United States of America
Department of the Interior
Fish and Wildlife Service
Endangered Species Program

Telephonic Interview Time (13:00 minutes)

Topic: Kirtland's warbler recovery (Host – Dave Harrelson with Chris Mensing USFWS)
This transcript was produced from audio provided by USFWS Endangered Species Program

BEGIN INTERVIEW

(Music plays)

Dave Harrelson: Hello, my name is Dave Harrelson, and I'm the phone today with Chris Mensing, fish and wildlife biologist, uh, with the East Lansing Field Office. Hi, Chris. How are you doing?

Chris Mensing: Very good. Thanks for the call today.

Dave Harrelson: We're going to talk about Kirtland's warbler, something I'm sure, as a species, you know quite a bit about. Could you give us a brief description of the species?

Chris Mensing: Yes. Well, the Kirtland's warbler is really a bright, loud, and energetic song bird. The males, they've got a bright, lemon yellow throat and breast with some black streaks on the sides and a bluish-gray back. During the breeding season, males will have a black mask, between the eyes. Females are a little bit more drab in color. They lack that black mask. But both sexes will have a very distinctive split eye ring in front and behind the eye. So it's really – when you see it, you know, there's – when you get a good look at it, there's really nothing else that looks like a Kirtland's warbler.

They're a small song bird, but they are actually a little bit large for some of these small song birds. But they are still small. They're 5.5 inches long, give or take, and they weigh less – weigh less than 15 grams, which is really only half of an ounce. But one thing that really puts a Kirtland's warbler in its own little category is just their very loud and distinctive song. Males, during their breeding season, they'll sing to attract mates and sing to defend their territory from the other males. And during their breeding season, from dawn until midday will just sing consistently over

and over again with this really loud, very energetic warbling song.

And so when you see a Kirtland's warbler, when you hear a Kirtland's warbler, people know that's what you see. Their breeding habitat is – is also kind of a key feature of Kirtland's warbler. They're very specific in what they need to nest in. And they need large stands of young, dense, jack pine. And, predominantly, that's only found in northern Michigan. They migrate to the Bahamas and maybe a few other Caribbean islands over-wintering. And while they're breeding, while they're migrating, while they're over wintering, they'll eat a variety of foods.

Basically, if it's not too large, if it's not too hard, they're going to eat it. A lot of insects, worms, moth larvae, and fruit, blueberries, snow berries, a lot of different fruit that they can find. They'll – they'll pretty much eat anything out there. So, Kirtland's warbler, it's one of those really unique and – and visible species when you go out looking for one.

Dave Harrelson: Now you – you mentioned the jack pines. And that's a very specific habitat for this species. And it's not just any jack pines. The habitat has to be jack pines of a specific age.

Chris Mensing: Right. The – the Kirtland's warbler has – is really what they call a habitat specialist. It really depends on a very narrow, uh, range of habitats to breed in. And this – this jack pine is large stands, young, dense jack pine. Really, it's also jack pine growing on glacial out-washed sands with a dense understory of vegetation. When we talk about young, we're talking about trees between five and fifteen years old. Beyond that age, Kirtland's warblers won't next in them anymore. They need the trees that are real close together. They've got the lower branches that are interlocked covering, you know, this – this dense understory.

So it's just really thick of – of jack pine. Historically, this jack pine was regenerated by fire. Kirtland's warbler habitat and this jack pine is a fire dependent species. Jack pine seed cones stay closed until a forest fire will come through, open the seed cones, and that jack pine seed will disperse through the air, settle in the fresh nutrient rich ash after the wildfire, and the seedlings can then sprout and take hold without the competition of the thick understory, which then creates those large stands of jack pine that the Kirtland's warbler needs.

Dave Harrelson: What has been done in terms of recovery to secure that habitat and make, perhaps, more appropriate habitat available for Kirtland's warbler?

Chris Mensing: One of the primary threats that occurred with Kirtland's warbler is the loss of nesting habitat. As the northern Michigan areas were being settled and cleared for agricultural purposes and logged for timber, the fires were

being suppressed. These natural wildfires had occurred to regenerate Kirtland's warbler habitat and regenerate the jack pine ecosystem really was being lost with fire suppression. And land managers were kind of quickly realizing that Kirtland's warblers need these young habitats. And we're losing the young jack pine forest.

And so what – instead of – since fires aren't on the landscape anymore, fires are still being suppressed to protect property, to protect the life that is up there, weve got plenty of people living up there and enjoying northern Michigan, but to – to recreate that young jack pine habitat, there's a process to clear cut these areas, clear cut jack pine commercially, so the local timber companies and – and commercial products can – can reclaim some of the wood for their industry. And then, jack pine is planted in a dense structure to mimic that wildfire ecosystem and to recreate Kirtland's warbler habitats. They can nest in the young jack pine.

Dave Harrelson: In 1987, if I've done my research correctly, Kirtland's warbler was down to, what, 167 males?

Chris Mensing: Correct. Since 1971, we've been conducting an annual census of the singing males. As I've mentioned before, these males sing very loud, very consistently all day long. We know what habitat they're in, so we can get a really accurate count of the males in a population. Since they're singing, we can assume they're breeding individual, and we can assume there's a female with it. So you can kind of double that number for their "population", but we've always counted singing males. And yes, that number of 167 males was the world population of Kirtland's warbler at that time, uh, critically endangered.

