

# OUTDOOR/RECREATION

## Kirtland's warbler making recovery



The rare Kirtland's warbler, a sparrow-sized blue-gray and yellow songbird whose entire world population nests in a nine-county area in northern Michigan and winters in the Bahama Islands, is on the increase.

It was the first to be placed on the Endangered Species List by Congress in 1973.

The Kirtland's warbler nests in the limited young jackpine forests growing on a special type of sandy soil.

The trees must be just the right height (about five to 20 feet tall). The warblers build their nests only on the ground beneath the low hanging branches of the jackpine and among thick grass or other plants.

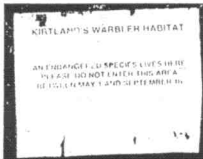
The U.S. Geological Survey Biological Resources (formerly National Biological Service) will finish an important three-year research project on the Kirtland's warbler this fall. Data obtained from this research will aid managers in optimizing habitat for the tiny songbird.

The project was partially funded by the Michigan National Guard.

**THE SURVEY TEAM**, consisted of Michael Petruha, Charlotte Prior and Randy Harrison of the U.S. Fish and Wildlife Service, and was headed by ornithologist Dr. Cameron Kepler

decade of banding, according to Kepler.

A tiny numbered aluminum identification band is fitted to the leg of each captured Kirtland's warbler. The numbered band, in addition to three colored plastic bands, arranged in a special sequence, are attached to the bird's leg so that individual birds can be identified from a distance with binoculars.



KIRTLAND'S WARBLER HABITAT

AN ENDANGERED SPECIES LIVES HERE PLEASE DO NOT ENTER THIS AREA TO COLLECT WOODS OR TO CUT TREES.

A wide range of information was recorded including the location of the jackpine habitat in which the bird was captured.

Feathers were also collected this year for DNA analysis.

Scientists determine the genetic health of the species. About 250-260 birds have been captured and banded each year since the program began in 1995.

**THE BANDING RESEARCH** also provides critical information used to create a Kirtland's warbler population computer model. The model will help biologists evaluate different habitat management strategies, for example, to determine if one larger habitat area would be more beneficial to the warblers than several smaller ones.

Until recently, only trial and error methods were used to determine the best management practices. This method is risky because it takes much

longer time to evaluate. When dealing with endangered species, such as the Kirtland's warbler, time can mean the difference between survival or extinction.

The population model will soon help biologists make knowledgeable, timely land management decisions needed to recover the Kirtland's warbler species.

The banding project discovered a second population located away from the core population in the Grayling/Mio area, and will serve as added protection for the species survival.

or the University of Georgia, who has spent 30 years studying endangered birds all over the world, and now working for the Biological Resources Division, United States Geological Survey. They will have spent eight to nine weeks in the jackpine forests near the Grayling/Mio area capturing and banding the rare warblers for a habitat and survival studies.

Fine mesh, badminton-like nets, 12 meters long and two to three meters high, were strung between the narrow rows of jackpine enabling researchers to capture the birds in flight. The warblers would entangle themselves in



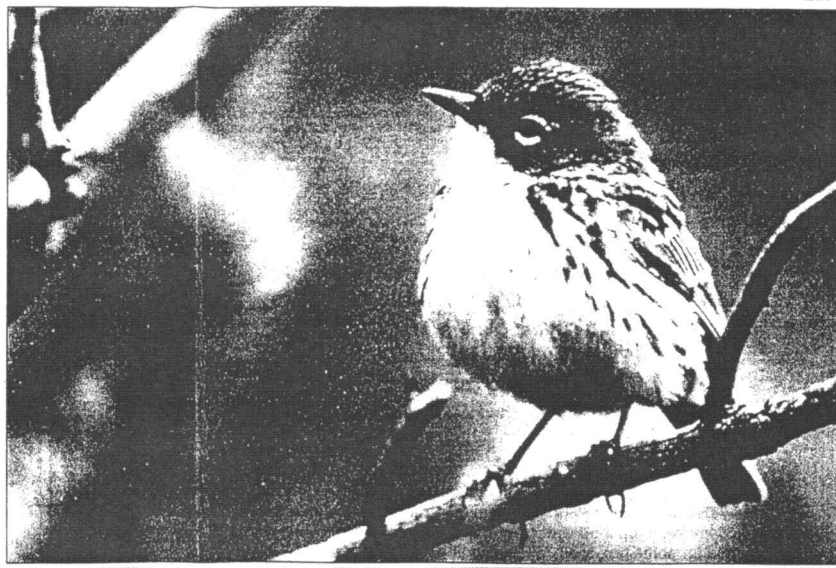
**STUDY TEAM** — Dr. Kepler, Biological Resources Division, U.S. Geological Survey; Christie Deloria, Randy Harris and Michael Petruha, U.S. Fish & Wildlife Service, pause before checking bird nets during Kirtland's warbler study recently.

