

PAUL R. BERGH

Wild Turkeys of the Whitewater

High school language teacher and free-lance writer, Paul R. Bergh covers the brief history of Minnesota's newest game bird immigrant—the wild turkey—and on-going research to help the wary gobbler become a permanent wildlife fixture in the hardwood forests of southeastern Minnesota.

In Minnesota, deep within the thickly-forested and rugged terrain of the 25,000-acre Whitewater Wildlife Management Area, and moving cautiously through an adjacent 25,000 wooded acres, are 27 very special tom turkeys.

These birds are special because they represent a flourishing population of turkeys which has successfully increased in numbers despite the severity of our Minnesota winters. They are also special because they are imparting

vital information concerning their foraging habits and survival potential to the outside world via small radio transmitters harnessed to their backs.

The turkeys are of the sub-species *Meleagris gallopavo merriami* and *Meleagris gallopavo sylvestris*, more commonly known as the Merriam's and Eastern turkeys. The latter were originally scattered throughout the eastern and southern United States; the Merriam's originates in the ponderosa pine groves of the eastern foothills





Typical terrain of Minnesota's new wild turkey transplants. After early frustrations, introduced turkeys now appear to be thriving in several southeastern Minnesota areas, notably the Whitewater Wildlife Management Area.

of the Rockies in New Mexico, Colorado and Arizona.

The wild turkey is an impressive creature and considered by many American sportsmen as the ultimate upland game bird. The plumage of a "tom" is a beautiful russet-brown while the female appears somewhat paler in color. The tom also differs from the hen because of its long beard—a tuft of stringy feathers dangling from the base of its neck—and by its larger size. A wild hen turkey will seldom exceed 15 pounds, but a big tom may weigh as much as 25 pounds.

Cautious and elusive, the wild turkey is difficult to spot despite its large size. To escape danger, it may run to safety (up to 15 miles per hour) or explode into flight with amazing speed. Once in the air, it is a strong

flier and needs only an occasional wingbeat to sail as far as a mile.

These natural attributes of the wild turkey pose enormous problems for researchers. And so, Bill Porter, a 23-year-old graduate student from the University of Minnesota's Department of Ecology, has turned to electronic tracking to learn more about the Whitewater's turkeys.

Porter and his assistant Brian Neil, a student from the University of Northern Iowa, travel the forested valleys, streams and ponds, or through the bottomland groves of cedar and jack pine to track the wary gobblers. Of course, Porter would have nothing to study were it not for the efforts of wildlife biologists who introduced turkeys into Minnesota.

Minnesota's wild turkey story be-

gan in 1923 when the then Minnesota Conservation Department received nine game farm turkeys for stocking purposes. The following year another 125 birds were obtained from Pennsylvania and Maryland. During the two years this flock was kept in captivity, it increased substantially to a total of 592 birds.

Finally, in 1926 about 250 turkeys were released in 12 south-central Minnesota counties. Other releases were made in Winona and Houston counties in the southeast. It is not definitely known what happened to the released birds, but within a few years nearly all had disappeared.

Game Farm turkeys were first introduced in the Whitewater Valley in 1936 by the Izaak Walton League. However, these birds also disappeared after only six months in the refuge. More plantings of game farm birds were made up until 1957 and like the other attempts, they too were destined to fail.

There were various explanations for the failures. According to Wildlife Area Manager George Meyer, game farm turkeys are a weak breed, of a domestic nature, and are unable to adapt to our chilling winters and particularly, the threat posed by predators.

These game farm birds developed the pernicious habit of seeking out farm sites when under stress. This merely perpetuated a semi-domestic flock which frequently contacted diseases from farm birds and ultimately weakened the traits necessary for their

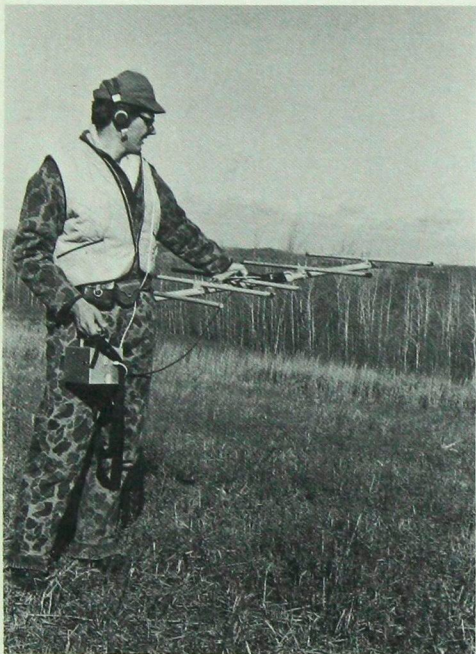
survival in the wild. (In reaction, release of game farm turkeys has been restricted by the Department of Natural Resources.)

