

Plotting the Wild Turkey's Future



We're learning more about the elusive wild turkey. A grave threat may be its pen-reared cousin. If we encourage it properly, the bird may expand its range in Minnesota

Scott Spoolman

TALK ABOUT population explosions, the wild turkey in Minnesota has 'exploded' from a mere handful fewer than 20 years ago to several thousand today. Reason for this remarkable growth? A cooperative effort among sportsmen, landowners, and the Department of Natural Resources to encourage the big bird to multiply in Minnesota.

That effort began many years ago. Between 1964 and 1968, 39 wild

turkeys were released in southeastern Minnesota. Fourteen years later, their offspring — and those of 29 other wild turkey immigrants from Missouri — had expanded into a flock of 4,500 in the coulee country of Wabasha, Winona, Houston, and Goodhue Counties.

Wild turkey range in Minnesota is still expanding. At one time, we thought the bird could survive only in our southeastern-most counties.

Wild Turkey's Future

But evidence suggests that this may not be true, and that there may be other areas of the state suitable for wild turkeys. Currently the DNR is investigating possible wild turkey release sites in Stearns, Pine, Chisago, Rice, Goodhue, Olmsted, and Fillmore Counties.

These counties appear to satisfy some basic requirements for good turkey habitat. A beginning flock usually needs at least 1,000 acres of hardwoods, preferably mature oaks, interspersed with croplands and not more than a half mile of cleared land between stands of timber. And between clear and forested areas there should be plenty of edge cover — shrubs and grasses.

There is much land in Minnesota that meets these basic requirements, but not all fulfills more crucial habitat requirements. What people do — or don't do — makes the difference between good and poor wild turkey habitat.

The counties listed above may qualify for wild turkey releases because enough good habitat is available. Too, local landowners want to establish wild turkey flocks on their lands. Doing so requires that they:

- Preserve the habitat
- Protect the birds against poachers, and
- Prevent the release of game farm turkeys on their land.

Plots and Strips. One of the most important habitat requirements is corn food plots, usually fields of

standing corn or corn stubble left after harvest for use in winter by turkeys, deer, and other wildlife. Though turkeys may need the plots for one or two months only, the corn can be the key to a flock's survival from mid-winter to early spring.

Corn plots are most useful at the head of a coulee — a gulch or ravine — or near hardwood stands. If the plots are larger than one acre, they generally last the winter. Turkeys feed on the corn during the day up to 90% of the time in the thick of winter — and use the woods to avoid predators and for roosting.

When snow is deep, the proximity of food plots to escape and roosting cover is important. Many landowners receive financial compensation from the DNR, the Minnesota Chapter of the Wild Turkey Federation, and other groups for providing corn plots.

Small alfalfa fields near hardwood stands are also valuable as food plots for turkeys. They provide insects, the staple food of young turkeys in the spring. The alfalfa itself is important food for adult turkeys. Alfalfa planted on narrow ridges or in contour strips alternating with strips of corn is most attractive to turkeys. In summer, the corn strips provide edges with ready escape cover and food for the birds.

Farmers preserve turkey habitat by refraining from plowing or spring burning within 150 feet of a woodlot. Turkeys use this for nesting in spring and for escape cover year around.

An alternative to abrupt forest-field boundaries is selective cutting of trees. This practice retains larger, canopied trees, particularly oaks, in the edge area. For landowners interested in creating edge cover, wildlife biologists recommend that they plant fruit-bearing shrubs such as cherry and crabapple.

A mix of hardwoods, edge areas, wetlands, and clearings are optimal for turkeys. But landowners should contact DNR wildlife managers and foresters for information on creating proper habitat for turkeys.

Domestic Animals. A common practice that often interferes with turkey habitat is allowing farm animals to graze in woodlands. Grazing can destroy the protective understory, compact the soil, and reduce tree vigor which makes for fewer acorns and other seeds. Some open woods may be good for turkeys and for grazing animals. Again, DNR wildlife managers can advise on each woodlot as turkey habitat.

Free-roaming dogs and other domestic animals can disrupt turkeys, especially during nesting. In some cases, hens have abandoned nests or have broken eggs fleeing from dogs. To help make their lands safe havens for turkeys, landowners should restrain domestic animals.

People, too, should restrain themselves from disturbing turkey flocks. This entails avoiding flocks and ranges when using snowmobiles and other all-terrain vehicles.



“Jakes” — young wild turkey toms.

Inviting trappers to use the land is another practice landowners should consider. Trapping can reduce nest predators like foxes, raccoons, and skunks. Poaching, of course, threatens all wildlife, although it isn't an overwhelming problem for turkeys in southeastern Minnesota, largely because of landowner cooperation and efforts by DNR Conservation Officers.

Wild vs. Hybrid. But the most bothersome activity is releasing semi-domestic, pre-reared turkeys. Landowners who want to provide good turkey habitat must deny access to anyone who wants to use their land for such releases. In fact, releasing pen-raised turkeys has not been allowed south of State Highway 55 and east of Interstate 35. Elsewhere in the state, permits are required for such release. Today, they are rarely issued.

