

Central Minnesota Audubon
806 S. 6th Avenue
St. Cloud, MN 56301

Green-Backed Gazette

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Newsletter of the Central Minnesota Audubon Society

* All Meetings held at the St. Cloud Unitarian Fellowship Hall

Volume 42

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February, 2020



President’s Letter by Brian Jungels

Treat Them Like Babies

Recently the Trump administration announced it wanted to relax regulations concerning bird kills that are a byproduct of our industrial systems. This is called incidental taking. This type of activity has been declared illegal via the Migratory Bird Act for many years. In other words, if a bird happens to land in a toxic waste soup it thinks is a body of water and dies, in the past the owner of the pond was seen as responsible for the bird’s death. The President wishes to change that. I hate to tell the President that if he would put a toddler in a room having chemical hazards stored at ground level, electrical outlets with no covers and strew the floor with choking hazards and something bad happened to the child, a judge may find him culpable. Birds, like babies, don’t know any better.

Too often, regulations are seen as roadblocks in the way of progress when they should be seen as a pathway to better outcomes. I realize that projects I have endorsed in the past (wind power) have also been accused of killing birds. So far, it appears these effects have been mitigated. At least, it is a fairly simple procedure determining how many birds were taken by a wind turbine. Determining how many birds are taken via climate change would be a gargantuan task. Also, using less electricity would be something a person could do to mitigate incidental takings.

Did you know... the Minnesota Pollution Control Agency (MPCA) wants YOU to provide input regarding important lakes and streams, water quality, and to help guide the priorities of future implementation and strategy within the Mississippi River-Sartell Watershed? It’s TRUE! Two public meetings in February (see the Calendar on this page) will provide information regarding the Watershed Restoration and Protection Strategy (WRAPS) for this watershed, including water quality and watershed conditions. The watershed covers areas of Stearns, Benton, Morrison, Crow Wing and a small portion of Todd Counties. In Stearns County, the watershed reaches south of Avon and Albany (including the Watab River, South Two Rivers River, and Spunk Creek). In Benton County, it includes the entire watershed of Little Rock and Bunker Hill Creeks, and includes the Platte and Skunk Rivers in Morrison and Crow Wing Counties. Please consider attending one of the meetings! Your input and participation is very important.

Central MN Audubon Society Officers

Brian Jungels, President	(H) 320-469-0876	Open Position, Membership	
John Peck, Vice President	(H) 320-685-3365	Kathy Doyle, Treasurer	(H) 320-470-0942
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Nicki Blake-Bradley, Newsletter	(H) 320-259-5524	Audubon MN Office	1-651-739-9332

Calendar



7 p.m. Wednesday, February 19, 2020
Audubon Meeting, Unitarian Fellowship Hall*
Speaker: Greg Berg, Stearns SWCD
Topic: Shoreline Restoration Projects in Stearns County



4-7 p.m. Tuesday, February 25, 2020
Mississippi River-Sartell Watershed Restoration and Protection Strategy (WRAPS) Meeting
Royalton American Legion
103 N. Maple Street, Royalton, MN 56373
For more information, contact Phil Votruba, MPCA at (218) 316-3901

4-7 p.m. Thursday, February 27, 2020
Mississippi River-Sartell Watershed Restoration and Protection Strategy (WRAPS) Meeting
Sartell Community Center
850 19th Street South, Sartell, MN 56377
For more information, contact Phil Votruba, MPCA at (218) 316-3901



7 p.m. Wednesday, March 18, 2020
Audubon Meeting, Unitarian Fellowship Hall*
Speaker: Steve Saupe
Topic: Nuts of Central MN



9 a.m. - 1 p.m. Saturday, March 21, 2020
Habitat Day, Crane Meadows National Wildlife Refuge
Build a bluebird or wood duck nest box for free!



7 p.m. Wednesday, April 15, 2020
Audubon Meeting, Unitarian Fellowship Hall*
Speaker: Troy Freihammer
Topic: The Household Hazardous Waste Facility



Sunday, May 24, 2020
Noon - whenever
Audubon Picnic at the Pecks’ Farm
(watch for details in an upcoming newsletter)





Bee Basics - An Introduction to Bees
in Minnesota by Don Leason

Don began his presentation by noting that there are approximately 420 different native bees in Minnesota, representing six of the seven Families that are found worldwide. He added that they are in the Order, Hymenoptera (along with wasps, ants, and sawflies). The six Families that we have in MN are Andrenidae (mining bees, amongst the first bees to emerge in Spring), Apidae (the largest family), Colletidae (solitary bees such as cellophane, yellow-faced, or masked), Halictidae (sweat bees), Megachillidae (leaf-cutter, mason, resin, and wool carder) and Mellitidae. The family that isn't found in Minnesota, Stenotritidae, really isn't anywhere else either except for Australia.

Bees are the best pollinators, and Don discussed what would happen if pollinators were gone. Honey bees are generalists who visit many different types of flowers, while most other bees are specific to one plant at a time. Bees undergo a complete metamorphosis during their life cycle, from egg to larvae, then pupae and finally adult. Unfortunately, adults usually only live a few weeks except for honey bees.

Honey and Bumble bees are social bees, living together with a queen and workers, working together for a common goal. Don noted that only 1.4% of 3,000 bee species in the U.S. are bumblebees. Communal bees will nest in the same area and may share a common entrance but do not work together. Solitary bees only have one female working to make a nest where she lays eggs in 25 - 30 individual cells packed with bee bread (a mixture of pollen and nectar) for her offspring that she will never see because she will die before they emerge.

