A Look Back at Wild Turkeys

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The wild turkey is rooted deeply in Pennsylvania's heritage. Its pre-colonial range covered most of Pennsylvania and much of the eastern United States. Along with passenger pigeons, they were a relatively dependable, tasty food source for Native Americans. But the birds began to decline with the coming of European settlers, who were unrelenting in their forays afield for game.

The birds were an immediate hit with the colonists. In a 1683 letter to the Earl of Sunderland, William Penn wrote, "Turkeys of the wood, I have had of 40- and 50-pound weight." Of course, Penn was exaggerating, but his mentioning of turkeys in correspondence indicates they were popular and desirable.

Wild turkeys rapidly disappeared in eastern Pennsylvania, mostly from unregulated hunting and trapping, but also, as a result of habitat destruction. But they attracted a following. Colonial statesman Ben Franklin thought wild turkeys were incredible birds. In fact, he proposed that the turkey be our national symbol. The turkey lost bout to the bald eagle, but it would lose even more in the years that followed.

Wild turkeys, like game, were considered a natural crop that could be taken whenever in colonial Pennsylvania. Necessity and opportunity more often predicated when turkeys would be taken than other grounds. There really weren't many, if any, recreational hunters in the 1700s. The same held true for wildlife managers. If game disappeared from an area, it meant you had to hunt somewhere else.

As settlers went west, turkey populations correspondingly dropped. John Audubon observed that turkeys were noticeably in trouble in the early 1800s. "They are becoming less numerous in every portion of the United States, even in those parts where they were very abundant 30 years ago."

Turkeys were extirpated in the New England states and New York, according to twentieth century ornithologist W.E. Clyde Todd, by the early 1850s. The birds also were absent throughout most of Pennsylvania, although they maintained something of a stronghold in Pennsylvania's ridge and valley region (southcentral counties) through the latter 1800s and into the new century.

In 1888, Pennsylvania ornithologist B. H. Warren, in his book, ***The Birds of Pennsylvania***, wrote, "This noble game bird, although rapidly becoming extirpated, is still found in small numbers in the wooded, thinly-populated and uncultivated districts of this Commonwealth."

By 1900, it is presumed only a few thousand wild turkeys remained in the state's 45,333 square miles. Not even tracks were easy to find. Unfortunately, there was no effort to curb hunting pressure on turkeys. The daily limit for turkeys in 1897 was two. It was reduced to one a day, with a season limit of four, in 1905. Turkey seasons in this era were typically six weeks, running from mid-October to the end of November.

Further hastening the demise of wild turkeys was the deforestation of Penn's Woods. It was easier to determine where turkeys weren't after large tracts of trees were clear-cut. The fragmented habitat remaining also made it incredibly difficult for turkeys to re-population vacated suitable habitat.

The Game Commission's creation in 1895 represented a stay of extirpation for Pennsylvania's troubled wild turkey population. The game birds also no doubt benefited from the ongoing forest regeneration reclaiming the state's stump-studded mountains and rolling hills. Those thick stands of saplings and briars surely represented a formidable obstacle to anyone who chose to hunt turkeys.

In 1904, Pennsylvania Game Commission Executive Secretary Joseph Kalbfus said he thought the state's wild turkey population was increasing but lamented that they were being hunted too early. He petitioned the General Assembly to change the opening day from Oct. 15 to Nov. 1. He wasn't successful. But Kalbfus kept driving home his message for more conservative turkey management efforts.

"The season should be shorter," wrote Kalbfus. "The use of dogs in hunting turkeys should be prohibited. Hunting shouldn't start before sunrise. These are only little things, but they mean life and death to the turkeys."

With time, the Game Commission successfully lobbied legislators to ban the use of dogs by turkey hunters; make turkey blinds unlawful; make it illegal to purchase wild turkey meat; eliminate nighttime hunting for roosting turkeys; and make the use of turkey calls illegal.

In 1913, Kalbfus reported that the Commonwealth's estimated 150,000 hunters took more than 1,000 wild turkeys. Although the turkey harvest exceeded a reported deer harvest of 880, there was an obvious shortage of birds afield.

Governor John K. Tener signed legislation closing the statewide turkey hunting season in 1914 and 1915. It was a tremendous step forward for wild turkey management, an unprecedented, but very timely, legislative action to protect the state's beleaguered turkey population. It was the first time turkey hunting had been stopped since the state's colonization. Another closure followed in 1926.

In addition to the season closures, the Game Commission raised turkeys and stocked birds purchased out-of-state. In fact, in 1922, the Game Commission Executive Secretary

Seth Gordon was directed by the Commissioners to secure approximately 100 Mexican wild turkeys at a cost not to exceed $10 each. It's unclear whether the birds were acquired or released. During this era, the Commission frequently looked to Mexico to buy game birds—particularly bobwhite quail—because birds were scarce in other states or were being used to fuel other game bird restoration efforts.

