

EXPLOITATION AND RESTORATION OF TURKEY IN TEXAS ¹

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ABSTRACT

The pre-Columbian population of 2 million turkey in Texas (Schorger 1966) had declined to less than 100 thousand in 1928 (Anon. 1929). Written accounts of early explorers, travelers, and hunters noted numerous flocks of turkey and equally massive slaughter for food and ornamentalations. Encroachment of civilization in the mid 80's, changes in land use, and indiscriminate hunting practices caused a drastic decrease in turkey numbers between 1840 and 1880. Game laws to protect turkey were initiated in 1881 and subsequent laws imposed stringent bag limits and protected hens.

During the late 40's, Rio Grande turkey (*Meleagris galopavo intermedia*) were restricted mainly to Central and South Texas in remnant flocks. The "Big Thicket" in southeast Texas held an estimated 125 Eastern turkey (*M. g. silvestris*). Trapping and transplanting reached a feverish pitch in 1942 when 1,005 Rio Grande birds were wild-trapped and moved to depleted turkey ranges in 36 counties. This activity continues and to date, 9,435 Rio Grande and Eastern turkey have been transplanted to approved areas in the State. The 1968 estimate of 575 thousand turkey is indicative of an all-out effort to restore turkey to their ancestral range in Texas and to educate landowners and sportsmen toward modern turkey management and harvest.

The original range of the Rio Grande turkey covered all of Texas except the mountains and basins of the Trans Pecos, the western High Plains, and the timbered regions of East Texas. Eastern turkey inhabited all of East Texas east of a line from Clay County to the mouth of the Brazos River (Figure 1). Merriams turkey (*M. g. merriami*) were established in the Franklin, Hueco, and Guadalupe mountains of West Texas where habitat was limited. The pre-Columbian turkey population for the geographical area presently comprising Texas has been estimated at 2 million birds (Schorger 1966).

As farming and ranching settlements sprang up in the mid 80's, the wild turkey became part of the abounding food supply, and no doubt played an important role in the settlement of the country. As is the nature of Man, the seemingly inexhaustible supply of turkey was exploited.

EXPLOITATION

Early Accounts of Hunting

Reports of travelers, hunting parties, and other sources indicate that indiscriminate hunting and mass slaughter of turkey were common practices. The following examples from early records will suffice:

San Antonio Herald, August 1877. "A two-week hunt by two brothers near Ft. Clark (Brackettville, Texas) bagged 3 bear, 67 deer, 219 turkey, 4 geese, 46 ducks, 30 quail, and 275 pounds of honey (104 turkey killed in one day with rifles)."

A one-day hunt by John Thornton, an Austin resident who ranched on the Nueces River in South Texas, bagged 27 turkeys and 67 ducks (Anon. 1929).

Strong (Ca 1926) in 1871, with 3 other army officers camped on Camberon Creek in Jack County. In 2 nights they filled 2 army wagons with turkey which were sent to Fort Richardson.

Bingham (1878) hunted in Frio County in November 1878 and wrote that one roost near his camp had over 1,000 turkey. He killed 25 in 30 minutes and over 100 on the trip.

¹ This study is a contribution of Texas Pittman-Robertson Project FW-14-C.

In December 1881 "Wilhelm" (1882) saw a wagon load of turkey for sale in the plaza of San Antonio. He was assured that 3 men killed them in one night on the Frio River.

A. S. Jackson (1941) was told by C. C. Baily of the Swenson Ranch, Cottle County, that turkey were taken from that section by wagon loads and shipped to the Fort Worth market. Baily recalled an occasion in 1887, near Paducah on the Tongue River, when he saw three 6-horse wagons loaded with turkey on their way to market.

Written accounts such as these are numerous. Two specific points which they convey are that 1) turkeys were abundant on major water courses, and 2) they were heavily hunted.

