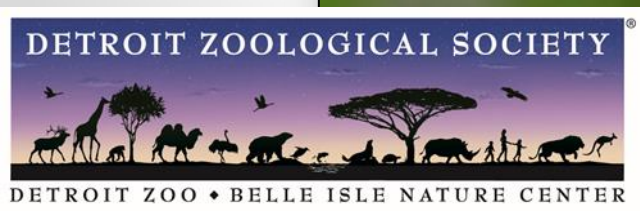


Photo by Ron Austing

# Kirtland's Warbler



Tom Schneider,  
Curator of Birds  
Detroit Zoological Society  
[tschneider@dzs.org](mailto:tschneider@dzs.org)  
*speaker notes in italics*





# Kirtland's Warbler

## A conservation success story

*From 400 to 4,600 in 40 years*

A census of singing males has been conducted since 1972

Lowest: 167 in 1974

Highest: 2,366 in 2015

(Michigan DNR, 2015)

- *Migratory, Neotropical songbird*
- *Ground-nesting*
- *Federally listed in 1967 as endangered, on ESL since inception in 1973*
- *Michigan's special bird.*

### Resources:

MDNR KW Information - [https://www.michigan.gov/dnr/0,4570,7-153-10370\\_12145\\_12202-32591--,00.html](https://www.michigan.gov/dnr/0,4570,7-153-10370_12145_12202-32591--,00.html)

University of Michigan, Museum of Zoology -

[http://animaldiversity.ummz.umich.edu/accounts/dendroica/d.\\_kirtlandii\\$narrative.html](http://animaldiversity.ummz.umich.edu/accounts/dendroica/d._kirtlandii$narrative.html)

USFWS - <http://ecos.fws.gov/speciesProfile/profile/speciesProfile.action?sPCODE=B03I>

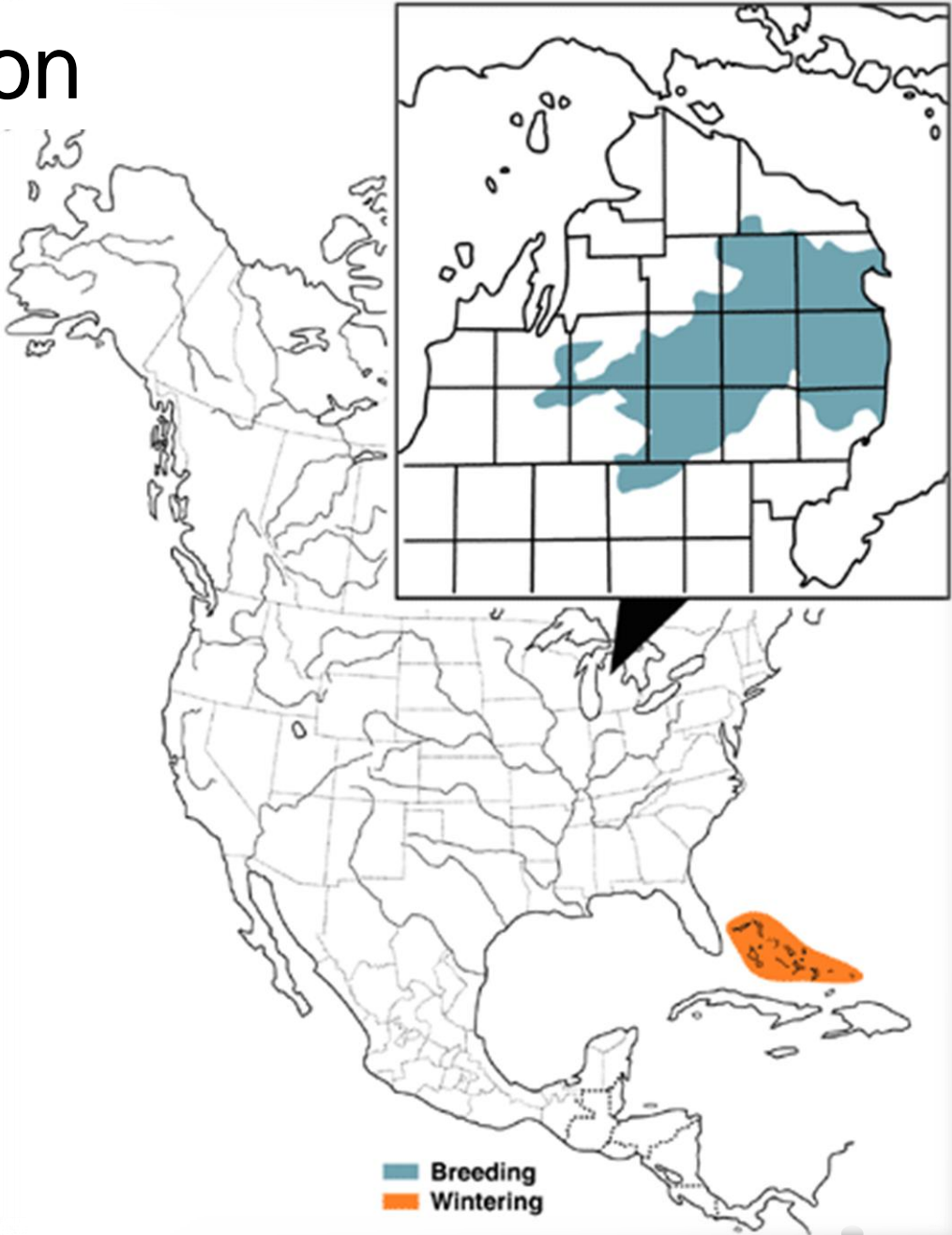
USFS - <fs.usda.gov/main/hmnf/learning/nature-science>

