Can you name this plant?
See page 6 for information

LOUISIANA NATURAL AREAS REGISTRY

Landowner Recognition Program for Citizen-based Conservation

Quarterly Newsletter

December 2007

Volume 5 Number 2 of 4

Working with Landowners towards Conservation of Louisiana's Ecologically Sensitive Lands

http://www.wlf.louisiana.gov/experience/naturalheritage/naturalareasregistry/

NATURAL AREAS REGISTRY UPDATE

Prescribed Burn Insurance Available to LFA Members

(Article copied from "Forest & People" Fourth Quarter 2007)

Prescribed burning liability insurance is now available for members of the Louisiana Forestry Asssociation (LFA) through Davis-Garvin Insurance. Pricing is given on a per event basis. This pilot program has been designed by professional foresters for foresters and timberland owners to use fire as a management tool. Master policies can also be issued to consultant foresters and wildlife biologists who burn for multiple landowners. For more information, call Davis-Garvin at 1-800-845-3163 or for an application call the LFA at (318) 443-2558.

Previous Newsletter, Sept 2007, Vol. 5, No. 1 of 4

We recognized one new Natural Areas Registry that encompassed 88 acres. Total Registry acreage was 45,608 for 106 Registries in 34 of 64 parishes. We covered Barrier Island Live Oak Forest plant community, Eastern Glass Lizard (*Ophisaurus ventralis*), live oak (*Quercus* virginiana) species, and Feral Hogs in Louisiana.

CALCAREOUS PLANT COMMUNITIES

Six Natural Areas currently have a calcareous forest and/or a calcareous prairie plant community. These include: Bear Creek, North Pond, and Whittington Fields in Bossier Parish, Copenhagen in Caldwell Parish, Palustris Prairie in Rapides Parish, and Rector's Prairie in Morehouse Parish. Additionally, two Delaney Mountain Natural Areas in Bossier Parish contain some calcareous soil-loving plant species within their hardwood slope forest.

For more information about these plant community types and other information about Natural Heritage and Natural Areas, see Louisiana Department of Wildlife and Fisheries web site www.wlf.louisiana.gov under the Experience Wildlife tab.

CALCAREOUS FOREST

Rarity Rank: S2/G2?Q

Synonyms: Calcareous Hardwood Forest, Dry Calcareous Woodland, Blackland Hardwood Forest, Upland Hardwood Forest, Circum-Neutral Forest

Ecological Systems: CES203.379 West Gulf Coastal Plain Southern Calcareous Prairie

CES203.378 West Gulf Coastal Plain Pine-Hardwood Forest

General Description:

- Occurs on calcareous substrata in the uplands of central, western and northwest Louisiana

- Found on hills and slopes on either side of small creeks, at times in a mosaic with calcareous prairies
- Associated with four geological formations:
  - Fleming Formation (Tertiary-Miocene) in central-western LA
  - Jackson Formation (Tertiary-Eocene) in central LA
  - Cook Mountain Formation (Tertiary-Eocene) in central and western LA
  - Pleistocene Red River terraces in northwest LA
- Soils are stiff calcareous clays, not quite as alkaline as in associated calcareous prairies (surface pH ~ 6.5-7.5), with very high shrink-swell characteristics
- Trees, especially pines, are often stunted and/or crooked due to extreme physical soil properties
- Highly diverse flora in all strata (overstory, midstory, and herbaceous layer)
- Fire is thought to have played a role in community structure, tree density and ground cover composition

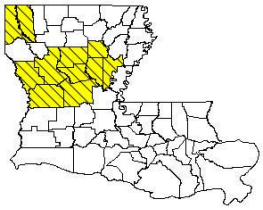
PLANT COMMUNITY ASSOCIATES

Characteristic overstory tree species include: *Quercus stellata* (post oak, often dominant), *Q. shumardii* (Shumard oak), *Q. alba* (white oak), *Q. muhlenbergii* (chinkapin oak), *Q. oglethorpensis* (Oglethorp oak, rare), *Q. sinuata* var. *sinuata* (Durand oak, rare), *Carya myristiciformis* (nutmeg hickory), *C. ovata* (shagbark hickory), *C. tomentosa* (mockernut hickory), *Pinus echinata* (shortleaf pine), *P. taeda* (loblolly pine), *Fraxinus americana* (white ash), *Diospyros virginiana* (persimmon), *Liquidambar styraciflua* (sweetgum), *Celtis* spp. (hackberries), *Gleditsia triancanthos* (honey locust), *Morus rubra* (red mulberry), *Fagus grandifolia* (American beech), *Ulmus rubra* (slippery elm), *U. americana* (American elm), *U. alata* (winged elm), *U. crassifolia* (rock elm), *Acer rubrum* (red maple)

