

SUMMARY OF THE KIRTLAND'S WARBLER SURVEY  
IN WISCONSIN - 1989

by Randy Hoffman

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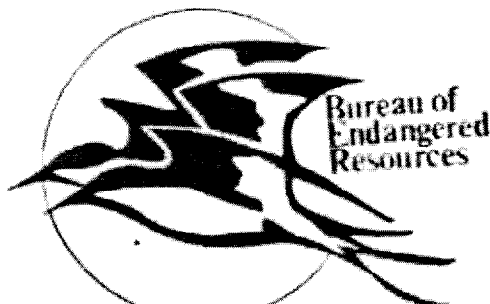
SUMMARY

In 1989, a survey was conducted to update the occurrence of Kirtland's warbler (Dendroica kirtlandii) in Wisconsin. The survey was very similar to that conducted in 1988. The 160 jack pine (Pinus banksiana) stands surveyed in 1989 compared to the 66 stands surveyed in 1988 was reflective of additional areas identified as potential habitat. Also, increased numbers of volunteers were recruited for this year's survey. Compared with the eight males found in 1988, only two males were recorded in 1989, one of which was banded in 1988.

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in Wisconsin - 1989

by

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Abstract

In 1989, a survey was conducted to update the occurrence of Kirtland's Warbler (Dendroica kirtlandii) in Wisconsin. The survey was very similar to that conducted in 1988. The 160 jack pine (Pinus banksiana) stands surveyed in 1989 compared to the 116 stands surveyed in 1988 was reflective of additional areas identified as potential habitat. Also, increased numbers of volunteers were recruited for this year's survey. Compared with the eight males found in 1988, only two males were recorded in 1989, one of which was banded in 1988.

Survey Preparation

Initial survey work began with preparation for any of the possible events that could occur during the survey period. These events had the prerequisite that Kirtland's Warblers would be found.

1. If Kirtland's Warbler were found, they should be caught and color banded -- Mr. Wesley Jones was assigned all banding duties. In addition, the Wisconsin Conservation Corp. in Spooner, and Wisconsin Department of Natural Resources (WDNR) - Wildlife Management personnel in Black River Falls, were recruited to be on call in the event net lines would have to be cut.
2. Obtain permission from Mosinee Paper Company to conduct the survey on their land -- This permission was granted by Mr. William Knauth, Mosinee Paper Company, forest operations manager in a letter dated May 19, 1989.
3. If female Kirtland's Warblers and/or nesting was confirmed, these birds would have to be given good chances for success. This would require the immediate placement of cowbird traps -- Obtaining materials for cowbird traps and construction of these traps was coordinated by Mr. Wesley Jones. The Wisconsin Conservation Corps. in Spooner, constructed the traps. They were then stored at the WDNR station in Spooner. In the event a female Kirtland's Warbler was found Mr. Jones would transport and erect the traps. Mr. Ron Befandier coordinated and prepared live trap traps.

Cowbirds (Molothrus ater) for use as decoy birds that could be placed in the erected traps.

In addition, if nesting was suspected, minimal disturbance would be mandatory. The Wisconsin Society for Ornithology rare bird hotline operator, Mr. Jerry DeBoer, was contacted. It was agreed that no Kirtland's Warbler location information would be passed along without prior contact and approval from the U.S. Fish and Wildlife Service(USF&WS). A similar agreement was made with the Minnesota Ornithologist's Union representative, Mr. Robert Jansen; however, this only covered the Minneapolis rare bird hotline. A similar rare bird hotline in Duluth purportedly broadcasted the location of a male.

#### Survey Method - Habitat Delineation

Habitat criteria was the same as used in 1988. The site requirements were close approximations of Wisconsin conditions to Michigan habitat. In 1988, participants were asked to record site conditions on their data forms.(Appendix A) This information was used to determine which of those 1988 sites should be surveyed in 1989. Plus, the 1988 participants were asked to apprise us of any sites, they thought met the habitat criteria. These sites were added to the 1989 survey. Additional habitat was sought by looking at WDNR Bureau of Forestry burn records. All burns of 80 acres or more for the period of 1970-1985 were requested. These were matched with cover type maps and air photos to identify additional sites to survey. This analysis resulted in additional sites in Marinette, Juneau, Burnett and Douglas Counties. Also, forest personnel from the Chequamegon National Forest were requested to identify any sites meeting the habitat criteria set forth in 1988. Analysis failed to produce any sites in the Chequamegon National Forest.

The 1988 data, plus additional stands identified in 1989, resulted in 167 potential habitat stands in Wisconsin. Stands identified for each county were Bayfield (32), Burnett (25), Douglas (13), Jackson (27), Juneau (26), Marinette (6), Washburn (32) and Vilas (6). The burn record analysis failed to turn up any potential stands in other counties. All the potential stands were plotted on county plat maps showing exact stand location and approximate stand boundaries.

