

Quarterly Newsletter

March 2009

Volume 6 Number 3 of 4

Working with landowners towards conservation of Louisiana's
ecologically sensitive lands

http://www.Louisiana.gov/experience/natural_heritage/naturalareasregistry/

Can you name the animal in the above photo? See page 5 for answer.

Girl Scouts Plant Longleaf Pines

Camp Whispering Pines, a site registered with the Louisiana Natural Areas Registry in Independence, Louisiana had help planting 3,000 six-inch long longleaf pine seedlings on February 7, 2009.



Arbor Day planting on their 600-acre camp brought together over 100 girl scout volunteers, their parents, Mark Hains with Longleaf Alliance, Patti Faulkner from Natural Heritage, and Judy Jones from Natural Areas. Camp Whispering Pines has been restoring their longleaf pine forests for the past 15 years. Girl Scouts earned their Tree Planting badge and learned the importance of longleaf pine ecosystems from Mark Hains (shown talking to group below). Camp ranger, Larry Erlich, made sure that sites were prepped for planting before the big day.



Camp Whispering Pines consists of three plant community types that include the state-imperiled Eastern Upland Longleaf Pine Forest, state-rare Shortleaf Pine Oak-Hickory Forest, and a Small Stream Forest in the floodplain of the Tangipahoa River in Tangipahoa Parish. The Girl Scouts of Louisiana East have worked hard to restore the longleaf pine forest by harvesting loblolly, planting longleaf, and regularly burning. Additionally,
September 2008

Ranger Larry Erlich has worked hard to restore the camp after the past hurricanes caused extensive damage to the trees and the buildings.

Only one to five percent of the original two million acres of upland longleaf pine forests in southeast Louisiana remain. Management strategies that promote long-term maintenance of healthy longleaf pine forests include:

- ♣ Use of growing season prescribed fire (April-June) at a frequency of every one to three years.
- ♣ Thinning targeting loblolly and slash pines for removal and favoring longleaf pine as "leave" trees.
- ♣ Replanting with longleaf seedlings only.
- ♣ Preventing conversion of existing natural forests to other land uses.
- ♣ Surveying for and removal of any invasive plant species (exotics or woody) with prescribed fire or use of spot herbicides or mechanical means. ✪

Bottomland Hardwood Forest

Thirteen Registered Natural Areas occur in this plant community type.

Rarity Rank: S4/G4G5 – apparently secure

Synonyms: Mixed Bottomland Hardwoods, Broad Stream Margins, Hardwood Bottoms

Ecological Systems:

CES203.512 Lower Mississippi River Bottomland and Floodplain Forest

CES203.489 East Gulf Coastal Plain Large River Floodplain Forest

CES203.065 Red River Large Floodplain Forest

CES203.488 West Gulf Coastal Plain Large River Floodplain Forest

General Description:

- ♣ Forested, alluvial wetlands occupying broad floodplain areas flanking large river systems
- ♣ Maintained by a natural hydrologic regime of alternating wet and dry periods that follow seasonal flooding events
- ♣ Provide important ecosystem functions including maintenance of water quality, providing productive habitat for a variety of fish and wildlife species, and regulation of flooding and stream recharge
- ♣ Soils are alluvial deposits, heavy clays to silty clays, high in organic matter and nutrients
- ♣ Dominant forest species can be aggregated into specific associations based on environmental factors such as physiography, topography, hydric soils, and hydrologic regimes
- ♣ Vegetation associations are typically mixtures of broadleaf deciduous, needle leaf deciduous, and evergreen trees and shrubs

Plant Community Associates

1) Overcup Oak - Water Hickory Bottomland Forest:

Quercus lyrata (overcup oak) and *Carya aquatica* (water hickory) are community codominants of this floodplain forest which occurs on low-lying poorly drained flats, sloughs in the lowest backwater basins, and on low ridges with clay soils that are subject to inundation. Semi-permanently inundated or saturated soils are generally present for major portion of the growing season. Common forest associate species include *Fraxinus pennsylvanica* (green ash), *Celtis laevigata* (hackberry), *Cornus foemina* (swamp dogwood), *Forestiera acuminata* (swamp privet), *Planera aquatica* (planertree), *Cephalanthus occidentalis* (buttonbush), and many vine species.

