



PENINSULAR FLORIDA

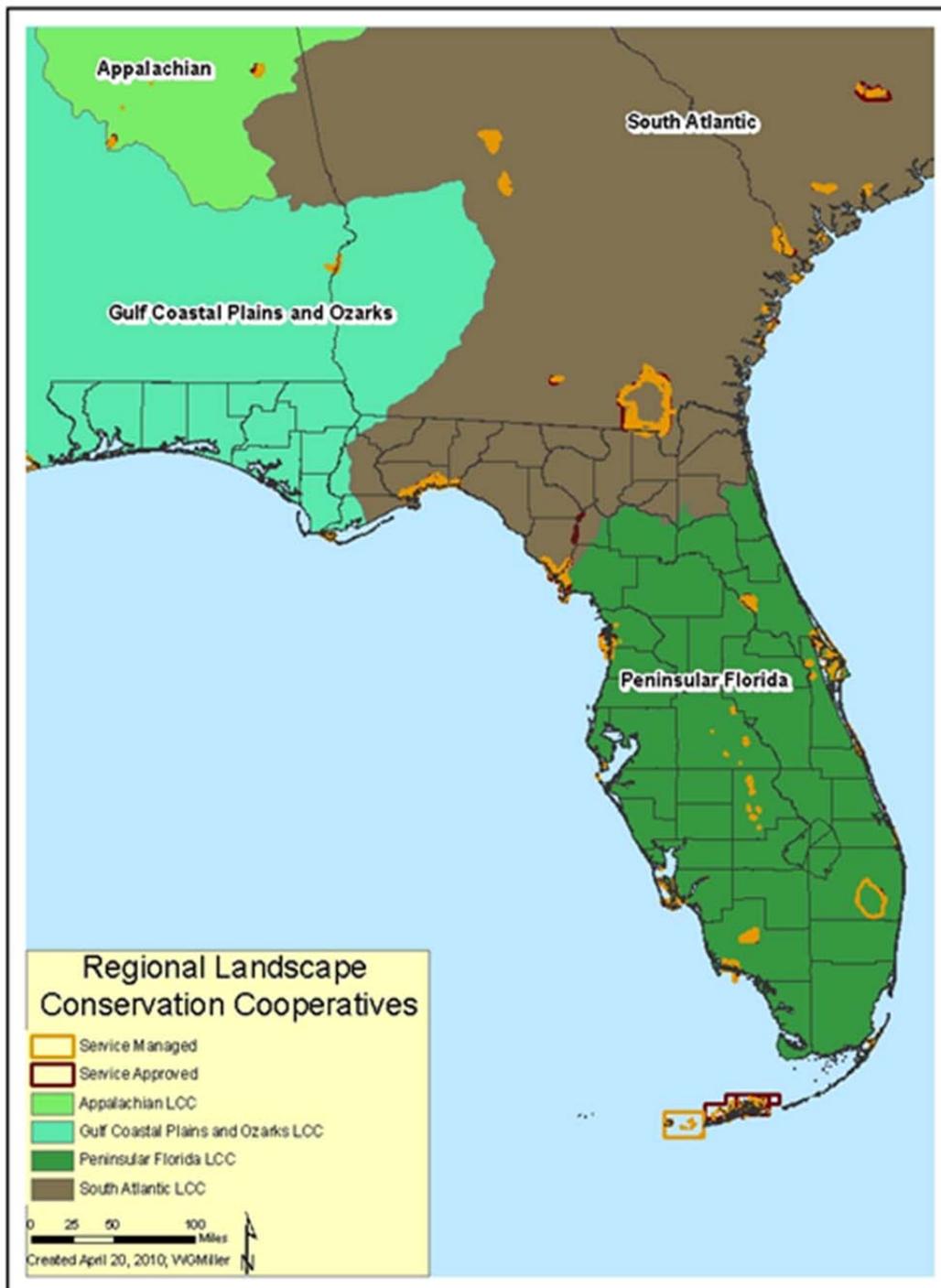
LANDSCAPE CONSERVATION COOPERATIVE

# 2012 Annual Report



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# Peninsular Florida Geography





