prey on native wildlife or indirectly reduce food resources. Exotic fish such as blue tilapia, oscar, and Mayan cichlids over populate the water bodies across the Refuge, while exotic animals such as the Burmese python, Cuban treefrog and cane toad invade upland habitats in and around the Refuge.

What is being done to restore native orchids on the Refuge?

At least 27 species of native orchids are found on the Refuge. Most of the orchid species found on the Refuge are rare and on the State endangered species list. Habitat destruction, changes in hydrology and illegal collection decimated south Florida's orchid populations. Collectively, the Refuge, Fakahatchee Strand Preserve State Park and Big Cypress National Preserve support over 90% of the known ghost orchids in North America.

Public Use Opportunities

Hiking Trails

Two interconnected hiking trails provide public access to the Refuge from sunrise to sunset. The trails are accessible from State Road 29, approximately 0.25 miles north of Alligator Alley (I-75). One is an unimproved 1.3 mile trail that may be closed seasonally due to flooding, the other is 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. Seasonal wildflowers, animal tracks and many species of birds and butterflies are frequently seen along the trails. Although panthers are rarely seen on the trails, if you do see one, follow these guidelines:



The Refuge hiking trail provides ample opportunity for visitors to watch and enjoy wildlife.



Rain lilies emerge from the charred ground only a few weeks after a fire; to bloom and disappear until the next one.



Managing a fire at night, fire-fighters keep watch on the blaze under a full moon.

- Keep children within sight and close to you. Pick up small children.
- Give the panther space. Give them a way to escape.
- Do not run. Stand and face the animal.
- Avoid crouching or bending over.
- Appear larger. Open your jacket.
- Throw stones, branches or whatever you can reach without crouching or turning your back.

Please use caution as you walk the trails. Bring water, sunscreen and insect repellent. 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.

Keep in mind that all plants and animals are protected.

Additionally, all government property including natural, historic, and archaeological features are protected.

Firearms

Firearms are prohibited. Carry/Conceal permit holders will abide by state law.

Pets

Pets are prohibited.

Littering

Please do not litter.

Vehicle Access

Off-road vehicles are prohibited.

Hunting

The Spring Turkey Quota Hunts are allowed two weekends during the Spring. These hunts are by special permits acquired through the Florida Fish and Wildlife Conservation

The Big Cypress fox squirrel is one of the largest squirrel species in Florida. Fox squirrels are found primarily on the ground in pine flatwoods and hardwood hammocks in the Refuge. This secretive mammal is protected as a state threatened species due to habitat loss and fragmentation.



Commission. Visit www.myfwc.com/license/limitedentry/nwr-hunts/.



Following the approval of the Refuge's updated Visitor Services Plan in 2021, limited quota Spring Turkey Hunting began in 2022.



www.floridapanther.org

Partnerships

The Friends of the Florida Panther Refuge is a non-profit organization dedicated to supporting the refuge and the preservation of the Florida panther. For more information visit www.floridapanther.org or www.facebook.com/FOFPR.

The Florida Panther Posse is an environmental education partnership between the Friends of the Florida Panther Refuge, the USFWS, FWC, and Florida Gulf Coast University's "Wings of Hope" program, which educates elementary students, teachers and the community about the Florida panther. For more information, visit www.fgcu.edu/cas/communityimpact/wingsofhope/.

The Naples Zoo works in cooperation with the USFWS and FWC to assist with recovery needs of the Florida panther. The Zoo provides short-term rehabilitation of orphaned panther kittens and injured adults; educates local visitors and hosts the annual Florida Panther Festival.

Additionally, the zoo provides a long-term home for one to two adult panthers who can no longer survive in the wild. For more information, visit www.napleszoo.org/panther.

Volunteering on the Refuge

There are many volunteer opportunities on Florida Panther



The butterfly orchid is one of the most common epiphytic orchids in the swamps.



The endangered wood stork periodically nests on the Refuge when water in the swamps remains unusually high throughout the winter months.

National Wildlife Refuge including trail guides, facility and vehicle maintenance, and administrative work.

For more information regarding volunteering, contact the Refuge headquarters at 239/657 8001 or floridapanther@fws.gov.

The Refuge headquarters is located at 12085 State Road 29 South, Immokalee, FL 34142



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