2) Hackberry-American Elm-Green Ash Bottomland Forest:

Celtis laevigata (hackberry), *Ulmus americana* (American elm), and *Fraxinus pennsylvanica* (green ash) are community codominants. This community occurs in floodplains of major rivers on low ridges, flats and sloughs in first bottoms. Soils are seasonally inundated or saturated periodically for one to two months during the growing season. Common forest associate species include *Carya aquatica* (water hickory), *Quercus texana* (nuttall oak), *Q. phellos* (willow oak), *Q. nigra* (water oak), *Q. lyrata* (overcup oak), *Liquidambar styraciflua* (sweetgum), *Acer negundo* (box elder), *Ulmus alata* (winged elm), *Acer rubrum* (red maple), *Gleditsia aquatica* (water locust), and *Plantanus occidentalis* (American sycamore). Understory species include *Cornus foemina* (swamp dogwood), *Crataegus* spp. (hawthorn), *Morus rubra* (red mulberry), and many vine and herbaceous species are also present. Photo below at Bayou Cocodrie is representative of this forest type.



3) Sweetgum-Water Oak Bottomland Forest:

Community dominants are *Liquidambar styraciflua* (sweetgum) and *Quercus nigra* (water oak). Major associates are *Celtis laevigata* (hackberry), *Fraxinus pennsylvanica* (green ash), *Ulmus americana* (American elm), and *Q. texana* (nuttall oak). It occurs in alluvial floodplains, extensively in the Mississippi alluvial valley on well drained first bottom ridges. Associated species are *Q. pagoda* (cherrybark oak), *Acer rubrum* (red maple), *Morus rubra* (red mulberry), *Smilax* species (greenbrier), *Sabal minor* (dwarf palmetto), *Ilex decidua* (deciduous holly), *Crataegus viridis* (green hawthorn), *Campsis radicans* (trumpet creeps), *Arundinaria gigantea*

(switchcane), and *Toxicodendron radicans* (poison ivy). Many other vines and herbaceous species also occur. Soils are seasonally saturated or inundated for up to two months during the growing season. Photo below at Bayou Cocodrie is representative of this forest type.

Federally-listed plant & animal species: *Ursus americanus luteolus* (Louisiana black bear) Threatened; G5T2; S2



Range: Predominant in the Mississippi River Alluvial Plain, but found throughout Louisiana in all parishes. These forests are also important in the East Gulf Coastal Plain in association with major rivers.

Threats & Management Considerations: Major factors threatening this association include hydrological alterations, construction of roads, utilities and pipelines, and invasive exotic species. Use of appropriate management activities and developing a compatible management plan prevents destruction or degradation of this habitat type and promotes long-term maintenance of healthy bottomland hardwood forests. Such management strategies should include:

- Prevent conversion of existing natural forests to other land uses
- Maintain natural species composition by following appropriate hardwood management techniques
- No harvesting during wet periods to prevent soil damage
- Surveying for and removal of any invasive plant species (exotics or woody) with use of spot herbicides or mechanical means
- No soil disturbance or other activities that alter natural waterflow, including from adjacent areas

Current Extent and Status: State-wide, bottomland hardwood forest loss is estimated to be 50 to 75 % of the original presettlement acreage. Old-growth examples of this habitat type are very rare. Clearing for agricultural production was the primary factor that led to fragmentation and decline of this habitat type. Large tracts of bottomland hardwood forest remain but most are either second or third growth stands. This habitat can be found within many of the Wildlife Management Areas (WMA's) managed by LDWF and on National Wildlife Refuges (NWR's) managed by the United States Fish and Wildlife Service (USFWS). WMA's support 304,982 acres of bottomland hardwoods while NWR's contain another 150,000 acres. The U.S. Army Corps of Engineers (COE) oversees the Atchafalaya Basin Floodway which is the