Turkey stockings continued for years. The Game Commission also set aside money to buy lands for its developing state game lands system that would preserve what it determined to be important wild turkey and ruffed grouse habitat. It also began to experiment with trapping wild turkeys on refuges and transferring them to areas lacking birds. In 1929, Game Commissioner Ross Leffler announced the agency had decided to establish the world's first turkey propagation farm on a yet-to-be-determined site in central Pennsylvania.

Also beginning in 1929, the Game Commission started to close certain counties to turkey hunting. The practice continued into the 1950s. In the mid-1950s, the agency began holding statewide seasons. In addition, "restricted," or shorter, seasons were employed in some counties beginning in 1947 to expand hunting opportunities but limit the harvest.

In 1930, the Game Commission purchased 938 acres of contiguous farm and forested land in Lack Township, Juniata County, for wild turkey propagation. Additional purchases of neighboring properties increased the overall tract's size to 1,121 acres. About 500 acres were enclosed with nine-foot fence to keep ground predators out and turkeys inside. During its first two years of operation, 3,566 turkey eggs were produced, and 720 turkeys were successfully reared for restocking purposes.

The Game Commission steadily increased game farm production of pheasants, quail, partridges and turkeys. Many credited the agency's Turkey Farm for fueling the state's wild turkey resurgence. But the reality of it all was that the Game Commission's turkey stockings were a put-and-take resource. They weren't what was causing the turkey population to grow and expand from its core area in Pennsylvania's southcentral counties. That was a product of improving habitat.

But the Game Commission did accelerate population expansion to some degree by changes it made in its land management programs. In the mid-1930s, the agency began to target land acquisitions that were beneficial to wild turkeys; and increased the seeding of tillable areas with grains and legumes, especially in southern counties, to provide food for wild turkeys. The gains for Pennsylvania's wild turkeys provided by habitat improvements and acquisitions, though, were often offset by perpetuating turkey propagation, winter feeding of turkeys, and the public misconception that stocking pen-raised turkeys would lead to establishment of wild turkey populations.

In 1936, the agency established wild turkey mating areas to improve the quality and wildness of turkeys reared at the Turkey Farm. The fenced mating areas were placed on state game lands and refuges in what was considered the state's finest wild turkey range. Gobblers flew into the roughly 10-acre fenced areas and mated with the penned hens. In the first year of operation, the hens produced 4,431 eggs, which resulted in the production of 1,428 turkeys. There were 21 mating areas in the state by 1942.

The agency began doing meaningful wildlife research in the early 1940s, a direct benefit of receiving federal Pittman-Robertson Fund monies, which were the product of an excise tax on sporting arms and ammunition. State shares of PR funding were determined by a state's geographic size and number of licensed hunters. Game Commission studies probed forest-wildlife relationships; game bird propagation; the life history and ecology of the wild turkey; silvicultural practices affecting deer food; and the food habits of game birds.

World War II indirectly and positively affected the Commonwealth's wild turkey recovery because the labor and feed deficiencies it caused seriously retarded production at the Turkey Farm in Juniata County. It also slowed down the spiraling interest among Pennsylvanians to hunt by redirecting them to patriotic callings.

In 1945, the Turkey Farm in Juniata County ran into trouble on varied fronts and the Commissioners decided to move it to Lycoming County. The former site had no room for growth and there were contamination problems, inadequate facilities and poor soils.

The maturation of more and more of Penn's Woods from its pole timber stage opened doors for the state's bottled-up wild turkey population to extend its range beyond the ridge and valley region counties. Turkeys began showing up in places the Game Commission's stocking truck never went to. But the expansion was incorrectly attributed to stocking. Turkey are "increasing noticeably throughout their entire range due to more liberal and extensive stockings," the Game Commission 1949-50 Annual Report said. "The strain is as wild as can be maintained and even farm-reared birds are almost unapproachable."

Interestingly, as turkeys pushed into new areas of the state, they began to decline in their well-established ridge and valley haunts. The Game Commission launched a full investigation. "The intent of this study," the agency's 1951-52 Biennial Report noted, "is to reappraise the range and show the distribution of wild turkeys on maps; to determine why wild turkeys have declined on the long-established range of southcentral Pennsylvania; to determine the value of farm-reared birds in management; and to investigate the practicality of using artificial insemination as a means of producing better quality birds at the Wild Turkey Farm at reduced cost. The recent expansion of the wild turkey range to almost all parts of the state has placed greater emphasis upon the importance of this bird for recreation. Continuing research studies are necessary for sound management."

Game Commission biologists estimated wild turkeys expanded their range from about two million to 13 million acres from the early 1940s to mid-1950s. “A sobering factor in this rosy picture, explained Game Commission biologist Harvey Roberts, “is that the bulk of the turkeys are now being killed on the newly extended range in the northern half of the state. The southcentral portion, which only a few years ago represented the entire turkey range in the Commonwealth, now produces comparatively few birds.”

Roberts reported that the Turkey Farm wasn’t a contributing factor in the southcentral counties. “For the most part, the liberation of captive-reared birds in these sections met only with failure, and for a time the Game Commission confined its turkey management activities to the established range,” Roberts reported. “Fortunately for the hunters of Pennsylvania, conditions in other parts of the state gradually improved and suddenly the turkey began to establish itself in areas which had been devoid of the species for many years.”

