



# Saskatoon Nature Society

## Newsletter

November 2023

Vol. 45 No. 9

### Building the Ducks Unlimited Canada Endowed Chair program at USask

**Dr. Mitch Weegman**

**In person and online!**

**Rm #E1130 Health Sciences Bldg, U of S  
7:30 PM Thursday, November 16, 2023**

Dr. Mitch Weegman will be delivering our next presentation on Thursday Nov 16<sup>th</sup> entitled “***Building the Ducks Unlimited Canada Endowed Chair program at USask***”. Mitch, an avian ecologist, is teaching and mentoring students at the University of Saskatchewan as the DUC (Ducks Unlimited Canada) Endowed Chair in Wetland and Waterfowl Conservation in the U of S Biology Department.

Mitch was recruited from the University of Missouri, where he served as assistant professor of avian ecology in the School of Natural Resources, because of his strong research record and passion for student mentorship.

As the DUC Endowed Chair in Wetland and Waterfowl Conservation, Weegman is training future scientists, conservationists and wildlife managers. His research tackles pressing conservation challenges, including how land use and climate change are influencing migratory bird populations around the world.

USask was chosen as the site of the chair for several reasons, including its ideal location in the Prairie Pothole Region near the western boreal forest—some of North America’s most important landscapes for wetland and waterfowl conservation.

Mitch will give an overview of the endowed chair program and research themes his group are exploring. He also will describe the conservation implications of their findings. Then Mitch will present two examples of conservation challenges students are tackling in his group: (1) determining the extent to which extreme weather events, movements and behaviour explain reproductive success in greater white-fronted geese, and (2) quantifying the environmental factors influencing northern pintail population dynamics.



*All members who have registered an email address with SNS will receive an **email containing the link to join the meeting through Zoom**. If you have not registered an email address with us, but would like to do so, please contact Claire Bullaro at [c.bear@sasktel.net](mailto:c.bear@sasktel.net).*

## Field Trips

Participants are free to depart early if they wish. Members with FRS radios should bring them on out of town trips. Bus Information: 306-975-3100. Many of our trip destinations are described in the 3<sup>rd</sup> edition of "A Guide to Nature Viewing Sites in and around Saskatoon" available from <https://saskatoonnature.org/special-publications/>



**Sunday, October 29, 9 AM – 1 PM**

### Blackstrap Waterfowl Trip

We will drive to Blackstrap Lake to look for ducks, loons, grebes and other waterfowl. At this time of year, some unusual species sometimes show up here. Bring a scope if you have one.

Meet at the Wild Birds Unlimited parking lot on the SE corner of 8<sup>th</sup> Street and Emerson Avenue.

Leader: Bob Godwin (306-361-6732)

**Guide to Nature Viewing Sites:** Page 24.

**Sunday, November 19, 2:00 PM – 3:00 PM**

### President Murray Park Birding

We will walk through this park looking for kinglets, creepers and crossbills in the spruce trees.

**Meet** just west of the corner of Wiggins Ave. and Colony St. <https://goo.gl/maps/2xoi9u1YnhM2>

**Bus:** Route 61 Blairmore/University departs downtown terminal at 1:31 PM and arrives at College and Munroe stop about 1:35. Walk 4 blocks south to the park and then walk to SE corner.

**Leader:** Stan Shadick (306-652-5975).

**Guide to Nature Viewing Sites:** Page 116.

**Saturday, November 25, 9:30 AM – 11:30 AM**

### Forestry Farm Bird Walk

We will walk through this woodland looking for early winter songbirds.

**Meet** at the small parking lot adjacent to the brick Superintendent's former residence on Rosybloom Drive.

Google Pin: <https://maps.app.goo.gl/Hs6S5wZrTrASDfTw5>

**Leader:** Monica Salles (306-202-6687)

**Guide to Nature Viewing Sites:** Page 130.

**Saturday, December 2, 9:00 AM–5:00 PM**

### Gardiner Dam Birding

We will look for ducks, geese, gulls and eagles. Dress warmly and bring a lunch.

**Meet** by the grain elevator at the Western Development Museum parking lot on Lorne Ave.

<https://goo.gl/maps/3j1KTNfasmC2>

**Bus:** Route 1 Exhibition departs downtown terminal at 8:31 AM and arrives on Lorne Avenue next to museum about 8:50 AM.

No Registration Required.

**Leader:** Robert Johanson (306-653-2610).



Bald Eagle

Bob Godwin

**Watch for Christmas Bird Count information in the next newsletter!**

*As a volunteer or participant in the activities of the Saskatoon Nature Society (SNS), you are fully responsible for your own safety, and for your own personal insurance in case of injury. Please exercise great caution and care on field trips or any other outings. The Saskatoon Nature Society is not responsible for damage incurred to vehicles or other personal property while participating in any SNS activity. If going onto private land, always ask for permission, be friendly and respectful, exercise caution, and please be aware that participants may be responsible for damage to landowners' property.*

## President's Message

### Navigation in Nature

Throughout history, the ability to navigate on the surface of the globe has been a subject of great importance. Ancient seafarers learned how to read the night sky and ocean wave patterns, travelling across vast distances of open ocean to colonize islands throughout the Indo-Pacific region. Ancient civilizations such as the Greeks, Phoenicians, and Chinese refined celestial navigation and studies of wind patterns to expand trade routes and territories. The Arab Empire was the first (of which we know) to use a rudimentary magnetic compass, and the Vikings developed a navigational method of precisely locating the Sun, even on overcast days, by viewing polarized light through a crystal called a sunstone. It was during the 15<sup>th</sup> to 17<sup>th</sup> centuries (the so-called Age of Discovery) when substantial progress in the science of navigation was made, primarily due to the race for land and resources among various European nations. Navigation maps of ocean currents and wind patterns were highly prized and well-guarded as state secrets, astrolabes became refined navigational tools, and the centuries-long problem of how to determine longitude at sea was finally solved (courtesy of a public competition legislated by British Parliament). It has only been in recent times that the challenges of global navigation have truly been overcome via satellite-based Global Positioning Systems (GPS).