**BOTTOMLAND HARDWOOD FOREST
SPECIES OF CONSERVATION CONCERN (34)**

AMPHIBIANS	Field Sparrow
Southern Dusky Salamander	Rusty Blackbird
Louisiana Slimy Salamander	Orchard Oriole
Strecker's Chorus Frog	BUTTERFLIES
Eastern Spadefoot	Celia's Roadside Skipper
Southern Crawfish Frog	Falcate Orange-tip
BIRDS	'Seminole' Texan Crescent
Yellow-crowned Night-Heron	MAMMALS
Wood Stork	Southeastern Shrew
Swallow-tailed Kite	Southeastern Myotis
Bald Eagle	Louisiana Black Bear
American Woodcock	Long-tailed Weasel
Yellow-billed Cuckoo	Eastern Spotted Skunk
Wood Thrush	REPTILES
Yellow-throated Vireo	Alligator Snapping Turtle
Northern Parula	Western Worm Snake
Prothonotary Warbler	Common Rainbow Snake
Swainson's Warbler	Timber Rattlesnake
Louisiana Waterthrush	
Kentucky Warbler	
Hooded Warbler	

largest remaining block of bottomland hardwood forests and swamp in the U.S. (595,000 acres) yet most of the basin remains in private ownership. Louisiana's East Gulf Coastal Plain (EGCP) still contains extensive areas of bottomland hardwood forest primarily along the Pearl and Bogue Chitto Rivers in St. Tammany and Washington Parishes, respectively. Much of this acreage is contained within the Bogue Chitto NWR, managed by the USFWS, and Pearl River WMA, operated by LDWF. The lower Tangipahoa and Natalbany Rivers in Tangipahoa Parish, as well as the Tickfaw and Amite Rivers in Livingston Parish, support tracts of bottomland forest (Smith 1999a, Smith 1999b). Louisiana State Parks including Chicot, Lake Fausse Point, Tickfaw, Fontainebleau, and Bogue Chitto support bottomland hardwood forests. Other small privately owned bottomland hardwood sites are located within all parishes in the state, and a total of 4,400 acres of combined bottomland hardwood forests and swamps are registered with the Louisiana Natural Areas Registry Program.

Restoration efforts have been in progress since the 1980's, and with the aid of the Conservation Reserve Program (CRP) and Wetland Reserve Program (WRP) over 365,000 acres have been reforested in Louisiana (R. Marcantel, personal communication). Reconnecting fragmented forest blocks and restoration of wetland forest functions are the major challenges to reforestation efforts and are essential to providing adequate wildlife habitat in bottomland hardwood forest systems. Restoration efforts have been in progress since the 1980's, and reconnecting fragmented forest blocks and restoration of wetland forest functions are the major challenges to reforestation efforts.

Restoration effects on wildlife: Research was conducted to evaluate the effectiveness of restored wetlands in providing habitat to amphibians, particularly frogs. Amphibian populations have experienced dramatic declines worldwide as a result of habitat loss, diseases and other factors. This loss is of concern not only because of their overall contribution to biodiversity and ecosystem function, but also because amphibians are an important food resource for many other species of wildlife. Studies indicate that restored wetlands are rapidly colonized by most species of frogs. In Avoyelles Parish, 11 frog species of 12 that occur in the area were observed in wetlands restored through the Wetlands Reserve

Program. Studies indicate that dense shoreline vegetation, abundant vegetation in ponds, and mature forest cover in upland areas near the wetland are important to amphibian habitat in restored wetlands. Similarly, other researchers have found substantial use of restored areas by songbirds and waterbirds. It is expected that the types of animals using these sites will change as the forests mature. Taken from article "Restoration and Management of Bottomland Hardwoods" by Sammy L. King, in spring 2006 issue of Louisiana Agriculture. ❀

Bronze Frog
(*Rana clamitans clamitans*)

BY TEXAS PARKS AND WILDLIFE (EDITED BY JUDY JONES)

OTHER NAMES: Banjo Frog

DESCRIPTION: The bronze frog grows up to two to four inches (5.4 to 10.2 cm). Distinguishing characteristics include a bronze to brownish body, white belly with dark, irregular blotches, and a bright green upper lip and nose. Males may have yellowish throats. Bronze frogs are smooth skinned, like all true frogs. They have long hind legs with webbed toes. A fold of skin, called a lateral line, begins behind the eye and runs two-thirds the length of body. The tympanum (ear disc) is larger in males.

