



Minnesota BIRDING

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Birding by Radar

by *Peter Nichols*

Every spring and fall birding season, I am busily (compulsively?) checking wind and temperature forecasts, reviewing median arrival and departure dates from the MOU website, and running radar loops and still images to watch migrating songbirds—all in an effort to predict the most propitious dates for birding and make the most of my limited field time.

That's right: migrating birds show up on Doppler radar images, and birders are increasingly using this tool to predict new arrivals, estimate turnover, and assess diurnal movement. Interpreting these radar images and loops does take some practice, but the basics are not that difficult.

Birds on Radar

Distinguishing birds from precipitation on radar images is usually not difficult. Rain and snow almost always show up as irregular patterns that move as a unit (usually west to east). By contrast, migrating songbirds show up on radar imagery after sunset as round “blobs” that stay in place, fixed around each Doppler station. By running a radar loop after dark, you can even see the blobs form as the sun sets from east to west across the country. Running radar loops in the morning can help you determine whether last night's birds have landed in your area.

The color of the blobs indicates the density of birds flying through. Heavy flights are typically indicated by blues and greens (heaviest), though the color patterns vary somewhat depending on which website you are using. Check the reflectivity color spectrums shown on the radar map for guidance in assessing migrant density.

NEXRAD images and loops: NCAR (The National Center for Atmospheric Research)

<http://weather.rap.ucar.edu/radar/>

For a still image of the entire 48 contiguous states,

click on “Contiguous U.S.” For a still image of the region surrounding a single Doppler station, such as Duluth, click on the abbreviation for that station (in this case, “DLH”). To run a loop, look above the right-hand side of the map where it says “Loop duration” and click to the right of that where it says “Single image.” This will bring up a drop-down menu, from which you can select loop durations as short as one hour and as long as 12 hours. The bar at the bottom of the page shows the reflectivity color spectrum that is used to represent density.

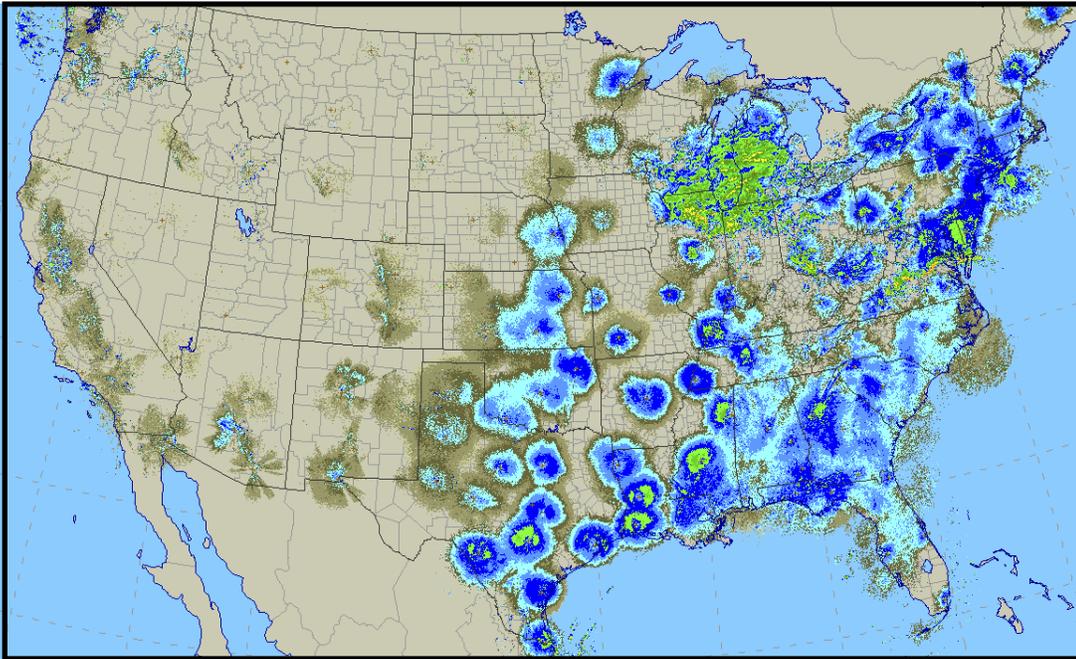
NEXRAD images and loops: UW Madison, Atmospheric and Oceanic Sciences

http://www.aos.wisc.edu/weather/wx_obs/Nexrad.html

For a still image, simply click on a region. To run a loop, go below the image for the region to “Reflectivity” and select “Loop.” This will run a loop of the previous three hours at a pretty rapid pace. You can click on “Slower” a few times to reduce the speed. The bar at the bottom of the page shows the reflectivity color spectrum that is used to represent density.

Prediction

Detecting and tracking birds with live Doppler radar is one thing, but using radar to help predict birds on the ground the following morning is considerably more difficult. At a minimum, it requires close attention to the weather forecasts, both during the day and overnight. Keeping up with out-of-state bird reports to the south is also key in the springtime. In the fall, folks in southern Minnesota can follow migrant reports from the north, especially at Hawk Ridge, Duluth. Northern Minnesotans can watch Canadian radar sites (links provided at the end), check eBird reports from Ontario and Manitoba, and consult the MOU's median fall arrival and departure dates.



NEXRAD image from NCAR for 10/11/17 at 1:00 AM CDT. The light blue round blob over the Twin Cities indicates light/moderate movement over that area, and the blob with the dark blue center over Duluth indicates moderate/heavy movement over that area. Several Doppler regions in the southern states show heavy movement, indicated by large green circles. The irregular green mass over Michigan is rain.

The largest overnight movements of songbirds occur when the winds, temperatures, and precipitation patterns are all favorable. In the spring, the passage of a warm front during the day, followed or accompanied by south winds, is an excellent predictor of a large movement of birds overnight. If south winds are accompanied by very warm temps during the day, a strong push of diurnal birds could follow. In the fall, the pattern is the opposite: north winds and cold fronts get the birds moving.

If you live near a Doppler station, the blob over your region shortly after dark shows the birds that are leaving your area. Thus, before bedtime you want to watch the Doppler stations to the south in the spring and to the north (if possible) in the fall. For instance, during spring migration, someone living in the Twin Cities will want to look at Radar images from Des Moines and La Crosse, and then check the wind and precipitation forecasts for the entire region.

One of the best predictors of birds on the ground the following morning is a storm system or strong wind shift to bring them down. If nighttime radar shows birds heading your way and the forecast calls for a wind shift overnight, or even better, a storm over your area before sunrise, be prepared to look for birds on the ground in the morning!

Running a radar loop again in the morning will reveal whether birds have landed in your area. What we want to see is a blue or green blob right over our home area that very rapidly disappears instead of gradually thinning out by changing color. The disappearing blob represents birds landing just before or after sunrise. Assuming you're not

already in the field at the crack of dawn, checking an AM radar loop can give you a sense of the amount of activity you can expect—though it will not enable you to specify which areas will be most active.