Common midstory & understory shrub species include: *Viburnum rufidulum* (rusty blackhaw), *Crataegus* spp. (hawthorns), *Cercis canadensis* (red bud), *Chionanthus virginicus* (fringe-tree), *Asimina triloba* (paw-paw), *Ilex decidua* (deciduous holly), *Vaccinium arboreum* (winter huckleberry), *Rhamnus caroliniana* (Indian cherry), *Rhus copallina* (flame-leaf sumac), *Ostrya virginica* (ironwood), *Aesculus pavia* (red buckeye), *Maclura pomifera* (osage orange)

Common herbaceous species include: *Symphyotrichum drummondii* (Drummond's aster), *Solidago auriculata* (auricled goldenrod), *Cynoglossum virginianum* (hound's-tongue), *Antennaria plantaginifolia* (pussy-toes), *Lithospermum tuberosum* (tuberous puccoon), *Podophyllum peltatum* (may-apple), *Pedicularis canadensis* (Canadian lousewort), *Phlox divaricata* (phlox), *Elephantopus* spp. (elephant-foot), *Viola* spp. (violets), *Chasmanthium* spp. (spangle-grasses), *Bromus* spp. (brome grasses), *Onosmodium hispidissimum* (false-gromwell), *Sanicula canadensis* (snakeroot), *Zizia aurea* (golden alexanders), *Tipularia discolor* (crane-fly orchid), *Agrimonia* spp. (agrimony), *Galium* spp. (bedstraws)

Federally-listed plant & animal species: None



Range: Upper and Lower West Gulf Coastal Plain ecoregions, primarily in central and west-central Louisiana with limited area remaining in northwest LA

Threats & Management Considerations: Only 25 to 50 percent of the original presettlement extent remains today. Land use changes have brought about habitat destruction. Conversion to agriculture or pine plantations represent the greatest loss, while construction of roads, pipelines and utilities, invasive and exotic species, fire suppression, physical damage from timber harvesting, contamination by chemicals (herbicides, fertilizers), and off-road vehicle use all threaten remaining calcareous forests.

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 calcareous forests. Such management strategies should include:

- Use of periodic prescribed fire (every 5 to 10 years); more frequent in adjacent calcareous prairies
- Maintain natural species composition by following appropriate hardwood management techniques
- Thinning targeting loblolly pine for removal and favoring shortleaf pine as "leave" trees
- 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

CALCAREOUS PRAIRIE

Rarity Rank: S1/G1

Synonyms: Barrens, Calcareous Barrens, Calcareous Clay Prairie, Keiffer Prairie, Jackson Prairie, Blackland Prairie, Calcareous Glade

Ecological Systems: CES203.379 West Gulf Coastal Plain Southern Calcareous Prairie

General Description:

- Small, naturally treeless areas ranging in size from less than one acre, up to 80 or more acres
- Occur in a mosaic with calcareous forests
- Occurs on the same calcareous substrata as Calcareous Forest
- Soils are stiff calcareous clays (surface pH ~ 7.5-8.0), with very high shrink-swell characteristics, and range in color from red to olive-tan to gray-black

- Various soil inclusions occur (depending on geology) and may include calcareous concretions (limestone nodules), marine mollusc shells, shark teeth, and gypsum crystals
- Regularly-occurring fire, high soil pH, and extreme physical soil properties are believed to generate and perpetuate these upland clay prairies
- Herbaceous flora is very diverse and dominated by grasses, composites, and legumes