The year 1964 heralded a major turn-around in Minnesota's turkey-stocking program. For two reasons. *First*, wildlife managers were now convinced that southeastern Minnesota's Memorial Hardwood Forest provided the most suitable combination of habitat and weather conditions capable of supporting a turkey population. More specifically, Whitewater Refuge and Wildlife Management Area seemed to be the ideal release site because of its abundant food and cover, isolation from the general public, and protection it afforded the birds.

Second, the year 1964 marked the first time for wild birds live-trapped in other states to be released in the Whitewater. Nine Merriam's turkeys imported from Nebraska were introduced that year followed by 17 wild Eastern birds shipped from Arkansas.

Evidence began to accumulate that stocking of wild birds was the ultimate answer. Accordingly, another 13 Merriam's were released in 1968.

From these original 39 wild transplants has grown a wild turkey population that now numbers between 300 and 500 birds. Today, it is not uncommon for hunters and trout fishermen to see large flocks of 30 to 50 birds quietly picking their way through the hardwood forests or across meandering woodland roads in the Whitewater.



Researcher Bill Porter (left) uses antenna to home in on one of 27 wild turkeys outfitted with radio transmitters. Right, turkey's-eye view of Porter holding special measuring cloth used to evaluate brushy habitat.

These turkeys are either Merriams, Eastern birds from Arkansas, or a hybrid cross of the two races. Until last year, it was believed that only the Merriam's had survived. But Porter brought some unusual tail feathers to the National Wild Turkey Symposium in San Antonio in February of 1974. With the help of turkey experts from other states, the feathers were identified as probably being from hybrid birds.

I spent a day last November with Bill and his assistant on their daily

rounds seeking evidence of the habitat preference of turkeys. This day's activities were confined to the refuge, which provides a relatively disturbance-free environment for the birds.

We were standing on a slight knoll above the main branch of the White-water. A nearby windmill groaned and turned slightly from the shifting wind. It doesn't pump any more but it's a fine landmark and gives reliable news about the wind direction.

"Number 225 is somewhere straight ahead in that ravine and 275 and 375

are farther to the north and much more faint," explained Bill as he plugged his earphones into a receiver set, and slowly swung a camouflaged antenna in a wide arc.

The numbers 225, 275 and 375 are the radio frequencies of three of the toms carrying 90-gram transmitters, each the size of a 12-gauge shotgun shell. For several months Bill and his assistant have been following the turkey trio as well as other birds. They speak of them in almost affectionate tones, evidence of a familiarity gained from closely scrutinizing the birds' wanderings.

The radio sightings are frequently and systematically charted in reference to very precise topographical maps. Their findings determine the percentage of habitual usage of specific terrain and food types.

"The wild turkey," Bill explained, "will eat over 100 varieties of food, but he prefers acorns which are about 85 percent of his diet. His secondary choices are such staples as corn and grain. In emergency situations he will eat almost anything else from insects to sumac buds.

"There are three areas of high use intensity according to season. In the summer and fall it is jackpine groves; in the winter they prefer the open slopes and will roost in the deciduous trees of wooded ravines; and in the spring, the season of greatest activity, the turkeys can be found in almost any locale."

The windmill blades were now motionless. We trudged out onto an

open ridge through long, brown grasses. The high ridge narrowed and suddenly we sensed a slight movement in the fringe of oak trees to our right. A doe, followed shortly by two gobblers, slipped into the darkness of the woods and disappeared over the hill.

According to Bill, the turkey and the deer are very compatible. They use the same trails when foraging. The deer will frequently break corn off the stalks and what they don't use will be found by the turkeys. In winter the snow packed down by deer provides easy movement for the birds.

"The problem," related Bill, "is that the deer frequently beat the turkeys to our bait sites and clean out the food, spoiling our trappings and observations."

Nevertheless, the competition for food appears to have little or no effect upon the turkeys' survival, at least to date. According to Porter, between June and December, young turkeys gain from 10 to 15 pounds—a phenomenal increase. Furthermore, the Whitewater birds seem to have stabilized their weight over the severe winter months, indicating an unusually high adaptability potential to this area.

