

Central Minnesota Audubon
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NEWSLETTER OF THE CENTRAL MINNESOTA AUDUBON SOCIETY

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President's Letter... by Dan Kneip Cute Cats vs. Feral Felines

On a recent trip to San Juan, Puerto Rico, we noticed the large number of cats prowling the streets. The locals seem to care a lot about the cats and set out dishes with water and food. A quick on-line search shows that cats have been an issue there for quite some time as per the AP dispatch of 2 Nov 2022. "Cats have long walked through the cobblestone streets of Puerto Rico's historic district, stopping for the occasional pat on the head as delighted tourists and residents snap pictures and feed them, but officials say their population has grown so much that the U.S. National Park Service is seeking to implement a "free-ranging cat management plan" that considers options including removing the animals".

The National Park Service in San Juan has held several open house sessions where opposition to cat removal seems to run high. Cats are cute and have been domesticated for a long time or as some would say, cats have successfully trained humans to be their host species. But cats have also successfully adapted as feral or free-ranging populations and recent studies by the Smithsonian Institution and the US Fish and Wildlife Service indicate that domestic cats kill about 2.4 billion birds each year in the lower 48 states.

These studies from 2020 indicated numbers far higher-and probably more accurate-than previous figures, and likely exceeds all other sources of human-related losses making it a major bird conservation concern. The USA has a lot of cats-about 85 million owned and perhaps 55 million non-owned, or feral, cats.

These studies pointed to some ways to reduce bird predation by cats. Cats kill birds in proportion to how much time they spend outdoors; keeping your cat indoors reduces predation. Feeding cats has no effect on their predation rate; setting out food for feral cats is ineffective. Feral cats are responsible for 70% of the killing, so taking unwanted cats to the animal shelter is much better than abandoning them on the roadside. The studies also concluded that programs to trap, neuter, and return feral cats to the wild fail to help reduce their numbers. This is largely because far too small a fraction of the feral population gets treated.

The feral cat population is a concern for bird lovers all over, not just in San Juan. For more information on this issue go to: <https://abc-birds.org/program/cats-indoors/cats-and-birds/> or <https://blog.nwf.org/2017/09/keeping-birds-safe-from-outdoor-cats>

CMAS has promoted several programs this year. We continue to provide subscriptions for Audubon Adventures for local schools. We have sent support letters to cities promoting the Minnesota Audubon Lights Out program. Our latest project, spear-headed by Hank Schreifels, is to promote healthy lawns and pollinators through a No Mow May program. We also have two more presentations for our 2022/2023 speaker program. Please join us in supporting these programs with your suggestions, ideas, and concerns. If you wish to participate in a more direct manner, just let us know.

We continue to request those who have not done so to provide their e-mails so that we can update our CMAS roster and distribute a greater number of Newsletters electronically.

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calendar



Wednesday, March 15, 2023
CMAS Meeting
7 p.m.

Location: Unitarian Universalist Church
Speaker: Matt Julius, SCSU

Topic: Research regarding Little Rock Lake, Benton County



Wednesday, April 19, 2023
CMAS Meeting
7 p.m.

Location: Unitarian Universalist Church
Speaker: Brian Dirks, DNR Wildlife Biologist

Topic: Golden Eagle Project & Camp Ripley Wildlife Research



Friday, April 21, 2023
Woodcock Outing, Sand Prairie Wildlife Management Area
6:30 p.m.
(see below)



Registration
required

Saturday, April 22, 2023
Bluebird Recovery Program Expo
9 a.m. - 4 p.m.
Little Falls High School, 1001 5th Ave SE



Woodcock Outing, Friday, April 21, 2023



Join fellow nature lovers in an outing to Sand Prairie Wildlife Management Area on the evening of Friday, April 21st. Plan on meeting at 6:30 at the kiosk near the highway. We will walk to the observation deck overlooking the marsh. On the way to the marsh, we can look for early spring migrants like meadowlarks and fox sparrows on the extensive prairie area. At the marsh, we should expect to see the full gamut of waterfowl (teal, widgeon, mallards, ring-necked ducks, mergansers and woad ducks) and other marsh dwellers like sandhill cranes and northern harriers. If you wish to stay until dark, we will hopefully see the courtship display of the American Woodcock.

The walk to the marsh is about 1.5 miles round trip. Even if it seems warm, consider bringing a heavy jacket. The observation deck can be surprisingly cold in mid-April. Bring binoculars and a bird guide.

Sand Prairie WMA is located south of St. Cloud on Hwy 10 across from the reformatory. Look for the brown signs on Hwy 10.

Genomic Approaches to Plant Conservation: A Case Study in PA and Plans for MN



Angela McDonnell, PhD (SCSU) came to share her research on using DNA studies to help protect and conserve rare plants. The case study in Pennsylvania centered on two disjunct populations of *Erigenia bulbosa* (Harbinger of Spring), an early spring ephemeral plant in the Apiaceae family.

Erigenia bulbosa is present from February through April and can be found in mesic woodlands (within its range). It has vegetative growth from a small tuber and first flowers at 6 - 7 years of age. It is likely pollinated by bees, as the anthers and ovules are ready at different times. In North America its range barely reaches the southern great plains and barely into Wisconsin, but Harbinger of Spring is centered in the midwest (from Oklahoma/Kansas to Pennsylvania/New York).

The Pennsylvania (PA) populations are primarily in the west Allegheny Plateau. One population in western PA has approximately 50,000 plants and the other (in east PA) has about 2,200. Settlement and a strong agricultural presence near rivers is a management concern. From 1988 - 2007, *Erigenia bulbosa* was listed as Threatened in Pennsylvania. After that, it was just listed as rare. Thanks to a 2016 grant, a study found that the populations are stable. The population in the east is isolated and should be a higher priority for protection.