USGS - <http://www.mbr-pwrc.usgs.gov/id/framlst/i6700id.html>

# A Michigan story



# Migration



- *Michigan jack pine May-August, Bahamas in winter*
- *Similar habitat in Bahamas- low, scrubby vegetation*
- *Very limited breeding and wintering ranges; naturally a low population*
- *An entire continent, and it lives here*

*Resources:*

*KW found on San Salvador, 2014*

*<http://www.birdwatchingdaily.com/blog/2014/01/13/kirtlands-warblers-found-on-bahamian-island-for-the-first-time-in-46-years/#.UtSiMnhl-8s.facebook>*

*Ewert, 2005: Wintering KW found on MI breeding grounds*

*<http://www.dodpif.org/kiwa/kw-reports/2005%20Ewert.%20Wintering%20Kirtland's%20Warblers%20found%20on%20Michigan%20breeding%20grounds.pdf>*

# Home Sweet Home



## Dream Home Requirements:

- Jack pine forest
- 5-20 years in age
- At least 80 hectares
- 500 would be better!
- Sandy, well-drained soil
- No cowbird neighbors
- Within one of 13 Michigan counties
- May consider Wisconsin or Ontario



- *Big Challenge 1 of 2: Jack Pine Habitat has to be young, has to be big.*
- *Habitat specialists; already picky w/low population means vulnerable to pressures (habitat loss decreases size, fire suppression increases age)*
- *Introduce idea of conservation reliance - They need our help to meet their needs.*
- *Historically maintained by burning; now managed cutting and replanting.*

Resources:

*USFS Jack Pine and KW Tours, Mio*

*<http://www.fs.usda.gov/recarea/hmnf/recarea/?recid=19002>*

*USFWS KW Viewing Tours, Grayling*

*<http://www.fws.gov/midwest/EastLansing/te/kiwa/tour.html>*

# Jack pine habitat

Historically, young jack pine was regenerated naturally through wildfire.



Photo by Karen Rodrick



Photo by David Kenyon

Jack pine cones are *serotinous*, meaning they will only open with a specific trigger, in this case, extreme heat.

- *In the past, wildfire regularly swept through northern Michigan, consuming mature jack pine stands and making room for new growth.*
- *Jack pine trees, and the habitat overall, is fire adapted.*
- *This is understandably a contentious practice, since it can be dangerous.*
- *BUT, burning protocols have advanced and burning is a small percentage of jack pine regeneration.*