# Description

The Peninsular Florida Landscape Conservation Cooperative (PFLCC) is in a transitional zone where the pine and bottomland hardwood elements of the Coastal Plain begin to merge with the tropical elements of south Florida. The peninsula of Florida supports unique habitats including the scrub habitats of the Lake Wales Ridge, the Big Cypress Swamp, the coral reefs and tropical hardwood hammocks of the Florida Keys, mangroves, interior dry prairie, cypress domes and the Everglades.

Florida has abundant surface water in lakes, rivers, streams, marshes and springs. The underlying karst geology supports more first magnitude springs than any other state (33). Florida has 10,000 miles of rivers and streams and 7,800 lakes. The Everglades and Big Cypress Swamp cover almost 25% of the peninsula. The peninsula of Florida is also home to an endemic subspecies of black bass, the Florida bass, which is much prized by anglers and, species like Alligator gar, American shad and Gulf sturgeon.

The central Florida Lake Wales Ridge is a center of plant and animal endemism and an international biodiversity hotspot that includes all of the world's Florida scrub-jays. Also found are sand skinks, numerous threatened and endangered scrub plant species and some of the largest meta-populations of gopher tortoises in Florida. This landscape also includes some of the highest elevations in the peninsula which were formed from ancient dunes during glacial epochs that involved global warming.

The peninsula of Florida is literally a sand spit surrounded on all sides by ocean. The peninsula is abutted on the east and south by the Atlantic and Caribbean; respectively, and on the west by the Gulf of Mexico. Coastal habitats in Florida range from barrier islands to sandy beaches and dunes, to coastal marsh, mud flats, and mangroves, to sea grass flats, oyster bars and to near shore coral reefs. These near shore and inter-tidal habitats are very important for wildlife including birds, turtles, juvenile saltwater fish, mollusks and invertebrates.

Breeding colonies of Wood stork, Glossy ibis, and 19 other herons and egrets occur in freshwater wetlands. Snail kite, Short-tailed hawk, and Limpkin also breed in the interior wetlands. One of the greatest wading-bird nesting concentrations in the world is found in the Everglades.

White-crowned pigeons and the American crocodile inhabit the Florida Keys along with other endangered species including Key deer, Key Largo wood rat, Miami Blue butterfly and Keys marsh rabbit. The only breeding site for Brown noddy, Sooty tern, and Magnificent frigate bird in the US is on the Dry Tortugas which are at the extreme end of the Florida Keys archipelago.

Wintering waterfowl abound in inland waters, including large numbers of Scaup, Ring-necked duck, and to a lesser extent Blue- and Green-winged teal. Coastal bays support Canvasbacks, Buffleheads and Redhead ducks in small to large aggregations where submerged grass flats occur. The peninsula of Florida is home to endemic subspecies of the Florida mottled duck, Florida Wood duck, and Fulvous whistling duck.

Many other species of reptiles, amphibians and mammals occur, including iconic species like Florida panther, American alligator, Florida black bear and Florida manatee. The transition from temperate to tropical climatic zones contributes to the high diversity of fish and wildlife including over 400 species of nonnative animals that have been introduced to the native landscape. Most of these introduced species are fish and reptiles and approximately 10% are considered invasive. Many more are invasive plant species that are considered injurious or invasive or both.

Five species of marine turtles, including loggerhead, green, leatherback, Kemp's Ridley and hawksbill routinely nest on the sand beaches of Florida, which also provide nesting habitat and important foraging areas for shorebirds. Most of the remaining nesting Snowy Plovers in the southeast occur along Florida's Gulf Coast. Extraordinary numbers of wintering and transitory shorebirds also use the region particularly; Short-billed dowitchers, Piping plover, Dunlin and Red knot. These important near shore habitats support important continental breeding populations of Brown pelicans, Black skimmers, and various terns.





