



U.S. Fish & Wildlife Service

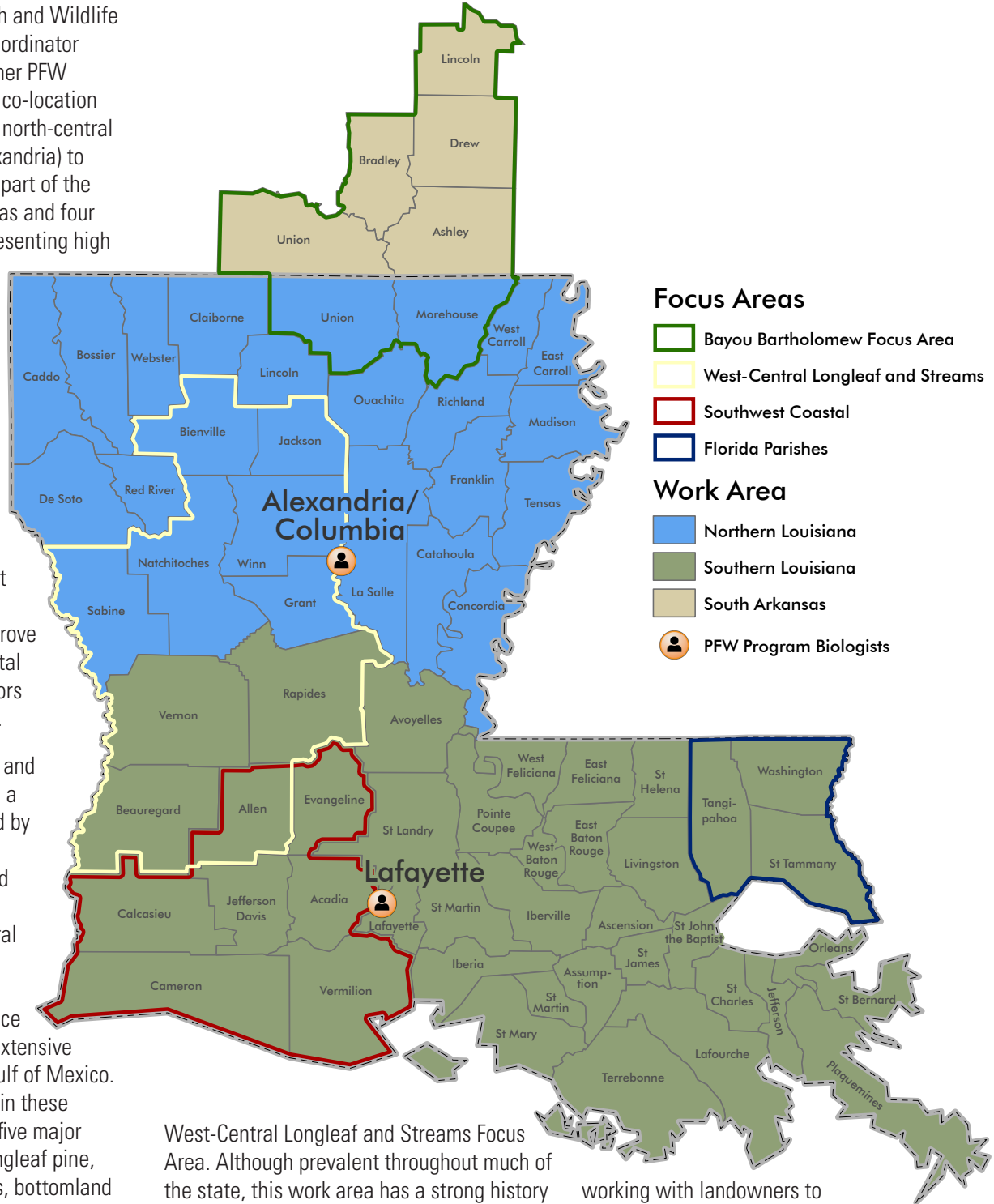
The Louisiana Partners for Fish and Wildlife Program Lafayette Ecological Services Field Office Lafayette, Louisiana

The Louisiana Partners for Fish and Wildlife (PFW) Program has a State Coordinator located in Lafayette and another PFW Program biologist planned for co-location with a partner organization in north-central Louisiana (i.e., Columbia, Alexandria) to better serve the north-central part of the state. There are two work areas and four focus areas in this state, representing high priority habitats within the West Gulf Coastal Plain Longleaf Pine Forests, Coastal Prairies, the East Gulf Coast Longleaf Pine Forest, various freshwater stream systems, and the Chenier and Deltaic Plains. The work areas are established solely to identify PFW Program points-of-contact within the state. The focus areas are priority project locations identified to benefit listed and at-risk species, improve habitat connectivity, add coastal resiliency, and address stressors brought on by climate change.

