



Reintroduction of wild turkeys in Wisconsin has been an unmitigated success since it began in the 1970s, with self-sustaining populations now thriving in all 72 counties.

TRIUMPH FOR WILD TURKEYS

HERBERT LANGE

REINTRODUCTION CAME THREE DECADES AGO TO KETTLE MORaine STATE FOREST-SOUTHERN UNIT.

R.J. Longwitz

It was 1986 and I'd just returned to my home state of Wisconsin after completing a master's study of ruffed grouse in southern Appalachian hardwoods. Wisconsin was in the midst of a major reintroduction effort of the eastern wild turkey (*Meleagris gallopavo silvestris*), work I'd been involved with six years earlier (see "Trading ruffed grouse for wild turkey," February 2015, *Wisconsin Natural Resources*).

Turkeys once were native to Wisconsin, inhabiting most of the southern half of the state. Clearing of mature oak for-

ests, the bird's primary habitat, and uncontrolled harvesting of the species were significant causes of its extirpation from

the state back in the late 1800s.

A DNR project initiated in 1976 using Missouri live-trapped wild birds released in Vernon County of southwest Wisconsin was highly successful. A decade later, estimates placed Wisconsin's turkey population at more than 45,000 birds. As densities increased, birds were live-trapped and released into other areas of the state to accelerate range expansion.

Looking to help on the project again, I contacted a few state workers and learned — as it turned out — birds were being released in Waukesha County, my home territory, in the Kettle Moraine State Forest-Southern Unit (KMSF-SU). Turkeys were released in the area during January and February 1986, and I was hired to help monitor dispersal, nesting, habitat use and survival of the birds through the end of the year.

The KMSF-SU expands through three counties along an interlobate moraine, an area where ice sheets made edge-to-edge contact. Large amounts of glacial debris were deposited, creating a hilly landscape, with depressions or "kettles" eventually forming when large buried ice blocks later melted.

More than 18,000 acres of state land are found in the KMSF-SU in an area 20 miles long and varying from a mile to 3½ miles wide. Forested uplands dominated by oak trees make up about 75 percent of the KMSF-SU, a multiple-use forest emphasizing outdoor recreation. More than 192 miles of trails have been used for hiking, skiing, snowmobiling and horseback riding. Agricultural activities dominate the land immediately outside of the state forest boundary.

The 1986 turkey release in the KMSF-SU featured source birds from Crawford County. There were 11 males and 31 females, a total of 42 birds that included 16 adults and 26 juveniles. Each was fitted with wing tags to facilitate identification from a distance and transported to one of two release sites 9 miles apart.

Public involvement was heavily recruited for the project, especially to assist with bird sightings and locations throughout the study. Solar-powered radio transmitters were attached to nine hens at the southern release site and two gobblers at the northern site. My understanding was that this would be the first-ever wild turkey study in Wisconsin involving data transmitted by radio-telemetry.



Mother turkeys and poults once again roam the Kettle Moraine State Forest-Southern Unit thanks to efforts that began with the release of 42 birds in 1986.

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On the move

Regarding turkey dispersal, the majority of the total area traversed by radio-tagged turkeys fell inside the KMSF-SU boundary. Most bird sightings reported by the public occurred inside this area as well. Bird movements averaged 1.8 miles from the release sites, with a range of 0.3 to 4 miles.

Seven of the nine radio-tagged hens were monitored through the nesting season. Each nested in a different spot, up to 4 miles from the release site. In addition, four nests were monitored during the study. The two radio-tagged gobblers remained together until the onset of the breeding season in late March, when they established separate home ranges 4.7 miles apart.

Based on radio locations recorded, the turkeys preferred hardwood stands — the most abundant habitat type in the KMSF-SU. They visited these and scattered hardwood stands more often than expected. Hardwoods, scattered hardwoods, conifers and agricultural lands were utilized by the birds year-round.

Ultimately, both bird movements and habitat use indicated that sufficient food and cover existed within the KMSF-SU to support a wild turkey population.

Effect of human activity

Wild turkey abundance is usually inversely correlated with human abundance. Because the KMSF-SU is a high-use area, human disturbance of turkeys is inevitable. The greatest potential for disturbance is in areas where trails and

roads pass through forested habitats.

Two incidences of nest abandonment due to disturbance were detected during this study. One of these occurred when a weekend cross-country race with many participants was too much for a nesting hen who, unfortunately, had built her nest too close to one of the trails. Also, exaggerated November movements by radioed birds were likely caused by the influx of hunters.

Survival and reproduction

During the study, 177 sightings were reported by the public and 292 radio locations were charted. Nine of the 11 released gobblers were heard during a spring gobbling survey. There were four clutches of eggs located, and two of these were completed, averaging 15½ eggs per clutch.

At least nine broods were hatched throughout the forest during 1986. Also, at least two additional broods were believed hatched as a result of late or second nesting attempts. Brood size varied, with as many as 13 poults per brood.

One brood was monitored through summer. It showed a decrease from 11 to seven poults, a 36 percent loss, during July. All seven remaining poults were still alive in September.

Of the 11 radio-tagged turkeys to begin the study, six survived the 11-month study period, yielding a 55 percent survival rate.

Based on observed survival and the number of broods produced, the mid-summer turkey population was esti-

mated at 100 birds, more than double the initial releases of 42. An established population was now well on its way.

Wild turkeys today

These days, wild turkey reintroduction is seen as arguably the single-most successful wildlife recovery story ever, especially in Wisconsin. There are now self-sustaining populations in all 72 counties. Wisconsin's bird totals, in fact, grew to lead the nation in state harvest numbers in 2009.

It is a tribute to the bird's hardiness and adaptability that it now inhabits the northern half of Wisconsin, an area where turkeys historically didn't exist. Seven Canadian provinces and portions of Mexico also support populations and even have hunting seasons. Continent-wide, some 7 million birds now occupy more square miles of habitat than any other game bird in North America, according to National Wild Turkey Federation records.

For this Wisconsin turkey success story, appreciation goes out to the people of Waukesha, Walworth and Jefferson counties for their efforts of assistance. Additional thanks to those involved with reintroduction attempts, though unsuccessful, back in the 1950s and '60s, as well as initial stockings in 1976 and 1978 and the repeated supplemental stocking and management efforts of the last 37 years, financed mostly with hunter-supplied dollars. ❧

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