

# Wild turkey study indicates reproductive success

Wild turkey populations in the Mille Lacs Pilot Project Study Area experienced a rebound thanks to exceptional reproductive success this spring.

Despite initial significant post-release losses, five surviving wild turkey hens have produced clutches of up to 12 eggs this spring, giving the Department of Natural Resources and its cooperative partners reason to continue investigating the viability of wild turkey populations at the northern edges of Minnesota's wild turkey range.

A total of 25 radio-tagged wild turkey hens were released on three separate occasions this past winter in an effort to determine if there are any northern habitat limitations to wild turkey populations in this state. Six of these radio-marked hens (three each from the February and March releases) survived into the spring breeding season, said David Pauly, DNR Cambridge Area Wildlife Supervisor, with one transmitter failure occurring just prior to nest verification.

The five remaining monitored hens could be responsible for producing up to 57 young wild turkeys. Three nests located on June 12 contained 10, 11, and 12 eggs for a total of 33 potential chicks. The 12-egg nest was rechecked on June 14 when all 12 newly hatched chicks were observed. This would suggest sufficient survival from the four male wild turkeys released this year to ensure fertile eggs. Also on June 14, a fourth nest containing nine eggs was located and the remaining hen was sighted with three poults (older chicks), all about the size of ruffed grouse. Although only three young of the year were observed, DNR biologists suspect there were more poults in this brood. A week earlier a wild turkey family with 15 poults was reported in the vicinity of this radioed bird's suspected nest location, Pauly said.

"Productivity was apparently not diminished in the Mille Lacs study area as these reported clutch sizes and brood numbers are very typical of healthy turkey populations throughout their current range," Pauly said. "Initial indications are that despite the severe winter conditions and unprecedented bobcat predation, apparently viable populations can be established from a relatively small number of wild turkeys capable of surviving a Minnesota winter (and a very wet spring nesting season)."

Of the 19 wild turkeys that died, six were verified bobcat kills. There were eight verified starvations and the rest were lost to other predators. Prior to this study, there had been no published records of bobcat kills on wild turkeys in Minnesota. The starvation rates differ little from that reported in previous studies in Minnesota, Pauly said.

Radioed hens have dispersed up to three miles from the release site before initiating the nesting cycle. All nests were located in 'edge' habitat with dense overhead vegetative cover - this is very typical of nest sites found in other Minnesota studies.

The life expectancy of the five functioning transmitters is approximately three years. Cambridge Area Wildlife staff plan to continue tracking efforts on this relatively small sample size at least through the upcoming summer, fall and winter periods.

"This information is a critical component of the pilot study as the size and survival rates of the overwintering flock determines the number of available breeding age hens the following spring—that cohort which ultimately is responsible for expanding the size and range of this newly established wild turkey population," Pauly said.

Although this project is not a statistically valid research design, it clearly is providing useful base-

line data for future northern release site consideration, Pauly said. These wild turkeys were fitted with backpack transmitters prior to their release. All telemetry activity is conducted remotely to prevent undue human related stress on the birds.

"Our focus will be on minimizing human disturbance while maintaining sufficient contact to determine brood survival rates," Pauly said.

There are similar studies being conducted in Ontario and Wisconsin and it will be interesting to compare research findings from these different locales.

The Minnesota Chapter of the National Wild Turkey Federation donated \$6,000 and the Mille Lacs Band of Ojibwe donated \$3,000 to this study. This funding was used to pay vehicle expenses and salary for a field assistant. Recently, St. Cloud State University Wildlife Professor Bill Faber, received tentative approval for a \$100,000 grant from the Parent Chapter of the National Wild Turkey Federation to conduct a three-year in-depth study of wild turkey winter foraging strategies in Minnesota's northern habitats. All of these studies will help the DNR to better understand mortality, movement, habitat use and general biology of the wild turkey in the northern range.

## Fishing

### Swanville

- STANDINGS—Heavyweights 89, Cans R Us 69, Zinnels 62, Nilson's Hardware 46, Giddings 37, Herbie's Bar 36, Waltman's Appraisal 29, Cooks 27, Sonny Peterson Trucking 27, Green Nugs 25, Coborn's 23, Broken Johnson's 16; WEEK'S LARGEST: Largemouth Northern—Green Nugs, 23"; Muskies—Giddings, 40.5"; Smallmouth Bass—Heavyweights, 16"; Sunfish—Heavyweights, 8"; Rough Fish (Rock Bass)—Zinnels, 9.5"; POINTS: Northern 1, Muskies 7, Smallmouth Bass 14, Sunfish 1; LAKE: Alexander.

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