Central Minnesota Audubon 212 17th Ave. S

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Green-Backed Gazette

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President's Note, by Dan Kneip

Audubon Upper Mississippi River, the regional office of the National Audubon Society responsible for Minnesota, Iowa, and Missouri, has chosen its priorities for the MN legislative session with Central Minnesota Chapter supporting all, as per the list below:

- · ENRTF appropriations/process integrity;
- · Outdoor Heritage Fund appropriations/process integrity;
- Promote native plants and trees;
- · Reduce chloride and other contaminants in MN water;
- · Support the manufacture, sale, and use of non-toxic fishing tackle;
- · Reduce neonicotinoids in the environment;
- · Powering Up Pollinators license plate to support MN's Habitat Friendly Solar Program;
- · Efforts to address aquatic and terrestrial invasive species; and
- Support bird-friendly budget and bonding requests

Last September, CMAS embarked on a project to provide birding packs for children to the local community. We obtained a funding grant from the St. Cloud Optimists Club and have now purchased binoculars, guidebooks, and a sling pack. Great River Regional Library already had several birding kits as their "Try it Yourself Kits." They suggested that we provide one more kit and enhance the other kits with child-appropriate binoculars.

We have completed the requested donation to GRRL, and are now prepping ten additional kits, some will be placed with the Avon Hills Folk School, and some will be placed with Stearns County Parks at Quarry Park in St. Cloud. Thank you to all who have contributed to this project. Please spread the word to all your friends and neighbors, let us get some use out of these birding kits and open the world of birding to more children.

CMAS is about to launch its new web page. This will allow more frequent updates on what is happening in our organization. Dates and times for our outings and events will be posted. Newsletters, both current and past back to January 2020, will be available online, as well as board meeting minutes. We are busy with the final review and hope to launch the site by May. We are still looking for bird photos from CMAS members. If you have some photos that you would like to share, please forward them to us at centralmnaudubon@gmail.com. Please list your name, date of photo and location. We are interested in photos from the central Minnesota region. If anyone has a photo of a Green Heron (the bird in our logo) please provide it to us. Be on the watch for the launching of our web page at https://centralmnaudubon.org/

CMAS will no longer be mailing printed newsletters after November 2025. At present only about 50% of the CMAS members are receiving their newsletters by email. Continue to receive your chapter newsletter by sending us a valid email address where we can contact you. Forward your contact details to the email listed previously.

April and May are the busiest times for CMAS outings. See our calendar of events in this newsletter. Volunteers to help at these outings are always welcome, contact the leader of the event or any board member if you are interested in helping. Our summer activities are not yet finalized but we are considering a bike and bird event in July, possibly in conjunction with a social meeting at BoHo in Holdingford. We also plan to have a Chimney Swift sit in August but would like to explore a new location. Does anyone know of a location within the CMAS area of an active communal roost for Chimney swifts late summer migration? If so let us know. Watch for final dates and times of our summer activities in our summer newsletter, webpage, Facebook, or email.

<u>Calendar</u>

April 16, 2025

CMAS Meeting 7 p.m.

Location: Unitarian Universalist Church and Zoom

Speaker: • Michael Joyce, Wildlife Ecologist - NRRI - UMD (presenting via Zoom) subject Bobcats and Fishers

April 18, 2025

Woodcock Outing – Sand Prairie Wildlife Management Area

(See Page 2 for details)

April 26, 2025

Bluebird Expo - sponsored by the Bluebird Recovery Program

of Minnesota, Red Wing MN, (see bbrp.org for details)

MIN,

Apr 26 - 8 - 10am Blue Hill Trail/// May 31 - 8 - 10 am - Mahnomen Trail

Sherburne National Wildlife Refuge

Birdwalk: Observe a variety of migrating and local birds. Bin-

oculars available. *Registration Required

 $\frac{May\ 3,\ 2025}{Birding\ Outing\ at\ Avon\ Hills\ Folk\ School}$

led by Jim Millard

May 4, 2025

<u>May 4, 2025</u>

Birding Outing at Albanby Wastewater Treatment Ponds

(see page 2 for details)

May 10, 2025

Bob Russell Spring Birding Day: start at 5 or 8 am, registration fee required. Audubon members have a discount.

https://www.csbsju.edu/outdooru/events/springbirdingday/

May 17, 2025

10am to 2pm - Kids to Parks Day sponsored by Stearns County Parks. CMAS has been invited to participate and lead birding outings for kids.

*Follow us on Facebook: https://www.facebook.com/centralmin-naudubonchapter/ · Watch for our upcoming webpage: https://centralmnaudubon.org/ · Email: centralmnaudubon@gmail.com

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Importance of Dark Skies to Plants and Animals

CMAS, the St. Cloud Flower and Garden Club, Central MN Master Naturalists, Wild Ones, and Stearns County Horticultural Club joined in bringing Todd Burlet, President of Starry Skies North to the St. Cloud Library to speak about the importance of dark skies for all living things (including humans).

Todd began his presentation by defining light pollution as inappropriate or excessive light at night. He noted that it doubles every 7 years and can be referred to as glare, clutter (accumulation of too many lights which overload one's senses), light trespass, and sky glow (a result of unshielded lights).

Todd showed a map of light pollution in the United States and stated that Minnesota has the most remaining dark skies east of the Mississippi River (primarily in the Boundary Waters Canoe Area Wilderness [BWCAW] and Voyageurs National Park). This is particularly concerning when one considers that these areas are designated versus protected. He noted that one in five Americans can still see the Milky Way and that 99% of Americans live under light pollution.

