

Wisconsin Kirtland's Warbler 2015 Season Report



Photo courtesy of Joel Trick

The Kirtland's warbler 2015 breeding season was one of a few surprises, novel findings, new partnerships, and was the most successful season since the population was confirmed nesting in Adams County in 2008. The first confirmation that Kirtland's were back on their breeding site in Wisconsin, the end of their 1500 mile migration from the Bahamas, was made by Barry Benson (U.S. Department of Agriculture, Wildlife Services). On May 8th, Barry heard 4 singing males while at the site checking cowbird traps. On June 2, nest monitor Ashley Hannah confirmed the first Kirtland's nest of the season with 5 eggs.

Surprises for the season include the second confirmed successful Kirtland's warbler nest outside of Adams County. This nest was found in a jack pine stand in Marinette County. Nest monitors confirmed two eggs in the nest and fledging for the nestlings occurred on July 31. In total, three male Kirtland's warblers and two adult females were confirmed at the Marinette County site. Three males were also confirmed in a jack pine stand in Bayfield County; however, nesting was not confirmed at the site. We are enthusiastic about the Kirtland's warbler observations in both Marinette and Bayfield counties and are hopeful that these two areas will become important nesting sites in the future.

Novel findings for the season include the return of a male Kirtland's warbler to its fledging grounds in Adams County that was color-banded as a nestling in 2014. This male established a territory, paired with a female, had a successful nest, and produced 3 nestlings which we color-banded. All three nestlings fledged and we wait in anticipation to see if any young return to nest at the Adams County site in 2016. The banding of these fledglings marks the first time that we have had color-bands on three generations of Kirtland's warblers.

We are pleased to be working with new partners and volunteers this year who helped advance the project by surveying the playback sites, searching for new sites during the census, collecting vegetation and site data, and monitoring nests in Marinette and Adams counties. Two projects initiated in 2014 were continued: (1) the playback experiment and (2) nestling banding. Both projects will be continued in 2016. In the following report we summarize the major highlights of the 2015 Kirtland's breeding season.

Kirtland's Warbler Monitoring Summary

Summary Highlights

- 15 males and 14 females were confirmed in Adams County, 3 males and 2 females in Marinette County, 3 males in Bayfield County
- 15 nesting attempts were made by 14 pairs in Adams County, 1 nesting attempt by 1 pair in Marinette County
- 8 of the 15 Adams County males had been banded in previous years; 1 of those was banded as a nestling 2014



Top: Three banded nestlings, Adams County. *Photo courtesy of Sarah Warner (USFWS).* Left: Fledgling Kirtland's at the Adams County Site. *Photo courtesy of Ashley Hannah (DNR).*



- 3 of the 14 Adams County females had been banded in previous years
- 16 nests: 15 in Adams County, 1 in Marinette County
- 13 nests were successful: 12 in Adams County, 1 in Marinette County
- 36-53 young fledged: 34-51 in Adams County, 2 in Marinette County

Table 1. 2008-2015 comparison of Kirtland's Warbler nest data, Adams County. Includes numbers of males confirmed, returning males (color-banded males present that were also present the previous year), number of pairs, number of nests, successful nests (determined if nestlings fledge the nest), and an estimated number of fledglings.

Kirtland's Warbler Data for Adams County, WI, 2008-2015						
Year	Number of Males	Returning Males	Number of Pairs	Number of Nests	Successful Nests	Estimated Fledged
2008	7	-	5	5	2 (40%)	10
2009	10	5 (71%)	10	10	6-7 (60-70%)	23-27
2010	20	10 (100%)	11	16	3-5 (19-31%)	12-18
2011	20	16 (80%)	11	11	4 (36%)	9-17
2012	20	14 (70%)	10	14	4 (29%)	8-13
2013	16	13 (65%)	9	12	4 (33%)	13
2014	11	7 (44%)	7	8	3 (38%)	8-10
2015	15	8 (73%)	14	15	12 (80%)	34-51

Table 1. Summary Highlights

In comparing the 2015 Adams County nesting season to past nesting seasons (Table 1), 2015 had the highest number of pairs (14) and the highest percentage of successful nests (80%) compared to past years. The estimated number of fledglings was the highest on record compared to the estimated numbers from previous years.

