

North Country Notes



The Newsletter of the Laughing Whitefish Audubon Society
Marquette and Alger Counties, Michigan

June 2014

An Introduction to Radar Ornithology

by Gary Palmer

Originally a top-secret military project during World War II, today radar (RAdio Detection And Ranging) is a household name thanks to its usefulness in areas such as weather forecasting and aircraft control. Ornithologists have also learned much from this technology, and thanks to the easy availability of data online anyone with an internet connection can now use it to view bird migration in real-time each spring and fall. Simply visit a website to view weather radar (such as wunderground.com [here you'll have to turn off the 'hide radar clutter' option to see birds] or weather.cod.edu/satrad) at the appropriate time. Migrants are best observed in April and May and again through much of the fall. Birds are visible on the display beginning at sunset in the form of a circular cloud (an artifact of the circular 'sweep' pattern of radar sampling; birds are likely evenly distributed across the land but may only be detected by radar within a limited range) developing around each radar site throughout the eastern United States. Often these clouds of birds will continue through the night, and occasionally past dawn.

Radar was first developed by the British army to gain advance warning of approaching aircraft. It operates by first sending brief pulses of high-energy radio waves into the air. These waves are then scattered by any objects encountered, with some of the original energy reflected back toward the transmitter. Once a return signal is received, a computer then calculates the location, size, and velocity of any

airborne objects based on the strength and frequency of returned energy and time elapsed.

The first system in operation was the Chain Home Radar, a series of stations positioned along the British coast, and it worked well for its intended purposes – some sources cite this advantage as one of the main factors that led to Allied victory – but it also showed some rather puzzling results. Early radar technicians reported seeing mysterious objects they called 'angels' which would come and go from view and when investigated further could seldom be found.

These 'angels' were considered a nuisance and largely ignored as they went unexplained for years. It wasn't until noted British ornithologist David Lack became involved in this top-secret project that the mystery was finally solved. After hearing reports of birds such as Starlings and Gannets being spotted in the vicinity of detected 'angels,' Lack experimentally demonstrated that a single Gull could be detected by radar, and in 1945 he published the first scientific papers on radar ornithology.

Since these initial studies, significant developments have been made. With the help of radar, ornithologists have learned, for example, that many songbirds migrate primarily at night, departing from stopover sites en-masse at dusk and sometimes flying as high as 10,000' above the ground. As dawn approaches they reorient themselves toward the nearest suitable place to stop, rest and feed during daylight hours, often

drastically changing direction from their nocturnal bearing.

Recently, Doppler weather radar has become widely used by birders to keep tabs on spring migrants as well as ornithologists studying aspects of migration such as timing,

stopover habitat use, routes taken, number of migrants detected, how weather influences patterns of migration on varying spatial scales, and how all of these factors have changed during recent decades.

Photos of birds during migration, May 2014



Northern Parula



Golden-winged Warbler



Yellow Warbler- Photos by Beth Olson at Michigan Audubon's Tawas Birding Festival

LWAS Awards Our First “Upper Peninsula Avian Research Grant”

After a year of fund-raising and preparation, we are proud to announce that the first LWAS “Upper Peninsula Avian Research Grant” was awarded in March to Laurel Hill. Laurel received \$500 to help finance field-research for her master’s thesis: “*Changes in the Population and Habitat of Spruce Grouse (Falciennis canadensis) on the Yellow Dog Plains.*”

Laurel’s work will be the first research published on spruce grouse on the Yellow Dog Plains since Dr. Bill Robinson of Northern Michigan University did his work in 1969 and 1980. Since then additional roads, camps and ATV trails have been developed; jack-pine plantations have been harvested; and Lundin Mining is developing a new nickel-copper mine. The goal of Laurel’s research project is to study changes in spruce grouse population in relation to habitat modifications over the last 40 years.

Laurel’s research has been largely self-funded and we are pleased to be able to help with such timely and relevant work. Laurel’s complete proposal is available on our website at <http://laughingwhitefishaudubon.org/research-grant/>.

We will sponsor a new research proposal in March 2015 and more donations are needed to continue this effort. On your membership form, there is a category for extra contributions to the research grant. Or you can mail contributions directly to “LWAS” c/o Ann Joyal, 346 W. Crescent, Marquette 49855. Please indicate on the check that the funds are for the research grant.



Male Spruce Grouse-Photo by Skye Haas

Volunteer and Vacation in Grand Marais

Looking for a beachfront get-away with free lodging? How about a chance to help protect one of Michigan's endangered bird species? Then monitoring Great Lakes Piping Plovers in Grand Marais during June and July could be a great opportunity. Bill and Kathy Davis are still seeking volunteers and will provide housing and training to observers.

Grand Marais has been a continual site for nesting Piping Plovers, even when their numbers were at their lowest in Michigan. But the beach on which they nest is also a popular place for human activity, bringing dangers such as ATV traffic and unleashed dogs. Chicks are also vulnerable to predation from gulls, crows and merlins. The beach is monitored 40 hours a week by US Fish and Wildlife personnel, but the remaining hours are overseen by volunteers.

