



# Florida

## Introduction and General Description

The Partners for Fish and Wildlife Program (Partners Program) is a voluntary private lands initiative developed to provide technical and financial assistance to private landowners and other partners who conduct habitat restoration and improvement activities on their land.

The focus of the Partners Program in Florida is on restoration of native habitats (i.e., longleaf pine, sandhill scrub), restoration of degraded streams and wetlands, and eradication of invasive and exotic species.

The Partners Program also provides technical assistance to the U.S. Department of Agriculture (USDA) and to landowners participating in conservation programs administered by USDA under the Farm Bill (e.g., Wetlands Reserve Program, Wildlife Habitat Incentives Program, Conservation Reserve Program).

The Partners Program in Florida has been active since 1996 and has received overwhelming acceptance by private landowners. To date,

181 private landowners have restored over 28,258 acres and Partners biologists have conducted over 200 technical assistance visits to assist private landowners with habitat management. The result has been an innovative partnership between the Federal government and the private landowner which provides habitat benefits to Florida's fish and wildlife.

### Florida Activities

- Sandhill scrub restoration
- Longleaf pine restoration
- Exotic species control
- Wetland restoration (plugging ditches, building levees, installation of water control structures, etc.)
- In-stream restoration
- Stream bank stabilization and restoration
- Restoration of riparian and flood plain areas
- Restoration of fish habitat
- Restoration, enhancement, protection of habitat for threatened, endangered, or rare species



**Florida scrub-jay**

## Habitats of Special Concern

The Partners Program works with private landowners to restore and enhance habitat for Florida's only endemic bird, the Florida scrub-jay. The scrub-jay depends on the xeric scrub ecosystem. This high and dry land is very desirable for residential and commercial development as well as agricultural uses such as grazing and citrus production. The plight of the scrub-jay clearly demonstrates the relationship between habitat loss and species decline; however, partnerships with organizations such as the St. Johns River Water Management District, The South Florida Water Management District, The Tampa Bay Conservancy, The Nature Conservancy, Manatee, Hillsborough, Volusia and Brevard Counties, along with several private landowners in Florida have led to Partners projects that have restored or enhanced over 4,384 acres of scrub habitat

## Threats

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### *Habitat Loss*

When Spanish explorers dropped anchor in Florida waters nearly 500 years ago, Florida was essentially one large natural area that supported a population of about 100,000 Native Americans. Wildlife roamed freely across 35 million acres in search of food, water, and shelter. The road system in pre-Columbian times consisted of narrow foot paths that were used by panthers, bobcats, and black bears, as frequently as by Native Americans. The few human edifices that were present quickly gave way to a surrounding landscape of tall majestic trees, most hundreds of years old, and extensive prairies and marshes (Cox *et al.* 1994).

Today, many species are caught in a state of siege as the habitat needed to sustain wildlife populations rapidly disappears. In the last 50 years Florida's population has grown from less than three million people to more than 17 million (up three million from 1990) and that number is growing by 833 people per day (net) (U.S. Census Bureau 2000). More than 8 million acres of forest and wetland habitats (about 24 percent of the State) have been cleared to accommodate this growth. As the human population continues to grow increased demands will be placed on Florida's remaining natural systems and wildlife populations will be forced into smaller and smaller areas as a result (Cox *et al.* 1994).

## Conservation Strategies

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### *Conservation Partnerships*

While the Partners Program has worked diligently to develop restoration projects with individual landowners, it has also made a major effort to form partnerships with conservation organizations, state agencies, and local units of governments to create habitat restoration initiatives for the benefit of the private landowner and Florida's wildlife. The Partners Program worked with the Florida Fish and Wildlife Conservation Commission to develop a private landowner assistance program to meet specific restoration goals that are identified in the Florida Comprehensive Wildlife Strategy Plan.

Partnerships have also been developed with The Nature Conservancy and the Regional Invasive/Exotic Plant Working Groups to assist private landowners with eradication of invasive/exotic plant species on their land. Other conservation partnership initiatives include working with Water Management Districts and the Natural Resources Conservation Service to restore, enhance, and protect in-stream habitats for the benefit of aquatic species.

### *Wetlands*

Historically, Florida wetlands were viewed as an obstacle to progress. Until the 1970s, wetland drainage and destruction were accepted practices that were often

encouraged by certain government agencies. Today, wetlands are viewed as some of the most biologically productive habitats within the State. Coastal wetlands serve as nursery areas for many economically important marine species, while other wetland areas provide feeding, breeding, and sheltering areas for numerous other fish and wildlife species.

The Partners Program is assisting private landowners in their efforts to restore degraded wetlands. Since 1996, 8,957 wetland acres have been restored for the benefit of Florida's unique wildlife. Many of these projects simply involve plugging ditches that were designed to drain the site, while others involve the extensive use of heavy equipment to install water control structures and restore microtopography. The cost of wetland restoration projects average approximately \$600 per acre.