Sometimes, however, running a radar loop in the morning reveals that the large blue blob that was over your home area for much of the night gradually dissipated before sunrise. Alternatively, you may find that a sizable blob continues to show up during the day. What looked the previous night like a promising set of conditions for new birds ended up producing few arrivals on the

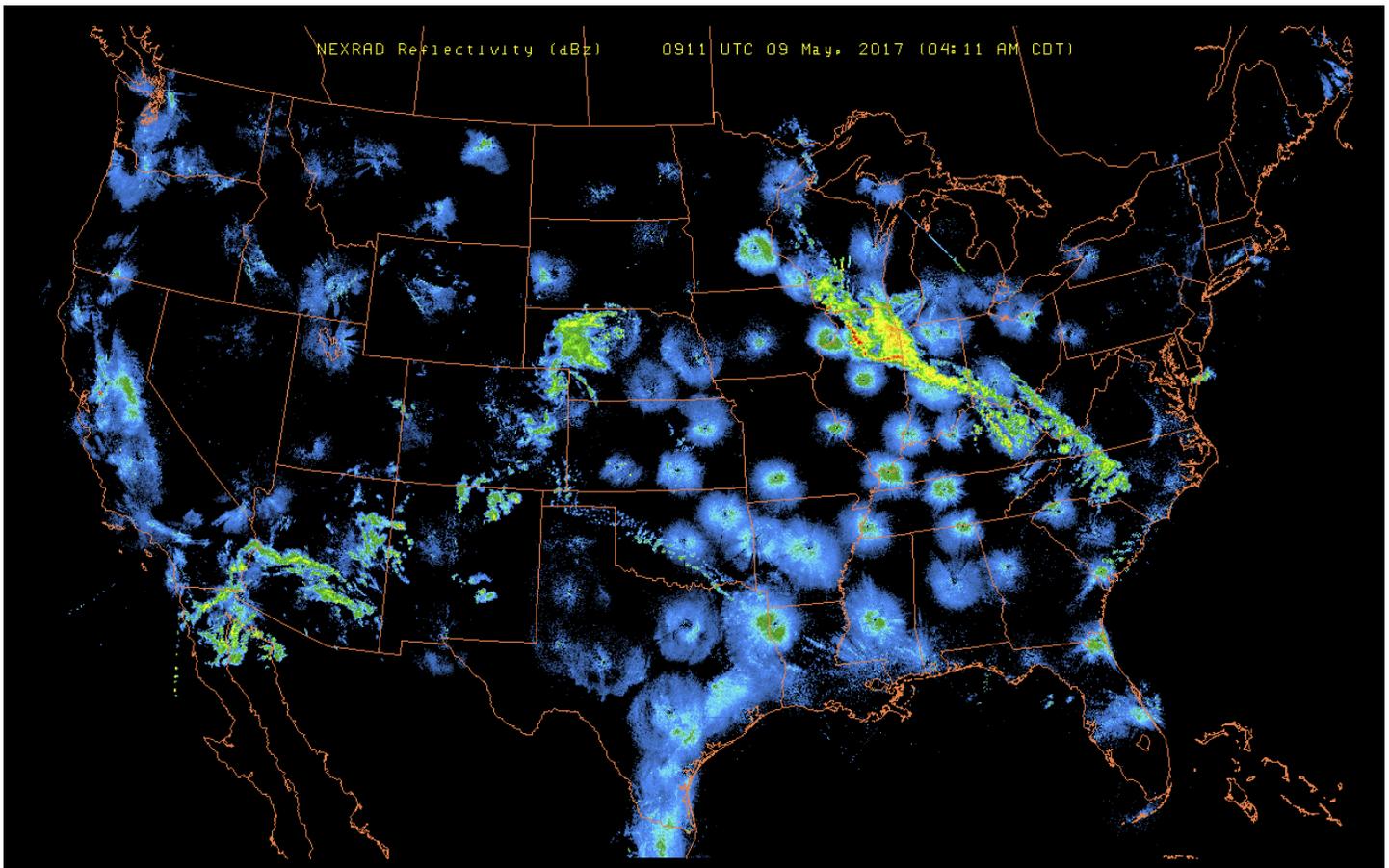
ground. This sort of situation can occur, for instance, when favorable overnight winds continue into the following day and there is no precipitation to drop the birds down. If the birds have just refueled or are behind schedule, they may keep on flying after sunrise.

Application

Let's apply the strategies discussed so far by considering a couple of different migration scenarios.

First, let's say it's the beginning of the second week of May and we've been stuck in a cold spell with no south winds or calm nights for over two weeks. The forecast, however, calls for warmer temperatures today and a shift to moderate south winds before evening. This is exactly the type of scenario in which we would expect a very large movement of birds after dark. We check one of our Doppler image sites after dark and sure enough, we find bright blue blobs over the Doppler stations to our south. The next morning, we run a radar loop and find just what we are looking for: a large, dense blob that rapidly disappears over our area after sunrise, indicating that we could be in for a banner day of birding. (This is very similar to the scenario on May 8, 2017, just before a mass arrival of dozens of species the following morning in the Twin Cities area.)

Consider another scenario. Suppose it is mid-September and we are planning on birding in the Twin Cities area the following day. Upon checking radar after sunset, we see a large, dark blue blob over the Twin Cities (repre-



NEXRAD image from UW Madison from May 9, 2017 at 4:11 AM. The first significant south winds in weeks, combined with the passage of a frontal system the previous evening, produced a massive flight of birds into Minnesota. The green blob over the Twin Cities rapidly disappeared around sunrise. That morning, there were widespread reports of new arrivals, including species a few days past their median arrival dates as well as species that typically arrive days later, like Olive-sided Flycatcher. These birds had been stalled to the south prior to this movement.

senting an exodus of birds from the area), but we also notice that the blob over the Duluth area is only light gray. We check the overnight forecasts for both Duluth and the Twin Cities and find that the Twin Cities will experience north winds all night, but that a moderate southeast breeze will continue out of Duluth until morning. This is one sort of situation in which it looks like we might lose more birds overnight than we gain in the Twin Cities area.

Even in this second scenario, however, we would need to run an AM radar loop to see how things play out overnight. If the winds in northwestern Minnesota are out of the northwest, perhaps resulting in a blob over the Fargo/Moorhead area, that could produce birds on the ground in the Twin Cities in the morning from that area, even though very few birds left the Duluth area. This example helps to illustrate the importance of looking at large-scale wind patterns when using Radar as an indicator of turnover (see the link below).

The use of radar loops and images of migrating birds is arguably still in its infancy, and much remains to be learned. In the coming years, we will likely see these tools

refined and combined with other strategies to produce more accurate migration forecasting. This is a new kind of birding.

Additional Links and Resources

Live Wind Map: <http://hint.fm/wind/>

This site shows large-scale wind patterns, including direction and velocity, across the lower 48.

Radar Loop Archive:

http://www.pauljhurtado.com/US_Composite_Radar/

24-hour radar loops for the contiguous US for every day since May 2008. This site also contains many helpful external links.

