

# LANDOWNERS FOR WILDLIFE



## Native Grassland

By Kori Legleu, Wildlife Biologist

Louisiana's native grasslands are among the most threatened ecosystems in North America. Of the more than 2.5 million acres of native grassland that once covered southwest Louisiana, less than 1,000 acres remain. Most of these are small remnants along unplowed railroad and roadside rights-of-way. Because of diminishing habitat and the change in land use priorities, some wildlife populations such as bobwhite quail and grassland songbirds are in alarming decline. Other species, such as the prairie chicken, have disappeared from southwest Louisiana.

The deterioration of this once diverse and thriving prairie ecosystem began in the 1800s. Settlers began converting historic native grasslands to pasture land and cultivated crops, such as rice and soybeans. Some grassland habitat persisted on the agricultural landscape in the form of native pastures, fencerows, field borders and ditch banks, but these have now largely disappeared.

Restoring native grasslands to the landscape can have numerous benefits for landowners and wildlife. Native grasslands consist of a large variety of grasses and forbs, which require little maintenance once established. They are well adapted to the climate conditions of Louisiana's Gulf Coastal Plain, and are fire, flood and drought resistant. They can be grazed or hayed, providing a revenue source to the landowner. The plants provide food and cover for wildlife such as deer, turkey, quail and songbirds. Many native grassland plants produce colorful flowers and attract a variety of insects such as butterflies, skippers and dragonflies, which are important pollinators.





# PLANT SPECIES

## GRASSES

Historic native grasslands contained grass species such as Indian grass, switchgrass, little and big bluestems and Gulf Coast muhly grass. These grasses typically grow in clumps, leaving patches of bare ground exposed. They provide excellent cover and foraging habitat for many types of wildlife. These species have evolved over thousands of years in response to local environmental conditions including drought, fire, flooding and grazing. In fact, native grasslands require periodic disturbance such as grazing or prescribed burning, which helps control invasive species. The grasses are resistant to disturbance because they form extensive root systems, which persist even when the exposed parts of the plants are removed.



Little Bluestem  
(*Schizachyrium scoparium*)  
Photo by Howard F. Schwartz, Colorado State University, forestryimages.org



Gulf Coast Muhly Grass  
(*Muhlenbergia capillaris*)  
Photo courtesy of Wikimedia Commons



Switchgrass  
(*Panicum virgatum*)  
Photo by Howard F. Schwartz, Colorado State University, forestryimages.org

## FORBS

Other components of native grass systems are forbs. These are herbaceous plants that usually produce flowers, and provide food and cover for wildlife. Forbs that are commonly found in native grasslands include rattlesnake master and showy wildflowers such as blazing star, coneflower, compass plant and butterfly weed. These plants not only provide seed for foraging wildlife, but also attract insects and other arthropods that are important food source for wildlife. Like the grasses, grassland forbs are maintained by periodic disturbance.



Rattlesnake Master  
(*Eryngium yuccifolium*)  
Photo courtesy of Wikimedia Commons



Butterfly Milkweed  
(*Asclepias tuberosa*)  
Photo by Tom Coleman, USDA Forest Service, forestryimages.org



Kansas Blazing Star  
(*Liatris pycnostachya*)  
Photo courtesy of Wikimedia Commons



Bobwhite Quail  
(*Colinus virginianus*)

Photo by Dick Daniels, [carolinabirds.org](http://carolinabirds.org)



Dickcissel  
(*Spiza americana*)

Photo by Patti McNeal, Wikimedia Commons



Loggerhead Shrike  
(*Lanius ludovicianus*)

Photo by Steve Berardi, Wikimedia Commons

## SPECIES OF CONCERN

Many species of conservation concern are known to occur in Louisiana's native grasslands. Bobwhite quail are rapidly declining throughout the South, with Louisiana estimates showing declines as much as 85 percent since 1962. This once popular game bird is becoming increasingly rare on the landscape, most likely due to clean farming practices and the lack of fire.

This decline is not limited to bobwhite quail. The entire suite of species that depend on grassland habitats are declining. Loggerhead shrikes, Henslow's sparrows, sandhill cranes and dickcissels are just a few of the many bird species becoming more difficult to find. There are several species of reptiles and amphibians, including the western slender glass lizard and the southern crawfish frog that were once commonly found in southwest Louisiana, but no more. A large number of butterflies and skippers were once abundant in Louisiana's native grasslands, but are also in considerable decline.



Sandhill Crane  
(*Grus canadensis*)

Photo by Tom Friedel, [birdphotos.com](http://birdphotos.com)



Southern Crawfish Frog  
(*Rana areolata areolata*)

Photo by Chris Evans, River to River CWMA, [forestryimages.org](http://forestryimages.org)

# WHAT LANDOWNERS CAN DO TO REVERSE THESE ALARMING TRENDS

## FIELD BORDERS

As agriculture continues to be an important income source for many landowners, farmers and biologists learn new ways to restore native grassland habitats on working farms. One promising method is to install borders around actively producing fields. The field margins are usually the least productive areas of the field, and by installing these field borders producers can create wildlife habitat while reducing erosion and chemical runoff and preserving water quality. Effective field borders are typically at least 30 feet wide and consist of a variety of native grasses and forbs that provide food and cover for wildlife.

## FIELD RESTORATION

If a landowner wishes to restore an entire field, there may be even more benefits. Landowners often have fields that lie fallow for many years and succumb to invasive vegetation such as Chinese tallow tree. These species grow aggressively and quickly degrade the habitat. Landowners can restore native grasslands in these inactive fields and do a service to these declining species while increasing recreational opportunities.

## METHODS

The techniques to establish native grasses and forbs vary considerably from the traditional agriculture or food plot plantings. Successful native planting requires planning and patience.

On most sites, existing vegetation must be removed before native grasses and forbs can be established. While native grasses and forbs are vigorous, they can be slow to establish and plantings are usually not successful when there is significant competition. Sod forming grasses such as bahiagrass and Bermuda grass are particularly troublesome and must be eliminated before native grasses and forbs are planted. Herbicide applications in conjunction with mowing are the most effective way to eliminate existing vegetation.

Seeds of many native plants are light and fluffy, making it difficult to plant them with standard equipment. They must also be planted into a firm seedbed. A well-disked, fluffy seedbed is not desired for native plantings. One of the most effective ways to plant native grasses and forbs is with a specialized no-till drill with a fluffy seed box. Several of these specialized drills are available for rental.

## PROGRAMS

Several programs are available to assist landowners who are interested in restoring native grasslands on their property. Landowner assistance programs offer a range of services from technical to cost-share assistance. LDWF biologists are available for personal meetings to help determine which programs best suit the area. Contact an LDWF Private Lands biologist for more information.



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