The Partners Program also works cooperatively with the Natural Resources Conservation Service to implement the Wetlands Reserve Program (WRP). Florida currently ranks fifth nationally in acres enrolled in the WRP, with over 122,000 acres of degraded wetlands being restored for the benefit of Florida's fish and wildlife.

### *Streams and Riparian Areas*

Florida streams and rivers are home to many fish and wildlife species. Many of these streams have become degraded due to human influences. The Partners

Program is working with ranchers and other private landowners to establish conservation buffers.

Conservation buffers are vegetative strips along streams and rivers that help improve Florida water quality by reducing nutrient and sediment loads. In some of the more degraded streams, Partners biologists have used in-stream techniques to re-design impacted stream channels to stabilize the stream to reduce erosion and improve fish and wildlife habitat. Riparian buffer projects typically cost \$2 to \$4 per foot. Costs for in-stream restoration projects range from \$35 to \$85 per foot.

### ***Xeric Scrub***

Florida's ancient xeric scrub once covered approximately 7,000 square miles. Today less than 600 square miles remain. Conversion of land for agricultural, residential and commercial development, combined with fire suppression jeopardizes the long-term survival of this ecosystem.

### ***Xeric scrub habitat***

The Partners Program is working with local governmental organizations and private landowners to restore or enhance Florida's remaining scrub habitat. The Partners Program is currently working on projects that will lead to the restoration of over 2,000 acres of scrub habitat in Lake, Manatee, Hillsborough, Charlotte, Martin, Osceola, Polk, and Volusia, Counties. Restoration costs for scrub

projects average \$500 to \$700 per acre; however, costs can exceed \$1,000 per acre when extensive mechanical work is



required.

### **Restoration work**

### ***Native Forest***

The longleaf pine ecosystem once covered approximately 90 million acres in the southeast United States. Today, less than 3 million acres remain, mostly in the coastal plains of the Carolinas, Georgia, Florida, Alabama, and Texas.



### **Long leaf pine stand**

In Florida, the Partners Program is working to provide economically feasible options to help restore the longleaf pine/wiregrass ecosystem on private lands. Once established, longleaf pine offers drought, insect, disease, and fire resistance which can lead to greater survival and higher economic return. To reduce restoration costs, the Partners

Program purchased a seed harvester for use within the State to allow landowners and conservation groups to harvest their own wiregrass seed. Costs to restore longleaf pine/wiregrass typically range from \$175 to \$350 per acre.

### ***Threatened and Endangered Species***

Florida is home to many federally listed plant and animal species. The Partners Program gives funding priority to projects that provided benefits to threatened and endangered species and works with landowners to develop projects that restore their habitats. Additionally, the Partners Program is working together with regulators to develop safe harbor agreements that provide regulatory assurances to landowners who implement management practices on their land for the benefit of threatened and endangered species.

### ***Exotic Species***

Florida faces unique challenges with respect to invasive/exotic species. Australian pines have devastated beach plant communities, Brazilian pepper now infests over 1 million acres in the State, melaleuca has displaced native vegetation in nearly 400,000 acres of wetlands, and hydrilla has displaced native aquatic vegetation in over 50 percent of Florida's water bodies (Langeland *et al.* 1998). The Partners Program is

working with private landowners and local interest groups to develop initiatives to raise awareness of invasive/exotic species and to develop programs to implement treatment programs. Costs associated with the treatment of invasive species typically range from \$50 to \$1,200/acre.

## Partners

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Allen Broussard Conservancy Inc.  
 Apalachicola Bay and River Keepers Inc.  
 Archbold Biological Station  
 Audubon Corkscrew Swamp Sanctuary  
 Brevard County  
 Broward County Department of Planning and Natural Resources  
 Calusa Nature Center  
 Cape San Blas Taxpayers Association  
 Charlotte County  
 Charlotte Harbor and Environmental Center  
 Choctawhatchee Watershed Authority  
 City of Cape Coral  
 City of Pompano Beach  
 City of Sanibel  
 Collier County  
 Collier County State Park  
 Conservancy of SW Florida  
 Cortez Historical Society  
 Florida Audubon  
 Florida Bureau of Historic Preservation  
 Florida Bureau of Invasive Plant Management  
 Florida Coastal Zone Management Program  
 Florida Department of Agriculture  
 Florida Department of Environmental Conservation  
 Florida Department of Environmental Protection  
 Florida Division of Forestry

Florida Fish and Wildlife Conservation Commission  
 Florida Inland Navigation District  
 Florida Institute of Saltwater Heritage  
 Florida Keys Restoration Fund  
 Florida's Legacy Program  
 Georgia Soil and Water Conservation  
 Hillsborough County  
 Jonathan Dickinson State Park  
 Key West Botanical Garden  
 Keys Natural Resource Conservation Service  
 Lake County Water Authority  
 Lee County, Division of Parks and Recreation  
 Manatee County Board of County Commissioners  
 Manatee County Cooperative Extension Service  
 Martin County, Division of Parks and Recreation  
 National Oceanic and Atmospheric Administration  
 Pea Watershed Authority  
 Pine Ridge Sanctuary  
 Rookery Bay Estuarine Research Reserve  
 Sanibel Captiva Conservation Foundation  
 Sarasota Bay National Estuary Program  
 Savannah River Ecology Lab  
 Seminole Indian Tribe  
 South Walton Sea Turtle Watch  
 Southwest Florida Water Management District  
 St. Andrew Resource Management Association  
 St. Johns River Water Management District  
 Suwannee River Water Management District  
 The Nature Conservancy  
 University of Florida  
 Volusia County  
 Water Resources Partnership Inc.  
 Yellow Watershed Authority