LIFE HISTORY: Named for its body color, the bronze frog is



a secretive species, hiding under vegetation near ponds, creeks and rivers. It may be difficult to find until warm, humid evenings when its mating call is heard. Their diet includes small frogs, worms, insects, and other small invertebrates. Birds, fish, and small carnivores (meat eaters) prey on the bronze frog. Photo by Dr. Jeff Boundy with LDWF.

It reaches sexual maturity in the first full summer after metamorphosis. Breeding season begins in early spring and lasts through the summer. Females lay 2,000 to 4,000 eggs in small masses attached to underwater vegetation. Eggs are 1.5 mm when laid, but grow to 6 mm as cells divide. Incubation is one to two weeks. Tadpoles are green with small, dark spots. They grow 1 to 1.5 inches (28 to 33 mm) before they metamorphose (change from tadpoles to frogs). Bronze frogs live seven to 10 years.

Bronze frogs are nocturnal and solitary. They remain under cover, in logs and crevices, most of the time. Male bronze frogs court females with a distinct call.

West Gulf Coastal Plain Prescribed Burning Initiative

by Fred Kimmel with LDWF (edited by Judy Jones)

Researchers agree that the love song of the bronze frog sounds like someone plucking a loose banjo string (tunk tunk tunktunk). In fact, another common name for the bronze frog is the "banjo frog."

Rana is the Latin word for "frog." Clamitans, the species and subspecies name, means "noisy" and refers to the call of the male. The bronze frog is a member of the true frog family, the Ranidae family. The moist, permeable skin of the bronze frog (like other frog species) makes it very sensitive to pollution, a good indicator of water quality for people.

HABITAT: Bronze frogs prefer shallow streams, ponds, marshes, springs, and swamps with plenty of vegetation.

DISTRIBUTION: Bronze frogs are found in the southeastern portion of the United States, from North Carolina to the eastern third of Texas.

OTHER: Worldwide, scientists are investigating a number of possible causes for amphibian decline: acid rain, herbicides, insecticides, fertilizers, industrial waste, habitat destruction, introduced species, bacteria, ozone depletion and global warming. It could be a combination of any or several of these suspected causes.

Louisiana Amphibian Monitoring (LAMP) was first established in 1996 and is a mostly volunteer effort coordinated in part by LDWF to begin accumulating data on Louisiana's amphibians (frogs, toads, and salamanders). The first part of this effort has been to establish calling frog surveys. Check out LDWF web page <http://www.wlf.louisiana.gov/experience/lawildlife/reptileandamphibian/LAMP/> that has species profiles and frog / toad calls. Tapes are available for training new volunteers that illustrate the species expected to be in Louisiana. Examples of how to apply the "1, 2, 3" categories of abundance are also given. A self-test section is included at the end of each tape. References could be useful to someone doing these surveys. Two outstanding references would be:

Conant, R. and J.T. Collins. 1991. Reptiles and Amphibians of eastern and central North America. Third Edition. Houghton Mifflin Company, Boston, Massachusetts. (Other guides to consider would be The Golden Guide to Reptiles & Amphibians and the Audubon Society Field Guide to North American Reptiles & Amphibians)

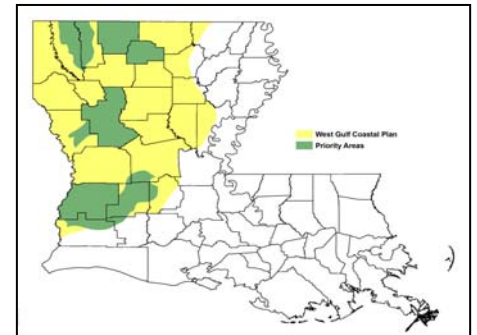
Dundee, H and D. Rossman. 1998. Amphibians and Reptiles of Louisiana. Louisiana State University Press, Baton Rouge, Louisiana.

