

PRAIRIE'S EDGE

A NEWSLETTER FROM FRIENDS OF SHERBURNE NATIONAL WILDLIFE REFUGE

WINTER 2023

Amphitheater Update

Refuge Community Goes Wild!

350+ Supporters Give Flight to Fundraising

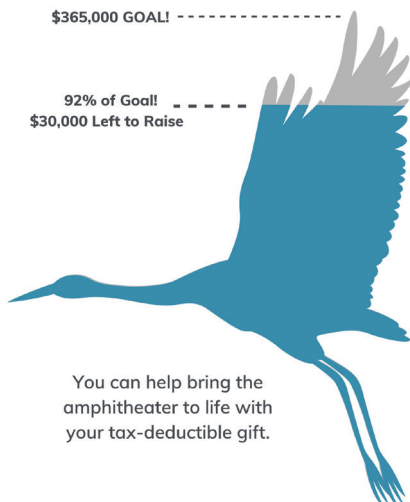
By Myrna Krueger, Campaign Chair

I'm happy to share an update on the Go Wild! Amphitheater Campaign! We're excited because we have made a lot of progress. And the progress has been driven by so many -- a community of people has stepped up to help make it happen. *And boy oh boy!* We are realizing that we have a LOT of support in the community.

To date, we've received more than 350 donations, large and small, in cash, pledges, and in-kind. Donations have come from many, many individuals, and we are proud to have the support of more than 50 Community Supporters; these include civic groups, organizations, and businesses (see sidebar on page 6). We are overwhelmed by the generosity and excitement for the amphitheater. Thank you again!

To reach this point, the Steering Committee has been meeting monthly
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PROGRESS TO GOAL



Rusty Patched Bumble Bee.

Drawing by Kevin Johnson

Endangered Species

In Search of the Elusive Rusty Patched Bumble Bee

By Bruce Ellingson

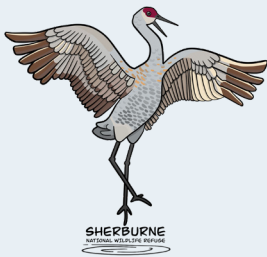
During four years of sailing through waves of blossoming wildflowers at Sherburne National Wildlife Refuge (SNWR), Cody Carlstrom has failed to find his "Moby Dick."

June, July, and August, he returns to the colorful sea of forbs, wading from lavender patches of beebalm into mounds of goldenrod armed to imprison, ice, and inspect his specimens. With a small plastic cup in one hand and the lid in the other, he bends often to capture prey, but never the one that he calls his "white whale."

Carlstrom has recorded eleven distinct species of the genus *Bombus* (bumble bees) within his refuge survey area. And he's learned a great deal about how bumble bees prefer New Jersey tea one month but goldenrod another. How a brown belt on a bee's abdomen can look an awful lot like a rusty patch. But never has he captured the rare and endangered species he seeks, the rusty patched bumble bee.

Cody Carlstrom is Sherburne's lead biologist—one of a few U.S. Fish and
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Amphitheater
Gratitude:
**Friends
Thankful
and
Hopeful**



By Steve Chesney, President

You'll read about some great things in this issue. Not only is our "Go Wild!" Amphitheater Campaign well underway, but victory is within sight. You can see the details elsewhere in these pages. As I read them, I feel both thankful and hopeful.

I'm thankful that we may soon see tangible progress on the amphitheater. If our year-end fund drive is successful, ground may be broken early in the 2024 construction season and the amphitheater may be available for use for the 2024 Wildlife Festival. No guarantees, but I think we all want that!

I'm especially grateful for the hard work and attention to detail of the Amphitheater Steering Committee, especially its leader, Myrna Krueger. Each member is putting in a lot of time to finalize the detailed plan, find contractors, and work with members, acquaintances, community organizations, and businesses for donations and grants. Many other Friends members are helping with these activities in small and large ways – all of which is appreciated.