Louisiana is a topographically and biologically diverse state with a subtropical climate moderated by the Gulf of Mexico. The state consists of uplands and upland terraces in the southeastern, northwestern, and north-central regions dissected by the Mississippi and Red River alluvial valleys. A prairie terrace exists in the southwest, and extensive coastal marshes border the Gulf of Mexico. Plant communities found within these regions are representative of five major communities in Louisiana: longleaf pine, mixed pine/upland hardwoods, bottomland hardwoods, prairie, and coastal marsh.

North Louisiana Work Area

The North Louisiana Work Area has two focus areas: the Bayou Bartholomew Focus Area and the northern portion of the



West-Central Longleaf and Streams Focus Area. Although prevalent throughout much of the state, this work area has a strong history of recreational hunting and fishing and timber production. The PFW Program is committed to assisting private landowners with habitat improvement and technical assistance to support these traditional landowner priorities. One particular challenge will be

working with landowners to establish longer-rotation silvicultural practices to benefit target species. Identifying projects that benefit the streams and bayous of north Louisiana will also be a priority, as there are multiple listed and at-risk aquatic species in this work area.

Key Partners in Louisiana

- Allied Development Inc.
- Audubon Louisiana
- Baton Rouge Audubon Society
- Cajun Prairie Habitat Preservation Society
- Cameron Parish Levee District
- Campbell Global
- Coushatta Tribal Nation
- Crowell Forest Resources
- Ducks Unlimited
- Farm Service Agency
- Forest Investment Associates
- Louisiana Dept. of Agriculture and Forestry
- Louisiana Dept. of Wildlife and Fisheries
- Louisiana Forestry Association
- Louisiana State University
- Miami Corporation
- National Wild Turkey Federation
- Natural Resources Conservation Service
- The Nature Conservancy
- U.S. Department of Defense
- U.S. Forest Service
- West-Central LA Ecosystem Partnership

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Bayou Bartholomew Focus Area

Habitat Type: Shortleaf Pine Forest, Associated Stream System

Total Listed & At-Risk Species in Focus Area: Endangered (2), Threatened (2), At-Risk (8)

Focal Species: ESA Status, Common Name (<i>Scientific Name</i>)	Taxa Group
Endangered: Pink Mucket Pearlymussel (<i>Lampsilis abrupta</i>) Red-cockaded Woodpecker (<i>Picooides borealis</i>), proposed downlisting	Mussel Bird
Threatened: Rabbitsfoot (<i>Quadrula cylindrica cylindrica</i>) Northern Long-eared Bat (<i>Myotis septentrionalis</i>)	Mussel Mammal
At-Risk: Tricolored Bat (<i>Perimyotis subfalvus</i>) Western Chicken Turtle (<i>Deirochelys reticularia miaria</i>) Alligator Snapping Turtle (<i>Macrochelys temminckii</i>), proposed Threatened Golden-winged warbler (<i>Vermivor chrysoptera</i>) Western fanshell (<i>Cyprogenia aberti</i>) Pink pigtoe (<i>Pleurobema rubrum</i>)	Mammal Reptile Reptile Bird Mussel Mussel

Focal Area Parishes and Counties: Louisiana: Morehouse, Union
Arkansas: Ashley, Bradley, Drew, Lincoln, Union

Types of Habitat Improvement: Forest stand improvements, fire breaks, fuel reduction, prescribed burning, tree planting, and invasive control. Riparian tree planting, erosion control, and stream bank stabilization. Instream channel modifications, hazardous material and infrastructure removal, stream barrier removal and stream crossing improvements, stormwater and sediment management. Wildlife habitat structure installation such as nest boxes and bat barns.

