

**REGION 3 ENDANGERED SPECIES
SECTION 6 GRANT**

**Project Title: Wisconsin Endangered and
Threatened Species
Investigation**

**State: Wisconsin
Project No: E-12-1**

TITLE: Kirtland's Warbler Conservation and Management Strategy in Wisconsin – Phase II

Years of Project: 2009-2010

Year 2 Grant Period: January 1, 2009-December 31, 2009

Year 3 Grant Period: January 1, 2010-December 31, 2010

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NEED: A federally endangered bird, the Kirtland's Warbler (*Dendroica kirtlandii*), was found nesting in Wisconsin for the first time in June, 2007. Prior to this event, the breeding range of this species was confined to a few counties of Michigan's Lower and Upper Peninsulas. The recent dispersal of Kirtland's Warbler from Michigan into Wisconsin (and also into southern Ontario) is considered a direct result of an active conservation and management strategy enacted by the Kirtland's Warbler Recovery Team in Michigan. Because of the unique requirement of this bird for breeding in 5 to 20 year-old jack pine stands, dispersal of offspring is limited to the narrow band of jack pine habitat that occurs across the northern states and southern Ontario.

Kirtland's Warbler range expansion may be critical for the long-term survival of this bird. Establishment of permanent breeding populations in Wisconsin would help reduce the species' vulnerability to local catastrophic events due to its confined range in Michigan. In order to ensure that nesting attempts are successful and that breeding continues over the long term in the State, those key factors which adversely affect reproduction and survival must be addressed. Therefore, developing a strategy for conservation and management of Kirtland's Warbler and its habitat is warranted.

PROJECT OBJECTIVES:

1. Use yearly survey results to identify sites to survey and/or monitor in 2009 and 2010, and create a map annually of Kirtland's Warbler singing male and nest locations by August 31 of each year.
2. Using US FWS survey protocol (attached), annually discover new and reaffirm existing Kirtland's Warbler locations in Wisconsin and look for evidence of nesting between May 30 and June 30, 2009 and 2010.
3. Continue to communicate with at least 10 potential stakeholders regarding Kirtland's Warbler conservation and management in Wisconsin and explore the possibility for their participation in developing a conservation strategy for this species by December, 2010.

EXPECTED RESULTS OR BENEFITS:

1. We will have a map of sites where Kirtland's Warblers were present and/or breeding in Wisconsin during 2009 and 2010
2. We will have a map of sites to survey in Wisconsin for Kirtland's Warblers in 2009 and 2010
3. We will have an annual population estimate for singing males in Wisconsin for 2009 and 2010
4. We will be able to identify known breeding sites of Kirtland's Warblers in Wisconsin for conservation and management
5. We will have fostered working relationships with at least 10 stakeholders interested in contributing to the development of a conservation and management strategy

APPROACH: The following will be conducted under strict consultation with US FWS staff and in coordination with the Kirtland's Warbler Recovery Team:

Objective 1. Use yearly survey results to identify sites to survey and/or monitor in 2009 and 2010, and create a map annually of Kirtland's Warbler singing male and nest locations by August 31 of each year.

- Utilize 2008 survey results and GIS data layer of potential Kirtland's Warbler habitat to identify jack pine stands to survey for Kirtland's Warbler occupancy in 2009 in the following 10 counties of Wisconsin: Burnett, Douglas, Washburn, Bayfield, Vilas, Oneida, Oconto, Marinette, Jackson, and Adams. Repeat in 2010 using 2009 survey results.
- Produce a map of these stands by March 30, 2009.
- Using 2009 survey results, create a map of Kirtland's Warbler singing male and nest locations by August 31, 2009. Incorporate 2010 survey results and update map by August 31, 2010.
- Using 2009 survey results, identify survey sites to investigate for Kirtland's Warbler occupancy in 2010. Continue this work into winter of 2010.
- Produce a map of 2010 survey stands by March 30, 2010.

(This activity is administrative in nature and will have no affect on Kirtland's Warblers.)

Objective 2. Using US FWS survey protocol (attached), annually discover new and reaffirm existing Kirtland's Warbler locations in Wisconsin and look for evidence of nesting between May 30 and June 30, 2009 and 2010

- Recruit at least 10 volunteers who possess bird identification skills by March 15 of each year.
- Revise existing training materials for Kirtland's Warbler survey by April 1, 2009 and present this material to the volunteers at a minimum of 3 training sessions in Wisconsin by April 30, 2009. Repeat in 2010.
- Hire a wildlife biologist or equivalent qualified individual by May 15, 2009 for the purpose of monitoring known Kirtland's Warbler nesting sites in Wisconsin. Monitoring will consist of this trained expert walking into habitat, observing birds from a distance of 50 ft using optical equipment, recording bird activity, reproductive outcome, and evidence of fledged chicks, and recording evidence of human activity in the area between May 15 and July 15, 2009 from dawn until 8 hrs post dawn each day. Monitor will file a

daily report of all activities and observations. Repeat in 2010.