## The Partnership

The PFLCC partnership is directed through a Steering Committee currently comprised of 22 members representing diverse conservation interests. The PFLCC Steering Committee has representation from:

US Fish & Wildlife Service

US Geological Survey

National Park Service

National Oceanic and Atmospheric Administration

Department of Defense

USDA/Forest Service

Natural Resources Conservation Service  
Florida Fish & Wildlife Conservation Commission  
Florida Department of Agriculture and Consumer Services  
Florida Department of Transportation  
Southwest Florida Water Management District  
The Nature Conservancy  
Florida Wildlife Federation  
Florida Forestry Association  
Florida Farm Bureau Federation  
Wildlands Conservation  
Plum Creek  
Breedlove, Dennis & Associates, Inc. (Florida Land Council)  
Ken Passarella, and Associates, Inc.  
Family Lands Remembered, LLC  
Florida State University, Florida Natural Areas Inventory  
University of Florida, Center for Landscape Conservation

Perhaps most noticeable is the representation from private landowner interests. The current Steering Committee Chair is Tom H. Logan, Vice-President of Breedlove, Dennis & Associates, Inc., representing large landowners in conservation efforts. Thomas Eason is Vice-chair and is affiliated with the Florida Fish and Wildlife Conservation Commission.



# Vision

Our conservation cooperative is a valued resource for conservation design and delivery that supports a Florida landscape comprised of functional and interconnected ecosystems, valued by citizens, that contribute to regional and national conservation landscape connectivity.

# Mission

The mission of the PFLCC is to foster landscape scale conservation to sustain natural and cultural resources for future generations.

# Guiding Principles

The primary focus for achieving participation across all landowner, organizational and agency groups shall be through incentive-based methods that provide and maintain social, economic and ecological value of natural systems for future generations.

Habitat conservation is a means to attain our ultimate goal... the conservation of fish and wildlife populations and ecological functions that sustain them for the benefit of people.

Defining measurable population objectives is a key component of landscape scale conservation.

Biological planning must use the best scientific information available, both as a body of knowledge and a method of learning.

Our understanding of ecological conditions is never perfect. An essential element of the Conservation Cooperative is managing uncertainty through an iterative cycle of planning, doing, and evaluating.

Management actions, decisions, and recommendations must be transparent, defensible, and explicit about the nature and magnitude of potential errors and uncertainties.

Conservation strategies consist of dynamic suites of objectives, tactics, and tools that change as new information enters the conservation cycle.

Partnerships are essential, both for developing conservation strategies and implementing actions to achieve them.

Consider and respect each participating organizations unique mandates and jurisdictions.

Seek to add value to landscape scale conservation by integrating across partnerships and organizations through identifying and filling knowledge gaps and leveraging resources.

Conduct open and frequent communications within the partnership network and be transparent in deliberations and decision-making.

Focus on developing shared landscape level priorities that will lead to implementable action.

Develop and use peer reviewed science in an adaptive management context.

Develop explicit linkages and approaches to ensure products are available in a form that is usable by partners in delivering conservation.

## Staff

The staff of the PFLCC is comprised of a Coordinator, Tim Breault; an Interim Science Coordinator, Steve Traxler and volunteer website design and support from William G. Miller. All three individuals are FWS employees. The Coordinator is being funded by a two year, 50:50, cost-share contract between FWS and the Florida Fish and Wildlife Conservation Commission (FWC) that will expire in 2013. The FWC is also providing office space, telephone, and access to copiers for the Coordinator and will do the same for the new Science Coordinator.

Plans are to hire a full time Science Coordinator and develop communications support in 2013.

# Accomplishments

A general partnership meeting was held in October 2011 to gauge partner support and to determine how the LCC could be value-added in meeting the partner's missions. The outcome was extremely positive and numerous partners indicated a willingness to serve on the PFLCC Interim Steering Committee.