the nearly invisible black net. Every 20 minutes the ornithologist or his assistants would check the maze of nets.

They would quickly remove the snared birds from the nets to minimize any chance of harm. Fewer than 1/2 of 1 percent of the nearly 1,000 trapped warblers have been harmed during a

A Kirtland's warbler captured in 1996 had been banded in 1986, the oldest ever documented. The average lifespan is three to four years.

Banding also indicated that 98 percent of the adult Kirtland's warbler and 70 percent of the juveniles return to within a mile of where they were raised. There is about a 30 percent



**AMAZING RECOVERY** — The Kirtland's warbler, a species who makes its summer home only in Michigan, has made a remarkable recovery in population from the 1970's. The expansion in the bird's jack pine habitat, and reduction of cowbirds, has made the recovery possible.

yearly mortality.

State and federal agencies conduct a combination of clear-cutting, burning and replanting each year to mimic the effects of wildfires to provide future habitat for the rare warbler.

**ALTHOUGH KIRTLAND'S** warblers stop using a jackpine forest when the trees are about 20 years old, forest managers wait until the trees reach 50 years of age before cutting. At 50 years old, the jackpine trees are large enough to be commercially valuable and harvest of the old timber helps pay for the warbler program.

Trees older than 50 years become vulnerable to insects and diseases. Removing older trees also reduces the hazard of wildfires.

The proportion of Kirtland's warblers counted in plantations specifically planted for warbler nesting habitat increased from 63 percent last year to over 69 percent this year, according to DNR wildlife biologist Jerry Weinrich of the Roscommon Lower Peninsula Field Headquarters. About 25,000 acres are actively managed for warbler nesting on state land and federal land.

Biologists would like to see one-third of the acreage actively managed for the warblers. It will take about 40,000 acres to provide enough habitat for the Kirtland's warbler to thrive and reach the federal recovery goal.

"Even though new habitat will become available each year for the next several years, it will not immediately make up for the difference of loss of large habitat areas that are becoming too old for use by Kirtland's warbler," Weinrich said. "Their numbers are expected to remain at steady until larger areas of new habitat become available in about five to six years."

According to Weinrich, they haven't been able to produce the amount of 5- to 7-year-old jackpine that's needed because of money limitations. Money from timber sales goes into regeneration, but is still not enough.

Researchers will soon be able to predict the population based on the amount of habitat.

"The success of the Kirtland's warbler management program shows that scientific wildlife management works. The cooperation among the DNR biologists and foresters, USDA Forest Service, U.S. Fish and Wildlife Service and the Department of Military Affairs in restoring the warblers' nesting habitat is exemplary," said Gary Boushelle, field operations supervisor, DNR Wildlife Division.

"In addition to providing warbler habitat and forest products, the jackpine barrens provide valuable habitat for a wide variety of songbirds, game species and plants."

**THE BROWN-HEADED COWBIRD** has spread into Michigan and is causing problems for the Kirtland's warbler. The cowbirds lay their eggs in warbler nests and other songbirds. These "host" birds then raise the more aggressive cowbird young instead of their own.

Christie Deloria of the U.S. Fish and Wildlife Service, heads the cowbird trapping effort and removes approximately 4,000 cowbirds annually. Without the traps, many experts say the warbler population would be decimated within 20 years.

Trapping of cowbirds, which began in 1972, has increased the average number of successfully fledged warblers from less than one per nest each year to between three and four per

year, according to Kepler. Warblers lay five eggs, sometimes raising a second clutch.

In the 1997 Kirtland's warbler survey conducted in June, officials counted 728 single male warblers, compared to 692 counted in 1996. Nineteen singing males were also found in three Upper Peninsula counties. This is the highest number counted since the first bird was found there in 1982.

