

PRAIRIE'S EDGE

A NEWSLETTER FROM FRIENDS OF SHERBURNE NATIONAL WILDLIFE REFUGE

WINTER 2022

A Bird in the Hand is . . . Their Objective

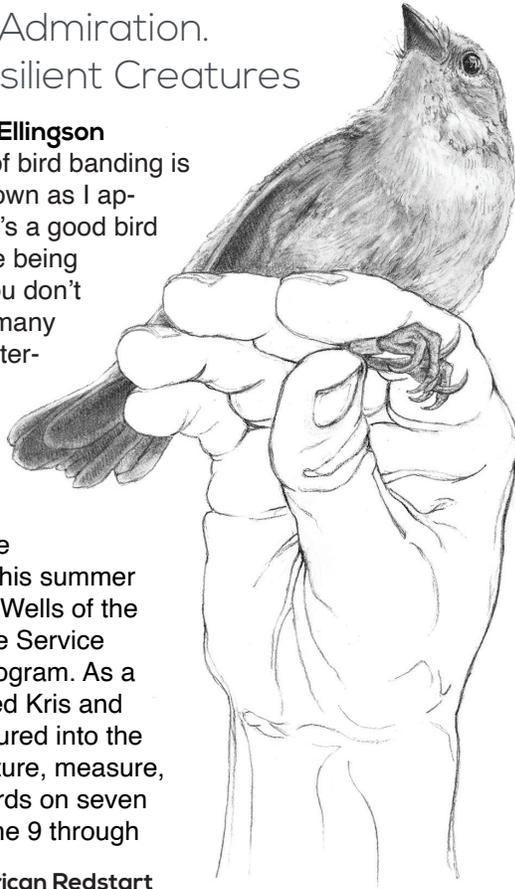
Excitement. Awe. Admiration.
For Fragile yet Resilient Creatures

By Kris Spaeth and Bruce Ellingson

"The biggest thrill I get out of bird banding is the anticipation of the unknown as I approach a net. Obviously, if it's a good bird day you're anticipating there being individuals in the net, but you don't know what species or how many or if any of the birds have interesting characteristics."

An all-around exciting experience is how Kris Spaeth, Sherburne National Wildlife Refuge Bio-Tech, described her time bird banding on the refuge this summer with Andy Forbes and Mike Wells of the United States Fish & Wildlife Service (USFWS) Migratory Bird Program. As a Prairie's Edge staffer, I joined Kris and the team twice as they ventured into the woods on the refuge to capture, measure, weigh, inspect, and band birds on seven different occasions from June 9 through

American Redstart



August 4.

Kris and I photographed the process and wrote this article. We talked afterward about the fragile, feathery creatures we met. I asked Kris how it felt to hold a bird in her hand.

"I love that you ask the question," said Kris. "That's what this whole experience has been about. It made me think about all the different feelings that I have had while banding. First and foremost, it's excitement. Then admiration. You are admiring this bird that you've always watched from a distance, seen flying over, singing, and now you actually have it in your hand! Then that admiration changes into a sense of awe because you're getting to handle and hold something that's out of reach."



Kris Spaeth

How does one get ahold of something that is out of reach? Well, it turns out that these biologists have just the tool for the job. **Continued on page 4**

Drawing by Kevin Johnson

Amphitheater

A SPECIAL PLACE, A UNIQUE VISION!

By Sue Hix

The past couple of COVID years have been challenging for refuge volunteers and Friends with the refuge unable to host its traditional annual events and activities. However, as people visited the refuge in unprecedented numbers to enjoy fresh air and a chance to gather safely outdoors, the Friends of Sherburne decided it was time to pursue a project we had long envisioned: To build an amphitheater at the Learning Center site and **Continued on page 6**



Art by Damon Farber Landscape Architects helps us imagine the amphitheater. Want to give to the Go Wild! Amphitheater Campaign? Gifts made through January 15 will be matched up to \$40,000!

Have Confidence in Giving Your Gifts

Protecting Your Gifts and Your Privacy

By Steve Chesney, President

In previous issues I discussed reasons to give to the Friends of Sherburne and ways to give, both casual and formal. Both topics are even more timely now as we embark on a major campaign for a new enhancement to the refuge and ask our loyal members and supporters to dig a little deeper. As you consider your year-end gift and support for the amphitheater project, you can be confident that your gifts will be used as you intended and that your privacy will be protected.