# The Jack Pine Cycle



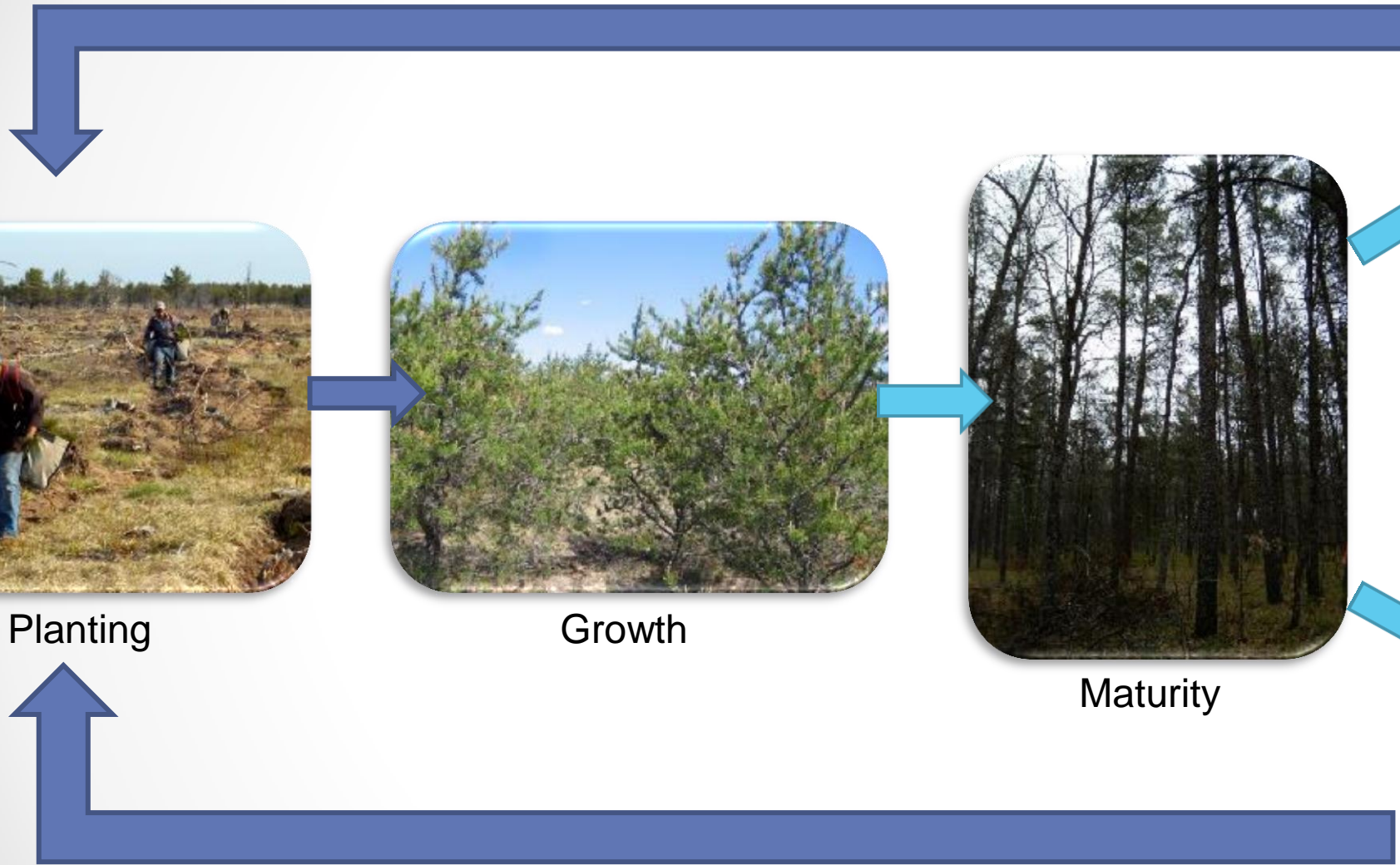
Planting



Growth



Maturity



- *Jack pine is a fire-dependent forest, historically regenerated by wildfire (obvious risk).*
- *Often replaced with harvest and replanting. Mimics natural process, but there is a decrease in natural variation and resilience.*
- *Jack pine is harvested for commercial timber.*
- *Introduce idea of ecosystem services, in layman's terms, the benefits we receive from nature: game, wildlife viewing, other endangered plants/animals, jack pine harvest, watershed purification, fire prevention by removing buildup.*

Resources:

*MDNR Jack Pine*

*[https://www.michigan.gov/dnr/0,4570,7-153-10370\\_22664-60337--,00.html](https://www.michigan.gov/dnr/0,4570,7-153-10370_22664-60337--,00.html)*

*American Forests, Song of Success*

*<http://www.americanforests.org/magazine/article/song-of-success/>*

# Two Sides of the Coin

“I...have to look at that mess everyday for...10-15 years for some scrubby tree to grow for some rarely seen bird to use?”