**THE CENSUS** was started in 1951, repeated in 1961 and has been done annually since 1971. A record high of 765 singing males was estab-

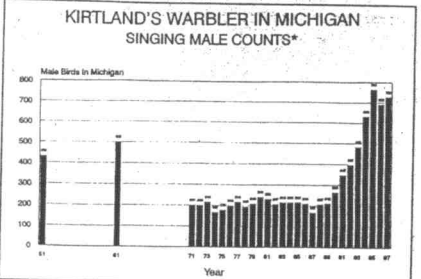
**Story by  
CHUCK STAFFORD  
Photos by RON AUSTING**

lished in 1995; the record low was 167 in 1987.

The surveys are a joint effort of the DNR, U.S. Forest Service, the U.S. Fish and Wildlife Service, the Michigan Department of Military Affairs and citizen volunteers.

Federal and state recovery plans

discovered by Dr. Jared P. Kirtland, an Ohio physician, in 1851, evidently en route north from their wintering grounds. The Smithsonian Institute named the bird in honor of their discoverer, Dr. Kirtland. In 1903, the first nest of Kirtland's warblers was found in Michigan's Oscoda County.



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### Stafford on outdoors

## Snakes are vital part of our ecosystem

Snakes, because of their unusual form and unique way of life, have inspired through the years a vast array of myths and folklore, most of which is untrue.

Indeed, they are a vital part of our ecosystem.

Because of their food preferences, all snakes are economically beneficial. They do not consume grain, vegetable matter or foliage. Some people may never learn to like snakes, but they should try to appreciate the role they play in the balance of nature.

Snakes have been needlessly killed and are still faced with possible extinction because of the rapid depletion of their natural habitat by urban expansion, highway construction and an increase in wilderness activities



**Chuck Stafford**

Daily News  
Outdoor  
Writer

The Massasauga is not considered highly dangerous to man.

Snakes occupy a variety of habitats. The water snakes are distinctive and frequently almost entirely the borders of lakes, ponds and streams and are rarely found far away from such places. Several of the smaller species

of the Upper Peninsula to farms and suburban communities of the Lower Peninsula.

Another common snake is the big, grayish/blue racer which often reaches lengths of five feet or more. Because of its size, its customary dash for liberty when encountered afield, and its generally formidable appearance, it has undoubtedly terrified more people than any other of our snakes. It is entirely harmless and although it strikes viciously when cornered, its teeth can do no more than pierce the skin.

The hog-nosed, or puff adder, if surprised in its haunts will raise its head, spreading out its cobra-like hood, hisses loudly and if this fails to impress its adversary will then open

and form has caused it to be confused with the Massasauga rattlesnake.

The Massasauga rattlesnake is our only poisonous snake. It is sometimes encountered by fishermen along streams and by blueberry pickers in midsummer. This marsh-loving snake (though not necessarily aquatic like water snakes) may range upland in summer and has been found in hayfields. It is occasionally uncovered in a wagon load of newly cut hay much to the alarm of the farmers.

This rattlesnake, despite the highly toxic properties of its venom, has never been known to have caused the death of a healthy human in Michigan.

That so few bites by rattlesnakes have been reported is due to their

### Local archer second in world shoot

Eleven year old Kara Fernandez, Scottdale, finished second in the IBO World Archery Shoot held at the Peek 'N' Peak Resort, Clymer, New York, in August.

Among 107 shooters in the Cub Division, she scored 413 to lead all shooters and make the cut (top five shooters) for the final shooting on Sunday. In the finals, the young shooter scored 190 on 20 targets to take second place. She shoots a Hoyt bow.

Her second place finish netted her a \$650 interest bearing trust fund for

college and five quarters of tuition, worth \$3,500 at Hocking College at Nelsonville, Ohio. She will have to be 18 and graduate from high school before she will get the money.

Her coach is Warren Jaarda of Holland.

"All she wanted to do was to win the state IBO and finish in the top ten of the world," said her father John Fernandez. "She's had an awesome year. She's got a future in this sport."

There were about 7,000 total shooters at the match.

### FISHING REPORT

Salmon and steelhead made up the bulk of the weekend catch.

Although there were lots of boats

frog, wart frog, fireball and candy corn have been working as well. Silver Streak Monkey puke, Maui