Canada NEXRAD Doppler Radar Loop:

<http://www.eldoradocountyweather.com/canada/canada-radar-classic/canada-national-radar.html>

This site shows radar loops over Canada. To get a closer look at movement directly north of Minnesota, go to the list

of radar stations under the radar loop and select Dryden, Superior West, or Woodlands.

The MOU's Median Arrival and Departure Dates:

<http://moumn.org/avian/migration.php>

These dates cover the previous 25 years, and represent median arrival dates into and departure dates out of the southern and northern portions of MN.

The MOU's General Species Information Pages:

<http://moumn.org/avian/gen2.php>

To select a different species, use the features in the upper right-hand corner of the page. Each page includes a graph that indicates the frequency of reports over the course of the calendar year. These graphs can be useful in determining average migration windows and peak migration days.

From the Editor

I'm delighted to begin serving as the new editor of *Minnesota Birding*. In some ways, the task seems like an easy one. I've edited newsletters for several organizations in the past, and as an academic (music history at St. Olaf College), I have years of experience writing and editing.

In other respects, though, the job seems daunting, and I'll need your help. If this were a music newsletter, I would have no shortage of ideas for articles and contacts from whom to solicit them. However, my contacts in the Minnesota birding world are more limited. I have been birding and doing bird photography for a number of years, but purely as an amateur. My contacts consist mostly of fellow birders that I meet out in the field or through Facebook.

So this is where you come in. You can help me make *Minnesota Birding* continue to be a useful and interesting newsletter for MOU members. I plan to retain some of the regular and semi-regular items that have been part of recent newsletters, such as the Conservation Corner, the Phenology column, and Birder Bios. The Phenology column was Bob Dunlap's project, but there is no reason we can't open up that column to other writers as well. Bob will begin writing a President's column when he takes over as the MOU president in January, but I hope he will occasionally contribute a phenology piece as well.

I welcome suggestions—or, better yet—submissions for either the Conservation Column or Phenology column. For that matter, I welcome suggestions or proposals for articles on any other topic you think fitting for the newsletter, even if you yourself do not feel qualified to write them. And, of course, I welcome any suggestions for improving the newsletter.

Gerald Hoekstra, editor

eBird: <http://ebird.org/content/ebird/>

The "Explore Data" tab offers a variety of ways of viewing eBird's data. You can search for target species, access checklists for a specific region, and sign up to receive email alerts for rare birds or "needs" for a specific region.

Bird Cast: <http://birdcast.info/>

The Cornell Lab of Ornithology's regional migration forecasts.

Peter Nichols is chair of the MOU's Social Media Committee, moderator of the Minnesota Birding Facebook group, and the eBird Hotspot Editor for Minnesota. He has a Ph.D. in philosophy from the University of Wisconsin-Madison and works part-time as a philosophy professor at the University of St. Thomas in St. Paul.

Raptor Release

On Saturday, September 23, Carpenter Nature Center hosted another well-attended Raptor Release. Six birds were released during the day. The University of Minnesota's Raptor Center Clinic had cared for these injured birds with the intention of later releasing them back to the wild. They also brought, as avian ambassadors for display and education, a dozen birds that had been rehabilitated but whose injuries would not allow for release into the wild. Informational booths, including one for MOU, offered information to the public, as well as various children's activities, throughout the day. The staff estimated that four thousand visitors enjoyed this educational event, which was free to the public.



*Activities for children at the Raptor Release
photo by Kevin Smith*

Message from the President

First, let me say how proud I am of the Minnesota Ornithologists' Union and what an honor it has been to serve on the Board of Directors during the past several years. I am also very pleased that Bob Dunlap will assume the position of President of the MOU at our upcoming meeting in December. It has been an absolute pleasure working with Bob on the board of directors for the past two years, and I have full confidence in his ability to lead the MOU and further its mission and purpose in the field of ornithology.

Perhaps I could consider my tenure serving on the board of the MOU as the culmination, or highlight, of a couple of decades being identified as a "birder." Truth be told, the MOU and the many friendships that I have made in it have simply expanded my interest in birding and all the madness that entails. It is definitely a lifelong pursuit for me now that defines how I identify the next piece of travel, be it to the north shore, Texas, Arizona, or wherever. I used to love to say that birding gave me a reason to go for a walk in the woods. Now it amazes me when I am standing on a gravel shore in Gambell, Alaska or some other location and realize that it was only birding gave me a reason to travel to this really special place.

I have learned so much from the many individual members of the MOU who have so much accumulated knowledge about the habitat, song, range, plumage, taxonomy, etc. of various species. I readily give credit to Kim Eckert (or partially blame him) for my continued interest in learning about birds. Kim's MBWeeks and MBWeekends got me started and they continue to be a very moderately priced source for amazing birding trips. (By the way, one additional thing I learned from several members of the MOU is that I definitely never want to be a "county lister"! It really boils down to a choice of the degree of madness.)

As I move into the role of Past President of the MOU I would be remiss in failing to mention the decades-long important relationship that the MOU has had with the Bell Museum of Natural History. The founders of the Bell Museum were instrumental in the early days during the formation of the Minnesota Ornithologists' Union. And we have held our well-attended annual Paper Session in the museum's auditorium for several decades. As you all know by now, the Bell Museum is moving to the St. Paul Campus of the University of Minnesota, and the new facility will not have a space large enough to accommodate the 200+ attendees at MOU Paper Sessions.

The MOU is pleased to announce that the Paper Session this year will be held in the MacMillan Auditorium at the beautiful Minnesota Landscape Arboretum in Chanhassen. The advance registration form can be found on page 9 of this newsletter. I encourage you to register for what

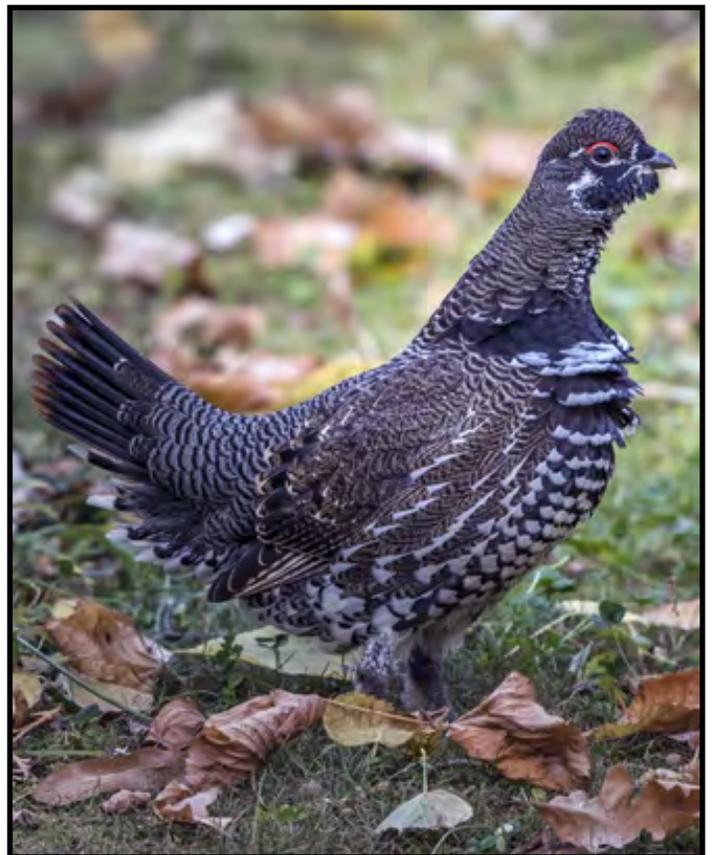
promises to be a very informative day with numerous ornithological research presentations.

