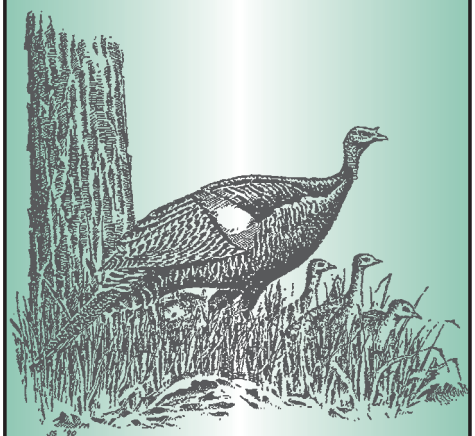

History of the Wild Turkey in North America

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U.S. Forest Service

Forests were severely cut by the early settlers for building needs and for cooking fires and warmth. Wild animal species which had inhabited the forests were displaced or disappeared.

The wild turkey, native to the North American continent, was the largest ground–nesting bird found by the first European immigrants. But the abundant numbers of wild turkey written about in early historical accounts declined with colonization until its continued existence was questionable. It wasn't until the 1960s that the restoration of the wild turkey was heralded as a wildlife management comeback marvel.

Early settlers found the wild turkey in a variety of habitats as they pushed westward and felled forests with the axe and saw. Wild turkey populations dipped to their lowest numbers between the end of the 19th century and the 1930s, surviving only in the most inaccessible habitats.

As forest stands regenerated following the Great Depression, the stage was set for the return of the wild turkey to former ranges. After World War II, active restoration programs and research efforts by state agencies eventually led to wild turkey populations in every state except Alaska. In 1991, spring wild turkey hunting seasons were for the first time open in every one of the 49 states having turkey populations. Spring hunting seasons are also held in Ontario and other Canadian provinces as well as in Mexico.

Terminology:

The Europeans were familiar with guinea fowl, and peafowl, but then their explorers found a New World bird similar to, but not exactly like, what they were used to seeing. Those early explorers often wrote of finding guinea and peafowl–type birds. Their descriptions though were later determined to be of a new bird soon known as the wild turkey. Even Linnaeus, who proposed the scientific name *Meleagris gallopavo* in 1758, used names reminiscent of the earlier confusion. The genus name *Meleagris* means "guinea fowl," from the ancient Greco–Romans. The species name *gallopavo* is Latin for "peafowl" of Asia (*gallus* for cock and *pavo* for chickenlike). Linnaeus' descriptions, however, seem to be based primarily on the domestic turkey imported to the U.S. by Europeans. He also described a Mexican subspecies from a specimen taken at Mirador, Veracruz, but which is probably extinct today.

GLENN "TINK" SMITH

The eastern wild turkey is the most abundant of the 5 subspecies found in North America. It inhabits roughly the eastern half of the United States.

Over the years, 5 distinct subspecies occurring in the wild have been named, all native to North America but in different habitat areas.

The eastern wild turkey (*M. g. silvestris*) inhabits roughly the eastern half of the United States. It was named by L.J.P. Vieillot in 1817 using the word silvestris, meaning "forest" turkey.

The Florida wild turkey (*M. g. osceola*) was described in 1890 by W.E.D. Scott and was named for the famous Seminole chief, Osceola, who led his tribe against the white man in a war beginning in 1835. This bird is a resident of the southern half of Florida.

The Merriam's wild turkey (*M. g. merriami*) of the mountain regions of the western United States was named by Dr. E.W. Nelson in 1900 in honor of C. Hart Merriam, first chief of the U.S. Biological Survey.

The Rio Grande wild turkey (*M. g. intermedia*) of the south–central plains states and northeastern Mexico was described by George B. Sennett in 1879. He said the Rio Grande turkey differed from the other races (eastern and Merriam's specifically) by being intermediate; hence its name.