- Beginning no earlier than May 30, 2009 and no later than June 7, 2009, volunteers will survey appropriate sites identified in Objective 1 (in Counties of Burnett, Douglas, Washburn, Bayfield, Vilas, Oneida, Oconto, Marinette, Jackson, and Adams) following survey instructions developed by Joel Trick of the US FWS (please see Attachment A). At each site, no more than 2 individuals will walk into habitat and observe birds from a distance of at least 50 ft. using optical equipment and take GPS reading of bird locations. Repeat in 2010.
 - Sites where birds are found (based on GPS readings) will be investigated by a US FWS staff and/or a WDNR staff for breeding evidence between June 10, 2009 and July 5, 2009. Investigation will follow the protocol for nest searches developed by Carol Bocetti and approved by the Kirtland's Warbler Recovery Team (please see Attachment B). Repeat in 2010.
 - Report all field results to Kirtland's Warbler Recovery Team by July 15, 2009 and to property managers of sites where birds are found by August 15, 2009. Repeat in 2010.
- (The activities of recruiting and training volunteers and hiring a wildlife biologist are administrative in nature and will have no affect on Kirtland's Warblers. The surveys and monitoring activities will affect, but not adversely affect, Kirtland's Warblers because females will not be disturbed from nests and birds will not be approached. The investigations for breeding evidence will affect, but not adversely affect, Kirtland's Warblers because females will not be flushed from nests, nests will only be approached once prior to fledging, and subsequent observations will be made from a distance of at least 10 m using optical equipment (please refer to Section II C of Attachment B).

Objective 3. Continue to communicate with at least 10 potential stakeholders regarding Kirtland's Warbler conservation and management in Wisconsin and explore the possibilities for their participation in developing a conservation strategy for this species by December, 2010.

- Between January 1, 2009 and December 1, 2009, continue conversations with at least 10 stakeholders including the Karner Blue Butterfly Recovery Team, concerning the development of a conservation and management strategy for Kirtland's Warblers in Wisconsin. Repeat in 2010.
- Develop a Power Point presentation on Kirtland's Warbler ecology and 2008 survey results and present to at least 10 stakeholders between January 1 and April 1, 2009. Incorporate 2009 survey results into presentation and deliver to at least 3 additional stakeholders between September 1, 2009 and April 1, 2010. Incorporate 2010 survey results and deliver to at least 3 additional stakeholders between September 1 and December 1, 2010.
- Contact property managers of sites occupied by Kirtland's Warblers to discuss future conservation and management opportunities by December, 2009. Repeat in 2010.
- Circulate a questionnaire to stakeholders on future management and conservation actions and incorporate their comments into a final report by December 31, 2010.

(These activities are administrative in nature will have no affect on Kirtland's Warbler.)

WORK SCHEDULE

Year 2 Work Schedule: January 1, 2009 – December 31, 2009

Tasks	J	F	M	A	M	J	J	A	S	O	N	D
Survey Preparations												
Identify sites for survey in June 2009	X	X	X									
Produce maps of 2009 survey sites	X	X	X									
Produce map of 2009 male and nest locations								X				
Begin identification of sites for 2010 survey										X	X	X
Survey and Nest Monitoring												
Recruit skilled volunteers for 2009 survey	X	X	X	X								
Revise training materials and train volunteers		X	X	X	X							
Hire and supervise nest monitor					X	X	X					
Coordinate singing male surveys					X	X	X					
Report survey and monitoring results							X	X				
Begin recruitment of volunteers for 2010 survey									X	X	X	X
Stakeholder Involvement												
Stakeholder communications	X	X	X	X	X	X	X	X	X	X	X	X
Develop presentation and deliver to stakeholders	X	X	X	X					X	X	X	X
Promote management of known sites	X	X	X	X	X	X	X	X	X	X	X	X

Year 3 Work Schedule: January 1, 2010 – December 31, 2010

Tasks	J	F	M	A	M	J	J	A	S	O	N	D
Survey Preparations												
Continue to identify sites for survey in June 2010	X	X	X									
Produce maps of 2010 survey sites	X	X	X									
Update map of male and nest locations								X				
Survey and Nest Monitoring												
Recruit skilled volunteers for 2010 survey	X	X	X	X								
Revise training materials and train volunteers			X	X	X							
Hire and supervise nest monitor					X	X	X					
Coordinate singing male surveys					X	X	X					
Report survey and monitoring results							X	X				
Stakeholder Involvement												
Stakeholder communications	X	X	X	X	X	X	X	X	X	X	X	X
Update and deliver presentation	X	X	X	X					X	X	X	
Promote management of known sites	X	X	X	X	X	X	X	X	X	X	X	X
Develop and circulate questionnaire on strategy	X	X	X	X	X	X	X	X				
Prepare final report with recommendations									X	X	X	X

LOCATION: State of Wisconsin – 150 jack pine sites in Counties of Burnett, Douglas, Washburn, Bayfield, Vilas, Oneida, Oconto, Marinette, Jackson, and Adams

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PROJECT BUDGET for YEAR 2 (Jan. 1-Dec. 31, 2009) and YEAR 3 (Jan.1-Dec. 31, 2010)

<u>Activity</u>	<u>Year 2 Cost</u>	<u>Year 3 Cost</u>	<u>Total Cost</u>
Objective 1: Assess survey results, determine survey sites, and create maps	\$ 2,500	\$ 2,800	\$ 5,300
Objective 2: Determine presence of birds and identify sites with nesting activity	\$ 5,000	\$ 7,000	\$ 12,000
Objective 3: Explore stakeholder involvement with conservation and management strategy development	\$ 3,167	\$ 3,600	\$ 6,900
Total cost:	\$ 10,667	\$ 13,400	\$ 24,200
Federal Share:	\$ 8,000	\$ 9,400	\$ 17,500
State Match:	\$ 2,667	\$ 4,000	\$ 6,700