Pen-reared or hybrid (wild turkeys crossed with pen-reared) turkeys present wild flocks with two threats: disease and genetic dilution. First, because wild birds are not

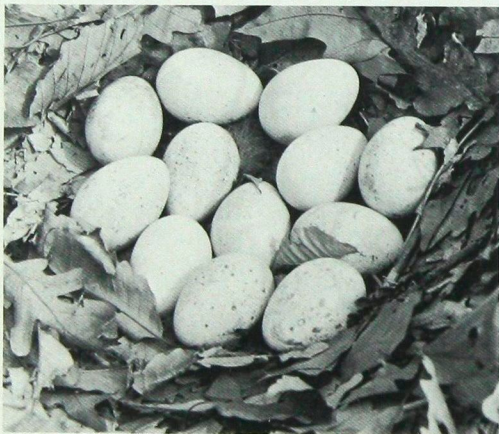
Wild Turkey's Future

confined in what often become unsanitary pens, they are not usually subject to common poultry diseases, such as fowl pox and blackhead, and have no natural immunity to them. Pen-reared birds may be immune carriers of these diseases.

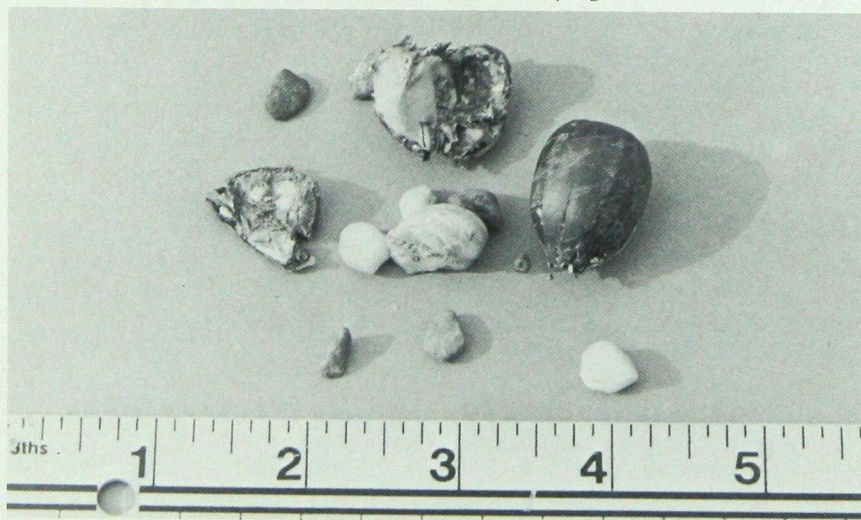
Though many game farm operators are conscientious about sanitiz-

ing their stock, the Minnesota Livestock Sanitation Board has identified these diseases on the range and on game farms. Thus pen-reared birds may propagate these diseases in the wild. Rounding up every free-ranging turkey for treatment is impractical if not impossible.

Another long-term threat posed



A hen turkey scoops a hollow in leaves (left) to lay 8-15 cream-colored eggs spotted reddish-brown and lilac. Incubation period: about 28 days. Two or three hens may lay eggs in a single nest and take turns tending them. Below: Acorns and grit removed from a wild turkey's gizzard.



by pen-reared turkeys released in the wild is the possibility of genetic contamination. Researchers have described behavioral differences between wild and hybrid turkeys:

- Hybrid flocks are easily scattered by predators. Some mix with wild flocks and produce more hybrids. Others settle on or near game or domestic turkey farms and mix with flocks there, soiling buildings and grounds, blocking roadways, and presenting a general nuisance.

- Hybrids are much less wary of humans and their ways. Sometimes they hardly flinch in the presence of people or vehicles only yards away.

- Hybrids roost on low limbs or near the ground. The canny wild birds roost high in trees to get away from predators.

- Hybrid hens tend to nest in open areas instead of in cover near forests as do wild hens. A farmer's mowers often destroys them.

- Hybrid hens with chicks behave unpredictably when an intruder approaches. Often they do not display the hiding response that has evolved as a successful adaptation of wild hens and chicks.

For hybrids, all this leads to a greater likelihood of death by predation, poaching, and accidents. Biologists have concluded that these behavioral differences are probably inherited, as are differences in brain, endocrine and thyroid gland sizes, body size, and quickness.

Domestic turkeys, from which some game farm turkeys descend,

have been bred for tranquility, not wariness. These birds will pass on their traits if they interbreed with wild birds. As a result, wild flocks may lose their adaptive edge — that wily character — which they need to survive and maintain their numbers in the wilderness.

People Support. Since potential wild turkey habitat is ruined by the presence of game farm turkeys, the DNR will take a hard look at wild turkey release sites where genetically inferior or diseased hybrids might be ranging. These sites will be put low on the list of places suitable for transplanting wild-trapped birds. Suitable habitat free of pen-reared turkeys will receive transplants first.

But regulations aside, the most important part of a management plan is the call for public involvement. Wild turkeys will thrive only if all people in the region fully support management programs.

Interested landowners should talk with each other, with friends and relatives, and with 4-H, Future Farmers of America, and other organizations. The more they spread the word on proper management, and the closer they cooperate, the more habitat wild turkeys will have and the faster they will expand in Minnesota. □

A former technical writer and editor for the *Minnesota Wildlife Research Quarterly*, **Scott Spoolman** is now completing a journalism program at the University of Minnesota.