Although I cannot possibly thank all of the members of the MOU with whom I have interacted over the past few years, I do want to express my gratitude to the dedicated members of the MOU Board of Directors, who have all been very supportive and involved in the day-to-day business of the MOU. It is no surprise that there have been numerous challenges and opportunities presented to the board, and I feel confident that the MOU is in a strong position going forward. Approximately 1000 members strong, the MOU is poised to grow. We are in a position to leverage social media to promote the core values of our mission of conservation and study primarily in the field of ornithology. And we are working on a number of initiatives to attract young birders. Finally, a special thanks to the Bell Museum for their continuing partnership and support of the MOU.

I look forward to assuming the board position of Past President and continuing the important work of the Minnesota Ornithologists Union. And I hope to see many of you in December at the Minnesota Landscape Arboretum for the MOU Paper Session.

Bob Bossert

Spruce Grouse, photo by Allan Meadows



Savaloja Grant Applications Sought

by Steve Wilson

The MOU supports bird-related projects through the Savaloja Grants. Applications are now being sought for projects beginning in 2018 that increase our understanding of birds, promote preservation of birds and their natural habitats, or increase public interest in birds, including in populations currently underrepresented in Minnesota's birding community. The budget for 2018 grants hasn't been set yet, but this year a record \$17,290 was awarded in eight grants ranging from \$800 to \$3360. You can read about these interesting projects, and find application information

for the next round of grants at <http://moumn.org/grants.html>.

You can also support projects helping to secure the future for Minnesota's birds by donating to the Savaloja Fund at <http://moumn.org/signup.html>. Last year we had to say "sorry" to a number of very worthy proposals, because requests exceeded the money we had available by almost \$30,000!

The deadline for receipt of grant applications is January 31, 2018. Grant recipients will be notified by April 1, 2018.

Mentoring Vets

by Kevin Smith

When we in the MOU talk about mentoring new birders, we usually mean introducing young people to birding. Our Youth Mentorship Program (YMP), of which I am coordinator, is set up for that. But for the past three years I personally have been introducing a different audience to the joys of birding—veterans at the Hastings Veterans Home.

During the first year we limited our outings to the Veterans Home property, which overlooks the Vermillion and Mississippi Rivers. The vets used binoculars and bird books from the YMP. By the second year, though, the vets wanted to venture out to local birding hotspots, such as 180th Street Marsh, Lake Rebecca, and Jirik's Sod Farm (for shorebirds). The Vets Home provided a bus for transportation, and some of the vets began acquiring their own equipment.

With the use of the bus, we were also able to go after some of the more unusual birds that had been reported in the area—the Yellow-breasted Chat at Afton State Park and the Blue Grosbeak in Cottage Grove. During fall migration both this year and last we carried out our own Hawk Watch on the grounds of the Vets Home (complete with comfortable lawn chairs, coffee, and warm apple turnovers from the kitchen).

Now several of the vets have begun keeping Life Lists and are eager to expand their numbers. By learning the arrival and departure dates for our birds, as well as the best habitats in which to find various species, they find their numbers going up.

Many birders look for volunteering opportunities that contribute to preserving bird habitat or supporting birding festivals. Introducing vets from a local Veterans Home to birding, as I have been doing for the past two years, offers another opportunity for those who want to share their love of birds with others.

Kevin Smith birds his home county (Dakota) and throughout the state. In addition to working with the vets, he leads birding walks at Carpenter Nature Center and works with Hastings High School students on bird-related projects.



photo by Kevin Smith



MOU Calendar

November / December 2017



DNR

November 4:

Tundra Swan Field Trip

Details: 10:00 am –12:00 pm. Whitewater State Park (3 miles south of Elba on state highway 74. Each November, thousands of migrating Tundra Swans stop at the Upper Mississippi National Wildlife and Fish Refuge on their way to Chesapeake Bay. Join a naturalist for a short presentation at the Visitor Center, after which we will caravan through the Whitewater WMA to Weaver Bottoms on the Mississippi River to observe the swans. Binoculars, spotting scopes, and handouts will be available. Bring your own transportation. For more information call 507-312-2308.



Orange-crowned Warbler, photo by Richard Gotz

November 11:

BOW – Tundra Swan Migration (Family)

Details: 9:00 am–3:00 pm. Witness the spectacular Tundra Swan migration that takes place on the refuge. This bus tour is open to the general public. Location: Upper Mississippi Wildlife Refuge, Winona. Cost: \$25. Bus tour, instruction and lunch included.

December 18:

22nd Annual Itasca State Park Winter Bird Count

Details: 8:00 am–3:30 pm. Itasca State Park. Explore Itasca's count area in search of our winter bird residents. Stay a few hours or spend the whole day. Information collected is used to track migration patterns and changes in winter bird species abundance throughout North America. Meet at the Jacob V. Brower Visitor Center Lobby between 7:30 and 8:00 am for assignment of count areas. NOTE: Entire program is held outdoors. Dress warmly for outdoor winter conditions. Bring your lunch if staying for the entire day. The group will gather at the visitor center at Noon for a lunch break. For questions and further details, call 218-699-7259. If weather is bad, the alternate date will be Tuesday, December 19. Check with the park to confirm To learn more about this nation-wide bird survey go to: <http://birds.audubon.org/christmas-bird-count>.

December 30:

Peregrines in the Park (Tettegouche State Park)

Details: 11:00 am–1:00 pm. Drop-in program in the Visitor Center. Jackie Fallon of the Midwest Peregrine Society will bring some of her live birds of prey to Tettegouche to share with you a success story of peregrine recovery and of the steps it took to bring them back from the brink of extinction. For more information contact Kurt Mead at 218-353-8809 or by email at kurt.mead@state.mn.us.

December 30:

Fast Flyers: Peregrine Falcons (Gooseberry Falls)

Details: 2:30–4:30 pm. The fastest bird in the world nests along the North Shore. Listen to its story of recovery and the people who helped. Join Jackie Fallon of the Midwest Peregrine Society to learn about these remarkable birds and meet LIVE birds. Drop by the Visitor Center Auditorium. For more information contact Park Naturalist at 218-595-7100 or by email at carolyn.rock@state.mn.us.

ROBERTS BIRD SANCTUARY

November 4:

Friends of Roberts Bird Sanctuary Annual Meeting

Details: 12:30 pm. A brief board meeting at 12:30 pm will recap highlights of the year and elect board members. The speaker will be Robert Janssen, one of Minnesota's top birding experts. For many years he was editor of the quarterly journal of the Minnesota Ornithologists' Union and is a past MOU president. Bob was a coordinator of the Minnesota Breeding Bird Survey for the U.S. Fish and Wildlife Service and consults for the Minnesota Department of Natural Resources and other agencies. He works tirelessly to preserve Thomas Sadler Roberts' legacy, and is author of several books on Minnesota birds, including *Birds in Minnesota* and *Birds of Minnesota State Parks*. All are welcome. No charge. Bryant Square Community Center, 3101 Bryant Ave S, Minneapolis. Doors open 12:30 pm, presentation at 1:00 pm.

