

for the birds

Wayne State researcher looks for ways to increase nesting habitat for once-endangered Michigan bird

by Leslie Mertz



RON AUSTING

Above: Dan Kashian, a Wayne State ecologist in the Department of Biological Sciences. Below: A female Kirtland's warbler on a nest.

Once at the edge of extinction, Michigan's own Kirtland's warbler has become a success story like few other endangered species.

This little gray-and-yellow songbird that nests almost exclusively in northern lower Michigan, and is the rarest warbler in North America, took a severe population dive from 1961 to 1971. In that short time frame, its numbers plummeted from 1,000 to 400. That more than 50 percent drop prompted wildlife biologists and foresters to take emergency action to save the bird. As a result, the population size has risen almost every year since its low point of around 330 in 1987, and in 2008 the number of warblers stands at about 3,600 — an amazing 10-fold increase in just two decades.

This is the point where the story takes a turn for Wayne State ecologist and warbler researcher Dan Kashian of the Department of Biological Sciences. As a graduate student, he spent many months

in the forests of northern Michigan studying how best to improve the habitat so Kirtland's warbler would continue to nest and to multiply. But now that the management plan has worked so remarkably well and the warbler numbers have skyrocketed, he wonders, what is the exit strategy?

"When the recovery plan for the Kirtland's warbler was completed in 1976, the recovery goal was 1,000 breeding pairs," he explains. "Now they're at 1,800 pairs, but the recovery effort isn't stopping. Certainly, there are a lot of reasons for not stopping. One is that it's so successful, why would you stop? Two is that 1,800 pairs is still not all that many. It wouldn't take that much to knock that back down."

That's especially true, he says, because these birds migrate to the Bahamas in the winter and return to Michigan in the spring for nesting, so they face perils in both places, as well as on the long flights between.

Nonetheless, he says, biologists need to step back and decide when enough is enough, especially since he believes the warbler population is now far higher than it has ever been, and the warbler management effort may well be having an impact on other members of the ecosystem.

Over the years, the management plan has evolved into one that now relies mainly on increasing the warblers' nesting habitat. Kirtland's warblers nest on the ground and only under the low-hanging branches of young jack pines, a scraggly tree that grows in the almost savannah-like areas of the state that have come to be known as jack pine barrens.

"As a result you have these massive jack pine plantations all over this sandy, dry area of northern Michigan that stretches south almost to Clare, west nearly to Kalkaska, north into Otsego County and east almost all the way to Lake Huron," Kashian says. "The mantra for a long time was 'If you plant it, they will come,' and for the most part,



A male Kirtland's warbler sings in a jack pine during the breeding season.



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that's been right. There's a high success rate of warblers using these plantations. So that's what the Forest Service and Department of Natural Resources do. They plant, they plant, they plant."

That, he says, is the rub.

"The jack pine barrens are relatively rare ecosystems, and there are relatively rare plants all through them," he says. "These plants are just getting plowed up for these plantations. One of the questions that I and some of the people in my lab are starting to ask is: What are the plantations doing to the rest of the ecosystem, when you're essen-

tially creating a warbler zoo?"

Kashian and his team believe that the management plan may be creating far more young jack pine forests and a considerably larger Kirtland's warbler population than have ever been here in the past.

"We could very well be moving to an unnatural state," he says.

For now, he is beginning to collect historical data on Michigan forests, advocating a study to determine how the plantations are affecting other plants, and trying to open a dialogue on when to cut back on the warbler management plan.

"It's not like we shouldn't be trying to protect the warblers," says Kashian, whose love of warblers and Michigan's forests goes back to his childhood. "The question is how do we weigh these trade-offs between getting as many of an endangered species as we can and, even though those populations may still be low and tenuous, considering what the historical range was. It's very tricky." ♦

*Leslie Mertz is the author of nine books, the most recent **Driving Michigan: Mile by Mile on I-75.***