We had arrived at the "convention center," a thick grove of oak trees with relatively open cover beneath. Here we found ample evidence of turkey activity.

Rather than generalize and theorize about habits of wild animals from sporadic observations, it is imperative to the researcher to seek *prima facie*

Wild turkeys are noisy and gregarious. Yet, their natural wariness and amazing speed—on the ground or airborne—have frustrated hunters for centuries.

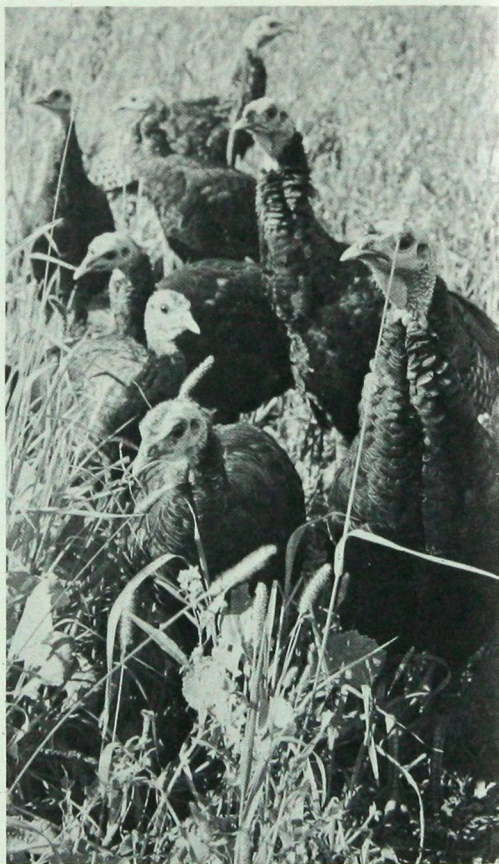
evidence over an extended period of time.

Here, then, was the area of highest concentration of turkey droppings. In the immediate vicinity of these droppings, Porter placed a small stick on the ground which was crossed with another stick to form four right angles (+). Within each quadrant, the two most prevalent types of growth were determined, such as grass, clover, shrubs, etc. Then 23 paces were stepped off in each of the four directions (an arbitrary measurement used in the study of deer populations).

As Porter crouched near a dropping to assume a turkey's eye-view, 23 paces away his assistant held up a measuring cloth about six feet in height, divided into ascending squares numbered one through six. Whichever squares are visible from the turkey's position determines a standard terrain and habitat index, which is recorded. That day we charted 37 droppings.

This type of survey has been repeated several times a week since last August. The accumulated evidence is enabling Porter to make generalizations and predictions about feeding habits and adaptability.

The afternoon grew dark and the temperature dropped sharply so we wrapped up the equipment, returned



to the truck, and sped down the road to the Area Headquarters near the village of Elba.

The next phase of the project will be to trap some hens and attach radio transmitters to them in order to study nesting patterns and habits. Bill Porter's project will be of great interest to the Minnesota Department of Natural

Resources, for the results will undoubtedly add much credence to the notion that wild turkeys can increase and survive on a long-term basis in the Whitewater Valley.

Hunting of wild turkeys is presently prohibited by law. It is conceivable that in the not-too-distant future a hunting season will be recommended on a limited basis, probably by lottery.

"One of the concerns expressed at the San Antonio Symposium," said Porter, "was the anti-hunting sentiment. There are some people who underestimate the value of hunting to the management of wild turkey populations. For one thing it keeps the turkeys wild. For another, it stabilizes the population in relation to other wildlife species competing for the same foods.

"Furthermore, it is truly an esthetic sport," he added. "A hunter is alone in the wild and must outwit the tom.

Even if he can call him to within a 100 yards—it is a great joy and a major accomplishment!"

Hopefully Minnesota will soon join the ranks of other states which have regulated hunting seasons for turkeys. George Meyer is confident this will soon be a reality in Minnesota.

As I was driving out of the Whitewater Valley up onto the ridge tops to the corn standing brown in distinct rows between fields lying in fallow, Bill's words came to mind: "You know, you can read everything written about turkeys, but it doesn't necessarily apply to the situation here. This is Minnesota. It's a new environment altogether."

Well, here's a welcome to the Minnesota wild turkey. He has a new home and we hope he'll thrive to provide us with many moments of excitement in the field whether from the perspective of the hunter or of the bird watcher.