Additional Information: Check out **Froglog** for ongoing information regarding the global effort to investigate amphibian decline, the quarterly newsletter of the DAPTF is called Froglog and subscriptions are available free from John W. Wilkinson, Editor Department of Biology, The Open University, Walton Hall, Milton Keynes, MK7 6AA, United Kingdom. E-mail: DAPTF@open.ac.uk
North American Amphibian Monitoring Program at <http://www.pwrc.usgs.gov/naamp/>

References: Bronze Frog article can be found at Texas Parks and Wildlife
<http://www.tpwd.state.tx.us/huntwild/wild/species/bronzefrog/> ☒

Prescribed burning is an essential component of management for bobwhites and other grassland birds in pine-dominated forests. Prescribed burning helps control woody encroachment and encourages growth of grassland vegetation, especially when coupled with forest management practices such as thinning that allow sunlight to reach the ground. Prescribed burning was once routine in many areas of the state; however, in recent years its application has declined. In an effort to increase the amount of prescribed burning and familiarize landowners with its benefits, the West Gulf Coastal Plain Prescribed Burning Initiative was formed. The Louisiana Department of Wildlife and Fisheries (LDWF), Louisiana Department of Agriculture and Forestry – Office of Forestry, and the U.S. Fish and Wildlife Service (USFWS) are partners in this effort.

Landowners within the West Gulf Coastal Plain of Louisiana shown in the map below and who are accepted into the program are eligible to have one prescribed burn conducted on their land at no cost. **Green areas** are priority areas within the **yellow areas** of the West Gulf Coastal Plain. Landowners must apply to be considered for the program and applications will be ranked by location, forest composition, forest structure, tract size, and proximity to other land that is regularly burned. Certain areas of the state have been identified as priority areas and land within or bordering these priority areas has the best chance of being accepted.



Once a tract is accepted, a management plan will be developed by LDWF or USFWS biologists. Office of Forestry personnel will install fire brakes and conduct the burn. A single prescribed burn will not yield long-term benefits, so follow-up burns will be needed. Landowners are responsible for follow-up burns, but LDWF and USFWS biologists will assist landowners apply for programs that may provide financial assistance for future burns.

Interested landowners should contact LDWF or USFWS private land biologists for information or application materials. Registered Natural Areas will receive additional points. Once an application is submitted, the landowner will be contacted by a biologist who will arrange a visit to the property to complete the ranking form and gather information for a management plan. Contact one of the LDWF or USFWS offices below for more information.

Alexandria	318/487-5885
Tensas NWR	318/574-2664
Minden	318/371-3050
Lafayette	337/291-3100
Monroe	318/ 343-4045
Ferriday	318/757-4571
D'Arbonne NWR	318/726-4222
Lake Charles	337/491-2575
Bayou Cocodrie NWR	318/336-7119

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Louisiana Prescribed Fire Council



The Louisiana Prescribed Fire Council (LPFC) held its annual meeting in Pineville, LA on January 29th. The meeting brought together folks from across the state that realize the critical role prescribe fire plays in land management, and who are concerned about the downward trend of prescribed fire use. Meeting participants included private landowners, land managers, federal and state agencies, and conservation organizations. Formed in 2006, the LPFC's mission is to form partnerships that promote the use of prescribed fire for land management, and reduce the risks of damage from wildfires. The Council hopes to accomplish its mission through several objectives including: promoting benefits of prescribed fire for wildlife habitats, public education regarding the use and benefits of prescribed fire, promoting training and safety for fire practitioners, addressing liability issues, and providing a forum for development and review of fire practices and policies. Prescribed fire is often the most efficient, effective and inexpensive method of controlling understory vegetation, and restoring and maintaining a healthy natural ecosystem. To learn more about the LPFC, visit the website at: www.laprescribedfire.com Pictured below is a prescribed burn conducted by LDWF at Sandy Hollow WMA in Tangipahoa Parish. ❏