Letter to the Editor

Crawford County Avalanche May 8, 2013



“Next time you come into the jack pine plains rather than complaining about how ugly they are, be thankful that you’re entering a water filtration/recharge area, that allows our trout to thrive.”

Marvin Roberson, Sierra Club

Anglers of the Au Sable, Riverwatch Winter 2013

- *Resistance happens, but why? Ask your audience how they feel, what their concerns are. Listen to the answers.*
- *Alliance is a valuable tool in dispelling misconceptions and promoting Kirtland's warbler conservation. It is part of the Alliance's role.*
- *Stress that its for the natural state of northern Michigan, of which Kirtland's warbler is one part. We live up here because we understand natural is better, even if it's not as 'pretty'.*
- *Natural and wild is better. Northern Michiganders don't want groomed and fake, which is why we don't live by Central Park.*

# More than just the Kirtland's Warbler



- *Jack pine is often managed for Kirtland's warbler, but the benefits are not just for Kirtland's warbler.*
- *Instead stress how jack pine management mimics natural processes and benefits the whole because that's how it's been done for 10,000 years.*
- *Kirtland's warbler needs our help, giving it to them also ensures the stability and health of the entire ecosystem. This is northern Michigan's natural forest, we have to protect the whole thing.*
- *Again pride of ownership (Kirtland's warbler and jack pine) and call to protect it.*

# Intruder Alert!



- Brown-headed Cowbird
  - Do not build their own nests
  - Uses nests of over 200 other bird species
  - Kirtland's has no evolutionary defense strategy
- Trapping success
  - Modification of crow-trap
  - Localized effectiveness
  - Needs human workers

## Pre-Cowbird Control

Parasitism  
Rates

48-86% of  
nests

KW  
Production

< 1 per nest

## With Cowbird Control

Parasitism  
Rates

< 10% of  
nests

KW  
Production

> 3.5 per nest

- *Big Challenge 2 of 2: Cowbirds*
- *Lay their eggs in Kirtland's warbler nests, but Kirtland's warbler don't know how to defend; cowbirds as antithesis of Kirtland's warbler (big, populous, wide range, adaptable)*
- *Kirtland's warbler would have gone extinct without trapping. They need our help.*
- *Reconsideration of cowbird trapping, necessity and funding; need to address issues before delisting*

Resources:

*Rothstein, 2004 Cowbirds, Villain or Scapegoat:*

*<http://www.aba.org/birding/v36n4p374.pdf>*

*Cornell University*

*<http://nestwatch.org/learn/general-bird-nest-info/brown-headed-cowbirds/>*



# The Bahamas Connection



- ✓ Kirtland's Warbler Research and Training Project
- ✓ Bahamian student exchange with Huron-Manistee National Forest
- ✓ College of the Bahamas
- ✓ Bahamas National Trust
- ✓ The Nature Conservancy

- *We've seen local, grassroots; now zoom out to show the impressive, international cause.*
- *There are people just like us working to save Kirtland's warbler as well in a very different climate, culture and ecosystem.*
- *Now that we know what the Kirtland's warbler needs, places need to be set aside and winter habitat maintained to ensure a healthy Kirtland's warbler population. The health of the Kirtland's warblers coming to Michigan in the spring is directly related to the success of nesting in the summer.*