Cuckoo bees are parasitic bees who don't make honey or collect pollen. They, or their larvae, will kill the host eggs or larvae and eat the provisions left by the former host bee. Cuckoo bees can be told apart from other bees by the lack of hairs on their bodies (since they don't need them).

The Apidae family includes the Western Honey Bee, which was brought over in the early 1600's from Europe for wax (candles) and pollination (apples). A colony of honey bees may have as many as 50,000 individuals. With Colony Collapse Disorder (CCD), many female worker bees will permanently leave the nest without a queen and die. This disease has been a major factor in the decline of honey bee colonies.

Bee keepers are struggling to keep their colonies healthy despite neonicotinoids and parasites which have both been implicated as serious problems. Don noted that mites that parasitize bees are very heavy, and compared that to the equivalent of a human carrying a raccoon on their back (all the time).

To make honey, the bees collect pollen (full of protein and lipids), which they store in corbiculae (pouches) on their legs, and nectar (made up of sugar, starch, and cellulose). The nectar is produced in the female part of the flower and is released when the temperature is at or above 70 degrees for several days. The bee stores the nectar in its second "honey" stomach where an enzyme mixes with the nectar and the process of making honey begins. Once back at the hive, the collector regurgitates the nectar to a waiting bee who then places the nectar in their honey stomach to mix with more enzymes. Once the second regurgitation occurs, the bees fan it and cap it. Don noted that honey will not spoil (unless it ferments, at which point it will blow up) because of natural preservatives. Honey contains gluconic acid, which has a low pH and hydrogen peroxide. Both provide anti-bacterial properties.

Bumblebees have 20 species in Minnesota, of 50 in the U.S. and although social, a colony of 400 bumbles would be a very large colony. Only next year's queen will survive over winter. Bumblebees often use old abandoned rodent nests for their nests where the queen creates wax pots provisioned with bee bread and an egg. When the first brood matures, they help care for the next set. Don noted there aren't that many broods in MN as compared to Texas, for example.

Bumblebees are special in that they can "sonicate" or buzz pollinate flowers by vibrating their wing muscles (separate from their wings) at a certain frequency to release pollen from a flower's anthers. Amazingly enough, some plants such as wild lupine help tell the bees which flowers have been visited by changing the color of the pollinated flower. This helps the bees and the plant by making them more efficient. A "gyne" (pronounced guy-n) is a newly mated female that will overwinter. (next column)

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Technology savvy people take note... a new Facebook group has been created called "MN Heartland Birding+" which you can join and note sightings in the area as well as possibly post a picture or two!

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.

Bee Basics (continued):

Long-horned bees are solitary bees that nest in the ground. They have light green or blue eyes and the females have very long hairs on their hind legs for carrying pollen.

Cuckoo bees are also called Nomad bees or "bee bandits". As noted earlier, they are clepto-parasites. Small carpenter bees lay their eggs in hollow stems, creating cells within them. Don recommended leaving the stems of plants and flowers until early Spring to allow them to emerge or to trim the flowers 15" off the ground if they must be trimmed. Mining bees are efficient at fruit trees, nest in the ground, and are also sonicators.

Cellophane bees (Family Colletidae) are also solitary bees that nest in plant stems. They line their brood cells with a mix of gland secretions that forms a waterproof lining that protects the larvae. Marsh Milkweed, Joe Pyeweed, and other hollow stemmed plants could be used for bee nests. Masked bees are also in the Colletidae Family.

Halictidae (Sweat bees) have 189 species in MN, including a Bi-colored Striped Sweat Bee. They are solitary, communal bees that are attracted to the salts in our sweat.

Megachillidae Family bees collect pollen under their abdomens. Leaf-cutter, resin, and mortar (mud) bees are in this Family. They generally have large heads with large mandibles. They will make a circular or oval cut in leaves to use in making a nest. An elliptical cut is made to make the cell and a circular cut is made to close the cell. These bees may nest in the ground, hollow plant stems, or in wood cavities.

Of Melittidae, there are very few in MN, and all four species are in the Macropis Genus. They are solitary and ground nesting. Don had many wonderful, close up photos of bees he's found in Minnesota using his point and shoot Sony camera with a very short focal length. He also showed several predators of bees including a Humped Bee Wolf (wasp) and crab spider. He strongly recommended planting pollinator friendly plants that flower at various times of the year. For bee identification, he recommended the MN Bee Atlas at www.beelab.umn.edu-beediversity.

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Looking for Ways to Make a Difference?

Donations are welcome for our fund to assist with continuing to bring quality speakers to the meetings. Any donation amount would be most welcome and appreciated! If you choose to help out, please make out a check to Central MN Audubon Society (CMAS), and either deliver to our Treasurer, Kathy Doyle or bring to a meeting. THANK YOU SO MUCH!!

A HUGE thank you goes out to Stephen and Jeanne Dirksen for the donation to CMAS in memory of Arne Myrabo! The donation is SO appreciated!!

MEETING DOOR PRIZE!

Congratulations to Dan Kneip, the recipient of our January door prize, a fruit and nut seed bell for feeding the birds in winter. Door prizes may vary from books to bird related items, sustainable alternatives to reduce waste and conserve resources, or even sustainably harvested food items. As usual, interested individuals may put their name into the drawing at the meeting. Membership is not required, but you must be present to win!



Raptor Food is Needed Again!!

Linda Peck has been a licensed wildlife rehabber for many years and has rehabilitated injured creatures or raised young animals and birds to the point of being able to be released as "adults". Linda tried to retire from rehabbing animals. It didn't take. She's back in business and needing your trapped (not poisoned) mice and road kill rabbits and squirrels or window killed birds. She has three raptors that are very hungry! A huge **THANK YOU** goes out to Linda for all her work and dedication to those who cannot verbally express their thanks!