Population Expansion and Habitat Destruction

Although turkey were indiscriminately killed, permanent reductions in populations and range were brought about by civilization and habitat destruction. The Eastern turkey was, for the most part, extirpated from East Texas by the westward movement of the populace (Figure 1). As bottoms and uplands were cleared for farming and other activity, the turkey was gradually, but surely, reduced to insignificant numbers. Hunting practices on scattered flocks finally reduced them beyond reproductive sustenance. The most recent records of native Eastern turkey as reported by county are shown in Table 1.

Turkey habitat was undergoing significant change in other areas of the State by 1900. Cattle markets had skyrocketed prices and demands for beef to a high in 1891 that was not duplicated until 1963! The 818,500 Texans in 1870 owned 4.5 million head of livestock, but cattle alone numbered near 10 million head in 1890. Sheep raising increased dramatically between 1870 and 1880 from 1.2 to 6 million animals. Angora goats were beginning to be popular on over-grazed ranges and had increased to 600 thousand head by 1900 (Table 2). Texas as a livestock producing state had come into her own—and turkey habitat had suffered.

Protective Measures

Apparently, Texans were aware that turkey numbers were on the decline and that protection was needed to conserve existing populations. The first legislation concerning turkey was passed in 1881 with a law prohibiting trapping or killing for market. Poor acceptance of the new law was evidenced when 83 counties claimed exemptions and indicated the wide application of the practice. Stronger restrictions came in 1897 when the first turkey season was set from September 1 through March 31. Trapping for personal use with no bag limit remained legal. Although the subsequent passing of more stringent laws to protect turkey was achieved (Table 3), there was no means of enforcing them until 1923. The 39th Legislature provided funds for the hiring of 30 additional game wardens to aid the previous 12 wardens in enforcement of game laws.

Exploitation Confirmed

While turkeys were given protection, habitat was shrinking. Turkey hunting was still popular, even though turkey were absent from much of their original range. In 1928, game wardens estimated a state-wide population of 95 thousand turkey. In 1945, game wardens and biologists reported 97 to 105 thousand turkey in their annual survey (Walker 1950). Shooting preserve acreage (land on which hunting privileges are leased for a fee) increased from 1.5 million in 1928 to 7 million in 1939. In 1940, game officials estimated that no more than 125 Eastern turkey were left in the "Big Thicket" of southeast Texas. The rapidly growing and advancing human population and the combination of over-hunting, land clearing for cultivation, intensive grazing from livestock, and general physical disturbances were not tolerable by wild turkey, resulting in the lowest numbers ever recorded in the State (Table 4).

RESTORATION

Protection and Restocking

The steps taken to restore turkey to their ancestral ranges in Texas followed the historical sequence of most states: 1) Legislation and regulations to provide protection; 2) establishment of refuges or protective areas, and 3) restocking of game farm and/or wild-trapped birds.

Legislative measures have been discussed. Although refuges were not an integral part of Texas turkey restoration *per se*, the closing of seasons in various counties and the establishment of game sanctuaries by interested landowners in essence established areas of refuge. State wildlife management areas, some of which were established in the early 50's, carried out research and management which promoted turkey increases. Legislated protection and refuges helped to conserve existing turkey, but did little to replenish non-productive ancestral turkey range.

A major step toward restoration was formally initiated by the Texas Game, Fish, and Oyster Commission in 1938, when formal projects were begun to re-establish turkey on their original range. Some unofficial trapping had been done prior to 1938 which led to development of trapping methods. These original techniques, later modified by Glazener, *et. al.* (1964) and Ramsey (1968) made practical the capture of large numbers of birds.

Since transplanting operations were formally begun, 9,435 Rio Grande and Eastern turkey have been moved to selected areas in 130 counties (Figure 2). When experiments with pen-raised Eastern turkey failed in Hardin and Polk Counties, Rio Grande birds were stocked in 27 counties east of their ancestral range. These experimental transplants, totaling 2,001 turkey, failed to develop a single established population that would support hunting (Glazener 1963). An occasional flock may still exist where landowners have supplementally fed and/or added pen-raised birds to original flocks. Successful transplants of Rio Grande birds have been restricted largely to a belt in which the mean annual rainfall ranges from 16 to 32 inches (Figure 3).