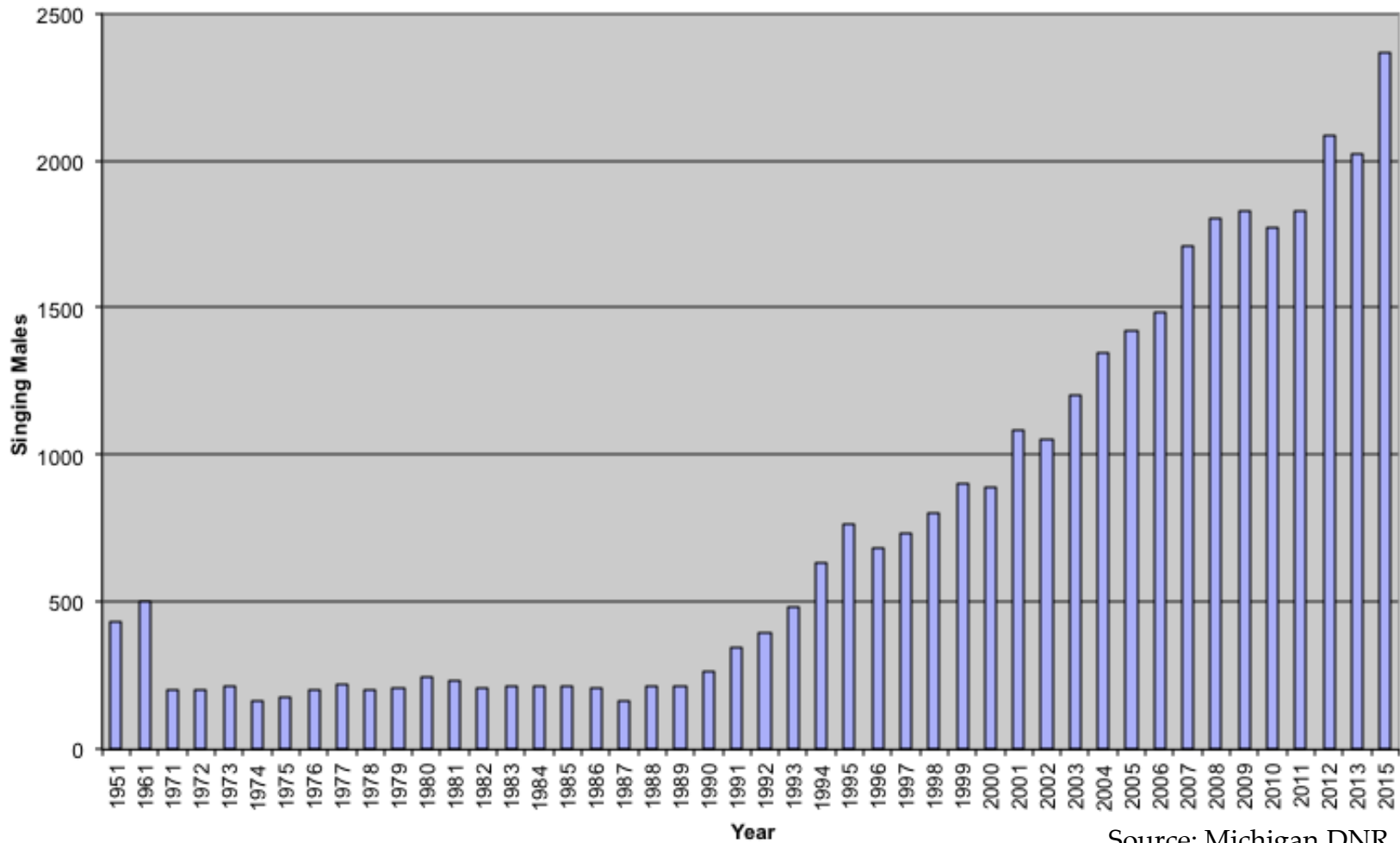
Resources:

*Kirtland's warbler sighting on Eleuthera*

*<http://www.nature.org/ourinitiatives/regions/caribbean/bahamas/howwework/kirtlands-warbler-sighting.xml>*

# Successful Recovery

Figure 1. Singing Male Kirtland's Warblers 1951-2015.



Source: Michigan DNR



- *The actions of agency partners, researchers and the recovery team have led to a 100 fold increase: 400 to 4000 in 40 years.*
- *We've reached the goal of 1000 breeding pairs, but will we maintain? Continue to increase? Decline?*
- *It is very possible all this good work will be for nothing if we're not ready for delisting, if we don't continue the good work, if the audience doesn't care.*

*Resources:*

*Kirtland's Warbler - A Conservation Success Story Video, MUCC*  
<http://vimeo.com/76164709>

*The Mining Journal, Success Story*  
<http://www.miningjournal.net/page/content.detail/id/593075.html>



# Delisting from the Federal Endangered Species List (ESL)

## Delisting 101:

- The delisting process is initiated by the U.S Fish and Wildlife Service after recovery goals are met.
- After expert and public review, a species may be delisted and will be carefully monitored immediately afterwards.
- Endangered species funding will be halted.

- *There is still more to learn, more to prepare before delisting.*
- *Heavily reviewed process that may take time, but will ensure that the species is ready for delisting.*
- *Recovery and delisting is the goal for listing in the first place!*
- *Conservation practices development: We're about to achieve something never before done. We will be the precedent.*



Photo by Karen Arquette

# KIRTLAND WARBLER CONSERVATION TEAM

## Mission:

To ensure the long-term viability of the Kirtland's warbler in advance of and after delisting of the species from the federal Endangered Species List (ESL) and foster a broad understanding of the jack pine ecosystem.