Bayou Bartholomew Focus Area

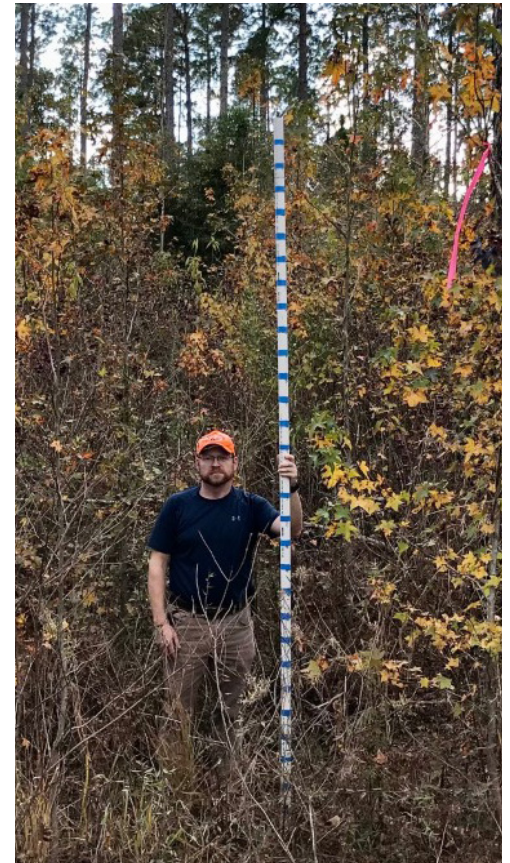
This focus area includes the floodplain of Bayou Bartholomew, the longest bayou in the world (about 360 miles) from Pine Bluff, Arkansas to the Ouachita River near Sterlington. It is designated a Natural and Scenic Stream in Louisiana and is considered one of the few largely unaltered natural streams remaining in the Mississippi Valley. Bayou Bartholomew is thought to be the second most diverse stream system in North America, supporting 117 species of fish and at least 35 species of mussels. Projects that benefit tributaries within this watershed (or the bayou itself) are a priority. Shortleaf pine was historically the most prevalent natural ecotype in the Upper West Gulf Coastal Plain, of which only about 5% remains. This natural community occurs on dry hills, slopes, and ridges; on acidic silt soils underlain by clays with approximately 50% upland hardwoods, and a fire return rate of 5 to 15 years. Louisiana field staff will work closely with the Arkansas PFW field staff to ensure collaboration across state lines and will work with landowners to manage forests and streams in a mutually beneficial manner.



PFW funded school projects, credit USFWS.



Whooping cranes on private land in southwest Louisiana, credit Louisiana Department of Wildlife and Fisheries.



Partner holding a Robel pole in an area to be mulched before prescribed fire, credit USFWS.

West-Central Longleaf and Streams Focus Area

This focus area includes Western Upland Longleaf Pine Forest, Pine Savannah, Pine Flatwoods, Saline Prairie, and freshwater streams. The West-Central Longleaf and Streams Focus Area is included in both the northern and southern Louisiana work areas.

The Western Upland Longleaf Pine Forest occurs in the hilly uplands in western and central Louisiana on acidic loamy sands to acidic clays. Dominated by a longleaf pine canopy, this is a highly diverse herbaceous plant community when regular fire is present.

Pine Savannahs are floristically rich herb-dominated systems that are naturally stocked (sparsely) with longleaf pine. Wet savannahs occupy the poorly drained and seasonally saturated/flooded depressional areas and low flats, while the non-wetland flatwoods occupy the better drained slight rises, low ridges and “pimple mounds” (only southwest Louisiana). Pine Flatwoods in southwest Louisiana occur primarily on flat, low-relief areas with a high-water table, and contain longleaf, loblolly, and a mix of hardwoods.

Soils are normally mesic and acidic, however, can become saturated during the winter months. Saline prairie is a mostly treeless, natural community currently known from a few scattered sites in central and northwestern Louisiana. Saline prairies are typically a few acres in size, and can be wet, mesic, or dry.

Clear, spring-fed perennial streams supporting freshwater mussels are also important habitat in this focus area. The PFW Program will collaborate with private landowners to develop timber management plans which support timber production as well as enhance and protect the listed and at-risk species in this area. Focusing efforts to establish diverse understories and buffers along streams will ensure that all taxa groups within the longleaf ecosystems benefit from PFW projects.