The failure of Rio Grande turkey in East Texas prompted biologists to begin experimental transplants of wild-trapped Eastern birds. In 1939, activities were begun which resulted in the introduction of 81 turkey to 3 areas in portions of 6 counties in "deep East Texas" (Figure 2). The birds were obtained from Florida, Georgia, and North Carolina. One of the restoration areas in the lower Neches River bottoms of Hardin, Jasper, and Tyler Counties has become well established with an estimated 500 birds. This population has been subjected to trapping and two additional areas in Freestone and Robertson Counties have been stocked with these birds.

Standard requirements for turkey restocking areas are 1) a minimum of 20 thousand acres of suitable habitat in a solid block; 2) a five-year written agreement with each participating landowner assuring reasonable protection, and 3) additional adjacent range to which increased populations can spread.

EFFECTS OF RESTORATION PROGRAMS AND TURKEY MANAGEMENT

Texas presently has more turkey than at any time during the last 40 years (Table 4). Much of the original turkey range is occupied where the 12 million Texans, 20 million head of livestock, agriculture, and industrialization will permit (Figure 3).

Long-term increases in turkey during the last decade can be attributed to 1) educational programs in game management; 2) improvements in grazing practices, specifically deferred grazing; 3) providing small grain winter food plots; 4) surface water developments; 5) adequate law enforcement; 6) minimal human disturbance; 7) supplemental feeding during periods of severe drought, and 8) landowner and hunter attitudes toward conserving the recreational potential of wild turkey in Texas.

Figure 1. Texas population in 1900 as related to Eastern turkey range.

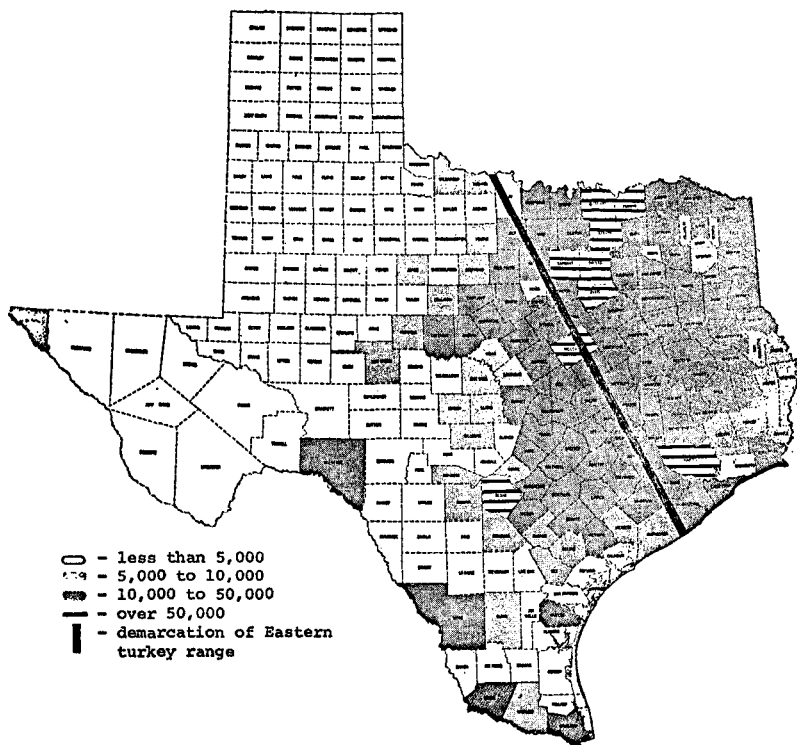


Figure 2. Counties having one or more restocking programs since 1939 and huntable populations.