I must not forget my thanks for the expertise, time, and patience of the refuge staff and its current acting manager Greg Dehmer, past manager Steve Karel, and Visitor Services Specialist Jade Pederson. There were a lot of bureaucratic hoops to jump through to finalize our partnership agreement and to get the construction plans approved.



Steve Chesney

But I also feel hopeful. As I mentioned last time, this effort has helped the Friends grow both in size and also in capability. I think that growth will continue to benefit volunteers and the refuge in the future. It may be a while before we tackle something as big as the amphitheater again, but there is a large backlog of refuge improvements and programs that can use our help. I'm sure the Friends and its Board of Directors will be up to that task.

**FRIENDS OF SHERBURNE NWR
2023 BOARD OF DIRECTORS**

Steven Chesney – President

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Jade Pederson – Visitor Services Specialist

**Donate or Join Friends of Sherburne
Online at [ExploreSherburne.org](https://www.exploresherburne.org)**

The Friends of Sherburne National Wildlife Refuge is a 501(c)(3) charitable organization (EIN: 41-1763001) that supports refuge projects and educational programs. All contributions are tax-deductible to the extent allowed by law.

The Prairie's Edge newsletter is published twice annually for members in cooperation with the refuge. Editor is Sue Hix.

Contact Sue or the Friends
c/o Sherburne NWR, 17076
293rd Avenue NW, Zimmerman,
MN 55398, or at FriendsofSherburne@gmail.com



Friends Support Solid in Seasons of Change

By Greg Dehmer,
Acting Refuge Manager

As I reflect on what to write for this edition of the Friends newsletter, I can't help but think about the seasons of change that are always upon us in Minnesota. This year the refuge has had great transitions across its amazing landscape. The winter of 2022/23 we had copious amounts of snow and cold, which quickly transitioned into spring. I just love to see and hear the sights and sounds of the refuge coming to life in the spring, with migrating birds, croaking frogs, and the first wood duck that shows up in the river outside my office window. This year spring was short but sweet and quickly transitioned into a seemingly long summer that was exceptionally hot and dry.

For the third summer in a row, we received below normal rainfall and many of our wetlands remained dry, even with all the snowmelt that occurred in the spring. However, na-



Greg Dehmer



Photograph by Bruce Ellingson

Sandhill Cranes over the St. Francis Pool at sunset.

ture always seems to provide. We received much-needed rains toward the end of summer and into the fall season, providing necessary water to the wild rice filled wetlands. That resource was a welcome sight—and place of rest—for the multitude of migrating shorebirds, ducks, and geese making their journey to the south. The rains also helped the staging population of sandhill cranes feel secure in their roosting location on the refuge, allowing massive numbers of cranes to gather this fall over refuge waters. As I write these words, the crane population is quickly building, and I can only wonder if we can top the record 30,000 cranes that were recorded last fall!

Like our seasonal weather transitions in Minnesota, the refuge staff also experiences transitions from time to time. This year we have had several departures from the refuge staff, including our Visitor Services Manager, Alaina Larkin. Alaina transferred to MN Valley National Wildlife Refuge in Bloomington to work with their Visitor Services program. Refuge Manager Steve Karel also departed and has transferred to the Midwest Regional Office in Bloomington, where he is working as a Deputy Refuge Supervisor. Finally, Wildlife Refuge Specialist Nikki Ellingson departed for the Madison Wetland Management District in

South Dakota. Nikki will be working in the heart of the Prairie Pothole region. I want to thank Alaina, Steve, and Nikki for all their dedication and hard work given to the Sherburne Complex over the years, and we wish them well in their new adventures.

The departure of key staff and other vacancies also serves as a transition and challenge for the current staff members, who will carry on as we share many of the responsibilities that vacancies create. It is unknown how long it will take for these critical positions to be filled, and with the many uncertainties with budgets and shifting priorities, we could be short staffed into the near future. So, as we wait for these positions to be filled, refuge staff will continue to do what we do best—taking care of the amazing resource the refuge has to offer wildlife and the American public.

