

U.S. FISH AND WILDLIFE SERVICE - SPOTLIGHT SPECIES ACTION PLAN

Common Name: Kirtland's warbler

Scientific Name: *Dendroica kirtlandii*

Lead Region: Region 3

Lead Field Office: East Lansing Field Office

Species Information:

Status: Endangered

Recovery Priority Number: 2c

Recovery Plan: Kirtland's Warbler Recovery Plan, Revised September 30, 1985

Most Recent 5-year Review: None

Other: Strategy for Kirtland's Warbler Habitat Management; 2001, Michigan

Department of Natural Resources, U.S. Forest Service, U.S. Fish and Wildlife Service

Threats: The primary threats are the loss of breeding habitat and nest parasitism by brown-headed cowbirds. These threats are managed annually through intensive programs designed to regenerate large stands of jack pine trees and remove brown-headed cowbirds from Kirtland's warbler nesting areas. These management programs will need to be continued into perpetuity in order for the Kirtland's warbler's population to survive.

Five Factor Analysis:

A. Present or threatened destruction, modification or curtailment of its habitat or range:

The loss of naturally regenerated jack pine habitat is offset by creating large plantations on an annual basis. Specific threats to wintering habitat and migratory habitat have not been quantified, but habitat loss through development and invasive species may be present.

B. Overutilization for commercial, recreational, scientific, or educational purposes:

There are no significant threats through the overutilization of Kirtland's warbler.

C. Disease or predation:

No current threats from disease are known. There is a small but insignificant threat of predation on Kirtland's warblers through natural predators and feral cats. Research has shown that the level of predation is below levels that would compromise population replacement.

D. Inadequacy of existing regulatory mechanisms:

Many of the recovery actions may see a reduction in ESA funding. In addition, there are no regulatory mechanisms protecting Kirtland's warblers on their wintering grounds.

E. Other natural or manmade factors affecting its continued existence:

Parasitism by brown-headed cowbirds is managed through an annual control program. However, recent decreases in funding jeopardize the continued success of the program. Collisions with lighted structures (wind turbines, buildings, communication towers, etc.) pose an unquantified, but potentially significant risk to Kirtland's warblers. Climate change also poses an unknown risk to Kirtland's warblers through loss of habitat or competition for resources.

Goal: To have a self-sustaining Kirtland's warbler population throughout its known range at a minimum level of 1,000 pairs. However, in a January 2002 letter to the Region 3 Director, the Kirtland's Warbler Recovery Team defined the term "self-sustaining" as a population free from intensive management. As stated in the Recovery Plan, fire suppression has decreased the frequency and size of burns that historically regenerated Kirtland's warbler habitat. In addition, the presence of brown-headed cowbirds poses a continual threat to successful warbler reproduction. Today, the recovery of Kirtland's warbler is only attainable through continual habitat management and annual brown-headed cowbird control.

Because of the perpetual need for intensive management, a true self-sustaining population of Kirtland's warblers is not attainable. As a result, the Kirtland's Warbler Recovery Team has recommended clarifying the primary objective to "establish and sustain a Kirtland's warbler population throughout its known range at a minimum level of 1,000 pairs using adaptive management techniques."

Measures:

- Maintain current population levels
- Maintain and expand habitat management
- Protect the Kirtland's warbler on its wintering grounds and along the migration route
- Establish a post-delisting strategy and funding mechanism

Strategic Actions:

1. Maintain current level of management in the northern Lower Peninsula of Michigan.
2. Expand habitat management in Canada, Wisconsin and the Upper Peninsula of Michigan.

3. Identify and protect wintering and migration habitat.
4. Maintain annual cowbird control program in the Lower Peninsula of Michigan and Wisconsin.
5. Conduct annual census of singing males
6. Create an endowment and conservation framework to ensure management activities can continue post-delisting.