West-Central Longleaf and Streams Focus Area

Habitat Type: Longleaf Pine Forest, Saline Prairie, Associated Stream System

Total Listed & At-Risk Species in Focus Area: Endangered (4), Threatened (4), At-Risk (9)

Focal Species: ESA Status, Common Name (<i>Scientific Name</i>)	Taxa Group
Endangered:	
American Chaffseed (<i>Schwalbea Americana</i>)	Plant
Red-cockaded Woodpecker (<i>Picooides borealis</i>) - proposed downlisting	Bird
Threatened:	
Louisiana Pearlshell Mussel (<i>Margaritifera hembeli</i>)	Mussel
Louisiana Pinesnake (<i>Pituophis ruthveni</i>)	Reptile
Earthfruit (<i>Geocarpon minimum</i>)	Plant
Northern Long-eared Bat (<i>Myotis septentrionalis</i>)	Mammal
At-Risk:	
Tricolored Bat (<i>Perimyotis subfalvus</i>)	Mammal
Kisatchie Painted Crawfish (<i>Orconectes maletae</i>)	Crayfish
Schoolhouse Springs Leuctran Stonefly (<i>Leuctra szczytkoi</i>)	Insect
Calcasieu Painted Crawfish (<i>Orconectes blacki</i>)	Crayfish

Focal Area Parishes: Bienville, Grant, Jackson, Natchitoches, Winn, Sabine, Allen, Beauregard, Rapides, Vernon

Types of Habitat Improvement: Forest stand improvements, fire breaks, fuel reduction, prescribed burning, tree planting, and invasive control. Riparian tree planting, erosion control, and stream bank stabilization. Instream channel modifications, hazardous material and infrastructure removal, stream barrier removal and stream crossing improvements, stormwater and sediment management. Wildlife habitat structure installation such as nest boxes and bat barns.



Above: Partners from the Coushatta Tribe with longleaf restoration sign, credit USFWS.



At left: The threatened Louisiana Pearlshell mussel, credit Andy Dolan.

South Louisiana Work Area

The South Louisiana Work Area consists of three focus areas: the southern portion of the West-Central Longleaf and Streams Focus Area (detailed above), the Florida Parishes Focus Area, and the Southwest Coastal Focus Area. Major industries within this work area include timber production, oil and gas production, and agriculture. The PFW Program will continue working diligently with production companies, farmers, and other private landowners to expand habitat improvement efforts in this work area. One particular challenge in south Louisiana is the persistence of hurricanes and their repeated devastating impacts to habitats and wildlife. The PFW Program will be proactive in identifying projects that will not only support species conservation, but also augment coastal resiliency.

Southwest Coastal Focus Area

This focus area includes Coastal Cheniers, Coastal Marsh, and Coastal Prairie. Coastal Cheniere (French for “place of oaks”, also called Coastal Live Oak-Hackberry Forest) is the natural community which formed on abandoned beach ridges primarily in southwest Louisiana. These ancient beaches were stranded via deltaic sedimentation by the constantly shifting Mississippi River. Composed primarily of sand and shell, these ridges are mostly 4 to 5 feet above sea level and serve as vital resting habitat for trans-gulf-migrating birds. Hundreds of thousands of birds (different species) use cheniers as a stop-over point on their way north.

From the Gulf of Mexico moving inland, Coastal Marsh is a natural community that transitions from saline, to brackish, to intermediate, to fresh. As salinity decreases moving inland, plant and animal species diversity increases. These wet grasslands act as nurseries for marine organisms and provide habitat for an abundance of birds, including listed and at-risk species. Anthropogenic impacts, as well as sea level rise, erosion, salt water intrusion, and hurricanes have all led to Coastal Marsh decline. The most imperiled natural community in the state, Coastal Prairie, is a tallgrass prairie in southwest Louisiana located just inland from the coastal marsh. This natural community is extremely



Collecting prairie seeds for restoration, credit USFWS.



Restored Louisiana prairie, credit USFWS.

Southwest Coastal Focus Area

Habitat Type: Coastal Cheniers, Coastal Marsh, Coastal Prairie

Total Listed & At-Risk Species in Focus Area: Endangered (6), Threatened (6), At-Risk (6)

Focal Species: ESA Status, Common Name (<i>Scientific Name</i>)	Taxa Group
Endangered: Whooping Crane (<i>Grus Americana</i>) American Chaffseed (<i>Schwalbea Americana</i>)	Bird Plant
Threatened: Black Rail (<i>Laterallus jamaicensis</i>)	Bird
At-Risk: Correll’s False Dragonhead (<i>Physostegia correllii</i>) Golden-winged Warbler (<i>Vermivor chrysoptera</i>) Eastern Beard Grass Skipper (<i>Atrytone arogos arogos</i>) Calcasieu Painted Crawfish (<i>Orconectes blacki</i>) Monarch Butterfly (<i>Danaus plexippus plexippus</i>) Western Chicken Turtle (<i>Deirochelys reticularia miaria</i>)	Plant Bird Insect Crayfish Insect Reptile

Focal Area Parishes: Cameron, Vermillion, Calcasieu, Jefferson Davis, Acadia, Allen, Evangeline