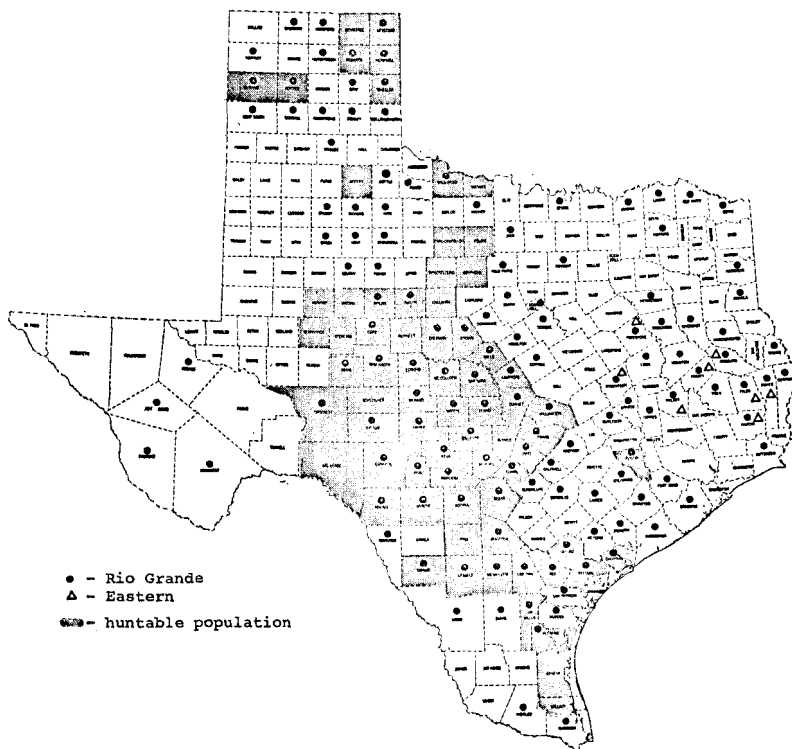


Figure 3. Original and present range of Rio Grande and Eastern turkey in Texas as related to annual rainfall belts.

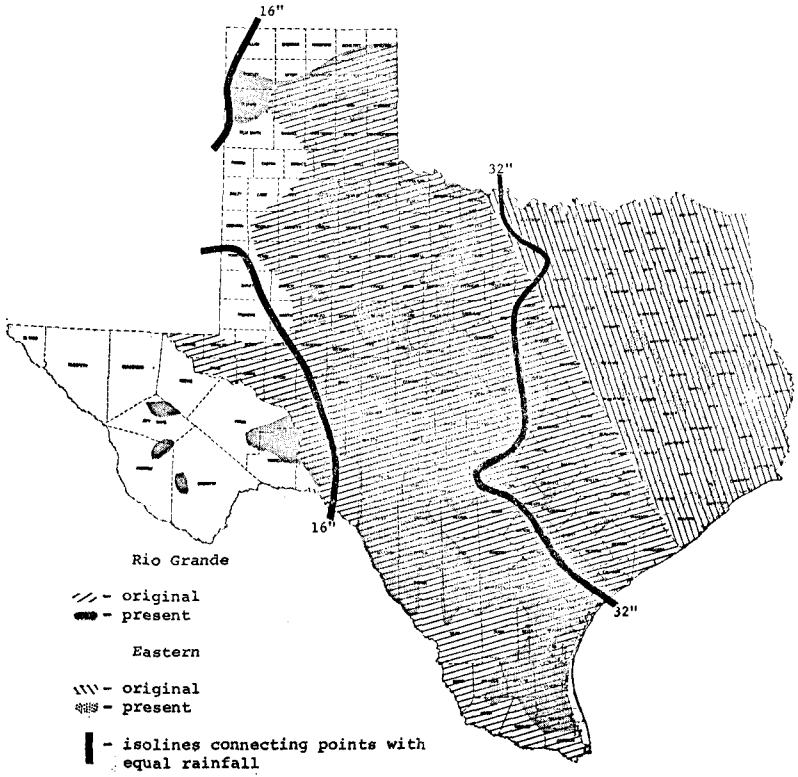


TABLE 1. Most recent records by counties of the native wild turkey in East Texas.¹