Tasks:

(See spreadsheet below)

Role of other ESA programs:

The MDNR uses Section 6 funds to help fund habitat management and conduct census work. MDNR and the USFS use Section 7 to ensure that their activities do not jeopardize Kirtland's warblers. Private corporations and County forests are in discussion with USFWS on how to use Habitat Conservation Plans and Safe Harbor Agreements in order to expand breeding habitat in Wisconsin and the Upper Peninsula.

Role of other FWS programs:

Seney National Wildlife Refuge administers the Kirtland's Warbler Wildlife Management Area, 125 tracts of land comprising 6,684-acre throughout 8 counties in the Northern Lower Peninsula. These lands are incorporated into the Strategy for Kirtland's Warbler Habitat Management, and are managed on a 50-year rotation in coordination with the Michigan DNR to provide habitat for Kirtland's warbler.

In addition, the program will seek assistance from the developing Great Lakes Landscape Conservation Cooperative for biological planning and conservation design purposes.

Additional funding analysis:

If all the recovery actions identified above are funded and achieved, it is likely that we could proceed with de-listing Kirtland's warbler.

Kirtland's Warbler Action Plan 2010-2012

Priority	Strategic Action	Listing Factor	Tasks	Priority	Implementing Party	2010			2011			2012		
						Resource Needed	Resource Secured	Resource Request	Resource Needed	Resource Secured	Resource Request	Resource Needed	Resource Secured	Resource Request
1	Manage habitat for Kirtland's warbler	A	Implement the "Management Plan for Kirtland's Warbler Habitat in Michigan"	1	MDNR / USFS / USFWS	\$3,172,100		\$3,172,100	\$3,172,100		\$3,172,100	\$3,172,100		\$3,172,100
			Protect Existing Habitat (Fire, Insect, Disease Control)	18	MDNR / USFS / USFWS	\$10,000		\$10,000	\$10,000		\$10,000	\$10,000		\$10,000
			Improve occupied and developing habitat	13	MDNR / USFS / USFWS	\$107,800		\$107,800	\$107,800		\$107,800	\$107,800		\$107,800
			Establish new habitat, specifically in the UP, Wisconsin, and Canada	6	MDNR / USFS / USFWS / WDNR / Environment Canada (EC)	\$320,000		\$320,000	\$320,000		\$320,000	\$320,000		\$320,000
			Revise and update "Management Plan for Kirtland's Warbler Habitat in Michigan"	14	MDNR / USFS / USFWS	100 Bio Hours		100 Bio Hours						
2	Protect the Kirtland's Warbler on its Wintering Grounds and Along the Migration Route (2)	A,D	Locate and monitor wintering populations	7	TNC / Bahamas National Trust (BNT) / USFS / USFWS	\$200,000	\$200,000		\$200,000		\$200,000	\$200,000		\$200,000
			Delineate wintering habitat	8	TNC / BNT / USFS / USFWS	\$50,000	\$50,000		\$50,000		\$50,000	\$50,000		\$50,000
			Identify and monitor land use changes on known wintering grounds	12	TNC / BNT / USFS / USFWS				\$50,000		\$50,000	\$50,000		\$50,000
			Determine factors affecting wintering mortality of Kirtland's warbler	9	TNC / BNT / USFS / USFWS				\$50,000		\$50,000	\$50,000		\$50,000
			Protect key wintering sites	11	TNC / BNT / USFS / USFWS				\$400,000		\$400,000	\$400,000		\$400,000
			Define the migration route of Kirtland's warbler	15	TNC / USFS / USFWS				\$50,000		\$50,000	\$50,000		\$50,000
			Protect key habitat components along the migration route	16	TNC / USFS / USFWS									
3	Maintain Cowbird Control (3.21)	E	Maintain cowbird control	2	USFWS / USDA-WS	\$100,000		\$100,000	\$100,000		\$100,000	\$100,000		\$100,000
4	Determine overall population level on nesting range by counting singing males annually (4.1)	A,E	Determine overall population level on nesting range by counting singing males	4	MDNR / USFS / USFWS / WDNR / EC	\$80,000		\$80,000	\$80,000		\$80,000	\$80,000		\$80,000
			Survey in similar habitats	17	MDNR / USFS / USFWS / WDNR / EC	\$5,000		\$5,000	\$5,000		\$5,000	\$5,000		\$5,000
			Evaluate census data and prepare reports	10	MDNR / USFS / USFWS / WDNR / EC	40 Bio Hours		40 Bio Hours	40 Bio Hours		40 Bio Hours	40 Bio Hours		40 Bio Hours
5	Create an endowment ensuring the continuation of management in perpetuity.	A,D,E	Establish a long-term strategy that would direct management activities post-delisting	3	National Fish and Wildlife Foundation (NFWF) / USFWS / USFS / MDNR / TNC / BNT / USDA-WS	\$170,000	\$170,000	\$0	\$100,000	\$100,000	\$0			
			Develop an endowment securing funding that will ensure the required habitat management actions and cowbird control will continue in perpetuity.	5	NFWF				\$2,000,000		\$2,000,000	\$3,000,000		\$3,000,000