I was reminded of these technical considerations as I worked with refuge manager Steve Karel to renew our Friends Partnership Agreement with the U.S. Fish and Wildlife Service (USFWS). The Friends are not just a “fan club” for the refuge. We are bound by legal agreements that both provide us with better opportunities to support the refuge and ensure that we do this in a legal and ethical manner. This Partnership Agreement must be renewed every 5 years and updated to incorporate any changes in USFWS and government policies and regulations. I’m pleased to report that our renewal document is drafted and awaiting final approval.

Before we could begin our “Go Wild!” campaign to raise funds for an amphitheater, the Friends were also required to draft a separate agreement with the USFWS because we planned to raise more than \$25,000. This extra agreement specifies details such as how much we intend to raise,



Steve Chesney

a time frame for the campaign, how we will recognize donors and account for donated funds, and, finally, how we will spend those funds. We are pleased that this agreement was approved and signed earlier this year. Further, we have an ongoing agreement with the Initiative Foundation, Little Falls, to hold and manage the Friends endowment fund and to assist us during our campaign with special transactions—for example, 3-year pledges and non-cash gifts like stock. In short, we are ready to go!

Of course, in addition to the above, the Friends are committed to maintain our status as a Minnesota non-profit organization and to comply with IRS 501(c)(3) provisions so that your donations are tax-deductible to the extent allowed by law. We also maintain appropriate insurance coverage and provide periodic reports to refuge staff on our activities and financial transactions. There are eyes on our work and your donations to make sure they are used as intended on the refuge.

Granted, all of this requires some paperwork, but from our exclusive partnership with the refuge we gain the use of refuge facilities for our Eagle’s Nest Nature Store, our meetings, and various other activities. Refuge staff also provide us with insight into their priorities and funding needs so that we can prioritize your donations. For the Friends board members and me, this has been an effective and rewarding partnership.

For more about our mission and how to support the Friends of Sherburne, see our website: ExploreSherburne.org. Once there, check the “About Friends,” “Support,” and “Donate” pages. You may also contact me with any questions at: FriendsOfSherburne@gmail.com

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Donate or Join Friends of Sherburne Online at 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



Visitor Services

Resilience: A Key Ingredient for Festival Planning

By Jade Pederson,
Visitor Services Corpsmember

Adaptability and resilience are the two qualities I admire most about nature. Each day, shifting weather and human influences test the ability of wildlife to thrive. And each day, our natural world proves the better by adapting to its ever-changing environments.

Whether a grey squirrel starts to stock up for the upcoming cold weather or a sandhill crane gleans corn in harvested fields, wildlife will find a way to succeed despite challenges. In my opinion, that is a reason to celebrate, and the 27th Annual Wildlife Festival proved to be a great opportunity for me



Jade Pederson



Seven-year-old Skylar Severson prepares to inspect dragonflies.

to adapt—and, eventually, to celebrate as well!

Since refuge management wasn't sure what COVID numbers would look like this fall, we hesitated to make a final decision to schedule a festival until the last minute. Finally, in early August, we set October 1st as the date for the Wildlife Festival, the first since 2019!

At that point, my work became focused mostly on planning the event. With no prior experience of planning at this level, I vastly underestimated what it would entail. From contacting partners regarding their booths and coordinating volunteer roles, to making social media posts and creating maps, to remembering all the small details like having enough pens, I realized that I would need to lean on being adaptable and resilient during the planning process, just like the wildlife for which I am a steward. And despite the challenges, we had a successful Wildlife Festival! It was a perfect event, not only to celebrate our great refuge, but also to celebrate all the wildlife that are excellent role models for adaptability and resilience.

Thank you to all the staff, Friends, volunteers, and partners who helped at the 27th Annual Wildlife Festival. It wouldn't have been possible without you!



Rowan, Everly, and Luna Heavirland imagine themselves captaining the MarshMaster for an expedition to the wetlands.



Puddles, the USFWS mascot, greets Eli, Ella, Janelle, and Paul Seefeld.



Sawyer Paulson and Jayce Jorgenson spread their wings. **PAGE 3**



Yellow warbler



Chestnut-sided warbler



Rose-breasted grosbeak



Indigo bunting

The Wonder of Bird Banding

Continued from page 1

nets! These fine, black mesh nets are placed in travel lanes between trees and bushes, where birds tend to be moving. Vegetation makes the nets less obvious. Birds that come into contact with the nets become entangled. Trained bird banders then extract, process, and release the birds unharmed.

The bird banding at the refuge the past two summers is but one team's participation in the nation-wide MAPS Program. MAPS stands for Monitoring Avian Productivity and Survivorship. According to the MAPS website, the program is an effort to monitor the breeding, movement, and survival success of birds at a variety of life-stages.