Types of Habitat Improvement: Chenier hardwood forest construction and planting with appropriate trees and shrubs, marsh ditch plug installation or removal, water control structure installation or removal, dike installation or removal, tide gate installation or removal, and planting native vegetation. Native warm-season grass prairie planting and protection, including mechanical clearing of shrubs and other site preparation activities, planting vegetation, mowing, prescribed fire, fencing, and invasive species control.

important for pollinators and grassland birds, but most of it has been converted to agriculture and pastureland. What was once an expanse of nearly 2.5 million acres, is unfortunately today limited to small, remnant

parcels totaling less than 1% of the historical acreage. Without prairie restoration efforts, many species of plants and insects could face extirpation from Louisiana. This habitat is underlain by an impervious clay pan 6 to

18 inches below the surface that prevents downward percolation of water and inhibits upward movement of capillary water, making them saturated in winter, and typically very dry in late spring and fall. Historically, trees were confined to elevated and better drained stream sides or ridges, forming “gallery forests,” dividing the Coastal Prairie into many subunits or “coves.” The PFW Program will collaborate with private landowners to restore natural communities and support coastal resiliency to this area, which has been repeatedly impacted by hurricanes. Louisiana field staff will work closely with the Cajun Prairie Habitat Preservation Society and coastal restoration biologists within Ecological Services to meet landowners, identify priority projects, and develop technical restoration strategies.

Florida Parishes Focus Area

The Florida Parish Focus Area supports Pine Flatwoods and Eastern Upland Longleaf Pine Forest habitats. Pine Flatwoods occur primarily in the lower Florida Parishes on flat, low-relief areas with a high-water table, containing soils normally mesic and acidic which may become saturated in winter months. The Eastern Upland Longleaf Pine Forest habitat occurs in the hilly uplands of the central and eastern Florida Parishes. This area typically consists of acidic loamy sands to acidic clays dominated by a longleaf pine canopy and a highly diverse herbaceous plant community when recurring fire is present.

Historical land use in this focus area has centered around timber production, most of which has resulted in the conversion of native longleaf to off-site loblolly and slash pine plantations. Another major threat to native habitat in the Florida Parishes has been the increased commercial and residential development following Hurricane Katrina (2005) when many homeowners and businesses relocated here from New Orleans. The PFW field staff will work with private landowners to establish and maintain corridors for wildlife within this changing landscape. Another priority will be to collaborate with landowners to re-introduce fire across the landscape and establish native longleaf pine stands where they have been converted. The Nature Conservancy has decades of experience restoring these ecosystems and is a valuable partner in this focus area.

Florida Parishes Focus Area

Habitat Type: Longleaf Pine Forest, Associated Wetland/Stream System

Total Listed & At-Risk Species in Focus Area: Endangered (3), Threatened (6), At-Risk (11)

Focal Species: ESA Status, Common Name (<i>Scientific Name</i>)	Taxa Group
Endangered: Dusky Gopher Frog (<i>Rana sevosa</i>) - historical range Red-cockaded Woodpecker (<i>Picooides borealis</i>), proposed downlisting Louisiana Quillwort (<i>Isoetes louisianensis</i>)	Amphibian Bird Plant
Threatened: Gopher Tortoise (<i>Gopherus Polyphemus</i>)	Reptile
At-Risk: Southern Snaketail Dragonfly (<i>Ophiogomphus australis</i>) Correll’s False Dragonhead (<i>Physostegia correllii</i>) Eastern Diamondback (<i>Crotalus adamanteus</i>) Tricolored Bat (<i>Perimyotis subflavus</i>) Bog Spicebush (<i>Lindera subcoriacea</i>) Alabama Hickorynut (<i>Obovaria unicolor</i>)	Insect Plant Reptile Mammal Plant Mussel

Focal Area Parishes: Tangipahoa, St. Tammany, Washington

Types of Habitat Improvement: Forest stand improvements, fire breaks, fuel reduction, prescribed burning, planting trees and herbaceous vegetation, and invasive control. Prairie vegetation planting, invasive control and installation of cattle fencing. Riparian tree planting, erosion control, and stream bank stabilization. Instream channel modifications, hazardous material removal, and infrastructure and stream barrier removal, and stream crossing improvements, stormwater and sediment management. Wildlife habitat structure installation such as nest boxes and bat barns.



Above: Prairie site post restoration, credit Matt Conn.

At right: the threatened Louisiana pine snake, credit Andy Dolan.