Kirtland's Warbler Census Summary

Census Highlights

- Census period: June 6-20
- 14 Volunteers and 7 staff surveyed 36 stands in 7 Wisconsin Counties (Figure 1)
- Douglas County (5), Bayfield County (2), Vilas County (6), Marinette County (5), Eau Claire (2), Jackson County (7), Adams County (9)
- 19 singing males were detected during the census period (Figure 1)
- 5 singing males recorded in northern counties: 2 in Bayfield County, 3 in Marinette County
- 14 singing males recorded at the Adams County breeding site



Kirtland's warbler, Marinette County. *Photo Courtesy of Jack Swelstad (volunteer).*

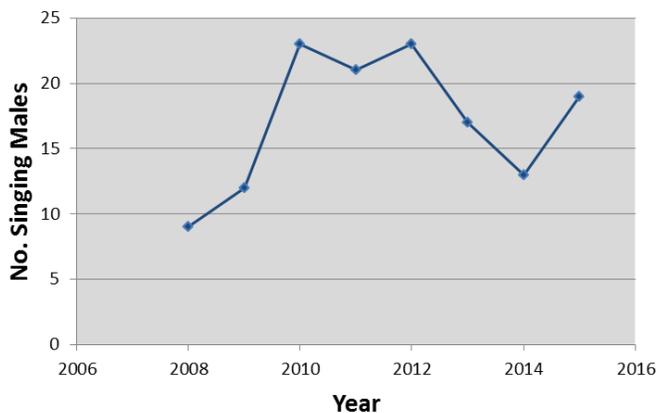


Table 2. Singing males recorded during the Wisconsin census 2008-2015. In 2007, 8 males were documented at the Adams site, but a statewide census was not conducted that year.



Figure 1. Wisconsin counties surveyed in 2015. Number represents singing males confirmed during the census.

Kirtland's Warbler Banding Summary

Adult and Nestling Banding Highlights

- 11 adult males were captured and 10 were banded in 2015
- 1 male was captured that was previously banded as a nestling in 2014
- 1 male was banded in Bayfield County, 2 males were banded in Marinette County, and 7 males were banded in Adams County



Top: Ron Refsnider (retired USFWS biologist), Ashley Hannah (DNR), and Sarah Warner (USFWS) band nestlings in Adams County. *Photo Courtesy of Joel Trick.* Left: Male Kirtland's warbler with color-bands. *Photo Courtesy of Joel Trick.*

- Of the newly banded males, 6 were second-year (SY), 3 were after-second-year (ASY) and 1 could only be determined to be after-hatch-year (AHY, a broader category that includes SY and ASY)
- 11 nestlings from 3 separate nests were banded at the Adams County site: 5 nestlings from the first nest, 3 from the second, and 3 from the third nest
- All 11 color-banded nestlings fledged successfully

Kirtland's Warbler Playback Experiment

Study Highlights

- The playback experiment involves the use of audio playback of Kirtland's songs to attract and consolidate roaming northern birds to attempt to establish new breeding populations
- Playbacks were conducted in Bayfield County Forest and Marinette County Forest
- 3 male Kirtland's warblers were observed at the playback site in Bayfield and 3 males and 2 females were observed at the playback site in Marinette
- A nest at the Marinette playback site fledged two young
- North et al. (2015) Kirtland's Warbler Conspecific Playback Experiment 2015 Report is available upon request

Adams County Cowbird Trapping

Trapping Summary

- 5 traps were placed at the Adams County breeding site for 11 weeks
- Traps were placed two weeks earlier than previous years and were moved to new locations that were within 0.5 miles from the closest Kirtland's warbler core territory
- 363 cowbirds were captured (229 males, 134 females) producing the highest numbers since trapping was initiated in 2008
- For comparison, a total of 110 cowbirds were caught in 2014, 207 were caught in 2013, 216 in 2012, 166 in 2011, 216 in 2010, and in 2009 a total of 303 cowbirds were caught
- Traps were placed and managed by Barry Benson, USDA APHIS-Wildlife Services



Left: Barry Benson releases cowbirds in a trap that will be bait to attract free-flying cowbirds, Adams County. *Photo Courtesy of Kim Grveles (DNR).* Bottom: Natural Resources Foundation Kirtland's Warbler Trip participants watch a male Kirtland's, Adams County. *Photo Courtesy of Rich Staffen (DNR).*