The fifth recognized subspecies is the Gould's (*M. g. mexicana*), which is found in northwestern Mexico and parts of southern Arizona and New Mexico. This subspecies, which currently numbers several hundred individuals in the United States and more numerous south of the border, was first described by J. Gould in 1856 during his travels in Mexico. A sixth subspecies (*M. g. gallopavo*) originally inhabiting southern Mexico is now probably extinct. It is the accepted forerunner to the domestic turkey taken home from Mexico by the Spanish conquerors in the 1500s.

The ocellated turkey (*M. ocellata*) is a different species, occurring on the Yucatan Peninsula of southeastern Mexico and possibly in adjacent countries. In color it is much closer to the peafowl than to its 5 cousins to the north. Males have a bronze–green iridescence, long spurs, but no beard. The primary wing feathers are edged in white. The gray tail feathers are tipped with a blue–bronze hue, and there are peacock–like spots on its tail coverts

which its name implies. The blue head has distinct, randomly spaced, round, pinkish growths. Instead of making the familiar gobbling and clucking sounds of the other subspecies, the ocellated turkey makes a whistling noise.

Post–Colonial History:

When European settlers arrived on the eastern seaboard, wild turkeys apparently lived in what are now 39 continental states and the Canadian province of Ontario. The species is tied closely with the early Native American cultures and has an often–misunderstood association with the history of the United States of America.

Wild turkey was most likely part of the "fowl" served at the most famous Thanksgiving meal at Plymouth in 1621. However, it did not become a traditional part of the Thanksgiving celebration until about 1800.

Contrary to popular belief, Thanksgiving did not become a traditional celebration because of the Massachusetts Pilgrims; nor was the turkey for a fact the piece de resistance at the famous 1621 meal. It has been speculated that the turkey did not become a common adjunct to a Thanksgiving dinner until about 1800.

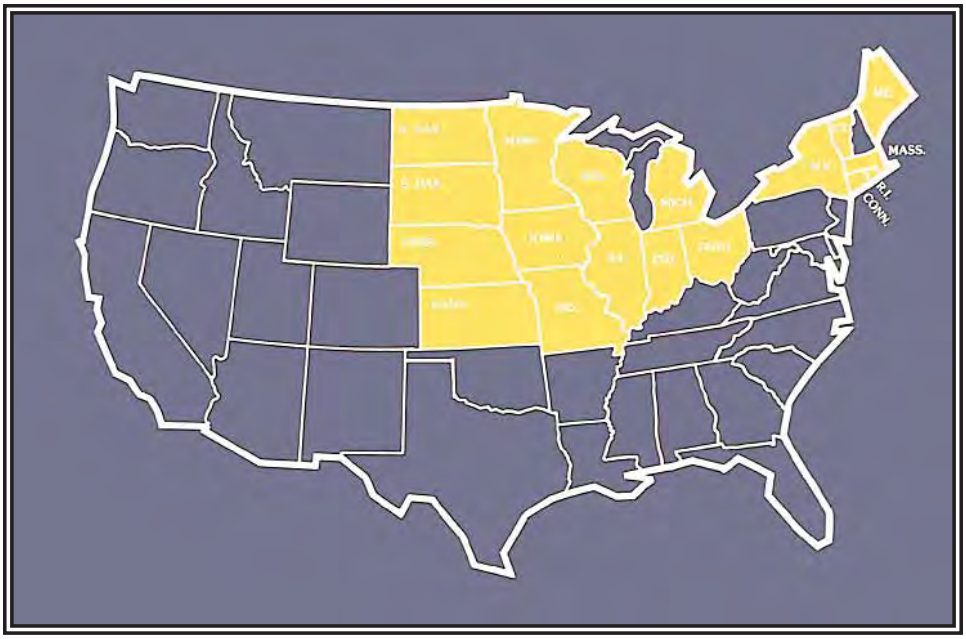
It is also often thought the wild turkey was championed by Benjamin Franklin to be the symbol representing the collective states on the nation's seal when proposals were being discussed in the 1770s and 1780s. Apparently that wasn't so. The first "seal committee," formed the same day the Declaration of Independence was signed in 1776, was composed of Thomas Jefferson, Benjamin Franklin and John Adams. The committee could not reach agreement on a symbol, but a wild turkey was not one of the options.

