

# Gulf Coastal Plains and Ozarks Landscape Conservation Cooperative

## The Purpose

The Gulf Coastal Plains and Ozarks Landscape Conservation Cooperative (GCPO LCC) will facilitate conservation planning and design across this highly diverse region in southeastern North America that extends for 180 million acres from the mountain tops of the Ozark, Boston and Ouachita ranges, to the pine savanna and prairies of the West and East Coastal Plains, down into the swamps, bayous and alluvial bottomlands of the Mighty Mississippi River and Tributaries, and along the beachfronts and shorelines of the northeast Gulf Coast. With accelerating climate change threatening to impact wildlife and fisheries, a capability is being developed to test, implement and monitor conservation strategies responsive to this dynamic landscape. These strategies are model-based and geographically defined, allowing us to effectively apply our emerging climate knowledge to predict habitat and species changes and to target our conservation action.

The U.S. Fish and Wildlife Service is collaborating with agencies across the Department of the Interior, state agencies, and non-governmental organizations consistent with the Secretarial Order issued in September 2009.

## The Habitat

### ■ Ozark, Boston and Ouachita Mountains

The Ozarks, Boston and Ouachita mountains include much of southern Missouri and northern Arkansas and small portions of Illinois, Kansas and Oklahoma. The hills, valleys and karst formations of these mountain ranges feature prairies, savannas, open woodlands, glades, fens, springs, rivers, lakes and cliffs that harbor species found nowhere else on earth.

### ■ West and East Coastal Plains

The Coastal Plains extending from western Georgia to eastern Texas has been identified as an “endangered ecosystem” due to human-induced impacts and the potential threat of climate change. This vast landscape supports one of the highest acreage of longleaf and shortleaf pine ecological communities in the world, though less than three percent remain of its historic range. The freshwater communities



*Bottomland hardwoods by USFWS/Larry Richardson*

interspersed and embedded within the mixed pine-hardwoods, pine-savannas and prairie grasslands make this one of the most diverse ecological systems in North America. The southern terminus of the LCC is crowned by the beach habitats of the Emerald Coast.

### ■ Mississippi Alluvial Valley

The Mississippi Alluvial Valley is the nation’s largest floodplain extending 27 million acres from southern Missouri to coastal Louisiana. It is an ecosystem created by “America’s River” and its annual flood pulse, as historically hundreds of thousands of acres were inundated annually, and tens of millions of acres less frequently. More than 75 percent of the forested wetlands have been cleared for development and suffers from systemic water quality degradation, but the region still supplies habitat of hemispheric significance for migratory birds. Its riverine and floodplain fisheries are unparalleled in scope and diversity. It is North America’s most productive wetlands ecosystem.

## Adaptation Benefits

Building on a conservation legacy established with partners for over a century -- and more than a decade of innovation in the Lower Mississippi Valley -- the GCPO LCC will be one cooperative in a national network of more than 20 that will acquire wildlife and habitat adaptation expertise by working closely with the U.S. Geological Survey’s Climate Science Centers. It will be a conservation science partnership between the Service, federal agencies, states, tribes, NGOs, universities and other entities. What’s more, it will be a fundamental unit of planning and science capacity that will help us carry out the functional elements of Strategic Habitat Conservation (i.e. biological planning, conservation design, conservation delivery, monitoring and research), filling existing gaps in our science capacity, and ultimately informing our response to accelerating climate change and other stresses.

Some of the data gathered will include climate, land-cover, and land-use trends and patterns as well as species vulnerability and hydrology data in spatially-explicit contexts to develop

# Conservation in Action

measurable biological objectives that will guide resource management decisions and actions. Facing the most compelling conservation challenges of our generation, the science-based partnerships will augment resource manager's ability to deliver the right conservation to the right places to most benefit America's fish and wildlife. The result: Treasured landscapes connected to one another and healthier fish and wildlife populations.

## The Partnerships

The organizational and operational structure of the GCPO Landscape Conservation Cooperative will emerge as partners coalesce around the region's resource challenges. However, the

Cooperative is envisioned to be modeled after the internationally successful private, state and federal Joint Venture partnership, which includes a management board, a conservation science and coordination office, and a network of teams and action groups.

Participation is anticipated to include agencies and organizations that by virtue of their mission, mandates or authorities have identified conservation of our nation's natural resources as a priority to accomplish their objectives. Organizations would commit to participate as an equal member working cooperatively in a non-regulatory forum. The Service's contribution, commitment and participation will focus on natural resource processes directly associated with supporting and sustaining fish, wildlife, plants and their habitats.

Specifically, the Service will join others in establishing population objectives for priority species, identifying relationships between species and habitats and other limiting factors, and helping coordinate conservation and development actions to inform where and how much habitat is needed to sustain fish and wildlife populations. Developing and coordinating adaptation strategies for the GCPO LCC in response to climate change and other key stressors (e.g. urban growth, water quality and quantity, and invasive species) represents a primary focus of the Service's interest in participating in this and other landscape conservation cooperatives.

