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The Eastern Wild Turkey In Texas

**by: Joseph J. Campo, Ph.D.
James G. Dickson, Ph.D.**



Texas Parks and Wildlife Department

Turkey Restoration History

Three subspecies of turkeys occur in Texas. The Rio Grande turkey is the most abundant and widely distributed, occurring in the central portion of the state. The eastern subspecies occurs in eastern Texas and the Merriam's turkey occurs in the mountainous regions of the trans-pecos in the ponderosa pine habitat. Each subspecies is genetically different and is adapted to exist under the climatic and habitat conditions in which they live.

Eastern wild turkeys historically occupied about 30 million acres in eastern Texas. The western limit of Eastern turkey range was the western edge of the pine belt east of the Trinity River and up the Red River. The western limit seems to be mainly associated with rainfall. Where the annual rainfall in Texas is below 35 inches per year, eastern turkeys did not occur, from historical records.

Early settlers considered turkeys inexhaustible. Extensive land clearing facilitated the slaughter of wild turkeys. Wild turkeys were brought to market and sold for as little as six cents each. Eastern wild turkeys were virtually eliminated from eastern Texas by 1900.

Restocking turkeys started in eastern Texas in 1924 with Rio Grande turkeys; however, those turkeys soon disappeared. Failure to obtain wild-trapped eastern turkeys for stocking and public pressure to initiate restoration led the Department to release about 2,000 pen-reared turkeys. Concurrently, Florida turkeys, eastern turkeys, Rio Grande turkeys and hybrids were stocked through 1978. No expanding turkey populations were established from these early efforts. It is now clear to us that the inability of the pen-reared stock to survive and reproduce under wild conditions was responsible for the failures using pen-reared stock. Failure to establish turkeys with wild stock has been attributed to poaching, "polluting" the wild stock with pen-reared or non-native stock, diseases, and destruction of habitat in the restoration area. Effective 9-1-87, release of pen-reared turkeys into the wild became illegal in Texas.

Restocking with wild-trapped eastern turkeys has been responsible for all restoration in eastern Texas since 1979. From 1979 to 1986, almost 200 eastern turkeys were released at 11 sites in 8 counties. From 1986 to February 1990 1,233 wild turkeys were released on 83 areas in 24 counties.

The release of these birds, most of which were obtained from other states, has greatly accelerated the turkey restoration effort in eastern Texas. The

interstate transfer of turkeys was supported by the National Wild Turkey Federation and Texas affiliates and funded by Texas Parks and Wildlife Department, Temple Inland, Champion International, Kirby Forest Products, (Louisiana Pacific), International Paper Company, and many other land owners. This restoration effort will continue until all suitable habitat is stocked.



Turkey restoration strategy includes establishing turkey management units, block-stocking about 15 turkeys per stocking site, and distributing stocking sites at about 8-mile intervals within turkey management units to accelerate restoration. This distribution allows turkeys from adjacent stocking sites to occupy the range between the releases. Each stocking is expected to expand and occupy an area of about 32,000 acres (4-mile radius of release) after 3 or more breeding seasons. Under good conditions for reproduction, we expect turkey populations to double each year for about five years after stocking.

Turkey management units, of which the smallest is a county, provide the framework for all of our stocking efforts. Units are bounded by county lines and include adjacent counties with similar habitat and carrying capacity for turkeys. Units facilitate block stocking (area saturation), hunting regulations (open season areas), identify level of management, and will serve as data base

reporting units. Block stocking means that a county or a group of counties is to be stocked as a unit with a sufficient number of releases to establish a huntable population of turkeys 3 to 5 years after release throughout suitable habitat in the unit.

To assure adequate protection of the broodstock and trapping potential of surplus turkeys in the future, minimum qualifications for stocking areas include 5,000 acres within a 3-mile radius of the release site under a cooperative landowner agreement (restoration license), 30% woodland in the area, and no eastern turkey broodstock or other variety present on the area. An eastern turkey restoration area field evaluation and inspection form must be completed for each stocking area prior to stocking. The order of stocking within units will be determined by the field evaluation score and proximity to established stocking areas in the unit.

There is more than 23,000 square miles of suitable habitat for eastern turkeys in Texas. By 1995 we hope to stock all suitable eastern turkey habitat in eastern Texas. To achieve this goal, a minimum of 400 turkeys per year will be needed for 5 years. Additionally, we hope to trap 100 eastern turkeys per year from established populations in Texas.

Protection

The ultimate success of this program will depend on protection of the broodstock and maintenance and improvement of suitable habitat for eastern turkeys. Newly released turkeys are vulnerable to poaching. The jerk who illegally kills a turkey robs us all. Protection from unscrupulous people will help ensure the success and expansion of flocks throughout eastern Texas.

Habitat

Wild turkeys require, cover, water, and food, which are provided by their habitat. Cover in close proximity to food is important for turkeys. Turkeys need cover for shelter from weather, escape from predators, nesting, brood-rearing, roosting, and feeding (especially important for young turkeys). Mature timber, especially pines, provides good roosting sites and shelter from the elements. Large timbered stands, dense grassy fields, and even thickets offer good escape cover for the turkeys. Grassy or brushy nesting and brood-rearing cover is probably the most important cover requirement. Examples include timber edges, fallow fields, pastureland, open woods, and brush land. Turkeys require water daily and can obtain water from foods or free water.