Now more than ever, we need and cherish the great gift of service that the Friends of Sherburne and refuge volunteers provide the refuge. Funding may waver over time, but the dedication and resilience of the Friends and volunteers is rock solid, and the refuge relies heavily upon their efforts and passion to further the mission of the U.S. Fish & Wildlife Service. Sherburne NWR is a truly wonderful place to visit, enjoy, and above all, share with new visitors!

In Search Of The Elusive Rusty Patched Bumble Bee



Continued from page 1

Wildlife Service (USFWS) biologists in all of Minnesota. His responsibility is to understand the relationship between the habitat of wild places and the wildlife that depend upon that habitat. His failure to find a rusty patched bee, he believes, in no way diminishes the value of his four-year effort to survey bumble bees at the refuge. He is certain his data—eventually—will aid the USFWS to protect and improve the habitat for what he believes to be the declining numbers of bumble bees in his region.

One bee that has been recognized as in decline is the rusty patched bumble bee, which was granted endangered status by the USFWS in January of 2017 under the U.S. Endangered Species Act.

Stumbling Upon The Bee!

Master Naturalist Bruce Galer had a sandy, rocky spot in his backyard where grass didn't grow well. The Elk River resident threw a handful of native plant seeds in the coarse mix and let it go, to become a bee haven, an interesting stop on his way to his vegetable garden. "I was walking by there one evening on my way to my vegetable garden... and I am always looking at the bees.

"I was walking through my backyard and I just kind of glanced over to look at the bees on the beebalm...and I just stopped. One is different. Hold on. Stop! There's the rusty patched! And I quick pulled out my phone and took a half dozen pictures.

"I never made it to my garden. I had to run back into the house and grab my regular digital camera. And when I came back I realized, there's more than one worker bee here! There were two workers and I was just amazed. It's a small area maybe 10 feet by 10 feet and here I had two examples of an endangered species in my yard!"

That was 2019. "I had the rusty patched in my backyard almost every day for about two weeks. And not since."

Galer is on the board of directors of the Friends of Sherburne, also a volunteer interpretive rover on the refuge's Wildlife Drive, and an associate and senior environmental scientist for an international consulting firm. Galer

began conducting bee surveys in 2017 as an independent volunteer project to complete his Master Naturalist requirements. That led him to the Minnesota Bee Atlas project to learn more about the distribution and diversity of native bees in Minnesota. His studies led him to survey public lands (not including the refuge) for bees in most of Sherburne County and also parts of Stearns and Wright for the Atlas project.

"The rusty patched bumble bee was a fairly common species 20 years ago," Galer explains, "and it disappeared over much of its historic range. It's a species that should and does occur in my backyard." But it has been four years since he last spotted a rusty patched bumble bee in that yard.

Four-year Refuge Bombus Survey

And during those same four years, Carlstrom was, too, in search of the rusty patched. "You can't really survey for one species of bumble bee," he admits. "You just have to go out and survey for all species, with the idea that you'll capture the one that you're looking for and that's really the point of this survey." In four years of surveys, he has recorded eleven different species of bumble bees on the refuge.

Because the rusty patched is an endangered species, its presence on the refuge would potentially alter some of the habitat management strategies, such as the use of prescribed fire.

"Bumble bees, especially hibernating queens, are susceptible to prescribed fire," says Carlstrom. "With respect to the rusty patched bumble bee, a later season burn would be better because by that point you've reduced the chance of the queen still being in hibernation.

"A queen will emerge, start gathering nectar and pollen, and then find a suitable nesting site for her colony. Then she'll start laying eggs. The queen is now sort of immobilized. Her role is purely to lay eggs, and she'll continue to build a colony with females as they harvest nectar and pollen and bring it back to the colony to feed the new larvae."



USFWS Biologist Cody Carlstrom

Surveying Bumble Bees

Carlstrom and Galer use similar (simple) techniques and tools in their bumble bee surveying: collection cups with lids, a cooler of ice, data sheets, a camera. Carlstrom hunts alone—although he may enlist volunteers in 2024 to expand his survey—and Galer is often with a couple of



Bruce Galer (above). Tubs of bees on ice (upper right) and a *Bombus fervidus* (golden northern bumble bee) warming itself to take flight following identification. Photos taken by or provided by Bruce Galer.

teammates.

