NATURAL RESOURCES CONSERVATION SERVICE
CONSERVATION PRACTICE STANDARD

UPLAND WILDLIFE HABITAT MANAGEMENT

(acre)

Code 645

Texas Supplement, Zone 4

SONGBIRDS

The term "songbirds" includes a large variety of mostly smaller bird species that are enjoyed by many people. Most birds in Texas except water birds and birds of prey can be considered songbirds. The major groups of songbirds include: flycatchers, swallows, jays, chickadees, wren, thrashers, thrushes, bluebirds, gnatcatchers, waxwings, shrikes, vireos, warblers, orioles, tanagers, finches, juncos, sparrows, buntings, grosbeaks, and towhees. Some are yearlong residents, while many others are migratory and spend only a part of the year in Texas. Habitat management for wildlife is usually done for individual species, not broad groups of songbirds. Since there are such a large number of songbirds, a general description of habitat requirements and habitat management is provided.

Habitat Requirements

Food

Songbirds eat a large variety of food items including insects and other invertebrates, seeds and fruits. Some songbirds consume only seeds, others only insects, and some a combination of food types. The shape of the beak is the best indication of the type of food eaten. Stout, thick beaks usually indicate a preference for seeds. Thin, short, pointed beaks indicate a preference for small insects. Birds with medium length beaks often eat a variety of insects, seed, and fruit.

The largest array of different insects will provide food for the largest array of songbirds. Some of the common types of insects used for food include: caterpillars, bagworms, webworms, moths, butterflies, beetles of all sorts (wood boring, leaf, soldier, bark, firefly), plant lice (aphids), scale insects, leaf hoppers, tree hoppers, leaf rollers, stinkbugs, spittlebugs, grasshoppers, crickets, katydids, cicadas, roaches, dragonflies, mayflies, craneflies, flies, gnats, mosquitoes, wasps, bees, ants, termites and earwigs. In addition to the adult forms of these insects the larvae and eggs are also consumed. Songbirds eat such pests as boll weevils, cankerworms, cabbageworms, armyworms, chinch bugs, and grubs. Other invertebrates such as spiders, scorpions, millipedes, sowbugs,

snails, slugs, ticks and earthworms are also eaten.

The largest variety of plants, including grasses, forbs, vines, shrubs and trees will always provide the most suitable food supply for the largest variety of songbirds. This same plant variety will also support a large number and diversity of insects. A partial listing of plants that provide habitat for songbirds can be found in Table 1.

Cover

Some songbirds inhabit grasslands, others shrublands, woodlands, savannas, and wetlands. In order to meet the cover requirements for a variety of songbirds, a diversity of cover types is needed. Cover for nest concealment is important and each species of bird has its own unique preferences for nest placement. Cover is also needed for fledging of young, searching for food, roosting, protection from the elements, and protection from predators. Some of the major cover types used by a variety of songbirds are:

- Deciduous woodland with a nearly closed, elevated canopy and an open undersory;
- Mixed deciduous/evergreen woodland;
- Multi-layered woodland with a dense understory of shorter trees, shrubs and vines;
- Savanna or semi-open woodland with grassland interspaces;
- Dense low growing shrubland;
- Moderately open shrubland with grassland interspaces;
- Grassland dominated by dense tall and mid grasses and perennial forbs;
- Forested and herbaceous wetlands.

These cover types will naturally be found on different soil types and in different topography. An area of land with a diversity of soil types and terrain will usually have more cover types and more birds than property that is uniform.

Water

Songbirds get much of their water from insects or fleshy fruits and berries. Natural and manmade sources of surface water such as creeks, ponds, puddles, troughs, windmill overflows and birdbaths are also used by many kinds of songbirds when available.

Habitat Arrangement

With certain game species such as quail, the interspersion of various habitat types is of critical importance. With songbirds, this may not be as important. A warbler or tanager that lives in dense woodland will find all of its needs met in that woodland. A grassland sparrow will find its needs met in grassland with no need of trees or shrubs. Other species are adaptable and can live well in shrublands, savannas or woodlands. Suitable blocks of habitat should be connected to other blocks with corridors. Isolated blocks of habitat without such connecting corridors may not have the diversity of birds that would be expected.

A high degree of interspersion and "edge" can actually be harmful to some species of songbirds. Where woodlands are interspersed with grassland or open shrubland, nest parasitism by brown-headed cowbirds is increased. Cowbirds search for the nests of songbirds including cardinals, mockingbirds, wrens, orioles, warblers and vireos, laying their own eggs in the nests of other species. The foster parent is left to incubate the cowbird egg and raise the young. The cowbird egg normally hatches a day or so sooner and newly hatched cowbirds are larger and more aggressive than nestling songbirds. Often, the only young to survive are the cowbird chicks. Habitat that is fragmented gives an advantage to cowbirds to search out and find nests. Large unbroken blocks of habitat favors some songbirds.

Habitat Size

Some songbirds can be found even in very small blocks of habitat. Larger units will tend to have more species. Whatever the size of the unit of land from a back yard to a large ranch, songbirds can be expected to occur and their habitat can be improved with management.

Habitat Management Techniques

Food

Management that favors a greater variety of plant species and cover types will provide the greatest amount and variety of insects, seeds and fruits. The following techniques and principles may be used to increase the variety of food. Several of these are equally valuable in maintaining or enhancing needed cover.

