

## Wildlife Benefits of Prescribed Fire

Prescribed fire is a safe way to apply a natural process that benefits various habitats and ensures ecosystem health. Wildlife habitat and animals such as deer, turkey and quail flourish in areas that are maintained with prescribed fire. Some rare animals such as the red-cockaded woodpecker and the gopher tortoise require fire-adapted habitats to survive. Prescribed burning is also an effective tool to reduce the risk of wildfire, which can be disastrous to both humans and wildlife.

One of the primary uses for prescribe burning is the maintenance of wildlife habitat. Controlled burning helps to rejuvenate high quality natural food sources for many species including white-tailed deer and Eastern Wild Turkey. The burning of undergrowth can release nutrients into the soil which stimulates the growth of high quality native grasses, forbs and legumes. Unlike most supplemental wildlife plantings, controlled burning can provide year-round protective cover and food for wildlife on managed land.

—Alabama Department of Conservation and Natural Resources

## Endangered Species and Prescribed Burns

Several non-game wildlife species are either dependant upon or are benefitted by prescribed burning. Red-Cockaded woodpecker, Gopher Tortoise and Indigo snake are species which rely on this type of habitat management to survive and are federally protected within their range. Grasshopper and bachmans sparrows, pine and prairie warbler, parula, towhee, meadowlark, bobolink, indigo bunting, blue grosbeak, vireos and flycatchers are examples of birds which benefit from “early succession habitats” like burned open pinelands, but which are of special concern by both state and federal agencies due to declines which are nearly as severe as that of bobwhite quail in the last 30 years. Maintaining as much grassy/weedy woodlands and idle fields on your property will greatly assist in the maintenance of these species which are having such trouble lately.



## Mission Statement

Through a collaborative effort between Natural Resources and military personnel, Fort Rucker will strive to promote the long-term ecological sustainability of its lands for multiple-use opportunities. Fort Rucker will apply sound fire management practices and adaptive management strategies that conserve ecological integrity through the restoration, maintenance and preservation of natural biotic communities and otherwise promote the health of installation ecosystems through rehabilitation and maintenance. This ecosystem management approach will encompass stakeholders interests, regulatory requirements and fiscal constraints.

The purpose for prescribed burning are numerous and include the following;

- 1) Provide a safe military training environment
- 2) Reduce levels of hazardous fuels
- 3) Prepare sites identified for reforestation for seeding and/or planting
- 4) Improve and maintain listed (threatened or endangered species habitat
- 5) Improve other native species habitat, especially forage for game species
- 6) Manage understory hardwoods
- 7) Control Disease
- 8) Improve Access
- 9) Enhance Appearance

## Contact Information

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**Natural Resources Branch  
Fort Rucker, Alabama**



**Prescribed Burning**

**Shaping the War Fighter's Landscape**



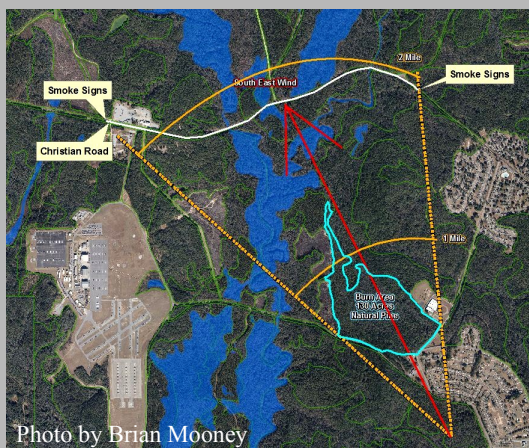


## Prescribed Burning

Prescribed burning is the most important and the most cost effective tool for managing and improving forested ecosystems. Prescribed fire serves to eliminate shrubby competition, return nutrients to the soil and aid in some seed germination. Fire maintained ecosystems supply significant browse for wildlife thereby enhancing biodiversity. Regular prescribed burns provide a mechanism for the reduction of fire fuel loads in forested areas, reducing the likelihood wildfires will occur.

## Planning and Preparation

Because of the potential impact of prescribed burning on helicopter training, the Forestry Section coordinates all burns with Airfield Air Space Management and Range Operations and all other directorates on post, as well as local communities. The Fire Department is informed, on a daily basis, of prescribed burning activities prior to commencing a burn. Every burn is planned utilizing remote sensed mapping techniques and are carefully evaluated taking into account fuel loads, wind speeds, wind direction, relative humidity, dispersion index and real property downwind of the smoke plume.



## Goals and Objectives



Photo by Troy Dunn

The purpose of Fort Rucker's forestry program is to support the military mission, enhance ecosystem integrity, promote biodiversity, sustain renewable forest resources, protect forest watersheds, manage wildlife habitat, and provide outdoor recreational opportunities to improve quality of life for the Fort Rucker community. The decades have witnessed dramatic change in the forest program at Fort Rucker. Management objectives have changed from early forest

reforestation, to intensive management of all available acreage for commercial products, to a unified ecosystem management approach. Within this framework, the generation of revenue from commercial forestry activities is a tertiary consideration.



Photo by Troy Dunn

The prescribed burning program at Fort Rucker is predominately dormant season burning, which begins around the first of December and continues through April. The annual goal is to burn 10,000 to 12,000 acres. An increase in growing season burns is anticipated during the next five years to promote stand conversion to longleaf pine, control unwanted hardwood species, and to improve gopher tortoise habitat. Due to weather and military training constraints there are usually only 20 to 24 acceptable burn days within this time frame which equals to roughly 500 acres per burn.

## Invasive Species

Executive Order 13112: "Prevent the introduction of invasive species and provide for their control and to minimize the economic, ecological, and human health impacts that invasive species cause..."

Prescribed burning affects whole plant communities, not just the target invasive plant. Controlling invasive plants with fire requires strategies that address invasive species plant species at the population level and all plant species at the community level. In general, prescribed fire is used to (1) reduce dominance of a target invasive plant species and (2) increase dominance and diversity of desirable plant species.



Achieving these goals requires a solid understanding of how invasive and desirable vegetation within a particular ecosystem will respond to a specific fire treatment. The effect of fire on a plant species depends on the compatibility of the plant's biological traits with the characteristics of the fire. The immediate and long-term response of plant communities to fire is also influenced by pre and post-fire climate variables, activities of other taxa, management activities, natural and human-caused disturbances, and other environmental variables.

-U.S. Fish and Wildlife Service