ST. PAUL AUDUBON SOCIETY

November 9:

Bob Timmons: "Documenting Time in the Outdoors"

Details: 6:45–8:30 pm. Bob Timmons, StarTribune Out-

Savannah Sparrow, photo by Gerald Hoekstra



Varied Thrush, photo by Allan Meadows

doors Editor, will talk about some of the outdoors coverage and some of his professional reporting experiences from time in the outdoors. He will address common questions about the section, such as how topics are decided and how photos and words are reported and edited. Fairview Community Center, 1910 W. County Road 8, Roseville.

December 7:

Sparky Stensaas: Sax-Zim Bog video and talk

Details: 6:45–8:30 pm. Fairview Community Center, 1910 W. County Road 8, Roseville.

MN RIVER VALLEY AUDUBON CHAPTER

MRVAC events for November and December had not yet been posted when the newsletter went to press. See <http://mrvac.org/events/>

CARPENTER NATURE CENTER

November 11: Minnesota Campus Bird Hike

9:00–11:00 am. Join Kevin Smith on a morning hike around the nature center. Learn to identify birds by sight and sound. Field guides and binoculars available to use or bring your own. 12805 St Croix Trail S, Hastings. Program fee: \$6.00 or free for "Friends of CNC", Hastings Environmental Protectors and St. Croix Valley Bird Club members. Please RSVP at 651-437-4359 and let us know you are coming.

MAPLEWOOD NATURE CENTER

November 21: Turkey Talk

Details: 2:00–3:30 pm. Ages 2–6 with an adult. Learn all about Wild Turkeys and other winter active animals, gather acorns for winter, touch and feel animal feathers and fur, and make a craft. 2659 E 7th St, St Paul. Fee: \$4 per child; register by Monday, November. 20.

MOU Paper Session Registration



Saturday, December 2nd 2017 • 9:00 A.M. to 4:00 P.M.

**At the Minnesota Landscape Arboretum
3675 Arboretum Drive
Chaska, MN 55318**

REGISTRATION <i>\$5.⁰⁰ by mail with this form \$6.⁰⁰ at the door</i>	LUNCH <i>Add \$13.⁰⁰ for each Includes sandwich, potato chips, cookie, and bottled water Additional beverages are available for purchase in the arboretum cafe</i>	DONATIONS <i>The MOU General Fund helps finance all MOU projects and publications The Savaloja Grants help finance bird-related research and education in Minnesota</i>
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Name	<input type="checkbox"/> None (no charge) <input type="checkbox"/> Thai beef wrap <input type="checkbox"/> Chicken caesar and asiago bruschetta baguette <input type="checkbox"/> Turkey, bacon, and cheddar baguette with mesquite mayonnaise <input type="checkbox"/> Mozzarella, red pepper, balsamic and kale ciabatta <input type="checkbox"/> Turkey, feta, spinach, and sun-dried tomato ciabatta <input type="checkbox"/> Gluten-free option: Any of the above with gluten-free bread and cookie	<ul style="list-style-type: none"> • General Fund \$ _____ • Savaloja Grant \$ _____ • Membership/Renewal <ul style="list-style-type: none"> <input type="checkbox"/> Life (\$500) <input type="checkbox"/> Supporting (\$75) <input type="checkbox"/> Family (\$35) <input type="checkbox"/> Individual (\$25) <input type="checkbox"/> Under 17 years (\$17)
Phone		
eMail		
Mailing Address		

Additional Registrations — if more registrant lines are needed, attach to this form; additional forms are available at <http://moumn.org>

Name	Lunch	Donations \$ _____ Membership \$ _____
Name	Lunch	Donations \$ _____ Membership \$ _____
Name	Lunch	Donations \$ _____ Membership \$ _____
Name	Lunch	Donations \$ _____ Membership \$ _____
SUBTOTALS \$ _____		\$ _____

TOTAL AMOUNT ENCLOSED (sum of registration, lunch, and donations) \$ _____

Make check payable to the MOU. Send this form and check by November 20th 2017 to:

Robert Dunlap
752 Hoyt Avenue West
Saint Paul, MN 55117

MINNESOTA BIRDING WEEKENDS & WEEKS

~ <http://MBWbirds.com> ~

APRIL 2018 - FEBRUARY 2019 • OUR 33rd SEASON



Minnesota Birding Weekends and Weeks (MBW) soon enters its **33rd season (!)** offering unique and *modestly priced* birding trips **in association with the MOU**. (Note that we originated back in 1986 as MOU Birding Weekends, and MBW participants are still expected to be members of MOU.) *Also note that the MOU receives a portion of MBW receipts in return for including the MBW schedule and other updates on the mou-net listserv and in the MOU's newsletter.*

During these past 32 years of MBWs, there have been over 400 MBWeekends, a total of 107 MBWeeks, more than 8,900 total registrations, a composite list of 363 species recorded on our MBWeekends, and an overall total of 709 species (!) once you include all the MBWeeks. In addition to our MBWeekends, please note this season's selection of out-of-state MBWeeks (*and be advised that some may even fill up on November 20, the first day of registration*). Also note that some of our inexpensive MBWeekends fees are *even lower than last year*, and MBWeeks are typically *less than half the cost of similar tours operated by others – sometimes even closer to a third!*

PLEASE NOTE – Complete descriptions of all MBWs, summaries of previous MBWs, registration information, cost estimates of MBWeeks, and more will be posted on the MBWbirds website (<http://mbwbirds.com>) on November 19. Please read that additional information before registering. **NOVEMBER 20 will be the first day that a MBWeek registration will be accepted; NOVEMBER 27 will be the first day to register for MBWeekends.**

THE MBW REGISTRATION PROCESS WILL CHANGE FOR THE 2018-19 SEASON:

- All MBW registrations will be by e-mail; there will no longer be any registrations by U.S. mail. Registrations will be e-mailed to eckertkr@gmail.com and will need to include the name of the MBWeekend or MBWeek, and your name and e-mail address. Multiple persons can only register in the same e-mail if they reside at the same address.
- Only one **MBWEEK** registration can be e-mailed per day starting November 20. If you wish to register for multiple MBWeeks, the second registration cannot be e-mailed until November 21 or later, the third registration not until November 22, etc.
- For **MBWEEKENDS**, any number of registrations can be e-mailed per day starting on November 27; however, each registration has to be on a separate e-mail (exception: a pre-MBW registration can be in the same e-mail with the MBWeekend it precedes).
- Payment for a **MBWEEKEND** can either be made by U.S. mail after the information on that MBW is sent to those registered (about a month before the MBW), or in person when the MBW meets. The fee for those paying in advance will be discounted \$5 per MBW day: e.g., the discounted fee for a 2-day MBWeekend plus the pre-MBW is \$60 for the 3 days. The fee is \$75 if payment is made at the time of the MBW. However, fees paid in advance will be non-refundable, unless another participant can replace the person who cancels.
- Payment for a **MBWEEK** deposit (\$100) will be made after the initial information is sent to those registered (usually 3-4 months in advance of the MBWeek).
- As noted above, the complete 2018-19 MBW schedule with full descriptions and other information for all MBWeekends and MBWeeks will be published on November 19 on the MBWbirds website: <http://MBWbirds.com>.