1. Reproduction and recruitment of desirable trees, shrubs, vines and forbs is enhanced by removal or reduction of cattle, goats, sheep and exotics and by keeping deer numbers low.
2. Leave dense wooded areas along creeks, and other riparian areas.
3. Where trees or shrubs have grown over the top of other more desirable woodes, the careful removal or killing of the tree will favor the survival and increased growth of the plant.
4. Leaving some dead slash on the ground usually favors the establishment and growth of desirable grasses, forbs, shrubs and trees. The slash provides protection, mulch and shade. Birds that perch on the dead branches often deposit seeds.
5. The microhabitat created under the canopy of certain trees and shrubs is often favorable for the growth of a different plant community than would otherwise be found. These areas are more shaded cooler and have enriched soil. Consider this when planning tree, shrub and brush removal.
6. Light, periodic grazing favors better plant diversity than moderate, heavy, or continuous grazing.
7. Areas that have been heavily grazed and where plant diversity is poor may benefit from several years of no grazing. This is not a cure-all and will usually need to

be combined with other practices but it will begin a recovery process.

8. Prescribed burning can increase the diversity and abundance of desirable forbs, but will temporarily reduce the canopy and fruit production of vines, shrubs and trees. Numerous smaller burns interrupted by unburned areas are better than larger continuous burns.
9. Burning under cooler conditions will allow fires to creep under trees with less damage to the canopy. Burning under harsher conditions may damage shrub and tree canopies.
10. Where a greater variety and abundance of seed is desired for ground feeding birds, disking of strips will stimulate the growth of a variety of large seeded forbs and grasses.
11. Where the needed diversity of shrubs or trees is not present, planting can be done. Many native plant nurseries carry a good variety of containerized shrubs and trees. These need to be adapted to the site, and watered regularly the first year and protected from deer, feral hogs and livestock. This is usually only feasible in small areas.
12. Where water is available, the periodic irrigation of small plots of native habitat can provide a rich source of succulent vegetation and insects. Sprinklers set along a pipeline to keep even a small area green can help insure insect production even in very dry periods.
13. Use insecticides with great restraint since insects are a very important food for songbirds.

Cover

Natural succession will, over time, produce the plant communities and cover types best suited to the soils and terrain. This natural process of plant establishment can be accelerated or slowed down by management practices. It is usually not feasible nor advisable to try to create a cover type that is not natural to a particular soil.

1. Retain existing groves, thickets, and motts of taller trees, especially in areas where these are less common.
2. Where problem woody plants become overabundant and where a more open landscape is desired, thin mechanically or chemically to the desired density. A thicket can be thinned to either a savanna or woodland. It is advisable to remove such “brush” in small increments instead of large-scale operations.
3. Periodic prescribed burning is needed to maintain grasslands and savannas.
4. To reduce the density of a shrubland and move toward a grassland, a combination of brush control, and periodic fire may be used.
5. Snags (dead standing trees and branches) are an important feature for many songbirds. They provide nest cavities, harbor insects, and perches. Where more snags are desired, kill selected trees or branches with a

diameter of at least four inches. Mechanical girdling is better than chemical treatment for creating snags. Usually, chemically treated trees decay quickly.

Water

1. Traditional water development for livestock can be modified to be more useful to songbirds. Ramps can be installed, large rocks can be stacked or floating platforms can be placed in water troughs to provide access and escape.
2. Float valves or standpipes in storage tanks or troughs can be adjusted to allow an overflow. This overflow can be piped to an earthen depression or merely allowed to form puddles and pools.
3. Taps can be installed in existing pipelines to provide ground level water. Small birdbath shaped depressions can be formed with rock and mortar, concrete or fiberglass. Small valves or drip emitters can be used to regulate the flow.
4. See Wildlife Watering Facility (648) for additional information.

References

DeGraaf, R.M., et.al.1991. Forest and rangeland birds of the United States.USDA Forest Service Agricultural Handbook 688. 625 pp.

Finch, D.M. and P.W. Stangel.eds. 1993. Status and management of neotropical migratory birds.USDA Forest Service General Technical Report RM-229.422 pp.

Hamel.P.B. 1992. The land manager's guide to the birds of the South.The Nature Conservancy, Southeastern Region, Chapel Hill, NC. 437 pp.

Oberholser, H.C..1974. The bird life of Texas, Vols 1 and 2.University of Texas Press, Austin.1069 pp.

Table 1

Common Songbird Habitat and Food Plants for Eastern Texas

Trees

Hackberry/sugarberry
Pine (longleaf favored)
Ash
Blackgum
Oaks
Sweetgum
Pecan
Mulberry
Black Cherry
Cedar
Elms

Shrubs and Vines

Plum
Prickly Ash
Blackhaw
Redhaw
Dogwood
Sumac
Bicolor Lespedeza
Dewberry/Blackberry
Elderberry
Greenbriar
Grapes

Forbs
Clovers
Vetches
American Jointvetch
Sunflower

Forbs [continued]

Common Lespedeza
Tick Clover
Wild Beans
Partridge Pea
Bullnettle
Butterfly Pea
Dock
Ragweed
Crotons
Pokeberry
Bundleflower

Grasses

Bluestems
Switchgrass
Crabgrass
Texas Panicum
Panic Grass
Brownseed Paspalum
Panic Grass
Longleaf Uniola
Beaked Panicum
Indian Grass
Tridens

Approval

/s/ Gary Valentine, State Wildlife Biologist

March 26, 2003