An Interim Steering Committee meeting was held In April 2012. At this meeting the Interim Steering committee voted to adopt a charter which created a 16 member Steering Committee. The Steering Committee also chartered a Landowner Incentives Committee and a Geomatics working group designed to better understand partner capabilities in GIS applications. Another action taken was the election of a Chair and Vice-chair for the Steering Committee.

A second Steering Committee meeting was held in August 2012. Membership of the Steering Committee increased from 16 to 22 members through continued outreach efforts. The current focus of the bi-annual Steering Committee meetings is to provide partner updates, foster understanding of collaborative conservation concepts and opportunities and provide a forum for discussion and information transfer.

A sub team of the Landowner Incentives Committee interviewed a number of private landowners and prepared a white paper for the Steering Committee on landowner perceptions, needs and assessment of a variety of incentives to foster conservation on their lands (see white paper Appendix I).

The PFLCC hosted a monthly coordination call on the first Thursday of each month. The Coordinator provided updates, solicited input on national LCC efforts and provided opportunities for partner updates and news.

A science workshop was planned and conducted to better understand current science efforts and gaps in Florida. Invited scientists included climate scientists, modelers, landscape ecologists, urban planners, structured decision-making experts and GIS analysts (see report Appendix II).

The Steering Committee approved dedicating a significant portion of the 2012 FWS PFLCC budget allocation for contracts to integrate existing statewide science with scenario planning and decision support tools. Contracts were developed with the University of Florida (GeoPlan), Florida State University (Florida Natural Areas Inventory), GeoAdaptive, Inc. and the UGGS National Wetlands Center to develop a new version of CLIP (ver 3.0). The objective was to incorporate ecological data and conservation priorities into statewide urbanization and climate change scenarios, and to use these data to develop a visualization tool for end users. These tools and data will ultimately be used to design conservation plans and to develop conservation targets that will result in functional landscapes into the future.

The Coordinator initiated a contract through the Udall Institute for Environmental Conflict Resolution to develop a strategic plan and a 3-5 year business plan for the PFLCC which should be finalized in June 2013.

The Coordinator provided weekly and bi-monthly progress reports to the Regional Office and Washington Office respectively. He also provided quarterly progress reports to the Florida Fish and Wildlife Conservation Commission to fulfill a contractual obligation.

Coordination was facilitated with adjacent LCCs via monthly staff calls, conference calls on ad hoc issues affecting LCCs, Gulf of Mexico/NOAA coordination with the ½ time NOAA liaison to the Gulf Coast LCCs and interactions on Southeast Conservation Adaptation Strategy (SECAS) planning and coordination efforts. The Coordinator and Steering Committee Chair also coordinated with the SALCC to develop and host a meeting of forest landowners.

Guidance and input was routinely solicited from other LCC Coordinators to assist in developing best practices for coordination and to achieve integration across the LCC geographies.

The Coordinator volunteered to assist in the development of a national LCC network. Specific accomplishments include: serving on a national workgroup to develop performance metrics, participating in developing a strategic plan to guide interactions between LCCs and USGS Climate Science Centers and serving on a team that developed science themes and process for awarding multi-LCC science grants. He made a presentation on the proposed Southeast Conservation

Adaptation Strategy at the national LCC workshop in Denver and also worked with other LCC coordinators to develop a session for the 2013 George Wright Society meeting. The Coordinator also volunteered to serve on the national LCC leadership team starting in January 2013.