~ April 2018 - January 2019 MBWEEKENDS ~

As of [November 19](#), see MBWbirds.com/mbweekends for additional information on each MBWeekend. Note that future changes in this schedule are possible, and updates on these will appear on MBWbirds.com. (Also note the fees listed below are pre-paid amounts; fees paid on the day of the MBW are \$5/day more.)

- April 13 pre-MBW ~ Martin County ~ \$20 (Base Jackson)
- April 14 - 15, 2018 ~ Jackson County ~ \$40 (Base Jackson)
- May 4 pre-MBW ~ Pope County ~ \$20 (Leader Craig Mandel / Base Morris)
- May 5 - 6, 2018 ~ Traverse County ~ \$40 (Leader Craig Mandel / Base Morris)
- May 11 pre-MBW ~ Yellow Medicine County ~ \$20 (Base Montevideo)
- May 12 - 13, 2018 ~ Lac Qui Parle County ~ \$40 (Base Montevideo)
- May 25 pre-MBW ~ Pennington & Red Lake Counties ~ \$20 (Base Thief River Falls)
- May 26 - 27 - 28, 2018 ~ Kittson & Marshall Counties ~ \$60 (Base Thief River Falls)
- June 15 pre-MBW ~ Clearwater County ~ \$20 (Leader Craig Mandel / Base Bemidji)
- June 16 - 17, 2018 ~ Beltrami County ~ \$40 (Leader Craig Mandel / Base Bemidji)
- July 6 pre-MBW ~ Becker County ~ \$20 (Leader Craig Mandel / Base Detroit Lakes)
- July 7 - 8, 2018 ~ Clay County ~ \$40 (Leader Craig Mandel / Base Moorhead)
- August 31 pre-MBW ~ Mahnomen County ~ \$20 (Base Mahnomen)
- September 1 - 2 - 3, 2018 ~ Polk County ~ \$60 (Base Crookston)
- September 21 pre-MBW ~ Goodhue County ~ \$20 (Leader Craig Mandel / Base Red Wing)
- September 22 - 23, 2018 ~ Wabasha & Winona Counties ~ \$40 (Leader Craig Mandel / Base Winona)
- October 9 (Tuesday) pre-MBW ~ North Shore I ~ \$20 (Base Duluth)
- October 10 - 11 (Wednesday-Thursday), 2018 ~ Duluth I ~ \$40 (Base Duluth)
- November 1 - 2 (Thursday-Friday), 2018 ~ North Shore II ~ \$40 (Base Duluth & Grand Marais)
- November 3 - 4, 2018 ~ North Shore III ~ \$40 (Base Duluth & Grand Marais)
- January 5 - 6, 2019 ~ Duluth II ~ \$40 (Base Duluth)
- January 7 (Monday) post-MBW ~ Duluth III ~ \$20 (Base Duluth)

~ April 2018 - February 2019 MBWEEKS ~

As of [November 19](#), see MBWbirds.com/mbweeks for additional information on each MBWeek, including the cost (all MBWeek deposits are \$100). Note that future changes in this schedule are possible, and updates on these will appear on MBWbirds.com (e.g., dates may have to be adjusted for some MBWeeks due to limited lodging availability, or to coincide with the schedules of flights, ferries, pelagic trips, etc.)

- APRIL 15 - 25, 2018 ~ SOUTH FLORIDA (Leader Craig Mandel)
- APRIL 21 - 30, 2018 ~ SOUTHERN CALIFORNIA I
- JULY 28 - AUGUST 5, 2018 ~ SOUTHEAST ARIZONA I
- SEPTEMBER 8 - 16, 2018 ~ WASHINGTON & BR. COLUMBIA
- JANUARY 19 - 26, 2019 ~ SOUTHERN CALIFORNIA II
- JANUARY 27 - FEBRUARY 3, 2019 ~ SOUTHEAST ARIZONA II
- FEBRUARY 19 - 26, 2019 ~ SOUTH TEXAS



Blue Grosbeak Range Expansion in Minnesota: An Update

by Josh Wallestad

In the summer of 2014, I was birding the back roads east of Granite Falls when I met a vehicle whose occupant I recognized—Bob Janssen. As I pulled up alongside and visited through the driver’s side window, I learned that Bob Janssen and Dave Cahlander were out searching for the same thing I was, a Blue Grosbeak at Gneiss Outcrops SNA. Conversation centered on Blue Grosbeaks, and I asked Bob if he thought the Blue Grosbeak was expanding its range. Bob’s answer was affirmative and emphatic. He recalled a time when they were much harder to come by in Minnesota. In fact, he described the discovery of the state’s first Blue Grosbeaks in 1961 by Delbert Johnson and Bertin Anderson in a brush-filled ditch in Rock County some 90 miles southwest from our current location.

It has become common knowledge among Minnesota birders that the Blue Grosbeak is on the move and is not an unexpected species in much of the southwestern—and even south central—part of the state. Even since I posed that question to Bob three years ago, this species has continued to make impressive gains in both territory and numbers each year. In 2016, I wrote a blog post titled “Hey, Minnesota Birders, Go Find a Blue Grosbeak!” (also printed in the November/December 2016 issue of this newsletter), in which I hypothesized that the Minnesota River formed a boundary of sorts for the northward expansion of this species. The blog post generated an increased interest in the species that resulted in birders discovering county first records for both Swift and Big Stone counties. Both locations were in close proximity to the Minnesota River.

If the number of first county records is an indicator of the expansion of this species’ range, then 2017 was a banner year for the Blue Grosbeak in Minnesota. In all, four counties got a first record Blue Grosbeak: Anoka, Washington, Hennepin, and Kandiyohi.

Anoka County: In early June, Cole Foster discovered a lone male at an excavation site along Bunker Hills Boulevard in the city of Ramsey. Recorded observations indicate the bird was only present for about a week.

Washington County: Pete Nichols and Ben Douglas targeted Blue Grosbeaks in late July in southern Washington County where there are many stretches of scrubland suitable for this species. Their hunch paid off; they found a male almost immediately as they began their search route. This bird was found at the Southeast Industrial Park in Cottage Grove and subsequently seen at Hamlet Park. Follow-up visits by other birders yielded the discovery of



Blue Grosbeak, photo by Josh Wallestad

a female as well, and successful breeding was confirmed with two juveniles being observed throughout the end of the summer.