Flowering forbs are essential. Find a patch busy with bees, scoop a bee into a cup, cover with lid, place in cooler, repeat until time is up. Bee surveyors use a protocol that has them surveying for a limited period to keep the results across surveys standard.

Carlstrom collects for 30 minutes with 14 cups, which often each contain a bee (or possibly a bee look-alike) when time's up. The biologist usually has no trouble distinguishing bees from other insects. However, identifying the specific species of bees may require close inspection, which is why the bee is cooled into a brief hibernation.

The species, gender, and flower they were harvesting and some weather and location-related information are recorded, and the bee-in-cup *sans* lid is set in the shade,

Rusty patched bumble bee gets endangered status in 2017

permitting the bee to warm slowly and fly away. No bees are harmed in the process of identification.

"It's not difficult to tell species and sex," says Galer. "Sometimes you have to just look closely at the head and it's kind of the position of the eyes or the size of the jaws for species. And on sex it's kind of straightforward, the back legs of the females have a concave surface where

it becomes the pollen basket. That's where all the pollen that they collect ends up, on their back legs. Males, their back legs are more straight. They don't have that concave surface. Most males have more hairs, typically yellowish hairs, on their face that sometimes looks like they have a mustache or beard."

Galer's a rusty patched bumble bee veteran, sighting the endangered species in his backyard and with teams that spotted the species at Crow Hassan Park Reserve in the Three Rivers Park District. His bumble bee photographs illustrate this story.

Carlstrom, if he captures a rusty patched bumble bee on the refuge, "would certainly take a photo of it. I don't take photos of every bee, but I would record a photo of a rusty patched. And I would report that observation to our Ecological Services office, and then we would start working on a recovery plan or at least working on a Section 7 ESA document that would talk about altering our management strategies specifically with prescribed fire and grazing to make sure that those two management techniques are not detrimental to the rusty patched population."

Carlstrom is willing to be labeled a bee geek. And he's not limiting his bee observations to the refuge. "Since I started the survey, I certainly have become more of a bee geek. If I'm out and about in in my personal life and I just happen to come across some bees on a flower somewhere, I have to bend down and take a look to see what they are."

So far, no rusty patched bees observed.



Supporters Fund Amphitheater

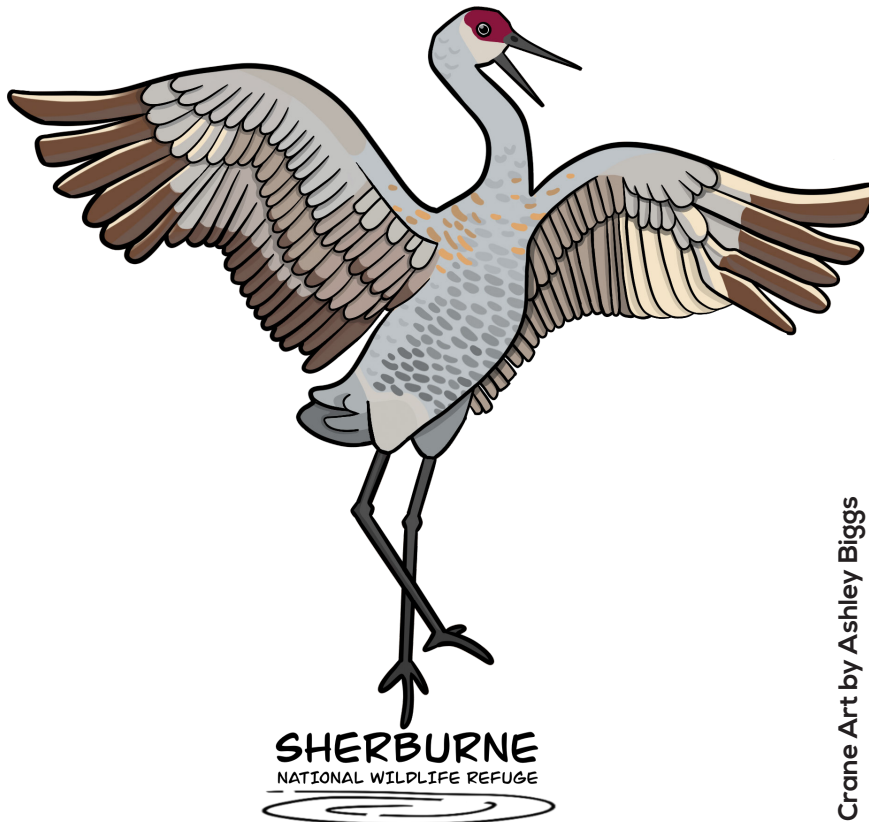
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and, between meetings, members have been talking with individuals, speaking to civic groups, calling on businesses, organizing a silent auction, fielding a Sandhill Celebration online fundraiser, and promoting Give to the Max Day. This special team, representing 8 communities surrounding the refuge, includes Leah Bronken, Diana Burlison, Steven Chesney, Sue Hix, Bill Kolbinger, Myrna Krueger, Helle Lukk, Carol Mertesdorf, John Riebel, BearPaw Shields, and Scott Suhsen. Thanks to all!