Louisiana Native Plant Society

The Louisiana Native Plant Society (LNPS) was founded in 1983 as a state-wide, non-profit organization. Its purposes are to preserve and study native plants and their habitats, to educate people on the value of native plants and the need to preserve and protect rare and endangered species, to promote the propagation and use of native plants in the landscape, and to educate people on the relationship between our native flora and wildlife. The LNPS website is: <http://www.lnps.org/>. Membership cost is only \$10/year for an individual (\$5 for students). LNPS membership contains vast native plant expertise and a chat group is available where one can put questions to the rest of the group. An annual meeting is held and numerous guided field trips are scattered throughout the year (see website for calendar of events). The website also has links to native plant reference materials and to nurseries which specialize in native plants. LNPS recently created a grant program which offers modest grants for

research on native plant topics and implementation of native plant gardening projects by organizations (e.g. a local garden club). If you do not have internet access, you may write to Jackie Duncan, 114 Harper Ferry, Boyce, LA, 71409, for membership information. ❏

LDWF Books, Maps & Posters

See enclosed flyer about books, Maps, and posters available for purchase from LDWF. "**Louisiana's Wildlife Worth Watching**" is free plus shipping and handling. "**Building and Maintaining Nest Boxes**" would be an appropriate book to attain for Louisiana breeding birds that has easy-to-follow instructions and blueprints for nest boxes to house dozens of species. This book would be great craft ideas for scouts, students, or anyone who wants to bring wildlife into the back yard. ❏

Front Page Photo by Bob Gress is the state imperiled **Eastern Spotted Skunk (*Spilogale putorius*)** that occurs in just seven southern Louisiana parishes where it prefers forested and well covered areas including open or brushy areas and prairie outcrops. The name "skunk" comes from the native American Massachuset word "squnck".

The spotted skunk weighs two pounds, which is much less than the striped skunk that can weigh up to 14 pounds. The coat is identifiable by a striking pattern of four pairs of irregular white stripes all over the body with a small white spot on the forehead and another in front of each ear. Eastern spotted skunks are nocturnal, solitary species that are definitely more active than any of the other skunk species, and has no trouble climbing up and down trees and bushes. They eat anything and are largely beneficial to the agriculturist because they eat field mice, rats, insects, and can rid a barn of rats. Eastern spotted skunks often build a sort of shelter in tree hollows or dig a burrow in the ground, take over the burrow of another species, and will nest under buildings. Females give birth to two to nine young and may have two litters per year. Young are weaned in about two months and reach adult size by about four months. Defensive behavior consists of a rapid series of handstands, which serve as a warning device to aggressors and will spray an aggressor up to 15 feet away. References: Louisiana Natural Heritage Fact Sheet for Eastern Spotted Skunk; Mammals of Texas – Online Edition <http://www.nsrl.ttu.edu/tmot1/spilputo.htm> ❏



Louisiana Natural Heritage Fund

You can help the Louisiana Natural Heritage Program and the Louisiana Natural Areas Registry Program to continue efforts to preserve Louisiana's biological diversity by contributing directly to an account that is used solely by these programs. By purchasing a Wild LA Stamp, fees are used for protection, stewardship, LA's lands and waters, and to support functions of the Natural Heritage Program and nongame programs. Direct donations from the public can be made to the Wildlife Habitat Natural Heritage Trust that also gets a portion of its funds from basic hunting license fees and these funds can be used for land acquisition and land management.

Previous Newsletter, December 2008, Vol. 6, No 2 of 4. We recognized three new Natural Areas Registries that encompass 660 acres. We covered the Louisiana Quillwort planting in St. Tammany Parish, LA Wildlife Commission accepts notice of intent for Natural Areas Registry to provide option of dedication and servitude agreements, Western Xeric Sandhill Woodland community, Louisiana pocket gopher, Louisiana pine snake, LNHP attends 35th Natural Areas Conference, and Chuck-will's-widow.

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