#### Survey Methods - Organize and Conduct Survey

Initial organization attempts were to contact those persons, especially professionals, who helped in 1988. After this cursory survey was made, volunteers would be recruited to fill in the gaps. Volunteers were solicited through conversations with WDNR-Wildlife Managers and through announcements in the publications of the Wisconsin Society for Ornithology and several Audubon groups. The volunteers were notified of the survey and asked to give preferred counties or areas they would like to survey. Past participants were given preferential location in the event of

overlap. They were then mailed appropriate maps and instructions for conducting the survey (Appendix B).

The official survey period was set for June 3 to June 19, 1989, although this was waived for those sites harboring Kirtland Warblers in 1988. Searches of those sites could commence at any time after May 15. These specific sites were checked in the event birds would return to the same site. This would permit early banding activities on any of these returning birds. Any bird banded early would allow more flexibility for banding birds during the official survey period.

The surveys were conducted from June 3 through June 18, 1989, from sunrise to 11:00 a.m. The days were to be clear, free from precipitation, with wind not exceeding 12 m.p.h. Listening stations were set up near the center of every forty-acre block. At each station a recording of the Kirtland's Warbler territorial song was played for 30 seconds. The surveyor(s) then listened for a response for two minutes. The procedure was repeated before moving to the next station. If a Kirtland's Warbler was heard, a positive visual identification of the bird was to be made. Upon positive identification, the site was to be marked with flagging and the location identified on a map. The Bureau of Endangered Resources was to be notified immediately. Once the surveys were complete, the survey forms and cover maps were sent to the Bureau of Endangered Resources. In the event a Kirtland's Warbler was identified, the U.S. Fish and Wildlife Service had directed Mr. Wesley Jones to capture, measure, weigh, and band the bird(s) with colored bands issued by the USF&WS.

## Results

All 167 potential stands were assigned to be surveyed. One hundred sixty stands were surveyed in 1989. The participants were asked to contact the WDNR if they could not complete their assigned routes. Two participants could not complete their routes and they contacted the WDNR. Unfortunately, the contact was made on the last day of the survey. Twenty four participants were involved in the 1989 survey. Four professionals surveyed thirty-three stands and twenty volunteers surveyed one hundred twenty seven sites. (Map 1)

Two male Kirtland's Warblers were found in the 1989 survey. One bird, color banded in 1988, returned to the same site in Douglas County. This bird was discovered on May 22, 1989 by Wesley Jones and remained in the same territory until at least June 26, 1989, (observed by R.Hoffman). A second bird was recorded in Jackson County on June 17, 1989. The bird was heard prior to tape playing and responded positively upon commencement of tape playing. This party also reported glimpsing a bird that appeared to be a "likely male"; however, this bird disappeared before total confirmation and it did not respond to the tape.

Therefore, only one bird was counted. Contacts were made with

March until June 24, 1989. This was due to other time commitments, because the allotted time for response had expired.

## Discussion

While the number of birds recorded decreased in one year from eight to two, the survey did provide interesting information. The color banded Douglas County bird returned to the same territory it occupied in 1988. This singular male showed remarkable site tenacity returning to and remaining on territory for more than one month. The opposite effect occurred in Jackson County the one positive sighting was about ten miles away from the 1988 sightings. Where did the other birds go? It is truly unknown, but it was not for lack of looking. Every 1988 stand that recorded a Kirtland's Warbler was returned to with only the same success. Also, the effort was not lacking, the volunteer, who found three birds in 1988, surveyed the same area in 1989. The stands were surveyed on 7 different weekends from mid-May to the fourth of July without success.

The organizational problems set forth in the 1988 performance report were mostly met. Twenty volunteers were utilized in 1989 compared to 11 in 1988. All stands unfortunately were not covered. Seven assigned sites were not surveyed, five due to weather related problems and two were missed because a vehicle got stuck in the sand.

It is strongly suggested that an intensive survey commence next spring, because the Michigan population has a relatively high number of color banded birds. The opportunity to track these birds is now. Future studies and additional opportunities may not take place. There may not be another chance.

If a survey is continued, it is suggested that it be more intensive and focus only on those areas with the best habitat.

1. Focus emphasis on Jackson County and four areas in northwest Wisconsin; the Oak Lake burn area in Washburn County, the Five Mile burn area in Washburn and Douglas Counties, the Ekdall Church burn area in Burnett County, and the industrial pinery east of Solon Springs in Bayfield County (Map 2)

2. Type map these five areas to accurately delineate current and future Kirtland's Warbler habitat.

3. Keep the central coordination for public relations and statewide compilation in Madison.

4. Replace day to day surveyor coordination, with centers closer to Jackson County and northwest Wisconsin. This would require surveyors to file frequent field status reports. Such reports are necessary to make sure all of the habitat is covered.