By 1782 a third "seal committee" rejected Philadelphia artist William Barton's design of the "Imperial Eagle" of Europe. Subsequently, the design was changed to the bald eagle, also native to North America, which was adopted by Congress June 20, 1782, as the symbol to represent the new nation.

Franklin apparently grew tired of the variety of bald eagle motifs which shortly thereafter came to be used by a number of groups. In a letter to his daughter, Sarah Bache, in 1784, he noted that the "Order of Cincinnatus" had produced a badge more like a turkey than an eagle. Franklin went on to talk about the bad points of the eagle and the good points of the turkey but never recommended the turkey for the American symbol. In fact, Franklin's comments that the turkey was more

It took only 5 years for the Plymouth Colony settlers to see the need for some conservation measures. Vast virgin forests were being steadily cleared, and wild turkeys were among wildlife hunted year-round. These were only 2 of the activities involved in providing necessities for the rapidly growing number of colonists.

U.S. Forest Service



NWTF

By 1920, the wild turkey was lost from 18 of the original 39 states and Ontario, Canada, in its supposed ancestral range.

respectable than the eagle and a true original native came 2 years after the official seal design had been selected.

Demise of Populations:

As the fledgling nation began to grow, the wild turkey populations quickly began to disappear. Wild turkeys were an important source of food for the pioneers and were hunted year– round without the protection of game laws (regulated hunting). In 1626 Plymouth Colony passed the first conservation law, limiting the cutting and sale of colonial lumber. Vast virgin forests were being cleared for agriculture and to provide safety borders for the pioneer villages from potential attack by Native Americans. With the turkey's habitat fast dwindling and changing, and under the relentless pressure from market hunters to feed the growing number of colonists (4 million by 1790), the wild turkey started vanishing from much of its original range. Exceptions were some isolated and inaccessible areas, mostly in the southeastern United States. In 1706 the hunting season on deer was limited on New York's Long Island because continued hunting had almost eliminated them. Could turkeys have been far behind?

As the settlers tamed the wilderness, cleared the woodlands and pushed westward, fewer wild turkeys were left behind. Connecticut had lost its wild turkeys by 1813. Vermont held out until 1842 and other states followed. By 1920, the wild turkey was lost from 18 of the original 39 states and Ontario, Canada, in its supposed ancestral range.

Restoration: Early Recovery

Wild turkey population numbers remained extremely low into the early 1900s. The 5 subspecies of wild turkeys in the United States probably declined to their lowest numbers in the late 1930s according to data collected by Henry S. Mosby. "In 1937, the wild turkey was in trouble

As the American population expanded, small farms popped up wherever man could make a living from the land. But once the fields wore out and all the usable timber cut, the farmers moved on leaving the land barren. There were no plans for reforestation.

U.S. Forest Service

throughout most of its range. ... In the late 1920s and 1930s there was a scarcity of factual information on existing game bird populations in most states because of a paucity of both funds and trained personnel." The World War I period, and the Great Depression, which came a decade later, showed little change in existing populations.

As the small tenant fields and farms of the 1930s and the previously harvested forest areas began to revert to successional types of shrubs and trees, suitable habitat was returning which would support the comeback of the wild turkey. Conservation practices slowly improved the landscape for the future of the wild turkey and other wildlife species. Laws enacted early in this century—such as the Lacey Act in 1905 prohibiting the interstate sale of taken wildlife—along with other laws and their enforcement gave needed protection to the remaining wild turkey flocks. Many of our national forests found their beginnings in lands bought by the federal government—much of it marked by eroded gullies and fields devoid of topsoil, indicative of overworked and abandoned farmland. The nation was slowly recovering from the Depression until war came again in 1941.