Angela shared that range edges are unique. Edge populations are usually small, isolated, and fragmented which decreases gene flow. It is, therefore, important to track colonization.

For Angela's study, she sampled the populations at eight sites, five in the west and three in the east. She collected 10 - 20 specimens randomly throughout the population at each site. The leaves were dried on a dry silica gel. Then DNA was extracted and digested using an enzyme. Finally, genotyping by sequencing (GBS) was used to compare the DNA sequences across the individuals. The DNA was sequenced, sorted, and assembled using ipyrad software.

The DNA extraction was largely successful. Angela had over 14,350 variable DNA sites for 118 individuals in the final set. She found that the east and west populations are very different from each other. Low heterozygosity suggests a high level of inbreeding. All of the populations deviated significantly from heterozygosity.

Population structure plots were created. The populations were highly structured and largely distinct. While they have some similar DNA, some populations have more distinct individuals. The populations in the east are more closely related to each other. Angela was able to show that the distance disjunction has resulted in genetic distinction (differentiation). There is no evidence of current gene flow between the east and west populations. They are separated by ridges and valleys. Known threats along the Susquehanna River valley include a dammed river, buried floodplains, and development pressure. *Erigenia bulbosa* will be reassessed in 2022. It will likely be listed as one unit and Threatened statewide. Angela noted it will likely be a similar situation in other edge states.

In Minnesota, there are 309 species of plants that currently have the potential of Federal or State concern. Of these plants, Angela has selected Cowbane (*Oxypolis* sp.) and Wild Quinine (*Parthenium* sp.) to study first. She feels that she should be able to sample from established populations and replicate her process here to help guide conservation and preservation decisions.



Looking for ways to make a difference?

Donations are welcome for our fund to assist with continuing to print the newsletter, bring quality speakers to the meetings, or contribute to Audubon Adventures. If you choose to help out, please make out a check to Central MN Audubon Society (CMAS) and send it to our Treasurer, Kathy Doyle. Her address is: 110 17th Ave. SE, St. Joseph, MN, 56374. It would be helpful for us if you identify where you want your donation to go (regarding the budget) or whether it is your local membership. THANK YOU SO MUCH!!

A HUGE thank you goes out to Kenneth Bachofer for a generous donation to CMAS! Every donation is SO appreciated!



No Mow May is a voluntary program that CMAS has encouraged 30 local cities in Sherburne, Benton, and Stearns Counties to adopt a resolution to participate in for supporting pollinator habitat at a crucial time (when they are first emerging from over wintering). Some cities have ordinances that require lawns to be mown before the vegetation gets to a certain height. Adopting a resolution would allow residents to participate without fear of enforcement of city ordinances.

Hank and Lisa Schreifels put together information and contacted each of the cities' administrators to encourage participation with other cities in Minnesota that have already joined the movement. Hank noted that many administrators had never heard of No Mow May and the information was well received.

Members can help by contacting City Council people to encourage participation or by joining in protecting habitat through not mowing in May. Perhaps consider converting a portion of your yard to "no mow" areas entirely, with early blooming flowers and/or shrubs. Less yard work equals more free time and happier, healthier pollinators... a win-win scenario!



Hey everybody! We're looking for donations for helping to bring Audubon Adventures kits to teachers in our service area! A full kit costs \$45.95 but any donation helps us to serve our communities (and help kids learn about nature, climate, and of course BIRDS)!



Rehabber Reflections by Linda Peck



Bird Banding

Bird banding has for centuries been a valuable tool in the study and conservation of many bird species. Information gathered from band returns includes how long birds live, data as regards the bird's life and how far it travels. The chances of getting a band return report is very low and is increasingly rare the further the bird travels from the release site.

Bird banders are a select group of people and include university researchers as well as state and federal agencies. To apply for permits, one must provide the following: skill in handling birds; explain why they need to band birds as part of their research; and state where the banding will take place. The Bird Banding Lab, part of the U.S. Geological Survey, is in charge of issuing permits.

During my early years as a rehabber (1980-1990) many of the birds I rehabilitated were banded when released. Unfortunately, in later years rehabbed birds were not allowed to be banded. Over these years I received two band returns. Sadly this meant that the bird was dead. But for the rehabber, it can indicate success.

The first band return was from a red-tailed hawk I had cared for and released from Rockville, MN. The band was recovered from this hawk three years later in New Ulm, MN. The second band return involved a kestrel also released from Rockville. This band was recovered five years later in Shreveport, Louisiana.

Most interesting was a young great horned owl. This owl was also banded and released in Rockville. That winter, Minnesota was blessed with lots of deep snow, a very challenging situation for a young owl. We noticed that the pigeons in the hayloft of our barn were often times "frozen" in place. Why?

Then we saw why. A great horned owl was in the hayloft. With binoculars, we could see that it was banded. When we banded birds, we put the bands on the opposite foot from those put on by the USFWS and DNR. It was our owl! Thankfully, this time we got a band return without having a dead bird. This owl survived its first winter feasting on pigeons.

Hey there... CMAS is now on Facebook! Follow us at <https://www.facebook.com/centralminnaudubonchapter/> (no hyphen). Please also forward your photos of birds and birding to the site. Jonathan Fribley and Dan Kneip are the moderators of the site.

Local Membership Available: Some CMAS members may wish to only belong to and support our local Audubon Society, without belonging to National Audubon and receiving Audubon magazine. This option is available at only \$20 per year and local members do receive our Green-Backed Gazette. Please let Kathy know if you want this option. Thank you!