Thanks to last year's efforts, all 8 hatchlings survived to fledge. This year, nesting has already begun, with 3 nests and 4 eggs so far. Here is a chance to make a difference and have some fun too.

To learn more or to volunteer, contact Kathy Davis at:

906-228-4197 (Marquette)

906-494-2400 (Grand Marais)

Kdavismq@comcast.net



Photo of Piping Plover at Whitefish Point- by Beth Olson

LWAS Bids Goodbye to Sue and Bob Holtzmann

It is with reluctance that we say goodbye Sue and Bob Holtzmann who are relocating to Bellaire, MI, so that they may be near Sue's parents. We will miss them and hope that they might visit Marquette occasionally and perhaps attend a Laughing Whitefish Audubon Society program or field trip.

Sue was the newest board member for LWAS and served most recently as the club's treasurer. Until another treasurer can be found, Ann Joyal will temporarily assume the treasurer's duties. You will note that Ann's address once again appears on the membership form.

Update on Feeders at Moosewood

As we mentioned in the last newsletter, the LWAS Board voted to discontinue maintaining and stocking the feeders at the Moosewood Nature Center at Presque Isle Park. The members who maintained the feeders simply ran out of time to do the job properly. The Board at Moosewood agreed to take over the feeders and we are very appreciative of their offer. All remaining money that was donated to LWAS for the purchase of seed has been transferred to Moosewood for that purpose. Thanks to everyone who donated funds throughout the years.

Guided Bird-walks Offered at Presque Isle Park, June - September

For the eleventh year in a row, Laughing Whitefish Audubon will offer free, public bird-walks at Presque Isle Park on the second Saturday of the month from June through September. When Greg Cleary moved to Duluth, we were concerned that we might not be able to continue the walks, but Gary Palmer quickly offered to assume responsibility for them. We are appreciative of Gary's support and have received many positive comments regarding his personable style as well as his extensive knowledge.

The walks involve moderate walking through a variety of habitats, and tennis shoes are suitable footwear. Bring binoculars for best viewing. These are good walks for both beginning and experienced birders, and over the years we have seen an interesting, and sometimes surprising, variety of birds.

Guided bird walk information

Leader: Gary Palmer, Graduate student, Biology Department, Northern Michigan University

Location: Meet in the parking lot of the Bog Walk at Presque Isle Park, Marquette

Time: 8:00 a.m. – 10:00 a.m.

Questions: call 906-226-6749

Dates: June 14, July 12, August 9, September 13 (second Saturday of the month)

A list of walks and field-trips can be found at http://laughingwhitefishaudubon.org/field_trips/

Evening Programs September through December

Laughing Whitefish Audubon Society meetings are held in the Community Room of Peter White Library. Meetings usually take place on the second Wednesday of the month, beginning at 7:00 p.m. and ending around 8:30.

September 10, 2014: "Birding and Traveling in Ecuador and the Galapagos Islands"

Presenters: Mark and Joanie Hubinger

Mark & Joanie Hubinger traveled for a month to these two unique places, seeing over 600 species of birds. This travel-presentation will include the flora and fauna, along with recommendations for places to stay and visit.

October 15, 2014 (3rd Wednesday): "Australia - from Tasmania to Darwin"

Presenters: Mark and Joanie Hubinger

Mark and Joanie spent 2 months traveling from Tasmania, an island to the south, and then driving for 40 days up the eastern coast of Australia, finishing at the "Top End" at Darwin. Their trip included over 400 species of birds, almost half the country's species. This presentation will also include many of the special animals of this island continent.

November 12, 2014: "Annual Membership Meeting"

Board members will be elected or confirmed at this meeting. Mostly, though, it will be a social event where members are invited to bring their photographs of birds and other nature-oriented subjects to share the audience. Please bring your photos on a CD, DVD, or small jump-drive. A computer & digital projector will be provided, and light refreshments will be served. This meeting is open to the public.

December: NO MEETING

Laughing Whitefish Audubon Society Membership Form for 2013-2014

Dues support the newsletter, programs, & local birding activities. Donations are tax-deductible.

Name (or names) _____

Address _____

City, State and Zip _____

Phone _____ e-mail _____

(E-mail addresses are not given to other groups or commercial entities)

Membership fees (please check one)

_____ Regular (Individual and Family) Annual - \$15.00 _____ Student - \$5.00

How would you like to receive your newsletter? (check one) _____ e-mail or _____ post.

Additional donations:

\$ _____ General Expenses for club projects

\$ _____ Research Grant to fund birding research in the Upper Peninsula

Mail this form, along with your check (payable to LWAS) to:

Ann Joyal, 346 W. Crescent St. Marquette, MI 49855 (ajoyal@nmu.edu or 906-226-6749)

Marquette, MI 49855
5 Arrowhead Dr.
c/o Beth Olson