The size of turkey home range (area covered from day to day) and movements affect habitat management. The more suitable the habitat is for turkeys, the smaller the home range will be. In good quality habitat, one turkey per 40 acres or one flock per 1,000 acres can be supported. The annual range for turkeys is about 1,000 acres; however, it may be 3,000 acres in poorer habitat or where disturbance is a factor. Habitat management for turkeys on smaller tracts must consider habitat components on adjacent land and emphasize habitat characteristics lacking in turkey range.

Fall & Winter

Seasonal nutritional needs and food availability determine habitat types used by turkeys. In fall and winter, oak acorns are an important food. Mature stands of pine-hardwood or hardwood are prime habitat, especially bottomland hardwoods.

Spring and Summer

As flocks break up in spring, openings become more important. Gobblers use open areas to display for hens, and hens usually nest near openings. When poults hatch in late spring they grow fast and require a high protein diet. Young poults eat numerous small insects and spiders, which are abundant in openings. During the first couple of weeks after poults hatch, hens lead their foraging broods through vegetation dense enough for the poults to hide, but low enough for hens to watch for predators. In mid-summer turkeys use openings with sparser vegetation, such as pastures, to catch grasshoppers and other invertebrates. In late summer and fall, grass seeds become important foods. Soft mast, such as blackberries, dewberries, American beautyberry, grape, and dogwood are relished as the fruits mature at different times from summer to fall. A wide variety of forbs are eaten year-round.

Diversity

The best habitat is a diversity of land use types with at least half in mature timber and interspersed with openings. Interspersion of forests and openings is the key. Good habitat includes a variety of mast-producing hardwood trees, moderate to open understory cover with a variety of mast-producing plants such as dogwood and beautyberry, and abundant herbaceous woodland ground cover that provides green forage and seeds. Openings include such areas as pastures, fallow fields, young clearcuts, roadways, power lines, pipelines, etc.



Losses

Previous losses of suitable habitat for turkeys in eastern Texas and future threats come from reservoir development, strip mining, urbanization, and conversion of mixed pine-hardwood and hardwood forests to extensive pine plantations, cropland, and pasture.

Management

Habitat can be managed to provide for turkeys by maintaining good habitat and improving marginal habitat. Eastern turkeys are dependent on forests to meet their habitat requirements. Forest stand characteristics such as size, shape, age, age class distribution, species composition, and density affect turkey habitat; as do forest management practices such as rotation length, regeneration, controlled burning, and thinning. Small (less than 100 acres), irregularly-shaped stands with more "edge" are better for turkeys than stands in large blocks. Very young stands (regeneration areas) generally contain a diversity of plant species important for nesting and broodrearing, but are avoided by turkeys when very dense vegetation develops. Any stands too dense for turkeys to see predators well are usually avoided. Adjacent stands should be different in age by at least 5 years. A balanced distribution of age classes, from young regeneration stands to mature stands, assures good interspersions of food and cover. Thinning of stands at 5 to 10 year intervals opens the canopy and allows a mixed understory to develop. Controlled burning usually enhances the availability of foods and controls understory growth, however, burning severe enough to eliminate hardwoods is detrimental. Winter burning cycles of three to five years are recommended.

Key hardwood areas should be managed for winter habitat and mast production. These serve

as winter habitat and travel corridors. Timber rotation for hardwoods should be greater than 70 years, and hardwoods cut singly or in small stands (25-50 acres). When stands are regenerated, strips of pine / hardwoods or hardwoods, called streamside zones, should be retained along permanent or intermittent streams.

Maintenance of openings can enhance wild turkey habitat in forests. A managed area should contain 10-50 percent openings scattered throughout. Openings less than 20 acres are better and should be shaped for maximum edge effect to limit long movements of hens with broods. Mowing and other practices should be avoided from April through May in areas where hens nest.

Supplemental food plantings and watering sites can enhance turkey habitat, especially in marginal habitat. Plantings can supplement natural foods and concentrate turkey movements within an area. One plant that is commonly used for turkeys is chufa, a nut sedge relished by turkeys during fall and winter. It does well on sandy loam soil, but turkeys may have to compete with hogs and/or raccoons for it. Clovers are another planting readily used by turkeys during winter and spring. Small grain crops will also be used when they ripen in summer until gone. A soil test will show if and at what rate lime and fertilizer are needed before planting. Locate plots away from human traffic, especially when illegal hunting may be a problem. The best turkey habitat includes ample water.



The Future

The stage is set for the return of the eastern turkey; we control its destiny. But we have some obstacles to overcome. Poaching is a threat and protection will play a key role in how fast and in what areas wild turkeys prosper. Another threat to successful restoration of viable flocks of wild turkeys are releases of pen-raised turkeys and this

is now illegal. Habitat loss and deterioration will be another concern in the future. Habitat will have to be protected and improved to accommodate wild turkey flocks. But we can do it with a concentrated effort. Won't it be great to hear that old longbeard challenge the spring dawn with his resonate gobble!, and to think we can help our children inherit this tremendous resource, which has been missing for almost a century.



Additional information may be obtained by writing to:
Wildlife Division

Texas Parks and Wildlife Department
4200 Smith School Road
Austin, Texas 78744

- OR -

Rt. 10, Box 1043
Tyler, Texas 75707

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