Pennsylvania held its first statewide wild turkey season in decades in 1954. At the time, 10 or so counties still didn’t have naturally occurring wild turkey populations. The Game Commission, however, accommodated those areas by stocking game farm turkeys. The wild turkey population’s most significant limiting factor was hunting. Other factors such as disease, predators, winter mortality, starvation and poaching were negligible.

In the late 1950s, the agency began to trap and transfer wild turkeys as a way to accelerate range expansion into areas where they had not yet reestablished themselves. Biologists approached the task on a county-by-county basis.

The agency redefined its delineation of the wild turkey range into primary and secondary units with shorter and longer hunting seasons during the ‘60s to equally distribute hunting pressure. It kept the heat off budding turkey populations and provided outstanding opportunities in areas that could accommodate increased numbers of hunters. But the Turkey Farm, although considered desirable by some hunters, lingered as an unnecessary component of the turkey management program.

Wild turkey research conducted by Game Commission biologist Arnie Hayden over the winter of 1962-63 illustrated turkeys could withstand lengthy periods without food without suffering reproduction setbacks in spring. Long periods of stress created by periodic food shortages apparently have little effect on the survival or reproductive capacity of turkeys. This information dovetailed with the findings of other researchers who concluded there was no benefit or wisdom in providing annual, large-scale, winter feeding programs. It also reinforced an early 1960s decision by the agency to stop winter feeding of wildlife.

The Commonwealth’s first spring gobbler hunting season was held May 6 to 11, 1968. At the time, the agency estimated the state had a minimum fall population of 60,000

turkeys and overwintering flock of 30,000. It occupied about 13,000 of the state's 25,000 square miles. A third of that population was gobblers, the remainder hens. And since gobblers are polygamous, acquiring harems of several hens, there was a definite excess of gobblers in Pennsylvania's turkey population. Maybe two or three times what was needed.

The spring gobbler season aimed to remove that gobbler excess to reduce the population's competition for food and territory. The gobbler season was scheduled after the mating season peak. An estimated 1,636 turkeys were bagged in Pennsylvania's first spring season and it has been held annually since 1968. In 1972, spring gobbler season was expanded to two weeks; in 1975, three weeks; in 1984, four weeks.

One of the state's largest chunks of unoccupied wild turkey range was in the northeastern counties. Other areas included the southcentral counties and the Alleghenies. Game Farm turkeys were annually stocked in these locations, but there was no self-sustaining population. To resolve the problem the agency implemented a trap-and transfer program. From 1960 to 1970, about 650 turkeys were trapped in the northcentral counties and released elsewhere. During the '70s, about 900 birds were trapped and transferred. In 1979, the Game Commission committed additional resources to accelerate the trap and transfer of wild turkeys.

By 1980, Pennsylvania's wild turkey trap and transfer program was the talk of the nation's wildlife managers. It was an overwhelming success. It also was the final nail in the coffin for the agency's Turkey Farm. In existence for more than 50 years and responsible for the production of more than 200,000 turkeys, the Turkey Farm had become more than endangered. It had become a financial burden and unnecessary, a lingering example of outdated wildlife management problem-solving. The Commissioners voted to stop turkey propagation in October 1980. In the spring of '81 the turkey farm began producing ring-necked pheasants.

"It had become increasingly apparent to the Game Commission that the rising controversy over stocking game farm birds was having a debilitating effect on turkey management in Pennsylvania," PGC biologist Gerald Wunz wrote. "Even though in recent years the birds were being raised mostly for put-and-take shooting, they were siphoning efforts and funds away from other management measures that could help turkey populations and their habitat."

Turkey management zones were established in the state in 1985 to expand turkey hunting opportunities and provide protection for recently established or small, growing turkey populations. The management zones were better than the larger management areas employed by the agency in the '60s and '70s because they provided biologists the opportunity to more effectively manage local populations. Turkey populations responded very favorably.

Trap and transfer work concluded in 1987 and paved the way for the self-sustaining wild turkey populations that now occupy most suitable habitat in the state. Some additional trap and transfer work was performed in the mid-1990s and 2000-2003 to established populations in the suitable, but fragmented, habitat found in Pennsylvania's southeastern counties.

In the late 1990s and into the new millennium, hunters have been enjoying some of the best turkey hunting Penn's Woods has provided in the past 200 years. The wild turkey population was estimated between 280,000-400,000 birds in 2001. That's a far cry from the few thousand estimated to be found in the state in the early 1900s.

The current success of wild turkey management in the Commonwealth is directly related to increased protection in the early 1900s; the restoration of forested habitat over the past century; aggressive range expansion fostered by trap and transfer work; and conservative fall harvest management strategies that protected the wild turkey population's breeding base. Pennsylvania's wild turkey population restoration wasn't accidental and had nothing to do with luck. It was the result of trial-and-error, adjusting and shaking free of tradition. It was a deliberate, albeit somewhat indirect, approach to restoring wild turkeys to Penn's Woods. That work would be become the blueprint that other states would use to restore their turkey populations.