Hennepin County: About a week after the Washington County record fell, Tom Tustison located a breeding pair of Blue Grosbeaks at Flying Cloud Fields in Eden Prairie. These birds were hanging out in the scrubland beyond the ballpark’s outfield fence and were visited by dozens of birders. With so many observations, breeding was also confirmed at this site with the discovery of at least one juvenile bird.

Kandiyohi County: In the author’s opinion, this was the pinnacle Blue Grosbeak record of the summer. Despite searching numerous areas of suitable habitat in the county for *years*, we local birders could not turn up a Blue Grosbeak. It took visiting birders John Hockema, Chris Hockema, and Josh Watson, exploring an unchecked private gravel pit in early August in northern Kandiyohi County to finally find the first county record. At least one observer noted a second bird at the site, a juvenile, suggesting successful breeding at this location as well.

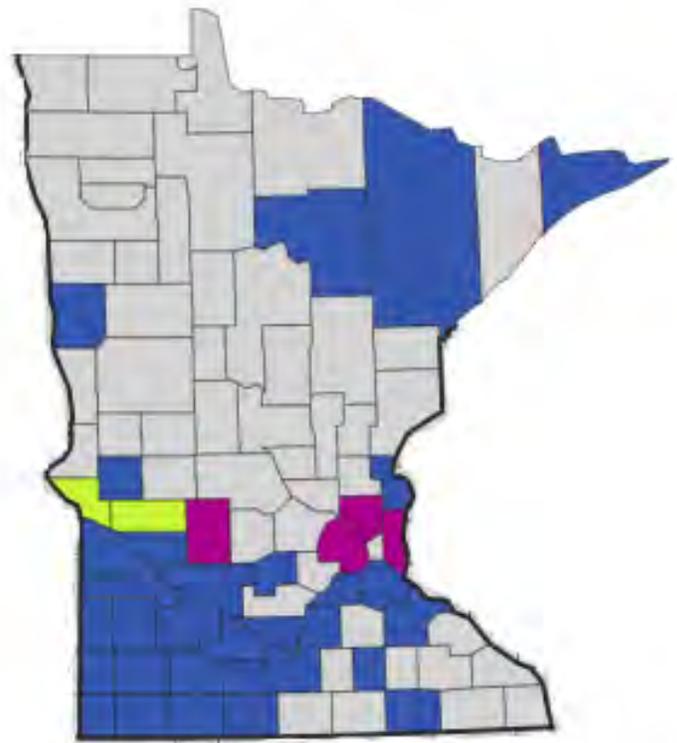
From a lister’s perspective, the contiguous block of counties with records continues to expand. The graphic to the right shows counties with at least one recorded observation according to the MOU Sightings Database. The blue counties represent sightings prior to 2016 while the

green and pink counties represent sightings from 2016 and 2017 respectively.

The specific locations of these new records are also interesting. The birds in Anoka, Hennepin, and Washington counties were all found within just a few miles of either the Minnesota River or the Mississippi River, perhaps lending further support for the idea that the “V” of the Minnesota/Mississippi Rivers may be a demarcation line for the Blue Grosbeak’s current range in Minnesota. This suggests that Sibley and Carver counties would be highly probable counties for getting a county first record in the near future, since they border the Minnesota River. It should at least motivate birders to redouble their efforts in these two counties, especially at any gravel or waste areas in close proximity to the river.

A significant exception to the new county sightings occurring along a river is the Kandiyohi County record, which occurred roughly 40 miles away from the Minnesota River. This is perhaps the most intriguing sighting of all because it opens up the possibility that Blue Grosbeaks may be found much farther north than previously thought. When taken into consideration with other recent sightings, the intrigue builds. The locations in Anoka, Kandiyohi, Swift, and Big Stone counties all occur at approximately the same latitude, with multiple birds occurring at all sites except Anoka. So not only are they present this far north, but they also may be well-established in some of these locations. This should cause birders in Pope, Stearns, Meeker, Wright, and Sherburne counties not just to have this bird on their radar, but to actively seek it out.

While the Blue Grosbeak is clearly expanding its range in Minnesota, it is not known whether the rapid rate



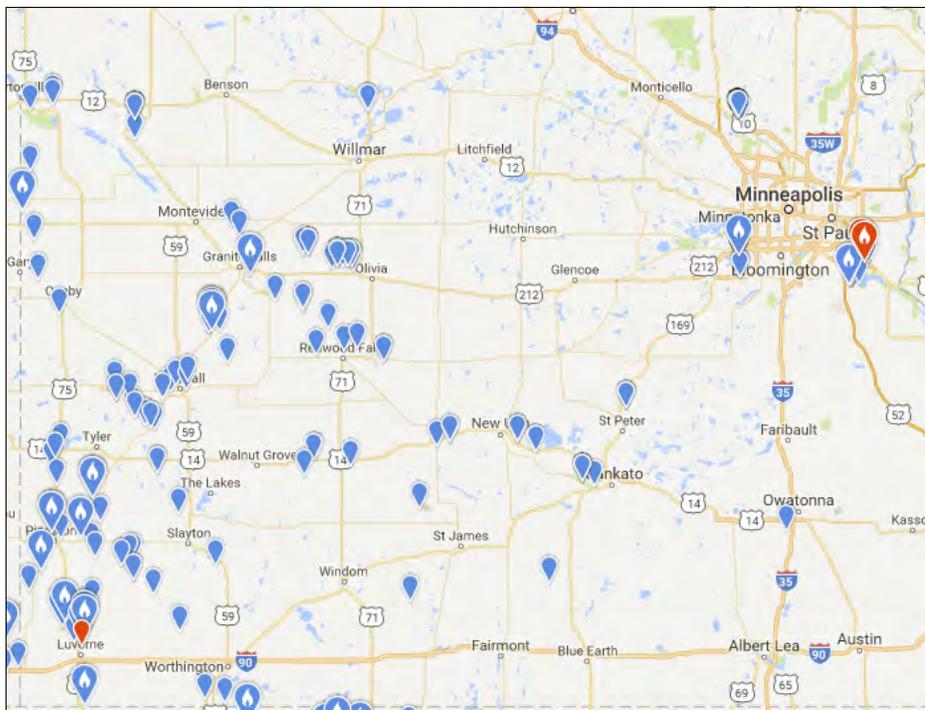
of expansion that we see is due to an actual increase in the bird’s range or an increased effort on the part of Minnesota birders to locate it. Whatever the case, birders should be on the lookout for this species, not only within its normal Minnesota range, but also in areas where it is not typically found. Being armed with a few tips for finding Blue Grosbeaks could result in even more sightings

Tip 1: Use technology to seek out probable Blue Grosbeak locations.

Blue Grosbeaks are often found in gravel/waste areas. This type of location easily stands out on Google satellite maps. Spending a short amount of time scouring a map online is a lot more efficient than driving around looking for possible locations. I made it my goal to find at least one brand new Blue Grosbeak location in 2017. Using satellite maps, I was able to locate four gravel pit sites in close proximity to one another near the Minnesota River in Chippewa County. I then drove directly to these sites, having never visited them before, and I found Blue Grosbeaks at two of them.

Tip 2: If you don’t see or hear Blue Grosbeaks at a site with good habitat, try using audio playback.