## Accomplishments

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The Partners Program has been active in Florida since 1996. Since that time partnerships between private landowners and the U.S. Fish and Wildlife Service have achieved the following results:

- 4,384 acres of projects to improve sandhill scrub habitat for the Florida scrub-jay.
- 11,090 acres of longleaf pine restored/enhanced.
- 2,084 acres in other upland habitat projects.
- 7,755 acres in wetland restoration projects.
- 6.5-mile (954-acre) shoreline restoration project at Lake George located on the St. Johns River.
- 58.9 miles of riparian buffer and stream bank restoration projects.
- 56.5 acres in aquatic restoration projects.
- Treatment of 4,266 acres of invasive/exotic species in conjunction with wetland and upland restoration projects.

## Future Needs

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- Restore/enhance approximately 200,000 acres of sandhill scrub habitat for the benefit of the Florida scrub-jay and other scrub dependant species.
- Work with private landowners who want to voluntarily restore longleaf pine/wiregrass habitat on private lands within the 4 million acres of historically supported longleaf pine forests.
- Restore or enhance in-stream and riparian habitat.
- Restore native habitats degraded by invasive species.
- Establish conservation partnerships with Water Management Districts and other conservation organizations to deliver technical and financial assistance opportunities to private landowners



**Before restoration:** In Florida, exotic plant species form dense impenetrable tangles which compete with other plants and radically degrade native habitats.



**During restoration:** Fire, which is a natural component of the ecosystem in Florida, is used to remove exotics and restore native wildlife habitat.



**After restoration:** Native plant communities are recovering after burning, and wildlife are feeding in the recently restored habitat.

## Contacts

### State Coordinator

**Jay Herrington**  
Partners for Fish and Wildlife Program  
U.S. Fish and Wildlife Service  
Jacksonville Ecological Services Field Office  
6620 Southpoint Drive South, Suite 310  
Jacksonville, FL 32216-0912  
Phone: (904) 232-2580, ext. 136  
Fax: (904) 232-2404  
E-mail: [jay\\_herrington@fws.gov](mailto:jay_herrington@fws.gov)

### North and Central Florida

*Alachua, Baker, Brevard, Citrus, Clay, Columbia, Dixie, Duval, Flagler, Gilchrist, Hamilton, Hernando, Hillsborough, Lafayette, Lake, Levy, Madison, Manatee, Marion, Nassau, Orange, Pasco, Pinellas, Putnam, St. Johns, Seminole, Sumter, Suwannee, Taylor, Union, and Volusia counties*

**CalLee Davenport**  
Partners for Fish and Wildlife Program  
U.S. Fish and Wildlife Service  
Jacksonville Ecological Services Field Office  
6620 Southpoint Drive South, Suite 310  
Jacksonville, FL 32216-0912  
Phone: (904) 232-2580, ext. 106  
Fax: (904) 232-2404  
E-mail: [callee\\_davenport@fws.gov](mailto:callee_davenport@fws.gov)

### South Florida

*Broward, Charlotte, Collier, Desoto, Glades, Hardee, Hendry, Highlands, Indian River, Lee, Martin, Miami-Dade, Monroe, Okeechobee, Osceola, Palm Beach, Polk, Sarasota, and St. Lucie counties*

**Kathy O'Reilly-Doyle**  
Partners for Fish and Wildlife Program  
U.S. Fish and Wildlife Service  
Florida Panther Natl. Wildlife Refuge  
3860 Tollgate Blvd., Suite 300  
Naples, FL 34114  
Phone: (239) 353-8442 ext. 232  
Fax: (239) 353-8640  
E-mail: [kathy\\_o'reilly-doyle@fws.gov](mailto:kathy_o'reilly-doyle@fws.gov)

### Florida Panhandle

*Bay, Calhoun, Escambia, Franklin, Gadsden, Gulf, Holmes, Jackson, Jefferson, Leon, Liberty, Okaloosa, Santa Rosa, Wakulla, Walton, and Washington counties*

**Chris Metcalf**  
Partners for Fish and Wildlife Program  
U.S. Fish and Wildlife Service  
Panama City Fisheries Office  
1601 Balboa Avenue  
Panama City, FL 32405  
Phone: (850) 769-0552 ext. 224  
Fax: (850) 763-2177  
E-mail: [chris\\_metcalf@fws.gov](mailto:chris_metcalf@fws.gov)

