

# Wildlife Conservation Land Program Priority Habitat Management Guidelines

## Early Successional Habitat



Protected species associated with early successional habitat include Bachman's sparrow, Henslow's sparrow, loggerhead shrike, painted bunting, Southern star-nosed mole, Eastern diamondback rattlesnake, Northern pine snake, oldfield deer mouse, vesper sparrow, golden-winged warbler, timber rattlesnake, and Eastern smooth green snake.



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### Habitat Description

For this program, early successional habitat can be defined as a plant community dominated by native herbaceous species. These plant communities require frequent disturbance to suppress tree growth and promote native plant diversity.

To qualify as early successional habitat in the Wildlife Conservation Land Program (WCLP) land must be managed with periodic disturbances such as disking, mowing, burning and/or herbicide treatments to maintain the desired condition. Common types of early successional habitat include abandoned fields, recent clearcuts, field borders, savannas, prairies and meadows. Site specific prescriptions will ensure appropriate management, but in most situations some form of disturbance will be required every 2 to 4 years.

Early successional habitat can be comprised of grasses, legumes, wildflowers, vines, shrubs and saplings. Small patches of vines, briars, shrubs and saplings contribute to habitat value, but woody vegetation should not cover more than 20% of the early successional acreage. To qualify for the WCLP, at least 50% of the ground cover must consist of native grasses and forbs (herbaceous, broadleaf flowering plants) that benefit wildlife. Non-native, turf forming grasses such as tall fescue, Bermudagrass, and orchardgrass provide little wildlife value and must be controlled in the WCLP enrolled acreage. Native grasses such as switchgrass, little bluestem, and broomstraw grow in clumps, providing greater habitat value. Qualifying savannas must be maintained at a basal area of 50 square feet per acre or lower.

While pastures, hayland, crop fields, lawns and golf courses are dominated by herbaceous plants, they do not offer the structural or native plant diversity needed to meet the intent of the WCLP.

The North Carolina Wildlife Action Plan identifies 49 Species of Greatest Conservation Need associated with early successional habitat. More commonly known species which utilize early successional habitats include Northern bobwhite quail, cottontail rabbits, whip-poor-wills, Eastern meadowlark, indigo bunting, blue grosbeak and many species of beneficial insects.

## **Management Strategies – Wildlife Conservation Land Program (WCLP)**

Mountain balds, Piedmont prairies, and coastal pine savannas are examples of early successional habitats that have become very rare in North Carolina. These habitats are a high priority for inclusion in the WCLP and landowners are strongly encouraged to permanently protect these sites through conservation easements.

The WCLP will consider other types of open land such as abandoned pastures, meadows and old fields as long as they are managed for a diversity of grasses and forbs native to the eco-region. Forest stands and recent clearcuts may qualify for the WCLP if the landowner is willing to manage these areas to maximize wildlife benefits rather than financial return from timber products. Stands with tree cover must be maintained at a basal area of 50 square feet per acre or less and the understory must be composed of at least 50% native grasses or forbs.

Without periodic disturbance open land will revert to forest. All acreage enrolled in the WCLP as early successional habitat will require active management. Management practices that mimic natural disturbance regimes are preferred. Most if not all qualifying early successional habitats across North Carolina will respond favorably to prescribed fire. Landowners are encouraged to integrate prescribed burning into their early succession management regime, on a two- or three-year rotation, if at all possible.

When and where burning is not a feasible option, woody vegetation can be controlled with selective herbicide applications. Herbicide treatments are more expensive and less selective than prescribed burning for woody plant control, but are often required to successfully manage non-native species and aggressive woody growth. Herbicide prescriptions should be developed by a licensed North Carolina Pesticide Applicator to address a clearly defined management objective. Herbicides and surfactants applied for habitat management should be of low toxicity to wildlife, be as selective for target species as practical and must be applied according to instructions on the product label.

Mechanical methods may suffice if no other means of disturbance are available to the landowner. Using an offset disk pulled by a farm tractor to disturb early successional areas every two or three years will control most woody vegetation and stimulate a variety of annual and perennial plants that benefit wildlife. It is important to note disturbance will likely promote undesirable plant species as well and additional actions will be needed to improve plant composition. Disking should be conducted in fall to early spring (November through early April) to avoid interfering with nesting and brooding activities. Leaving portions of the cover undisturbed will further diversify the habitat and maintain some overwintering cover. In some instances, controlled grazing by livestock can be used as an appropriate disturbance.

Mowing is the least preferred method for managing early succession. Mowing generally encourages perennial grass over forbs, promotes woody sprouts and will limit habitat diversity over time.

NOTE: Participants who do not follow the planned management activities outlined in their agreement will be subject to the repayment provision in the WCLP statute. For this reason, landowners are cautioned not to sign up for management practices that are incompatible with their capabilities or management philosophies. Wildlife Commission staff are available to discuss management options and help select the most useful and appropriate practices to benefit early succession wildlife habitat.

Information concerning this and other priority habitat types can be found in the [North Carolina Wildlife Action Plan \(NCWAP\)](#).