The Friends also want to thank Sherburne Refuge staff for their support in all aspects of the project. It all began 3½ years ago, and they have been there supporting the Friends at every step. We now look forward to working closely with them in the last phase of the project.

All the progress means that we are thinking about construction. The Friends are working with general contractor Terra Construction, whose staff have gathered bids and finalized estimates. Our plans are for construction in 2024.

In closing, our community includes all of YOU -- members, donors, refuge and Friends volunteers, refuge staff, refuge visitors, and students of all ages. As a community we share an excitement for nature and love of the refuge. So thank you to the entire Sherburne COMMUNITY! We couldn't do it without you. **You inspire us, and when the project is completed next year, it will be an achievement we can all celebrate.**



Crane Art by Ashley Biggs

But it's not time for a victory dance just yet

We still need your help to make our goal by year end!

Please renew, join, or make a gift by December 31.

- Give online at [ExploreSherburne.org/gowild](https://www.exploresherburne.org/gowild)
- Or use the enclosed stamped envelope to mail a check

THANK YOU FOR YOUR SUPPORT!

GO WILD!
AMPHITHEATER
CAMPAIGN

Community Supporters

Bald Eagle \$10,000 and up
Knife River

White-tailed Deer \$5,000-9,999

Crystal Cabinet Works
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Elk River Lions

Sandhill Crane \$1,000-4,999

Becker True Value Hardware
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Fairview Northland Medical Staff
First National Bank of Milaca
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Metal Craft Machine & Engineering
MissionBridge Wealth
Northstar Canoes
Sherburne State Bank
SRW Products
Uptown Offsale Liquor

Blanding's Turtle \$500-999

American Legion Post 147 Big Lake
Chuck Hartell Realty
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JT Construction of Elk River
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Vita Bella Ristorante Italiano
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Snowshoeing? Birding? Hunting?

Explore Our 30,000-Acre Refuge This Winter

Visitor Services

By **Jade Pederson**,
Visitor Services Specialist

It seems to be that time of year where I rarely see visitors in the office or out on the refuge. While the refuge has very exciting things to do in late fall and winter, I've found that people rarely know about them. Birdwatching, snowshoeing, nature immersion, hiking, bicycling, nature photography, fishing, and more are available for you to enjoy throughout the year!



Jade Pederson

Once the majority of the 30,700 refuge acres open to public access after Wildlife Sanctuary (March 1 – August 31) each fall, there is endless exploring to be done. Instead of hiking just the 3 trails or the Wildlife Drive, visitors are also able to hike on most of the service roads and on the interior of the refuge. The refuge service roads can also be enjoyed by bicycling, including the use of e-bikes, outside of Wildlife Sanctuary. This is a good way to get to areas of the refuge less visited by the public, for example, St. Francis Pool or Rice Lake.