Before the days of early wildlife management, little was known about the biology of wild turkeys or the factors that influenced populations. In 1943, Mosby and Charles Handley answered some of the basic questions and ushered in a new era of research and management when they co–authored **The Wild Turkey in Virginia**.

The wildlife management movement had gained credibility with the publication of Aldo Leopold's 1933 book of game management principles. The Pittman–Robertson Act of 1937 put an excise tax on sporting goods and ammunitions. That money, when matched with state hunting license dollars, provided funds to initiate wildlife recovery programs. When the GIs returned to the U.S. workforce, state fish and wildlife agencies, universities, and federal agencies tackled the difficult task of restoring wildlife populations including the wild turkey.

One of the first major obstacles was how to capture and move birds from existing flocks for release in other suitable habitats. One early method, which had been used by the Native Americans, was the pole trap—poles stacked 5 to 8 high on 4 sides and covered with netting. A trench was dug under one side of the trap and the setup was baited with corn. Modifications included funnel–entrance traps and open–front traps, which improved the chances of capturing birds. Nonetheless, these traps were hard to construct and lacked the flexibility to catch large numbers of wild turkeys.

Adopting a trapping method once used by the Native Americans, wildlife biologists constructed pole traps to catch wild turkeys. This primitive method used in the late 1930s and early 1940s lacked the ability to capture birds effectively.

AL Dept. of Conservation & Natural Resources

What eventually made possible the capture of large numbers of wild turkeys was the cannon net, originally designed to capture waterfowl. This capture technique allowed more states to move wild–trapped birds into restored habitats.

The cannon–net technique involved concealing on the ground a net that would be remotely propelled over turkeys by a trapper from a nearby blind. The net was a folded 30–by 60–foot cloth mesh with square openings of 2 inches, propelled by 3 or 4 black–powder cannons electrically detonated.

The first wild turkeys known to be captured using this method were on the Francis Marion National Forest in South Carolina in 1951.

SD Dept. of Game, Fish & Parks

The "drop net" trap method, although used in the southeast in the early 1940s, has been most effective in the prairie states. This scene from South Dakota shows an "old-fashioned" drop net capture around 1960. Trapped birds were individually bundled into burlap bags to quiet them during handling and transportation.

The cannon–net delivery was later speeded up by use of rocket projectiles powered by howitzer powder from the U.S. military. The rockets propelled a nylon–mesh net. In the 1960s, sleep–inducing drugs were also used to capture live birds.

Another experiment was the "drop–net" trap used in the prairie states and felt to be more effective than other traps used in more densely wooded areas found in the east.

Pen–Raised Pitfall

It is highly important to note that recommendations in the 1940s to artificially propagate turkeys for restoration were not biologically sound. Game–farm or pen–raised turkeys are "any wild turkey eggs or wild turkeys which have been hatched and / or raised under human control," according to a NWTF Technical Committee resolution adopted in 1994. Game–farm turkeys are deprived of normal parental influence, so they never develop normal social behaviors or survival skills, regardless of their genetic wildness.

Although the technique was not new, many agencies and individuals embraced an idea that seemed logical: to mass produce these birds for release. This approach was taken as a shortcut around the difficult problem of capturing wild birds, which are "native genetic stock living under the control of the laws of nature," according to the '94 resolution.

Using the pen–raised method slowed the wild turkey comeback in North America for almost 2 decades. Furthermore, this technique used untold millions of dollars that might have been spent in more wild turkey trap–and–transplant programs, which have proved immensely successful.

A 1979 turkey restoration survey of 36 states compared the success of both pen–raised (or game–farm) turkeys and wild–trapped birds. About 30,000 wild–trapped birds released on 968 sites resulted in 808 established populations occupying more than 200,000 square miles of range. Over 330,000 pen–raised birds released on almost 800 sites resulted in 760 failures. Michigan was the only state that reported significant positive results with pen–raised stock. Of 882 game–farm birds released at 13 sites, however, only 3 releases were successful in Michigan. The survey also reported fall hunting was terminated because of overharvest of turkeys with game–farm origin.

