

Science of the Seasons Podcast 6: Long-term Bird Monitoring in the Western Great Lakes
Region – Published 04/06/2017

Kelly van Frankenhuyzen talks with some of the authors about the Longest Western Great Lakes bird study

Linda Parker, Forest Ecologist, Chequamegon-Nicolet National Forest, Park Falls, Wisconsin

Brian Sturtevant, Research Ecologist, Northern Research Station, Rhinelander, Wisconsin

Gerald Niemi, Professor in the Department of Biology at the University of Minnesota in Duluth and Natural Resource Research Institute

Robert Howe, Professor at the University of Wisconsin-Green Bay and director of the Cofrin Center for Biodiversity

Mark Nelson, Research Forester, Forest Inventory and Analysis, Northern Research Station, St. Paul, Minnesota

Bird sounds fade in

Narrator: This is Science of the Seasons, episode 6. I'm your host Kelly van Frankenhuyzen with the U.S. Forest Service Northern Research Station. The sounds you are hearing are a chorus of birds in northern Wisconsin. Some of those birds include: ovenbird, hermit thrush and the red eyed vireo. In this podcast, you'll hear from some of the authors of General Technical Report # 159: Analysis of Long-Term Forest Bird Monitoring Data from the National Forests of the Western Great Lakes Region. Today I am joined by lead authors Gerald Niemi and Robert Howe, co-authors Linda Parker and, from the Northern Research Station, Brian Sturtevant and Mark Nelson.

Linda Parker: My name is Linda Parker. I am the forest ecologist on the Chequamegon-Nicolet National Forest and I work in northern Wisconsin and I am stationed in Park Falls, Wisconsin. One of the things I love about the spring here are the wildflower carpets. Literally the forest of all types will have an understory, a carpet of spring ephemeral wildflowers, especially the northern hardwood forests. It's really absolutely stunning. If you can get kind of a bird's eye view of the forest canopy from a fire tower, from a lookout of some point, you can really see almost a quilt-like pattern across the forest. It's sort of the opposite of fall color. I like to think of it as spring color; it's like a quilt of pastel colors. It's just this amazing tapestry of pale greens and pinks and purples. Looking back now – so I've been here 25 years, I've been a part of the Nicolet Bird survey for 27 years – and looking back, it's really pretty unique. The birds can tell us a lot about the ecological condition of the forest. And they can provide an early warning system for identifying potential threats to forest health.

Kelly: In the three National Forests covered by the bird monitoring program – the Chequamegon-Nicolet National Forest in Wisconsin and the Superior and Chippewa National Forests in northern Minnesota – the analysis found overall healthy bird communities to give researchers optimism.

Brian Sturtevant: My name is Brian Sturtevant. I am a research ecologist for the Northern Research Station, which is at the Institute for Applied Ecosystem Studies in Rhinelander, Wisconsin. The report is comprehensive, and for over 90 species it includes not only their trends side-by-side for each of the

National Forests and their combined population trends, but also their habitat affinities and projections of predicted relative abundance that's been mapped spatially across the forested region of that three-state area: Minnesota (northern Minnesota), northern Wisconsin and the Upper Peninsula of Michigan.

One of the things that really sets this study apart is the direct collaboration between research and land management. And this was a collaborative effort between the individual National Forests and the two different universities to conduct what the National Forest needs to be doing but may or may not have the resources to do with the amount of scientific rigor that the universities can bring. And so that partnership really enabled them to design a monitoring program that would hold up to peer reviewed science and as well provide them with the kind of habitat-specific information they were looking for. There's no way that long of a study could have been conducted without both partners.

Jerry: I'm Gerald Niemi. I'm a professor in the department of biology and have a joint appointment in the Natural Resources Research Institute, both at the University of Minnesota in Duluth.

The study got started, a lot of people don't remember, the late—at least the 1980s, or we got started actually with this monitoring program with the Superior and Chippewa National Forests in 1991. And that was a time of a tremendous amount of interest in neotropical migratory birds, and the concern both because a lot of them had been declining for many, many years. We had discussions with the Forest Service wildlife biologists there and we decided we should initiate a monitoring program to try to get at the answers, because the upper-midwestern United States that stretches really around the Great Lakes region, etcetera, has actually the highest breeding bird biological diversity anywhere in the country. That surprises people in many respects, but by design, in fact, we did hope that it would continue for a long term, into the long term future and the program as far as I'm concerned gets much more powerful every single year that the data is being gathered.

Narrator: Over 600 volunteer birders helped field researchers inventory bird species over 30 years.

Bob Howe: I'm Bob Howe. I'm a professor at the University of Wisconsin at Green Bay and I'm also the director of the Cofrin Center for Biodiversity. When we started the Nicolet portion of the Western Great Lakes Monitoring effort in 1987, we really had no idea that it was going to go even beyond one year. We knew we wanted to learn more about the forest – no idea whether it would be just a few of us or more people and, as it turned out, there were people from Madison and people from other parts of the state that were really interested, like we were, in learning more about the forest. And so we had a really good turnout the first year. After a couple more years we realized well, this is bringing together a group of people who are really passionate about science, about birds, about the National Forests, and then it just kind of took on a life of its own. It just became a tradition for people, kind of like opening day of fishing season. There was a group of people – quite a few of them, we had nearly a 100 people some years – who would set aside the weekend in June when this event took place.

The General Technical Report I think provides a very consistent picture that we found here in the Nicolet portion of the Chequamegon-Nicolet, and also in the Chequamegon portion and then in the Chippewa and Superior in northern Minnesota. And that is that forest birds during the past 20-plus years have had relatively stable populations. We have, what I would say, and I think Dr. Niemi and others would agree, a healthy forest ecosystem with respect to birds. Yes, there have been some declines – some of our boreal species are on the brink of disappearing, especially in the southern part of the region where we are in

the Nicolet. But then we've got others that have increased, so there are a number of increases, a number of decreases. But, thankfully, not a catastrophic decline of birds in the system. For the most part, the birds here are doing quite well, and I think that we've learned also a great deal about habitat preferences; we know what to expect in certain habitats. That wasn't as widely known before we started this project.

Narrator: In March 2017, the research team received two individual awards: the U.S. Forest Service Wings Across the Americas Research Partnership Award and a Partners in Flight Investigation Award.

Mark: I'm Mark Nelson. I'm a research forester with the Northern Research Station. I'm in the Forest Inventory and Analysis program. It's a forest monitoring program that spans the entire United States, including the study area of northern Minnesota and northern Wisconsin. My office is located in St. Paul, Minnesota.

Mark: I nominated this effort for two awards because of the substantial long-term investment of time, energy and money that the two principal investigators and literally hundreds of volunteers have contributed to monitoring population trends of these birds. For example, within the Nicolet National Forest alone, at least 620 volunteers had volunteered since the origin of this project in 1987.

I wanted to recognize all of the commitment that these people have invested in ensuring the long-term persistence of these bird species in our northern forests.

Narrator: For more information on the General Technical Report and a link to the photo gallery, visit www.nrs.fs.fed.us/news/release/great-lakes-bird-study.

Additional bird sounds include the American crow, pileated woodpecker and rose-breasted grosbeak.

Special thanks to Dr. Robert Howe for the audio soundbites of the birds from the long-term study.

This podcast is produced by the U.S. Forest Service Northern Research Station. The Forest Service is an agency of the U.S. Department of Agriculture. The U.S. Department of Agriculture is an equal opportunity provider, employer and lender.