Key organizations include state fish and wildlife agencies, state water quality agencies, state forestry agencies, the Service, USGS, National Park Service, Bureau of Indian Affairs, U.S. Forest Service, Natural Resource Conservation

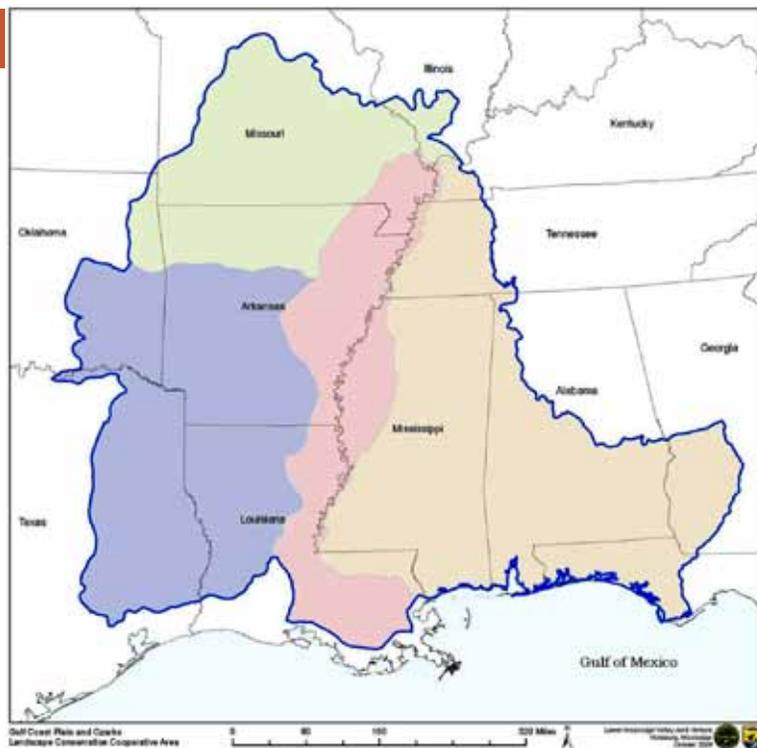
Service, U.S. Environmental Protection Agency, U.S. Department of Transportation, non-governmental conservation organizations, foundations, universities, and many others.

Conservation science and coordination capacity would be built by the membership with the Service contributing technical staff to serve in a dedicated capacity with the GCPO LCC, and the Service anticipates its members will contribute science resources including dedicated or cost-shared positions along with other identified science-driven needs. Other members of the GCPO LCC may also contribute dedicated positions or seek ways to cost-share positions. The staff could be located in one office or otherwise but would work as a team on behalf of the cooperative. The network of teams and action groups would accomplish the conservation work, guided by the priorities and activities set by the partnership.

## Existing Capacity and Anticipated Needs

An avian-based GCPO-wide conservation science and coordination capacity exists through three Joint Venture partnerships (Lower Mississippi Valley, Central Hardwoods and East Gulf Coastal Plain) as well as the Southeast Aquatic Resource Partnership whose area of responsibility expands beyond the boundary of the GCPO LCC. In addition, the conservation community supports numerous conservation management, science and technical staff serving within the GCPO LCC geography whose work and contributions will be vital to its success. The Lower Mississippi Joint Venture, for example, has a JV coordinator, an avian science coordinator, a natural resource planner, a GIS application biologist and Mississippi Alluvial Valley and West Gulf Coastal Plains conservation delivery coordinators.

Among the skills, talents and expertise identified so far, we expect to work with partners to fill the following needs: a



landscape simulation and forecasting modeler; monitoring coordinator/biometrician, a geo-database development manager; biological carbon sequestration/biofuels specialist, a bio-hydrologic modeler; conservation scientists (e.g. fisheries population ecologist/science coordinator, an adaptation management restoration ecologist/science coordinator), a public engagement and communications specialist and a webmaster with new media expertise.

## Timeline

In FY 2010, an interagency team will convene a climate change rapid prototypic workshop that will engage the JV boards and other partners and identify ecological intersection among the State Wildlife Action Plans, National Bird Plans and other Conservation Plans.

In FY 2011, the GCPO LCC will be formally constituted. Its technical staff will begin work on priority biological planning projects and a climate change adaptation strategy for this geographic area.

## For More Information

Bill Uihlein, Interim LCC Coordinator, 601/629 6619, bill\_uihlein@fws.gov

Robert Ford, Senior Science Adviser for Climate Change, 901/327 7631, robert\_p\_ford@fws.gov

## To Learn More

Please visit our Region's web site at [www.fws.gov/southeast/LCC/GulfPlains/](http://www.fws.gov/southeast/LCC/GulfPlains/). Other resources can be found at [www.fws.gov/southeast/climate](http://www.fws.gov/southeast/climate) and [www.fws.gov/southeast/shc](http://www.fws.gov/southeast/shc).