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With the Dick Ellis Experts
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Radio Ducktors

Telemetry study tracks private lands mallard production

By Dick Ellis

You could depend on it; she was an ornery old girl and she wouldn't want company on the Wisconsin pothole she had chosen for nesting. State research experts counted on that one reliable personality trait to buy Mother Duck a ticket from the marsh real estate she had staked squatter's rights on, to a makeshift operating room table in a tiny farm shack.

"We use the territorial aggression of the mallards," said Department of Natural Resources (DNR) Waterfowl Research Biologist Ron Gatti. "We scout the landscape to find resident wild pairs, then set a traps with hens purchased from a game farm. When the wild ducks come in to chase her out, hopefully the wild hen is trapped too."

Trapped! An aggressive wild hen mallard takes the bait and is captured when she attempts to chase a game farm hen placed by wildlife biologists from her established nesting territory.

DNR teams, in conjunction with Ducks Unlimited, are trapping resident wild mallards and tracking the birds via radio transmitters in Polk, St. Croix, Columbia, Dodge, Fond du Lac, and Outagamie Counties as part of first-time research effort striving to gauge the productivity of nesting ducks on private lands in Wisconsin. According to Monona resident Gatti trapping Tuesday with Wildlife Research Technician Larry Vine of Beaver Dam, fellow DNR employee Steven Easterly of Oshkosh, and Volunteer Todd Cook of Beaver Dam, the majority of Wisconsin ducks are produced on private lands. Yet, state wildlife managers know little regarding that productivity.

"Past research on duck production in Wisconsin has focused on public lands, which occupy only five percent of the landscape and offer a different environment than private lands," Gatti said. "The majority of the state's mallard harvest is also derived from local production. Our state duck harvest depends on how well ducks reproduce among the farming operations and rural development on private lands in Wisconsin."

Despite the spotlight often being on prairie state production, Wisconsin hunters feel the difference from duck blinds when local production rises and falls. Because wetlands and upland nesting areas are critically important to duck production, Gatti said, the loss and degradation of these habitats is believed to be the reason for past population declines and their restoration is seen as the key to duck population increases.

The objective of the private lands research, he said, is to directly estimate productivity of ducks on private landscape in Wisconsin where wetlands and grasslands have been restored. From this, current DNR manage-

ment practices of introducing more of that habitat will be validated, or new management tools for Wisconsin developed.

Specifically, Gatti said, the DNR and Ducks Unlimited are seeking to estimate duck recruitment parameters to determine if production is adequate to maintain populations when weighed against duck mortality. Those parameters include habitat preferences for feeding, nesting and brood rearing, nest success among land-cover types, brood and duckling survival, and adult hen survival during the breeding season.

The study makes the assumption that duck production is limited by the abundance of grasslands and wetlands; provide more of that habitat, ducks will be more productive.

"We restore wetlands and grasslands on public lands but the real answer is to spread it over the landscape," Gatti said. "The North American Wetlands Conservation Act (NAWCA) gives states millions of federal dollars that are matched with state funds and partner money from organizations like DU, the Wisconsin Waterfowl Association (WWA) and Pheasants Forever (PF) to benefit waterfowl and wetlands"

Wisconsin, he said, has received nearly 10 million in NAWCA funding, including $20,000 annually toward the four year private land study. The pilot study began in 2000, with four, 16-square mile sites studied each year through 2003. From 18 identified cover types, 30 mallard hens are captured from each study area during pre-nesting.

"We catch the ducks when they first come back in the spring from their wintering grounds," Gatti said. "The problem is there's a mix of resident ducks that will stay here and migrants that are going to move on soon.

Wildlife Research Technician Larry Vine monitors the hen mallard's heart beat as she receives anesthesia in preparation of the operation to insert a radio transmitter. The hen will be tracked throughout the nesting season as part of a private lands study seeking to improve duck production in Wisconsin.

LEFT: "Wildlife Research Technician Larry Vine monitors the hen mallard's heart beat as she receives anesthesia in preparation of the operation to insert a radio transmitter. The hen will be tracked throughout the nesting season as part of a private lands study seeking to improve duck production in Wisconsin. RIGHT: Weighing 19 grams, radio transmitters are inserted in the mallards' abdominal cavity.

We want the residents so that we can track those birds here."

Following the method developed by DU in "Prairie Canada", radio transmitters are surgically implanted into the body cavities of captured ducks and the birds tracked to determine nesting attempts and success. Successful hens are followed to estimate brood preferences and duckling/brood survival among wetland types.

Like approximately 170 previous Wisconsin surgeries performed successfully without a single lost "patient", our nasty hen Tuesday survived the anesthesia and implanted radio transmitter without a problem. She was set free on the same pothole from which she was captured to rejoin her drake mate. And hopefully, to help show biologists if their efforts toward higher duck production in Wisconsin are on track.

"This project is testing and evaluating our management practices of restoring wetlands and establishing idle grasslands for nest cover on private lands to produce more ducks," Gatti said. "We're hoping to see the supporting evidence that we're on the right track so that we can continue."

"In the late eighties, Wisconsin first received CRP (Conservation Reserve Program) habitat which improved the upland nesting habitat. We had very wet wetlands in the early nineties. Nest predators like skunk and red fox declined, possibly due to the increase of the coyote. And we adopted very restrictive hunting regulations in the late 1980s when we went from two hens in the bag to one."

"All of this happened at once, at the same time mallard numbers increased. It's important that we know the population dynamics so that if their numbers start to decrease we can try to change things." *OWO*