The visual system of humans peaks in the yellow/green color spectrum. We cannot see the blue spectrum. A study in 2002 found that 1% of ganglions in eyes are sensitive to blue light (which affects the pineal gland in the brain that tells us when it's daytime). These ganglion can become asynchronous from blue light, affecting circadian rhythms, circadian entrainment, sleep physiology, melatonin secretion, heart rate, alertness, body temperature, cortisol secretion, pupillary dilation and EEG responses.

Todd noted that melatonin has been around as long as life, being present as far back as 3.5 million years ago! Melatonin is an antioxident, which helps with immunity, has anti-cancer effects, helps with sleep. It's also found in plants, algae, fungi, and animals.

Artificial Light At Night (ALAN) could be linked to cancer (breast, prostate, colorectal, pancreatic, and lung), disease (metabolic such as diabetes, fat, and cardiovascular), mental health (anxiety, depression, bi-polar, and PTSD), and possibly macular degeneration and dementia! The American Medical Association (AMA) recommends color temperatures less than 3000K.

Aging eyes take longer to recover from light pollution. Scatter is up to 16 times worse in older eyes. Visual fog limits object detection and clutter delays object detection (it takes longer to process a glare filled scene).

Regarding ecosystems, all species can be affected (diurnal, crepuscular, and nocturnal animals). Light pollution actually inhibits decomposition of plant litter, thereby reducing nutrients re-entering the food chain. It also spurs algal growth while decreasing zooplankton grazing (which lowers the amount of food at the base of the food chain). This is because zooplankton hide during the day in muck and eat at night (and they cannot tell the difference between day and night).

Insects have egg laying and larvae disrupted, navigation and orientation disrupted, and experience over-predation by light tolerant bats. Impacts on insects cascade through the entire food web and ecosystems. Todd noted that there are bats that are tolerant to light at night and those that are not (light averse). Those that are light averse are going hungry in light pollution areas.

Fish experience hormone and endocrine disruption. Bass experience increased levels of cortisol, experiencing fight or flight reflexes and over-vigilance. Walleye experience hunting challenges, and salmon fry can be over-predated due to higher light levels at night. Endocrine functions affect metabolism, growth and development, sexual functions, reproduction, and sleep-wake functions as well as mood.

41% of amphibians face extinction (Nature, Oct. 2023). Courtship challenges, mating failure (25% less likely to achieve fertilization), gene expression, reduced growth, and increased stress hormones are all results of light pollution.

Plants experience less flowering, fewer pollinators (nocturnal), increasing bud burst and fungal pathogen exposure, less drought resistance (because the stoma stay open longer), and risk increased frost damage risk because leaf drop is delayed by 2-3 weeks.

Todd stated that 19% of birds are migratory. 70% of birds are migratory in North America, and of those birds, 80% migrate at night. Birds experience disorientation and entrapment, avoid stop-over habitat, have sleep/wake cycles disrupted, produce a lower number of chicks, and experience photoperiod masking from light pollution. Courtship, mating and growth are all affected.

Todd noted that bright lights create a false sense of security. Adding night lights can actually increase crime rates! It's also extremely wasteful regarding energy use (and production)... we'd need to plant 800 million trees to compensate for using 380 Terawatt hours per year for outdoor lighting. That's equivalent to the energy use of 35 million residential homes!

Woodcock Outing

Join fellow nature lovers in an outing to San Prairie Wildife Management Area the evening of Friday, April 18th. Plan on meeting at 6:30 PM at the kiosk near Hwy 10. 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 and tree line. At the marsh we should expect to see an assortment of waterfowl (teal, wigeons, hooded mergansers, wood ducks, ring necked ducks and other marsh dwellers like northern harriers and sandhill cranes. 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 wearing layered warm clothing. The observation deck can be surprisingly cold in mid-April. Bring binoculars. If you do not own any we will have several pair which you can borrow.

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

Birding Outing, May 4th

Join fellow birdwatchers as we search

for shorebirds and other migrants at the Albany (Wastewater Treatment Ponds (Pools). Plan on meeting (at the ponds at 9:00 A.M. Besides shorebirds, we should expect to find a plethora of waterfowl, gulls, and waterbirds. We may also visit Getchell lake which is only a few minutes drive away. A few pairs of binoculars will be available to borrow if you wish. A spotting scope will also be available for use.

The Albany sewage ponds are located south of al-94 near Albany. Take the Albany exit and take a left at the stop sign to go under the freeway. Take a left onto Hwy 41 at the next stop sign. Take a right onto the first dirt road off of Hwy 41. This road runs right along the sewage ponds. We will scan the sewage ponds from the road.

Did you know... light pollution is measured by the Bortle Scale (indicating the level of darkness). A measurement of 1 indicates very dark skies. Bortle 2 level

would indicate approximately 5000 stars being visible, versus a Bortle 7 level where only approximately 500 stars would be visible (as an example).

Board ELECTIONS are here!

Nominations will be taken at the meeting but at present, the slate is as follows:

President: Dan Kneip, Vice President: Hank Schreifels, Secretary: Ellen Heneghan, Treasurer: Jim Millard Members at large: Jonathan Fribley and Jean Johnson

Looking for ways to make a difference?

Donations are welcome for our fund to assist with continuing to print the newsletter, create birding backpacks and to bring quality speakers to the meetings. If you choose to help out, please make out a check to Central MN Audubon Society (CMAS) and send it to our President, Dan Kneip. THANK YOU SO MUCH!!

CMAS is now registered to receive donations via

GiveMN: https://www.givemn.org/

Society

To find us, type in - Central Minnesota Audubon Society

Thank you for your support!!

Local Membership: Some CMAS members may wish to only belong and support our local Chapter, without belonging to National Audubon and receiving the Audubon magazine. Local members do receive our Green-Backed Gazette. Membership cost is \$20 annual or \$15 annual if you choose to receive the newsletter electronically only (paperless). Please contact a board member if interested in this option.