PLANT COMMUNITY ASSOCIATES

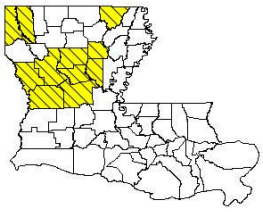
Common grass species include: *Schizachyrium scoparium* (little bluestem), *Sporobolus* spp. (dropseeds), *Andropogon gerardii* (big bluestem), *Sorghastrum nutans* (Indian grass), *Aristida* spp. (three-awn grasses), *Paspalum* spp. (paspy grasses), *Panicum* spp. (panic grasses), *Eragrostis* spp. (love grasses), *Setaria* spp. (bristle grasses)

Common composite species include: *Eurybia* spp. & *Symphyotrichum* spp. (asters), *Helenium* spp. (sneeze-weeds), *Liatris* spp. (blazing-stars), *Coreopsis* spp. (tick-seeds), *Solidago* spp. (goldenrods), *Ambrosia psilostachya* (western ragweed),*Vernonia* spp. (ironweeds), *Rudbeckia* spp. (brown-eyed susans), *Eupatorium* spp. (thoroughworts), *Echinacea pallida* (pale coneflower), *Echinacea purpurea* (purple coneflower, rare), *Silphium* spp. (rosin-weeds), *Cacalia plantaginea* (Indian plantain), *Gaillardia aestivalis* (blanket flower)

Common legumes and forb(wildflower) species include: *Acacia angustissima* (prairie acacia), *Baptisia* spp. (indigos), *Desmanthus illinoensis* (wad o'pods), *Galactia volubilis* (milk pea), *Mimosa strigillosa* (sensitive-briar), *Neptunia lutea* (yellow puff), *Petalostemum candidum* (white prairie clover), *P. purpureum* (purple prairie clover), *Anemone berlandieri* (wind flower), *Ranunculus* spp. (crow-foot), *Asclepias* spp. (milk-weeds), *Callirhoe papaver* (poppy-mallow), *Delphinium carolinianum* (larkspur), *Hedyotis nigricans* (bluets), *H. purpurea* var. *calycosa* (prairie bluets, rare), *Linum* spp. (flax), *Oenothera speciosa* (Mexican evening-primrose), *Ruellia humilis* (wild petunia), *Salvia azurea* (blue sage)

Common woody species (invade prairies in absence of fire) include: *Crataegus* spp. (hawthorns), *Bumelia lanuginosa* (chittumwood), *Berchemia scandens* (rattan-vine), *Diospyros virginiana* (persimmon), *Cornus drummondii* (rough-leaf dogwood), *Juniperus virginiana* (eastern red cedar), *Ilex decidua* (deciduous holly), *Smilax bona-nox* (greenbriar), *Fraxinus americana* (white ash), *Gleditsia triacanthos* (honeylocust)

Federally-listed plant & animal species: None



Range: Upper and Lower West Gulf Coastal Plain ecoregions, primarily in central and west-central Louisiana with limited area remaining in northwest LA, and historically known from the Mississippi River Alluvial Plain ecoregion in northeast LA.

Threats & Management Considerations: Historically there was an estimated 2,000 to 10,000 acres of calcareous prairie statewide but only five to 10 percent of the original extent is thought to remain today. As with the associated calcareous forests, calcareous prairies have mainly been lost to land use changes. Conversion to agriculture or pine plantations and fire suppression represent the greatest loss, while construction of roads, pipelines and utilities, invasive and exotic species, physical damage from timber harvesting, contamination by chemicals (herbicides, fertilizers), and off-road vehicle use all threaten remaining calcareous prairies.

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 calcareous prairies. Such management strategies should include:

- Use of periodic prescribed fire (every 3 to 5 years)
- Monitoring for and removal of any invasive or exotic species by spot herbicide treatments or mechanical means
- Preventing use of prairie openings as logging sets
- Prohibiting off-road vehicle use or restricting use to existing trails

References for Calcareous Forest and Prairies:

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LOGGERHEAD SHRIKE

Lanius ludovicianus

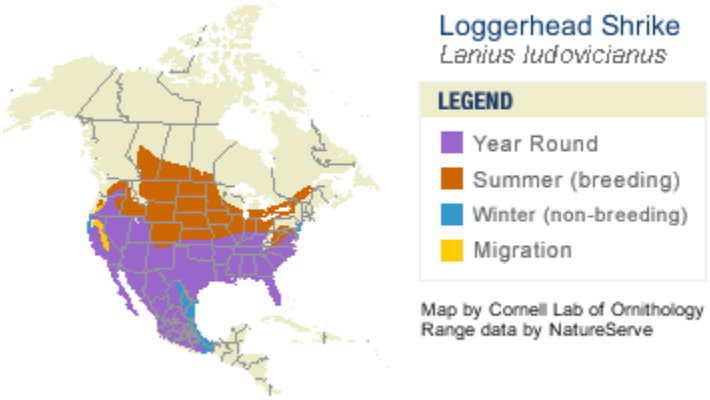
The Loggerhead Shrike is the only one of the world's thirty species of true shrikes that occurs exclusively in North America. Like other shrikes, it inhabits ecotones, grasslands, and other open habitats and feeds on a variety of invertebrate and vertebrate prey. Compared to most birds, its head is large in proportion to its body size-hence the name Loggerhead, which also means "blockhead". Popular names for this species include butcherbird, white-rumped shrike, French/Spanish mockingbird, and thornbird.

Throughout most of the southern part of its range, the Loggerhead Shrike is resident; northern populations are migratory. Where resident, this species usually lives in pairs on permanent territories. Some pairs spend the entire year on a single territory; outside the breeding season, mates may defend neighboring territories, which are coalesced at the beginning of nesting.

This shrike, like others, is a small avian predator that hunts from perches and impales its prey on sharp objects such as thorn and barbed-wire fences. Although such predatory behavior mimics that of some raptors, impaling behavior represents a unique adaptation to the problem of eating large prey without benefit of the stronger feet and talons of raptors. In addition, the hooked bill, flanked by horny tomial projections and functionally similar to the notched upper bill of falcons, further sets shrikes apart as distinctive in the order Passeriformes. Being both passerines and top-level predators, these birds occupy a unique position the the food chain.

Despite its wide distribution, the Loggerhead Shrike is one of the few North American passerines whose population have declined continentwide in recent decades. Changes in human land-use practices, the spraying of biocides, and competition with species that are more tolerant of human-induced changes appear to be major factors contributing to this decline.

Description: Loggerhead Shrikes are trim, businesslike birds, a bit smaller than robins. The back is grey, the wings are black and white, the chest and belly are white, and the tail is black with white stripes along the sides. A notable field mark is the mask, a black stripe around the eyes that extends right across the forehead. Closer inspection of the bird will reveal the heavy, hooked beak. Compared to other perching birds, shrikes appear to have a disproportionately large, or logger, head, from which the common name of the species is derived.



Shrikes are usually seen perched on utility wires, fence posts, or dead branches protruding from the crowns of trees or shrubs. They fly with a fluttering, gliding motion showing large white patches on their wings and white stripes along the outside of the tail. When hunting, shrikes usually swoop down from their perch, flutter close to the ground across open areas, and then fly up to land on another perch.

During the spring courtship period, and rarely later in the year, Loggerhead Shrikes occasionally break into song. Both males and females sing. The song is rather an unmusical series of notes. Other calls are a variety of shrieks uttered when alarmed. (In fact, the name shrike is a variant of shriek. Another alarm call that is occasionally heard is a repeated tink sound, like that made by tapping two pieces of metal together.

Loggerhead Shrikes are somewhat smaller than Northern Shrikes. The black facial mask on the Northern Shrike does not usually extend across the forehead above the beak as in

the Loggerhead. Although in their first year Loggerhead Shrikes closely resemble adults, young Northern Shrikes do not. They have a brownish coloration, and adult Northern Shrikes retain faint brownish barring on their under parts. Finally, the beak of the Northern is longer than that of the Loggerhead. A side view of the Northern shows the beak equal to about half the front to back length of the head, whereas the Loggerhead's beak is substantially shorter in proportion to the head length.

The habitat preferred by Loggerhead Shrikes for home territories usually has certain features, including the following: grassy pastures that are well-grazed or mowed but not bare where they can spot prey easily in the sparse cover; shrubs or small trees, and perches in the form of dead branches, and utility wires, or fences from which to hunt.

Loggerhead Shrikes at all seasons eat mainly large insects with grasshoppers and beetles as prominent items. In the breeding season their diet is principally composed of insects. However, in cold weather or when insects are less available, mice, small birds, small snakes, lizards, or frogs are taken.