Captured birds are banded with an aluminum United States Geological Survey (USGS) band, and while they have them in the hand, the bird-banding team records their age, sex, and condition. "We captured a total of 164



Digital and traditional bird-weighing scales.

individuals this year," says Andy Forbes of the USFWS Migratory Bird Program. Thirty-one of those were recaptures, birds that were already banded during this or past years. Among the common species captured thus far are Gray Catbirds, Song Sparrows, American Redstarts, Common Yellowthroats, Chestnut-sided Warblers, and Golden-winged Warblers. In all, 40 species of birds have been banded at Sherburne NWR's MAPS station.

Forbes reports they noticed "that the timing of the breeding season this year was very late compared to 'normal,' and it didn't look like it was a very good year for nesting for many species, especially many warblers." Compared to 2021, a lot fewer juveniles were captured in nets this year. These observations are just a small piece of the

information that the bird-banding team collects throughout the banding season.

Forbes notes that banding birds allows collection of information in ways other bird survey techniques do not. "Having birds in the hand allows us to get an idea of their condition, how many young were produced this year vs. others, as well as being able to track bird movements through band recoveries."

The Sherburne National Wildlife Refuge banding site is one of many MAPS stations across the continent.

According to the MAPS website, "Since 1989, more than 1,200 MAPS stations spread across nearly every state and Canadian province have collected more than 2.5 million bird capture records."

For refuge lovers interested in more information or to find information on how you could participate in the MAPS effort, see the MAPS program website: birdpop.org/pages/maps.php

And for all the data collected, it's the intimacy of contact that is most memorable to many bird banders, including Kris. "You are holding this bird and its life is in your hands. It makes me feel very fortunate because there are people who love birds around the region, around the world, and they're always watching them through binoculars or just observing them in general. I feel fortunate that I'm one of those people who get to handle them, to interact with them up close.

"Having them in my hand, I learned that birds are fragile and resilient. Tough, to survive the whims of weather and predators. I felt—what did Rachel Carson say?—'a sense of wonder.'"



Measuring a hairy woodpecker wing.



A catbird in the palm of Kris' hand.



Andy Forbes of the USFWS Migratory Bird Program retrieves a mist net after a morning of bird banding.



Meticulously extracting a patient catbird from the mist net.



Mike Wells of the Migratory Bird Program and Allison Salas, with the Wildlife and Sport Fish Restoration Program, process a catbird.



A catbird receives a USGS aluminum band, valuable should the bird be re-captured or found dead.

Photographs by Kris Spaeth and Bruce Ellingson

A Special Place OUTSIDE!

Continued from page 1

greatly increase opportunities to offer both formal programs and a unique place for casual gatherings in nature.

It's easy to describe the goal of the Friends of Sherburne "Go Wild! Amphitheater Campaign." Building an amphitheater is a "concrete" project—literally. A specific place and specific structure are involved. Compare that to our previous "Be Wild! Campaign for Youth Nature Education," which furnished the Oak Savanna Learning Center; enhanced the site with trails, a floating dock, and signage; and provided learning materials and equipment.

It's also easy to visit the amphitheater site and imagine the structure tucked into the hillside adjacent to the Learning Center. Imagine, too, the potential benefits of gathering without the restrictions of roof and walls—for example, the chance to view a bald eagle soaring overhead or the flyover of a half-dozen trumpeter swans, so close that you can hear the beating of their wings. Envision a space with seating for at least 100 people, though I'm pretty sure that more than 100 second-graders could be comfortable in the amphitheater, even with their nature journals and pencils. And rest assured that the amphitheater will be accessible if you have a stroller for the kids or grandkids or if you or a family member uses a walker, wheelchair, or walking stick.

"Maintenance?" you ask? To ensure easy maintenance for the long term, the concrete construction will minimize opportunities for biting insects to find places for nests, and the crushed granite access trails and the native plantings around the structure won't require mowing. Plus the structure won't impede the view as you walk along the trail above it or enjoy the view from inside the Learning Center classroom.

To my mind, these physical features, though important, pale in

comparison to the benefits the amphitheater will provide to refuge visitors. From a purely practical standpoint, presentations at events like the fall Wildlife Festival can take place outside in the fresh air and with more space and better sight lines than the crowded classroom provides. The amphitheater will hold more people—more comfortably—than the classroom, and the view, encompassing wetlands, oak savanna, and prairie, is hard to beat.

Yet there's so much more to envision than the benefits of the amphitheater during refuge events. I'm thinking about the other 350 or so days of the year. Since the 2016 ribbon cutting at the Oak Savanna

"Envision a space
with seating for at
least 100 people."