The Coordinator attended a variety of partnership meetings to discuss LCCs and areas for future collaboration. Specific interactions included: meeting with representatives of Lykes Bros, Inc. and the Florida Fish and Wildlife Conservation Commission to discuss long-term conservation planning for their property; meeting with the Field Office Supervisors for the 3 ES USFWS field Offices in Florida to discuss alignment of their programs with LCC objectives (they agreed to pool their Partners funding in 2012 to fund a high priority LCC objective); meeting with USGS program staff from the St Petersburg, Ft. Lauderdale and Gainesville offices; attending a meeting of the Atlantic Coast Fish Habitat Partnership in St Petersburg, attending the FL Fish and Wildlife Cooperative Unit annual meeting at the University of Florida; attending a Georgia, Florida, FWS coordination meeting; and attending an Aquatics Coordination meeting (USGS, FWS, FWC and universities) in Panama City.

The Interim Science Coordinator participated in national monthly science coordination and data management calls.

The Interim Science Coordinator served as a member of the Gulf Coast Vulnerability Assessment steering committee and several sub teams that have been tasked with developing conservation targets for the Gulf of Mexico.

The Coordinator, Interim Science Coordinator and several steering committee members attended a USFWS surrogate species workshop in St. Petersburg.

## Science Support

Florida has a rich history of landscape level science that generally began in the 1990s. The Century Commission for a Sustainable Florida called for an identification of those lands and waters in the state that are critical to the conservation of Florida's natural resources. In response, the Florida Natural Areas Inventory, University of Florida Center of Landscape Conservation, and Florida Fish & Wildlife Conservation Commission collaborated to produce CLIP - the Critical Lands and Waters Identification Project. CLIP is a GIS database of statewide conservation priorities for a broad range of natural resources, including biodiversity, landscape function, surface water, groundwater, and marine resources. The CLIP database was used by the Florida Conservation Cooperative Blueprint to develop an acquisition map and strategy for Florida.

The USFWS and USGS collaborated with urban planners from Massachusetts Institute of Technology (now GeoAdaptive, Inc.) in 2008 to develop scenarios for south Florida that included climate change variables, urbanization, conservation funding, and policies and assumptions. The scenarios were extended to the PFLCC boundary with PFLCC funding in 2012 and will be extended to include all of Florida in 2013.

The CLIP database will be updated with new information related to climate change as well as having some new data layers developed in 2013. The scenarios and CLIP database will then be integrated to develop statewide conservation plans for each of the scenarios. Data from two other landscape level projects, being developed by USGS, USFWS, and UF that includes climate envelope modeling for 26 terrestrial vertebrates and a southeastern habitat connectivity project will also be linked with the scenarios. Professors from University of Florida will also run finer scale inundation modeling for 3 pilot counties to provide some refined scale resolution of the tool. Programmers from the USGS National Wetlands Center, working with the steering committee members and guided by the PFLCC strategic plan, will develop decision support tools that incorporate the scenarios and CLIP data into a useful conservation tools. These decision support tools will also be used to help identify continuous landscapes of high conservation value, conservation targets, surrogate species and where to focus monitoring.

The scenarios are currently being used in the following projects:

- Identifying climate and urbanization for candidate species listing packages (Bonneted bat).
- Developing a habitat conservation plan statewide (HCP) for Florida's beaches and providing a method of quantifying take for 17 species that are primarily sea turtles and shorebirds.
- Providing climate change and urbanization information for the proposed new Fisheating Creek National Wildlife Refuge PPP.
- Developing a decision support tool for each of these projects to use for conservation design elements.

Future projects include:

- Planning for the Northern Everglades Headwaters NWR, Fisheating Creek NWR, and Florida Panther NWR expansions in helping to identify which parcels to acquire or to develop easements on based on landscape scale priorities.
- Developing and evaluating the economic feasibility of private landowner incentives programs.
- Setting conservation targets and/or selecting surrogate species.
- Providing a framework to help promote conservation delivery.

Proposed projects for 2013 include continued development of science support for SECAS, continued support for the Gulf of Mexico Vulnerability Assessment and a workshop to test visualization and data needs for users of the scenarios and decision support tools. Work will begin on setting conservation targets and selecting surrogate species as additional funding is provided.

# Appendix I



Private Lands  
Incentives Summary /

# Appendix II