THE INTERNSHIP SURVEY WOULD BE ADMINISTERED BY PERSONNEL  
SEARCHES TO ESTABLISH CONSTRAINTS PLACED ON BANDS AND  
THESE WOULD BE LIMITED TO THE



Warbler in your bird guide.  
black streaking on the side  
dark streaking on the head  
, the slate-grey or bluish  
of the male. Do not confuse  
Warbler, prairie warbler, or

Warbler is large for a warbler,  
It is relatively tame, wa  
, and nests on the ground  
calls can be heard 1/4 mile

Locations: Young jack pine stands  
that may be as low as 30 acres  
in height. Trees in  
any open areas. Trees with  
, well-drained sites with  
Sometimes uses Norway pine

Observers may make a survey  
if one is not sure of

Time between sunrise and 11  
through June 19. Weather  
possible. Discontinue survey  
if it rains.

Beginning stop near the center  
If walking or driving along  
locations should be located  
whenever possible to reduce  
lines, use a compass and plot

At each station, play the recording  
song for 1/2 minute and  
minutes (Kirtland's warblers)  
repeat this procedure before

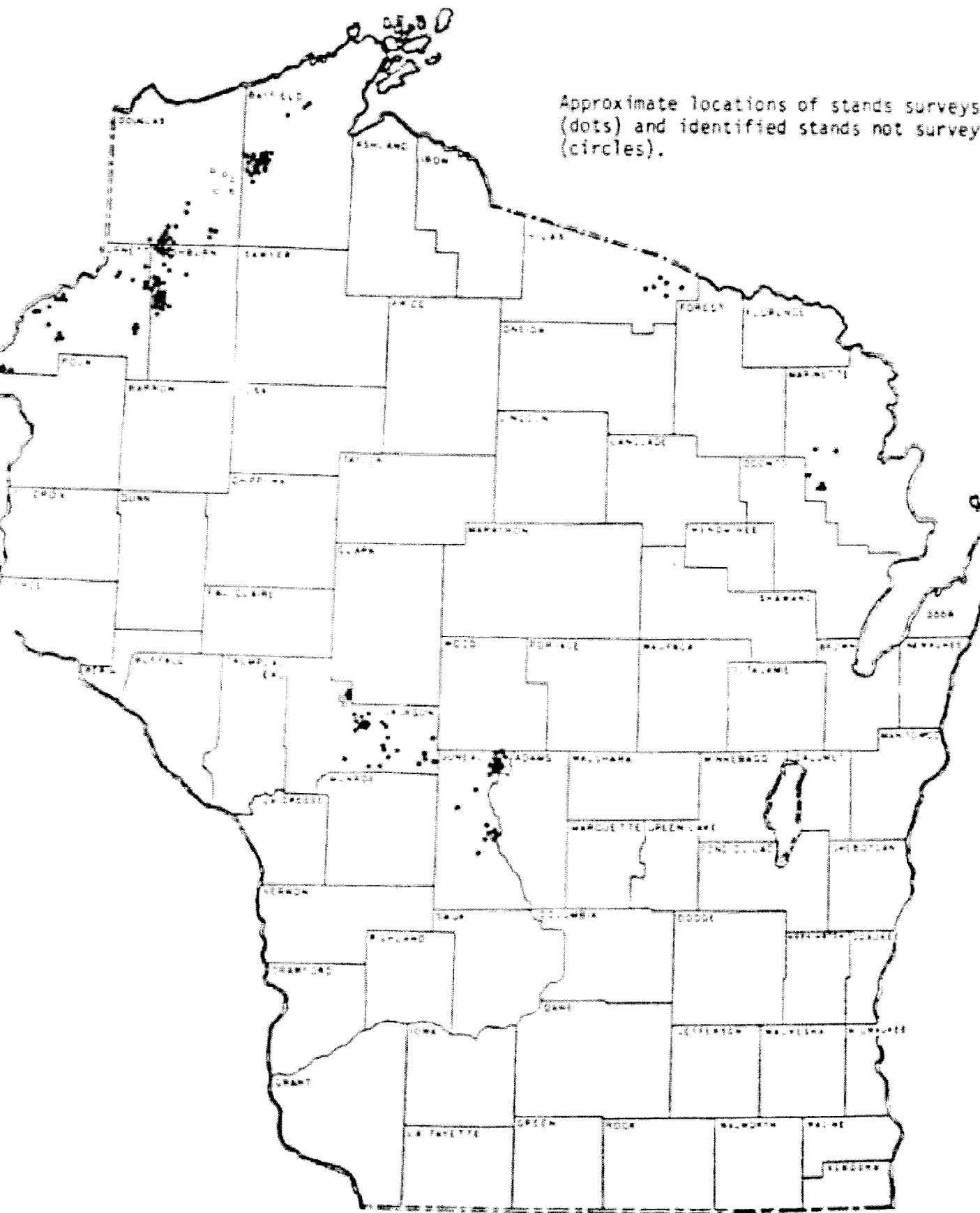
Warbler song is heard, observe  
and identify the bird. Identifica  
tion of the warbler should be  
on a flagging tape. The approach  
the cover map of the study area

Warbler song is heard, do not  
at that location as it may harm





Approximate locations of stands surveys (dots) and identified stands not survey (circles).



Approximate locations of  
major burn areas

- 1 - Oak Lake Burn
- 2 - Five Mile Burn
- 3 - Ekdall Church Burn
- 4 - Industrial Pinery