Ideally we don’t want to use playback, and often that is not neces-



eBird map of Blue Grosbeak sightings in Minnesota

New MOU Members

Natalie Adler, *Anoka, MN*
Thomas Burns, *Minnetonka, MN*
Joshua Davis, *West St. Paul, MN*
Lori Dobbs, *Littlefork, MN*
Nia K. Doherty, *Stillwater, MN*
Jason Frank, *Gary, SD*
Joan Gangl, *Blaine, MN*
Rebecca Hoyer, *St. Paul, MN*
John & Val Klett, *Afton, MN*
Val Landwehr, *Minneapolis, MN*
Christine Larson, *Minneapolis, MN*
Eric Lind, *Woodbury, MN*
Lynn Lovett, *Plymouth, MN*
Aaron Ludwig, *Melrose, MN*
Patrick McHale, *Andover, MN*
Terry Meyer, *Kenyon, MN*
Daniel Polzin, *St. Peter, MN*
Gary Reitan, *Red Wing, MN*
Dan Roley, *Northfield, MN*
Stuarts & Stephanie Scheu, *Minneapolis, MN*
Randal Skiba, *Ramsey, MN*
Gregory Smith, *Northfield, MN*
Jennifer Swanson, *Greenfield, MN*
Daniel Taylor & Alice Wright, *St. Paul, MN*
Richard Thorpe, *Edina, MN*
Kathleen Weflen, *St. Paul, MN*

sary for finding Blue Grosbeaks. They are loud, conspicuous singers, who often belt out their melody throughout the day. However, not all Blue Grosbeaks are alike. Of the two Blue Grosbeaks I found in Chippewa County this past summer, the first was heard from over a quarter mile away and over the constant noise of trucks going in and out of a very active gravel pit. The other was also at a gravel pit, but this area was quiet and completely devoid of human activity. I did not hear or see a Blue Grosbeak, but I decided to play a recording anyway. Instantly, a male Blue Grosbeak appeared out of nowhere. In talking with other birders, I learned this is often how new sightings are discovered.

This summer a birder joked to me that the Blue Grosbeak is becoming a trash bird in Minnesota because it is found so regularly. While that will never be the case, as more and more county records fall many birders may be less inclined to actively search them out. Maybe, though, that will not matter. Perhaps the Blue Grosbeak will become so common in Minnesota that incidental sightings will increase at typical and atypical habitat sites alike. Time will tell.

Josh Wallestad is a high school math teacher who lives in Willmar and therefore does most of his birding in Kandiyohi County. You can read all about his birding adventures on his blog, www.aboywhocriedheron.com.

Ed. Note: A first county record of a Blue Grosbeak in Beltrami County was reported after this article was completed.

On the hunt for Blue Grosbeaks in Kandiyohi County, photo by Josh Wallestad.



Touring the New Bell Museum

by *Cindy Thury Smith*

The old Bell Museum holds fond memories for MOU members, not only because of the annual paper sessions held there, but also from visits to view the dioramas and special exhibits such as those featuring paintings of Audubon. However fine the old Bell was for its time, though, the new Bell Museum promises to be even better.

This fall I decided to take advantage of the Senior Citizen Education Program (SCEP) and enrolled in a course at the U of M entitled “The History and Philosophy of Museums.” SCEP allows Minnesota residents who are 62 or older to enroll in courses at greatly reduced cost, either to audit or for college credit. The museums course includes behind-the-scenes tours of nine museums, and on September 27 my class visited the new Bell Museum on the St. Paul campus at the corner of Larpenteur and Cleveland.

The New Bell

Groundbreaking for the new Bell took place on Earth Day, April 22, 2016. The opening to the public is projected for July 2018. The new 91,990 square-foot facility will house items from the old Bell, including most of the dioramas, as well as new displays, and the grounds include pollinator patches, rain water gardens, and an apiary.

All of the building materials used in the new building come from Minnesota. The exterior surfaces consist of white pine, metal, and glass. The glass, manufactured in Owatonna, is fitted with screen-printed patterns and is thus bird-safe. White pine covers about forty percent of the building. It has been treated through a process called thermal modification, which removes the moisture and sugars that can lead to decay. Corten steel (from Iron-Range steel) clads the lower portions of the building. This alloy forms a protective surface layer that resists corrosion and results in a stable rust-like appearance.

One enters the new Bell into a large lobby called Horizon Hall. This lobby serves as gathering space and will also be available for rental by private parties for weddings or other gatherings. Immediately ahead is the curved outer surface of the Planetarium. This can serve as a projection screen. To the left are the museum store, a lounge, and a stairway leading up to the Planetarium and the diorama exhibits on the second floor.

The first floor includes four classrooms, designed to accommodate an increased number of young students. About 12,000 students visited the old Bell each year; the new Bell is designed to serve 25,000. The staff also hopes to triple the overall number of visitors to the facility. The classrooms will also be used for the 11-week summer enrichment programs. The east entrance to the building (Cleveland Ave-

nue) is large enough to allow three buses at a time to pull in and unload students safely.

Also on the first floor is a 4200-square-foot space for temporary exhibits. This will allow the Bell to bring in exhibits from other museums. The first will be an exhibit from the American Museum of Natural History in New York entitled *Our Global Kitchen*.

In 2011, the Bell Museum integrated with the Minnesota Planetarium Society. The Planetarium at the new Bell will seat 120 people and uses a digital projection system that it says allows viewers to “fly through the heart and brain.” During the first year, the Planetarium shows will focus on Minnesota and the earth’s biomes.

Moving the Dioramas

The environmental dioramas were the highlight of the old Bell. Many of these were painted by well-known wildlife artist Francis Lee Jaques (a small art museum in Aitkin is dedicated to his work). When the dioramas were first installed they were not expected to be moved, and the painted canvas was securely attached to curving concrete walls.

Before any work on moving the dioramas could begin, the enclosures had to be tested for hazardous materials such as arsenic and lead. Workers then chiseled away concrete from behind the paintings, leaving about one inch of concrete as support the canvas. They then sliced each painting in half horizontally, leaving a gap of a few inches, so the pieces could be moved through a hole in the second floor of the old Bell building and over to the second floor of the new building. There they reassembled the pieces and patched and repainted the gaps. The new Bell will not include all of the old dioramas, but it will feature one entirely new one: a Woolley Mammoth and Glacier diorama. This will be displayed in a cantilevered space on the Larpenteur side.

The second floor offers several exits onto decks where one can view the surrounding area. Facing Larpenteur, one overlooks solar panels installed on the first-floor roof. The wolf and moose sculpture that was at the front entrance of the old Bell stands on the Larpenteur side of the new building, and a raven sculpture will be added.

General parking is to the west of the building and is accessed from Larpenteur. The parking lot is broken up by the pollinator patches and rain water gardens mentioned earlier and a small pond. The grounds are well landscaped and feature rock patches that exhibit Minnesota’s varied geology.

Cindy Thury Smith lives in Hastings and is Membership Secretary of MOU. When not birding, she is busy making quilts.



Minnesota Ornithologists' Union

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