Learning Center, use of the building and adjacent trail system has grown steadily. The completion of trail grading and surfacing, addition of signage and turn lanes from County Road 9, and paving of the access road and parking lot—not to mention the open gate—have made the Learning Center trails and kiosk an accessible and popular destination.

As a frequent visitor to the refuge, I've seen more and more cars appearing in the Learning Center parking lot with folks arriving as if on schedule to walk their dogs; families unloading strollers, coming to explore; people stopping by to pick up maps and brochures at the kiosk. I've chatted with visitors from the Twin Cities, neighboring states, and foreign countries. I've welcomed and worked with school students; scout groups; nature store shoppers; locals stopping by for some exercise; and members of conservation, hunting, and civic groups who have come to conduct business and learn more about the refuge.

Why would all of these individuals and groups care about or use an amphitheater? The answers are many and seem apparent to me.

First things first: The Learning Center is not always open, but men's and women's restrooms are readily accessible any time on the south side of the building—no need to get into the building for a comfort break. Beyond that, how about the convenience of meeting up with your friends, family, or birding group partway down the hillside, out of the wind and with a great view to enjoy while waiting? Better yet, for visiting students, there's the chance to convene before your lesson in the outdoor classroom to determine the objectives for your nature exploring and then to meet again afterward to share your discoveries and questions. Or maybe you're just meeting up with friends and would like a place to relax for a chat and snack before or after your hike. How about a good spot for some solitude or a sunset photo? Or a venue for scouts to gather to get organized before heading out to fulfill badge requirements? I could continue but think you get the idea.

"Ah," you may say. "But what about Minnesota weather? The amphitheater is going to be OUTSIDE!" "Yep, that's the idea!" I would reply. I can assure you that I've seen tracks on the trails during all seasons of the year, and besides coyote, deer, and rodent tracks, there are also plenty of hiking boot, sneaker, and even snowshoe tracks, depending on the season.

So here's the bottom line: Will you consider digging a little deeper this year-end to support the amphitheater campaign? Will you say "Yes!" when invited to contribute to this special project of the Friends? Enough Friends have already said "Yes!" that we are nearly halfway to our goal of funding the amphitheater. Will you join us to get us the rest of the way to funding this special outdoor gathering place? Need some incentive? **To inspire you, Friends of Sherburne board members have committed \$40,000 to match, dollar for dollar, all gifts made through January 15. Are you in now? We hope so!**

GO WILD!
AMPHITHEATER
CAMPAIGN

Grazing: Real Cattle, Virtual Fences

INSIDE THE REFUGE

by Steve Karel, Project Leader

Hello, Friends,

With another growing season behind us, we are again excited about the fall migration and the thousands of waterfowl and sandhill cranes that will be using the refuge. This is the time of year when we evaluate the successes of the season's management actions based on wildlife response and use of specific habitats. Our primary management tools consist of prescribed (RX) fire, water management, and grazing. Prescribed fire and water management are tools that require cooperation from the weather to be successful. Since weather conditions are unpredictable from year to year, we often have varied results from these tools. On the other hand, the grazing program is the management tool that gives us better control and a better chance for success. As a matter of fact, by

controlling cattle movement on the refuge with a new experimental virtual fencing project this year, we had really good control!

Virtual fencing is a new technology similar to the invisible fence used to keep dogs in their yards; however, it functions in a slightly different manner. The cows all wear global positioning system (GPS) collars that can provide an audible tone and/or a shock if cattle attempt to leave the invisible enclosure. The animals stay within the boundaries of a designated grazing paddock (enclosure) by receiving an audible tone once they get close to the perimeter. If they continue in that



Steve Karel

direction, they receive a shock to readjust their movements. It appears that the cattle make a connection between the audible signal and the shock very quickly. If an animal continues through the invisible barrier, there is no "penalty" for returning to the herd, so the animal can easily regain access to the enclosure.

There are several advantages for using virtual fencing technology on the refuge. For example, with a traditional electric fence enclosure, should cattle escape, it is often easy to lose



Cattle grazing on the refuge wear GPS collars, which provide an audible tone and/or a shock if they attempt to leave their invisible enclosure. A radio transmitter from a mobile tower transmits the signal.

them for weeks or even months in the heavy brush and wooded areas. By comparison, the GPS collars allow the grazing manager to track and locate each animal individually, and at all times. This not only allows the manager to find a lost animal, but also to see where each animal is spending time in order to learn its grazing preferences and habits.

