MANAGING LONGLEAF PINE FORESTS FOR WILDLIFE

The longleaf forest can sustain a host of wildlife. A diverse variety of birds, mammals, insects, reptiles and amphibians are found in this unique habitat. Several federal or state listed species (endangered, threatened, or special concern) are inhabitants of longleaf forests. Protection, restoration and management of longleaf forests benefit species and provide hunting, birding hiking, and other recreational opportunities to landowners. The longleaf ecosystem evolved with fire. Prescribed burning is a critical management activity to maintain the longleaf ecosystem and the wildlife it supports.

Game Animals

Northern Bobwhite Quail

Frequent, low intensity fires in longleaf forests create the habitat for a large and diverse group of wildlife. Fire moves through the forest floor removing debris and returning nutrients to the soil. The resulting open areas allow sunlight to reach the forest floor stimulating the growth of many grasses and legumes. Birds, like the northern bobwhite quail and the eastern wild turkey, feed on grass and plant seeds. Deer also use these open areas to graze the underlying lush vegetation. Due to the abundance of game species, hunting leases can be an added source of income for longleaf forests.

Managing Quail:

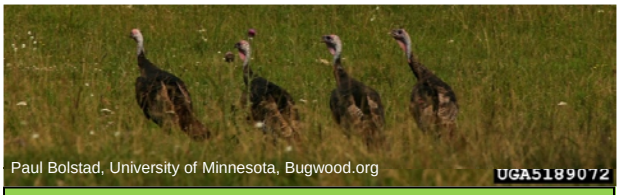
- Quality quail habitat can support one covey of 9-14 quail per 20 acres
- Retain open sunlight on as much forest floor as is practical (logging deck, skidder trails, field boarders)
- Control plant succession with fire to maintain diversity of grasses and forbs in understory (2-4 years following longleaf regeneration cuts is best habitat)
- Control hardwood invasion
- Apply prescribed fire in winter or early spring to maintain ground cover, forb diversity (especially legumes), and areas to forage for insects
- Frequently burn streamheads/pocosins for good nesting and foraging habitat

Managing Turkey:

- Provide pockets of mast producing oaks
- Create open areas needed for insect foraging chicks
- Apply prescribed fire in winter or early spring to maintain understory of berries, fruits, and seed heads

Managing Deer:

- Apply prescribed fire in winter or early spring to maintain a diverse ground cover of forbs and legumes
- Provide early successional areas for ideal herbaceous growth and bedding areas
- Provide open areas for food plots (logging decks, skidder trails, etc)
- Thin stands to 50-60 sq. ft. of basal area
- Provide large management areas



Eastern Wild Turkey

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Birds

Longleaf pine forests provide excellent nesting and foraging habitat for many bird species. Frequent prescribed burns control woody stem growth and promote abundant herbaceous understory. Insects infest burned areas and are used by young songbirds to feed in late spring and early summer. Wiregrass commonly associated with longleaf forests provides excellent habitat for ground nesters such as the Bachman's Sparrow, a federally listed species of concern. Fire also creates snags that provide cavities for nesting and a food source for screech owls, bluebirds, woodpeckers and nuthatches. Retain a few shrubby areas for shrubland nesters.

Red-Cockaded Woodpecker

Some bird species that live in longleaf ecosystems require specialized habitats. The red-cockaded woodpecker, a federally listed endangered species, makes its home in live pine trees. The cavities take up to 12 years to complete and are found in 80+ year old stands. To manage for these birds, provide artificial cavities if bird groups have less than four suitable natural cavities. Typical habitat needs for red-cockaded woodpeckers are 50 acres of 30+ year old pines with moderately open stands (50-70 basal area). Prescribe burn on a 2-5 year rotation to control mid-story hardwoods and provide a sufficient herbaceous layer.

Reptiles, Amphibians and Mammals

Other animals also find unique homes in the longleaf forest. Fire burns remnant stumps, leaving behind a series of tunnels from the burned root system. Animals such as the Carolina gopher frog, Eastern diamondback rattlesnake, Eastern tiger salamander, and the Southern hog-nosed snake use these burrows as shelter and an abundant food source. Rotting stumps and coarse, woody debris also create habitat for reptiles and amphibians. Upland seasonal pools are also beneficial to amphibians. These temporary pools are usually devoid of fish, and allow the safe development of natal amphibian and insect species. Temporary pools are also useful to wildlife in the longleaf forest as a safe breeding location.

Fox Squirrel

The fox squirrel, found commonly in longleaf pine forests eats acorns, soft fruits like blueberries and blackberries, mushrooms and seeds of the longleaf pine. The seeds of the longleaf pine are their favorite food, high in fat and carbohydrates. Tree cavities and snags provide important nesting sites for fox squirrels.

Wildlife Incentive Programs

Landowners can take advantage of incentive programs used to promote wildlife in longleaf pine ecosystems. The North Carolina Plan for the Wildlife Habitat Incentive Program, or WHIP, through the Natural Resources Conservation Service is one such program. The objective for WHIP in North Carolina is to engage private landowners in management of habitats that sustain and restore declining populations of indigenous breeding birds. Two species that fall in that category which can be found in longleaf pine habitats are the red-cockaded woodpecker and the Bachman's sparrow. Another program is the Wildlife Conservation Land Program for Longleaf Pine Forests through the North Carolina Wildlife Commission. This program promotes longleaf pine habitat for the potential priority species identified in the North Carolina Wildlife Action Plan. The North Carolina Wildlife Resource Commission identifies 36 priority wildlife species found in longleaf pine forests, including bobwhite quail, brown-headed nuthatch, Eastern coach whip, fox squirrel and red-cockaded woodpecker. Other programs may be available to landowners for longleaf pine management.

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