- *Who are you, as the presenter? Why are you in the Alliance? Why are you working for this cause? Introduce your personal motivation.*
- *Make it human, make it personal: You are employees, parents, property owners, educators, community members, Michiganders.*
- *Briefly touch on Huron Pines*
- *We will come full circle and go into more detail about the role of the Alliance at the end. Use this as an introduction to the Alliance and yourself.*

*Resources:*

*Huron Pines*

*[www.huronpines.org](http://www.huronpines.org)*

*KW Initiative and Alliance*

*[www.kirtlandswarbler.org](http://www.kirtlandswarbler.org)*

*Facebook*

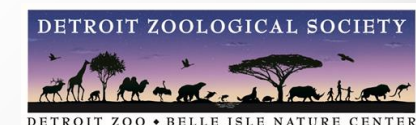
*[www.facebook.com/kirtlandswarblerinitiative](http://www.facebook.com/kirtlandswarblerinitiative)*

# Kirtland's Warbler Initiative

- Goal: Develop an innovative public-private partnership that supports long-term Kirtland's warbler conservation

## Development of a stakeholder group- Kirtland's Warbler Alliance

- Establish a long-term fund to provide dollars for anticipated funding gaps
- Draft and implement inter-agency Kirtland's Warbler Conservation Plan
- Establish collaboration between public and private parties
- Advocate in state legislature
- Develop outreach and educational initiatives





- *Creative partnerships to create a network of support. Just like diversity makes an ecosystem more resilient, our cause will be more stable with more connections.*
- *Always address how your audience fits into this. Ask them how we can make this a relationship.*
- *The Initiative as the umbrella framework. The Alliance is # 2 and focuses on partnership building, fundraising and increasing awareness. (yes?)*

Resources:

*KW Initiative*

*<http://www.huronpines.org/program.asp?pjt=gv&gid=6>*

# Campaign for the Future




PHOTO: BOB AUSTINE

Kirtland's Warbler  
**CAMPAIGN** for the  
**FUTURE**  
Saving North America's Rarest Songbird

## SUSTAINING

The Kirtland's Warbler Campaign for the Future seeks to raise \$4 million dollars to ensure that we do not turn back the clock and leave the brilliant Kirtland's warbler unprotected. Your support will guarantee that existing is the crowning achievement of the species and the people who helped save it, rather than a devastating blow to the future of endangered species conservation. Your support of this campaign will ensure:

- Continuation** of programs proven to reduce threats to the Kirtland's warbler and provide the necessary levels of critical nesting habitat for a strong and sustained population.
- Establishment** of an independent body that will oversee all program activities and donor recognition opportunities to fulfill their mission, ensuring the long-term survival of the Kirtland's warbler.
- Coordination** of education programs such as public viewing tours, school presentations and field trips in addition to focusing attention on strengthening economic development opportunities for communities in Kirtland's warbler nesting areas.
- Development** of an education center to welcome the public to Kirtland's country, serving as the central collection point for current information and the recognized launching point for major Kirtland's warbler educational events.



The Kirtland's warbler may be best known by its song—a clear chip-chip-chewy-o that can be heard up to a half mile away.

## \$4 million

will ensure that we do not lose the ground we've gained.

## A CONSERVATION FIRST

Developing a sustainable future

*"In the discipline of conservation, there is no greater achievement than 'Recovery'—restoring a species on the brink of extinction to self-sustaining population levels. The Kirtland's warbler is the first bird species on the path to recovery as a result of traditional habitat and conservation methods. In that sense, it offers us a path forward for nearly all endangered species."*

John Curry, Assistant Director  
Central Partnership Office, National Fish and Wildlife Foundation

*\*This slide will change with our campaign strategies; June 12-13 donor event*

- We need your money. This is the soft ask. It should be approached tactfully, but honestly.*
- Focus on the need for a safety net. We don't know exactly what this money will be used for, but it has to be available to meet critical management gaps and promotion needs.*
- Diversifying funding sources, both public and private, will lend us stability in the future.*
- Goal is to raise 4 million dollars in the next 3 years. It is a fund for Kirtland's warbler conservation, administered by the Alliance.*

Resources:  
*Huron Pines Campaign for the Future*  
<http://www.huronpines.org/pages6161729.asp>

Thank you!