Kirtland's Warbler Action Plan (cont. 2013-2014)

Priority	Strategic Action	Listing Factor	Tasks	Priority	Implementing Party	2013			2014		
						Resource Needed	Resource Secured	Resource Request	Resource Needed	Resource Secured	Resource Request
1	Manage habitat for Kirtland's warbler	A	Implement the "Management Plan for Kirtland's Warbler Habitat in Michigan"	1	MDNR / USFS / USFWS	\$3,172,100		\$3,172,100	\$3,172,100		\$3,172,100
			Protect Existing Habitat (Fire, Insect, Disease Control)	18	MDNR / USFS / USFWS	\$10,000		\$10,000	\$10,000		\$10,000
			Improve occupied and developing habitat	13	MDNR / USFS / USFWS	\$107,800		\$107,800	\$107,800		\$107,800
			Establish new habitat, specifically in the UP, Wisconsin, and Canada	6	MDNR / USFS / USFWS / WDNR / Environment Canada (EC)	\$320,000		\$320,000	\$320,000		\$320,000
			Revise and update "Management Plan for Kirtland's Warbler Habitat in Michigan"	14	MDNR / USFS / USFWS						
2	Protect the Kirtland's Warbler on its Wintering Grounds and Along the Migration Route (2)	A,D	Locate and monitor wintering populations	7	TNC / Bahamas National Trust (BNT) / USFS / USFWS	\$200,000		\$200,000			\$200,000
			Delineate wintering habitat	8	TNC / BNT / USFS / USFWS	\$50,000		\$50,000			\$50,000
			Identify and monitor land use changes on known wintering grounds	12	TNC / BNT / USFS / USFWS	\$50,000		\$50,000	\$50,000		\$50,000
			Determine factors affecting wintering mortality of Kirtland's warbler	9	TNC / BNT / USFS / USFWS	\$50,000		\$50,000	\$50,000		\$50,000
			Protect key wintering sites	11	TNC / BNT / USFS / USFWS	\$400,000		\$400,000	\$400,000		\$400,000
			Define the migration route of Kirtland's warbler	15	TNC / USFS / USFWS	\$50,000		\$50,000			
			Protect key habitat components along the migration route	16	TNC / USFS / USFWS				\$300,000		\$300,000
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			Survey in similar habitats	17	MDNR / USFS / USFWS / WDNR / EC	\$5,000		\$5,000	\$5,000		\$5,000
			Evaluate census data and prepare reports	10	MDNR / USFS / USFWS / WDNR / EC	40 Bio Hours		40 Bio Hours	40 Bio Hours		40 Bio Hours
5	Create an endowment ensuring the continuation of management in perpetuity.	A,D,E	Establish a long-term strategy that would direct management activities post-delisting	3	National Fish and Wildlife Foundation (NFWF) / USFWS / USFS / MDNR / TNC / BNT / USDA-WS						
			Develop an endowment securing funding that will ensure the required habitat management actions and cowbird control will continue in perpetuity.	5	NFWF	\$5,000,000		\$5,000,000	\$5,000,000		\$5,000,000