The survey reported 6 states had problems with diseases in game–farm birds. Twenty–three of the 36 states had enacted laws banning or restricting the release of game–farm birds. By 1990 the number of states was 45. In spite of this evidence, today turkey eggs, poults, and adults are advertised and sold under the pretense that they are "truly wild" and therefore suitable for stocking in the wild.

These birds probably fail to survive because of a combination of factors. One cause could be poor genetic quality resulting from the breeding out of wild characteristics through several generations in captivity. Most offspring from first–generation wild birds cannot survive confinement. They die from stress, trying to escape. The few which survive have become relatively docile and are able to tolerate the confined conditions. So they reproduce and sustain their population. But birds carrying the dominant characteristics needed for life in the wild are lost under penned conditions.

A second major factor in the poor success of game–farm birds is the absence of a wild turkey hen to teach

PA GAME COMMISSION

Embracing an idea that seemed logical, many state wildlife agencies attempted to raise turkeys under the control of humans then release them into the wild. These Pennsylvania Game Protectors were collecting turkey eggs from a wild hen's nest to raise and propagate the offspring for use in restoration. The pen-raised method failed and actually slowed the return of the wild turkey by about 2 decades.

skills to developing poults. Wild hens teach their poults the proper response to predators and other dangers, plus a great deal about food sources, the geography of their home ranges, and social behavior, such as vocalizations and flocking. The pen–raised turkey has no opportunity to learn these important survival mechanisms.

The third big problem involving pen–raised birds is the increase of deadly diseases and parasites under confined conditions. The survivors may become carriers of infectious diseases. An evaluation of the health of 119 pen–raised wild turkeys found at least 33 species of parasites and 3 potentially harmful diseases. Based on an evaluation of disease risks, investigators concluded that the release of pen–raised turkeys should be discouraged or even prohibited.

SUCCESS:

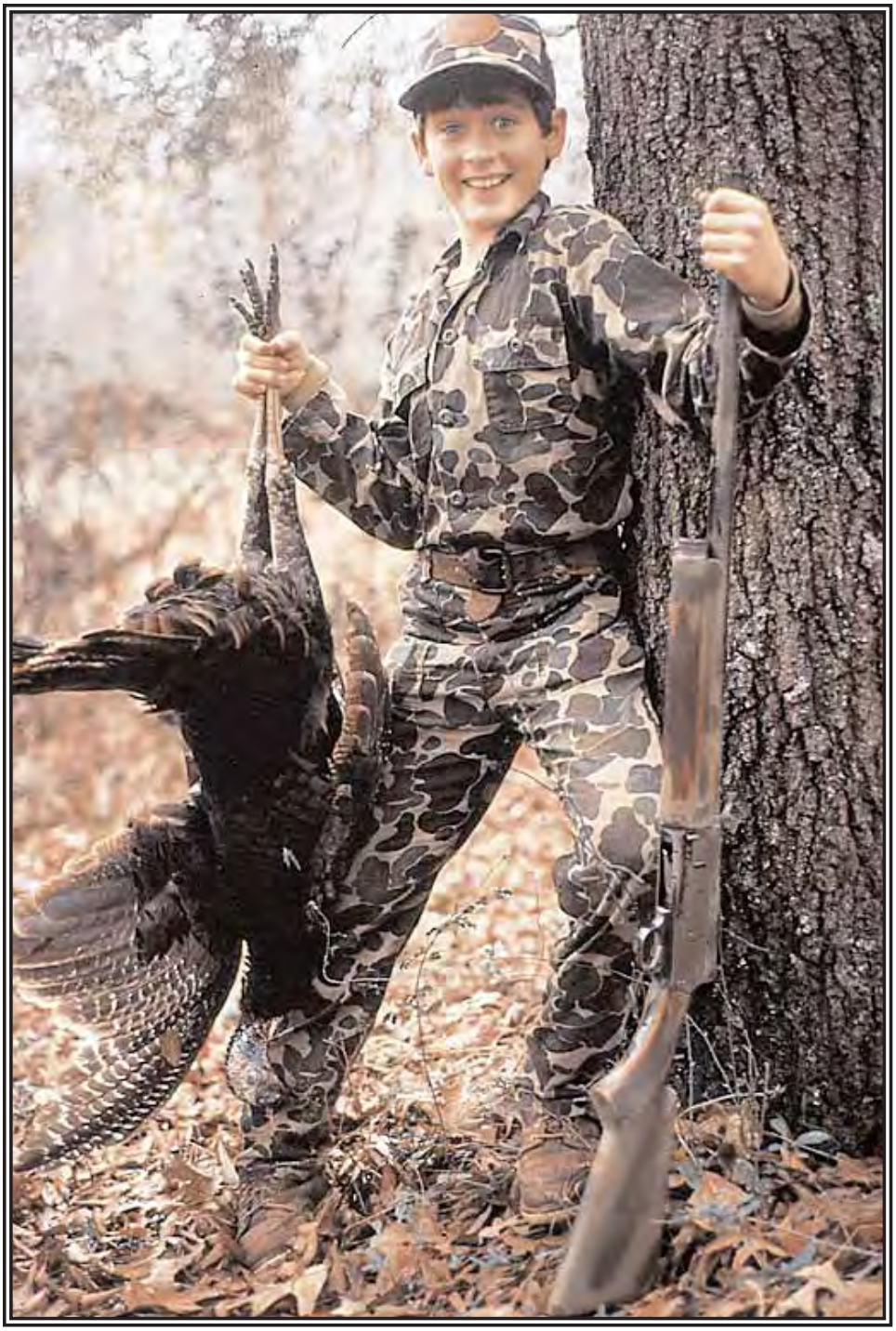
Wild turkey populations have increased substantially across the United States since the end of World War II. Trap–and–transplant programs of state game agencies have accelerated this growth since the early 1950s. The support of the private sector and state and federal agencies substantially aided the restoration effort. Combined population estimates nationwide in 1990 showed wild turkey numbers about 3.5 million birds and today, there are nearly 7 million wild turkeys across North America.

All states but Alaska have huntable populations.

The primary limitation on wild turkey population levels—besides having all suitable range occupied—was habitat loss. Also acting negatively in some areas were illegal kill, lack of brood and winter habitat, summer droughts, poor mast

The wild turkey has been returned to empty habitats and has been expanded into other suitable areas. It's a marvelous comeback story. However, the primary limiting factor on wild turkey populations continues to be habitat loss like this massive cutover void of suitable wildlife habitat.

U.S. FOREST SERVICE



GENE SMITH

The wild turkey has been a direct link between the past and the present—a credit to the bird's adaptability to varying habitat conditions and it's ability to respond well to modern wildlife management. Keeping the future wild turkey populations healthy will provide pictures like this successful young man's hunt for generations to come.

production, severe winters, predation, and suspected diseases.

Probably no other game bird has had more of an impact on the combined cultures of the inhabitants of North America than the wild turkey. The species has directly influenced the lifestyles of Native Americans as well as immigrants and their descendants. Although the wild turkey once was found only in isolated pockets and inaccessible areas, populations now occupy more square miles of habitat than any other game bird in North America. The restoration is truly a modern conservation marvel that is a credit to the wild turkey's adaptability to a variety of climatic and habitat conditions, as well as to the great bird's ability to respond well to modern management.

A more detailed history can be found in The Wild Turkey Biology and Management edited by J. G. Dickson in 1992 and published by the National Wild Turkey Federation, USDA Forest Service and Stackpole Books.

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