Kirtland's Warbler Field Trips

Trip Summary

- 4 field trips to the Adams County site were offered in 2015
- 1 on May 15 (33 people) and 1 on May 16 (23 people) through the Natural Resources Foundation of Wisconsin
- 1 on May 17 (4 people) for the International Crane Foundation board members and staff
- 1 on May 22 (7 people) for the American Bird Conservancy board members and staff
- The field trips were attended by a combined total of approximately 67 people
- The field trips raised funds (approximately \$3,065) that will be used for Kirtland's warbler conservation in Wisconsin

Acknowledgements

The content of this report represents the work of the Wisconsin Department of Natural Resources (Kim Grveles, Nick Anich, Davin Lopez, Richard Staffen, Amy Staffen, Janet Brehm), nest monitors (Ashley Hannah, and Daryl Christensen), U.S. Fish and Wildlife Service (Sarah Warner, Joel Trick and Ron Refsnider - USFWS retired biologists), U.S. Department of Agriculture Wildlife Services (Barry Benson), Timberland Investment Resources, and many dedicated partners and volunteers. The information in this report was compiled and written by Sarah Warner (USFWS), graphs and figures were made by Rich Staffen and Kim Grveles (DNR), data was provided by nest monitoring, surveys, and banding efforts.

Timberland Investment Resources allowed us to use their lands to conduct monitoring, banding and cowbird trapping, and provided support for habitat enhancement projects. The U.S. Department of Agriculture (USDA) Wildlife Services contributed resources to fund operation of cowbird traps, with the efforts of Wildlife Specialist Barry Benson proving essential to the nesting success of Wisconsin Kirtland's warblers. We also thank USDA Wildlife Services for support during the Natural Resources Foundation of Wisconsin (NRF) field trips.

We are thankful to the NRF which provided funding to support Adams County monitoring. The NRF also provided outreach for the project and offered field trips that generated funding to help with project support. We are also grateful to the U.S. Army Construction Engineering Research Laboratory for funding the Kirtland's Warbler Conspecific Playback Experiment especially to our collaborator Mike Ward (Illinois Natural History Survey) and Eric North the playback monitor.

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This year we again had the services of two expert field biologists as Kirtland's warbler monitors, Ashley Hannah (DNR) and Daryl Christensen. We also had nest monitoring assistance from Trina Pearson (USFWS), Doug Staller (USFWS), and Karen Haralson. Nancy Livingston provided lodging for our nest monitors, as she has for the past seven years. Housing is a critical need for the project each year, and we are deeply grateful to Nancy for her incredible hospitality. Ron Refsnider and Joel Trick contributed their time and invaluable expertise to make our color-banding efforts a great success and the USFWS covered costs associated with their travel. Pete Villas, Marinette County Forest Administrator, provided assistance in identifying potential suitable habitat to survey for Kirtland's warblers.

The generous efforts of numerous enthusiastic volunteer birders allowed us to survey for Kirtland's warblers at many Wisconsin sites. We wish to thank volunteers Corine Andrews, Rob Baller, Kurt Brownell, Rachel Butek, Erik Collins, Mark Collins, Tim Collins, Patrick Hager, Dan Jackson, Lenny Lichter, Donna Roche, Glenna Schwalbe, Paul Schwalbe, Jack Swelstad, Dave Wiemiller for their survey assistance. Wisconsin DNR Steve LaValley helped with the surveys and Jon Robaidek helped with the field trip tours and we are grateful for their assistance. A number of people helped with the playback experiment: we thank Jason Bodine, Bayfield County Forest; and Pete Villas, Marinette County Forest for their support of this project. Kelly VanBeek (DNR) helped generate initial support for this project. Janice Kelly, and Scott Chiavacci provided input on the study design. Janet Brehm, Jack Swelstad, Nick Walton, Rich Staffen, Paula Spaeth Anich, Aaron McCullough, Ron VanderVelden, and Jeremiah Oftedaul provided invaluable help with surveys and other fieldwork. We thank the members of the Kirtland's Warbler Recovery Team for their efforts to protect and conserve the Kirtland's warbler and for their input and guidance on various aspects of the Wisconsin project.

Our work with Kirtland's warblers in Wisconsin generates a great deal of interest, and our success is a tribute to the many individuals and organizations involved in the project. As has been the case throughout the life of the project, we continue to be dependent upon the critical contributions of our numerous partners. A heart-felt thank you to you all!