Another advantage is the ability to set up a grazing paddock in a way that allows cattle to migrate more freely, mimicking a more natural grazing pattern traditionally seen with bison and elk. Without having to follow straight-lined temporary electric fences, the animals can graze areas that typically would have been fenced off due to the challenges of building temporary fence around trees and heavy brush. The grazing manager can set up polygon enclosures to direct the cattle to specific areas and therefore target vegetation that requires more intense grazing.

Finally, the virtual fencing option

significantly reduces labor and material expense that comes with constructing temporary fences or mowing routes for fence construction through the refuge. We still prefer to have a good, barbed-wire perimeter fence to help ensure cattle don't enter roadways and as a safety backup should the collars malfunction. We understand that with any technology involving electronics and batteries, there is always a chance for a failure, so we like to have other safety mechanisms in place.

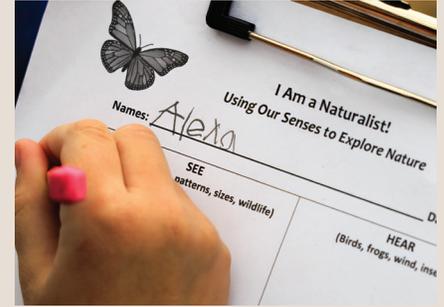


Photos by Myrna Krueger

Vence, the product being tested on the refuge, uses a radio transmitter from a tower that transmits a signal to the collar. The tower is mounted on a trailer, so it is mobile and can be moved around the refuge easily. The power source is solar batteries. The paddocks are designed on a computer following refuge management recommendations, and the virtual paddocks go into effect within an hour of being "built."

This virtual fencing project is possible with support from the Sustainable Farming Association and in conjunction with an ongoing adaptive grazing silvopasture research project through the University of Minnesota. These two research projects have significantly improved our understanding and ability to better manage oak savanna habitat by using grazing animals. We hope to see this new technology continue in future years.

Stay Wild, My Friends!



An (Educational) Woodland Field Trip

In mid-October these Zimmerman second-graders became very excited young naturalists during their visit to the refuge—for some, their first field trip ever. They filled their journal sheets with notes and sketches to record their many discoveries, including a yellow spider, a tiny frog, and even a grape leaf big enough to don as a hat. Refuge volunteers Nancy Leider and Sue Hix led this group and their teacher to explore the autumn woods. They, like the other nature education volunteers, were as happy to see students back for a fall visit as the students were to be there.

Photographs by Bruce Ellingson

UPCOMING EVENTS

As of this writing in late October, COVID remains at acceptable levels and refuge facilities are open, though Refuge Headquarters may be temporarily closed on Fridays and may also experience periodic closures due to staffing shortages.

Depending on weather and COVID levels, a February snowshoe hike may be possible. Stay tuned for information about refuge events and updates:

- Friends Facebook page, [facebook.com/SherburneRefugeFans](https://www.facebook.com/SherburneRefugeFans)
- Friends e-news, the Prairie Insider. Sign up by typing your email address in the space at the bottom of the Friends website home page, [ExploreSherburne.org](https://www.ExploreSherburne.org)
- Refuge website, [fws.gov/refuge/sherburne](https://www.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 [SherburneEaglesNestStore.com](https://www.SherburneEaglesNestStore.com)

Sherburne Photography Club

- Meeting and activity plans available on the club's Facebook page, [facebook.com/groups/SherburnePhotoClub](https://www.facebook.com/groups/SherburnePhotoClub)

2023 Annual Meeting Notice

Friends of Sherburne Annual Meeting is Thursday, January 12, 2023, at 6:30 pm.

All members are invited to the hybrid Annual Meeting (both in-person and Zoom). Friends and refuge staff will review 2022 accomplishments as well as 2023 plans and proposed 2023 budget. Social time at 6:30 pm, business meeting to convene at 6:45 pm.

In-person meeting will be at the Oak Savanna Learning Center, 16797 289th Ave NW Zimmerman, MN.

Zoom meeting Link:

<https://us04web.zoom.us/j/2843006080?pwd=MEhJd1JNaWdrMTdqWVRMQXVmaWs2QT09>

- Call in only: 1 (408) 638 0968
- Meeting ID: 284 300 6080
- Participant number, press #
- Passcode: 816213

Agenda will include: Introductions, 2022 Friends Accomplishments and Reports, What's Coming in 2023 – including the Go Wild! Campaign, Vote to Approve 2023 Budget, Refuge Update, Election of Board Members

Complete 2023 Meeting Agenda and unapproved minutes from the 2022 Annual Meeting are available online at: [ExploreSherburne.org/AboutFriends](https://www.ExploreSherburne.org/AboutFriends)