If you are not up for a long bike ride, there are several areas of the refuge that are incredible and get little visitation, even though they are relatively simple to get to. For example, on County Road 16, there is a gate access that will get you to Carpenter Pool in less than a quarter mile! Or at the end of 255th Avenue NW, visitors can access the south spur and walk about a half-mile to see good examples of refuge restoration work.

For those hoping to stay in their vehicles, Brande Road and School House Road offer great opportunities to immerse in nature. Brande Road opens to vehicle use September 1 until winter closure, while School House Road is open year-round.

When snow makes its yearly appearance and causes the Wildlife Drive to close to vehicles, visitors are invited to cross-country ski or snowshoe. These winter activities can be done on the trails, Wildlife Drive, service roads, and off-trail throughout the cold season! Did you know that the refuge lends out snowshoes for free, daily use in the winter? You can check out snowshoes, kids' nature exploration backpacks, and binoculars at Refuge Headquarters to help with

your exploration.

Hunting is permitted at the refuge from September 1 to February 29, so please be sure to wear blaze orange if you are hunting or exploring in hunting areas. Although winter usually means that we are seeing less wildlife around, there are still plenty of reasons you should visit Sherburne National Wildlife Refuge. I hope that I will see you out here this winter – happy exploring!



Photographs by Bruce Ellingson



Scenes from the Oak Savanna Learning Center and Black Bear Trail: Late shadows on the snow in February, snowshoeing in January, and learning to identify animal tracks in March.

Friends of Sherburne Annual Meeting

The Friends of Sherburne Annual Meeting will begin at 6:30 p.m. Thursday, January 11, 2024 with a hybrid format.

All members are invited to the hybrid Annual Meeting (both in-person and Zoom), at which the Friends and refuge staff will review 2023 accomplishments as well as 2024 plans and proposed 2024 budget. We will start with social time at 6:30pm, business meeting to convene at 6:45pm.

In-Person Meeting

Oak Savanna Learning Center
16797 289th Ave NW Zimmerman, MN 55398

Zoom Meeting Link

<https://us04web.zoom.us/j/2843006080?pwd=MEhJd-1JNaWdrMTdqWVRMQXVmaWs2QT09>

Call in only: 1 (408) 638 0968

Meeting ID: 284 300 6080

Participant number, press #

Passcode: 816213

Agenda will include: Introductions, 2023 Friends Accomplishments and Reports, What's Coming in 2024 – including the Amphitheater, Vote to Approve 2024 Budget, Refuge Update, Election of Board Members

The complete 2024 Meeting Agenda and unapproved minutes from the 2023 Annual Meeting are available online at: ExploreSherburne.org/About-Friends



Posing with USFWS mascot Puddles at the 2023 Wildlife Festival were mom Britani Jelen with baby Josephine on her back and daughter Madelyn (4) in white tee. Also studying wildlife is friend Raelynn Flood (4).

Upcoming Events

With COVID numbers continuing at acceptable levels, things are operating at a “new normal” at the refuge. Events are again being planned, student visits have been scheduled, and refuge facilities are open, though Refuge Headquarters is generally closed on Fridays and periodically at other times due to staffing shortages.

Stay tuned for information about refuge events and updates:

- **Friends Facebook page**, facebook.com/SherburneRefugeFans
- **Friends e-news, the *Prairie Insider***. *Not a subscriber yet?* Sign up by typing your email address in the space at the bottom of the Friends website home page, ExploreSherburne.org
- **Refuge website**, fws.gov/refuge/sherburne

Shop at the Eagle’s Nest Nature Store!

- In-person at the Oak Savanna Learning Center, Thursdays and Saturdays, 10:00 am – 2:00 pm (Store closed January & February)
- Online at <https://sherburneeaglesneststore.com/>

Sherburne Photography Club

- Meeting and activity plans available on the club’s Facebook page, facebook.com/groups/SherburnePhotoClub