Dave Harrelson: And so from 1987, now, moving forward today, how is the species doing?

Chris Mensing: The species is doing remarkably well. Uh, the dedicated work from the land managers, primarily, the US Forest Service and the Michigan **DNR** with creating the – the right conditions and habitat of that jack pine ecosystem that Kirtland's warblers need with the cover control management that is, uh, occurring to reduce the threat of nest parasitism, the bird has gone from 167 males in 1987, as you said, to the 2015 census counted 2,365 males. A dramatic increase, remarkable increase. The bird population is doing, incredibly well.

Dave Harrelson: Uh, you mentioned, nest parasitism, and that would, I guess, be the brown headed cow bird, is that correct?

Chris Mensing: Correct. One of the other primary threats for Kirtland's warbler is nest parasitism by the brown headed cow bird. The cow bird is what is called a nest parasite, an obligate nest parasite meaning that the species does not

build its own next but will lay its eggs in other birds' nests and require that host bird to raise its own young. Cow birds are not native to Michigan. They are native to North America. They, evolved on the short grass prairies and plains of the United States and evolved this remarkable strategy to reproduce without needing to care for their young in an imbalanced ecosystem.

In a lot of these short grass prairies, only 3 percent of cow bird chicks actually hatch and survive to a fledging. However, when cow birds expanded their range into Michigan and came in contact with Kirtland's warblers, nearly 70 percent of all Kirtland's warbler nests contained at least 1 cow bird egg, and less than 1 Kirtland's warbler chick per nest would fledge and survive. And so the population of Kirtland's warblers was significantly and dramatically impacted by cow bird parasitism.

To combat that threat of next parasitism, the Fish and Wildlife Service and their partners, in 1972, started a cow bird control program where we would put cow bird traps across the landscape in these Kirtland's warbler nesting areas to trap and remove brown headed cow birds from the area and allow Kirtland's warblers to next without that threat of nest parasitism.

And that, along with habitat management were the – the two primary reasons why the Kirtland's warbler population went from the extremely low numbers where they were threatened with extinction immediately to a point now where we have a very healthy population of Kirtland's warblers, and we're thinking about more in the future of how the Kirtland's warblers can continue on without those threats.

Dave Harrelson: Could you please identify your partners? I mean, I know theres a lot of them, a lot of them over a long period of time. But, you know, this isn't something that the Fish and Wildlife Service does by itself.

Chris Mensing: No, this is one of those true partnership led initiatives. The Kirtland's warbler has always had a dedicated group of partners and – and really concerned people really paying attention and – and putting the work needed to be done for the species. So you've got the Fish and Wildlife Service, obviously. But the Michigan DNR, Department of Natural Resources, and US Forest Service, Huron Manistee Natural Forest, Hiawatha National Forest, and Ottawa Forest really, um did the bulk of the work with putting that habitat management on the ground. You've got the USDA Wildlife Services who are helping out with the cow bird control program now.

You have Michigan Audubon Society, Detroit Audubon Society, Nature Conservancy, all helping partner with different efforts. The Bahamian

National Trust, uh, Smithsonian Institute of Migratory Bird Center, all of those folks are really doing research, helping out with outreach, coordinating with wintering ground work in the Bahamas to make sure that this bird is recovering and doing it as well as it can.

Dave Harrelson: So, as we look to the future, what's the prognosis for this species?

Chris Mensing: Well, as the – as the population, you know, continues to grow and maybe even stabilize, as habitat management is still being conducted, and cow bird control is still ongoing, we're very comfortable and confident that the species is – is, um, moving past that endangered status. We did a five year review a couple of years back where we recommended that the species could be down-listed to threatened. And we actually have funding next year to proceed with a proposal to down-list the species to threatened versus endangered. We've also got a group that was partnered with Huron Pines and – and created what's called the Kirtland's Warbler Initiative.

And they are starting to look at the big picture of if we de-list the species, what kind of efforts are going to be needed to maintain that level of habitat management and cow bird control and public engagement and outreach to sustain this – this conservation reliant species, even past the listing of the Endangered Species Act. So we're kind of looking really big future of 1) looking at a down-listing or proposing a down-listing rule to threatened, and then, even looking beyond that to potentially de-listing the species in the near future.

Dave Harrelson: Well then, let me ask you this. What – what can citizens do?

Chris Mensing: The best thing for someone to do, if they're interested about Kirtland's warbler is to go out and find a Kirtland's warbler. Go attend some of the public tours we have. Go to the Kirtland's warbler festival that occurs. Or connect with the Kirtland's warbler Initiative and really engage them, uh, engage the local community that, you know, you think that this bird is really special and unique. And – and it's a very remarkable thing that it does exist in just a small portion of the world. And, um, there's a lot of value in having that bird around.

And so that's the best thing that the public can do is really go spend some time in that Kirtland's warbler's backyard and appreciate everything that's out there.

Dave Harrelson: Well, Chris, that's a great story. And I'd like to take this moment to thank you very much for, taking the time to talk with us.

Chris Mensing: I appreciate the opportunity. It's always good to tell one of the great success stories of Endangered Species Act and – and show how a

conservation reliant species can really be recovered.

Dave Harrelson: For the US Fish and Wildlife Service, this is Dave Harrelson. Thanks for listening.

(Music plays)

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Duration: 13:00 minutes