Conservation Issues & Efforts:

- **Threats:** The decline of Loggerhead Shrikes is similar to that of other grassland and so-called early successional species. The problem is that much of the farmland in northeastern states has been abandoned and is either reverting to forest or being converted to suburbs or other human development. In the rest of the country, farmland is being used more intensively, leaving dwindling habitat for Loggerhead Shrikes and other grass-loving birds.
- **Outlook:** In the southeastern United States, the best hope for Loggerhead Shrikes is the Northern Bobwhite Conservation Initiative, which is focused on restoring brushy habitat along field edges. Similar activities should be pursued in other portions of the range of the Loggerhead Shrike. The landscape in the Northeastern United States may already be too altered to allow the shrike to return.

What Can You Do:

- **Preserve Farmlands:** Promote strong conservation provisions in the federal farm bill, especially the Conservation Reserve Program (CRP), which pays farmers to keep marginal farmlands idle and supports millions of acres of good bird habitat. Contact your county's office of the Natural Resources Conservation Service (NRCS) or Farm Service Agency (FSA) to find out how to increase the number of acres devoted to helping birds dependent on farmlands.
- **Save Grasslands** Be proactive with your local, state and national officials to increase the amount of habitat that can support breeding grassland birds. In particular support smart growth and protection of open space. Promote late mowing (preferably early August in most parts of the country) in hayfields and healthy public and private ranchlands devoted to livestock grazing. Urge parks to devote large parcels to prairie restoration. Volunteer at an Important Bird Area.
- **Maintain Ranchlands:** Support wildlife-friendly management of lands managed by the Bureau of Land Management and other federal agencies in the western states, including good regulations for grazing, fire, mining, and energy development. Support research and management actions against non-native, invasive plants; these actions help ranchers and wildlife.
- **Support Sustainable Forests:** Push for the protection, restoration and expansion of large forest blocks to sustain the full range of forest-loving species, especially the Canadian boreal forest where logging, mining and drilling are taking their toll. Back active management (including burns) to meet specific habitat requirements on government-owned lands and incentives for active forest management on private lands. Promote deer management that allows for the maintenance of forest understory plants.
- **Stop Invasive Species:** Work with county agricultural officials to help fight the spread of non-native annual grasses. Support strong federal, regional, state, and local regulations and research and management to combat non-native, invasive species.

For more Information:

- USGS Northern Prairie Wildlife Research Center Online – Effects of Management Practices on Grassland Birds: Loggerhead Shrike
- United States Department of Agriculture's Conservation Reserve Program
- Northern Bobwhite Conservation Initiative
- U.S. North American Bird Conservation Initiative
- USGS Patuxent Wildlife Research Center – Migratory Bird Research

References:

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Yosef, R. (1996). Loggerhead Shrike (*Lanius ludovicianus*) *The Birds of North America Online* (A. Poole and F. Gill, Eds.). Philadelphia: The Academy of Natural Sciences and Washington, DC: The American Ornithologists' Union. Retrieved from The Birds of North America Online database: http://bna.birds.cornell.edu/BNA/account/Loggerhead_Shrike/

NatureServe http://www.natureserve.org/

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Newsletter editor / publisher

Photo from front page is ***Erythrina herbacea*** (Coral or Cherokee Bean). It is a showy semi-herbaceous member of the bean (Leguminosae / Fabaceae family. Within most of its range, coral bean produces herbaceous stems from a woody base that are typically about 3 feet in height but sometimes more. In areas that experience freezes, the stems are killed back in winter, but in frost free areas, the plant will form woody stems and may grow to 16 feet in height. It is deciduous and has interesting compound leaves made up of three leaflets that are uniquely shaped with pointed tips and a bulge in the middle. In late spring and early summer, showy scarlet blossoms appear. These long flattened tubes are about 2 inches long by approximately 1/8 inch in diameter. They are arranged in clusters at the stem tips and appear custom designed for hummingbird beaks. Flowers are followed by large pods that split open to reveal bright red seeds shown below in late summer and fall. The shiny bright red seeds shown in the photo below are very toxic.
For additional photos, see http://www.sbs.utexas.edu/bio406d/images/pics/fab/erythrina_herbacea.htm

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