County	Year	Place and Remarks
Bowie	1910	Red and Sulphur Rivers
Camp	1919	Cypress Creek
Cass	1913	Sulphur River
Chambers	1904	Old River Bayou
Cherokee	1919	17 miles northeast Jacksonville
Fannin	1888	Red River
Franklin	1919	Sulphur River
Hardin	1930	Beech Creek at Village Creek
Henderson	1910	Flat Creek
Houston	1921	5 miles east Crockett
Hunt	1923	Caddo Creek
Jefferson	1886	Common southwest of Beaumont
Kaufman	1893	East Fork Trinity River
Lamar	1883
Liberty	1932	Luces Bayou
Marion	1939	Big Cypress Creek
Montgomery	1939	10 miles southwest Conroe
Panola	1912
Rains	1908	Sabine River
Rusk	1897	Trapped out
Sabine	1939	10 miles southeast Hemphill
San Augustine	1938	Mouth of Attoyac River
Smith	1908	Northwest part of county
Titus	1913	Jones crossing, Sulphur River
Trinity	1930	Kickapoo Creek
Upshur	1918	"Big Woods" in Upshur-Wood Counties
Van Zandt	1910	Koon Creek
Wood	1917	"Big Woods" in Wood-Upshur Counties

¹ Anon. 1945.

TABLE 2. Texas Livestock Numbers, 1870-1967¹

Year	Beef Cattle	Sheep	Goats
1870	2,933,888	1,223,000
1880	4,072,000	6,024,000
1890	7,168,000	4,752,000
1900	4,353,000	2,416,000	627,333
1910	7,131,000	1,909,000	1,135,000
1920	6,870,000	3,360,000	1,753,000
1930	5,298,000	6,304,000	2,965,000
1940	5,528,000	10,069,000	3,300,000
1950	6,995,000	6,756,000	2,295,000
1960	8,457,000	5,938,000	3,339,000
1967	10,338,000	4,802,000	4,053,000

¹ Texas Almanac, 1966-67.

TABLE 3. Sequence of laws passed to protect turkey in Texas ¹

Year	Season	Bag Limit	Comments
1836-1881	None	None	Reports of mass slaughter.
1881-1897	September 1 - May 14	None	Unlawful to trap or kill turkey for market (83 counties in East and North Central Texas claimed exemption).
1897-1903	September 1 - March 31	None	Illegal to kill, trap, or snare any wild turkey except during season.
1903-1907	November 1 - January 31	.25 per day	A united front was begun to protect turkey.
1907-1917	December 1 - February 28	.3 per season	Turkey nests, eggs protected; prohibited purchase, sale, or trapping at any time.
1917	March - April (Spring)	.2 gobblers	First "Gobbler only" season; first spring season.
1919	State-wide - March - April	.3 gobblers	Hens protected statewide. Spring season.
1920	November - December	.3 gobblers	
1921	31 western counties		
	5-year closed season in 8 counties—		
	South Texas		
1923			Warden force increased from 6 to 36 wardens.
1925			Shooting preserve law passed.
1927			Corresponded with deer season.
1930-1941	November 16 - December 31	.3 gobblers	
	State-wide		
	March - April (spring season - certain counties in East Texas)		
1941	November 16 - December 31	.3 gobblers	Turkey were scarce in East Texas.
1943	Regulatory Authority given to Texas Game and Fish Commission to regulate turkey seasons in Trans-Pecos.		East Texas spring season repealed; turkey populations low; 5-year closed season in several eastern counties.
1950	Big game license required to hunt turkey.		
1950 1968	Regulatory Authority in 203 counties giving Parks and Wildlife Department responsibility for setting seasons, bag limits, and means and methods of harvesting turkey and other game.		

¹ Glazener 1962.

TABLE 4. Turkey population estimates for Texas¹

Year	Estimate
1928	95,000
1945	100,000
1963	226,764
1967	206,300
1968	575,000

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