Yet, other members of the animal kingdom have managed to successfully navigate around the globe for millions of years without such technological prowess. During migration, some bird species undertake trips over vast distances (1000's of kms) every year, fish (like salmon) travel similarly enormous distances to return to their breeding grounds, and insects (such as butterflies) make regular seasonal movements to more suitable climates. But how do such organisms find their way? It turns out that there appear to be a variety of ways, many of which are still not well-understood.

Many animals and insects are able to learn and recognize landmarks in their environment to orient themselves as part of a homing instinct. Landmarks can be topographical (e.g. mountains, river systems, and coastlines), ecological (types of vegetation), or climatic (variations in temperature or humidity, wind direction).

Some organisms such as fish, birds, reptiles, and insects appear to use the orientation of the sun. Since the sun moves across the sky throughout the day, it is thought that this navigational mechanism is somehow linked to the internal (circadian) clock of these organisms. In one theory, such organisms are able to gauge the position of the Sun above the horizon to determine the "time" of day, and therefore, direction of travel. Homing experiments with Manx Shearwaters (*Puffinus puffinus*) showed that when removed hundreds of kilometres from their nests and released under a clear sky, they flew off in the correct direction, but when released on an overcast day, flew around in circles.

Other animals can navigate by the night sky, using the position of the stars to undertake true celestial navigation. In one experiment, warblers placed in a planetarium displaying the night sky oriented themselves towards the south. When the planetarium's sky slowly rotated, the birds constantly maintained their orientation with respect to the stars on display. [Note: some things done in the name of science never cease to amaze!]

Some insects, such as bees, are sensitive to polarized light - that is, light which vibrates in only in one particular orientation [NB: this is how polarized sunglasses work, by only allowing sunlight vibrating in one orientation to pass through and filtering out the rest]. On overcast days, bees can use polarized light to estimate the position of the sun in the sky and then communicate this directional information, along with distance to a food source, to other bees in the hive through their well-known waggle dance.

Some animals appear to use their sense of smell to navigate. Such olfactory navigation has been suggested for pigeons, which are thought construct a mental map of odours in their surroundings. Olfactory cues have also been suggested to explain how salmon can reach their specific spawning grounds after several years and 1000s of km of travel.

Some insects, fish, mammals, and birds (such as pigeons) have an internal magnetic compass, enabling them to navigate using the Earth's magnetic field. Proven only recently, studies have now determined that there are unique magnetoreceptors in these animals.



For example, small particles of a magnetic mineral (magnetite) were discovered in the snouts of rainbow trout. In migratory birds, the magnetoreceptor turned out to be a light-sensitive protein in the eye, called a cryptochrome, and the mechanism by which this protein interacts with the Earth's magnetic field can only be explained by recent knowledge of quantum physics!

So the next time you're trying to figure out how to get from Point A to Point B, spare a thought for all of those migrating animals around the globe, and their amazing ability to navigate without Google Maps or a GPS!

Jim Lee

## Young Naturalists

The Young Naturalists is all about nature activities for kids and their families. Each program offers interesting activities geared for children aged 5 to 11 years. Children must be accompanied by a parent or guardian. Advanced registration is required. To register or for more information e-mail: [naturekids@saskatoonnature.org](mailto:naturekids@saskatoonnature.org). Visit the Young Naturalists web page for more details. <https://saskatoonnature.org/young-naturalists/>

- Bird Feeder Workshop  
Saturday, Nov 4, 2023
- Christmas Bird Count for Kids  
Wednesday, Dec 27, 2023

## Golden Eagles

Winter Program:

We'll take a break in November, but our program will start up again in December, continuing in 2024. Watch for the information in the December and January newsletters. Our first trip will be on December 14 to a few stops in the U of S, College of Agriculture and Bioresources building. Details to follow in November.



Winter

K Meeres

## Saskatoon Fall Migration Bird Count September 9, 2023

The forty-three participants in the Saskatoon Nature Society fall count on September 9, 2023 enjoyed mild temperatures and light winds. The species count of 157 was above the long-term average (LTA) of 152 and Bobolink was seen for the first time, bringing the total species seen in the history of the count to 235.

Wetland habitat was severely reduced as another dry year left many sloughs dry or shrunken. Despite that, the counts for several of the dabbling ducks were well above the LTA and at or near all-time highs: Blue-winged Teal (202% of LTA), Gadwall (389%), American Wigeon (216%), and Northern Pintail (939%). The highest concentrations were on Indi Lake. Other wetland birds that may be suffering the effects of habitat loss are Double-crested Cormorant (15%) and Great Blue Heron (26%).

Horned Grebe has shown a steady and dramatic decline from a high count of 171 in 2013 to a new low this year of three. The spring count has seen a less dramatic decline over the same period suggesting that fall migration may have shifted earlier and be playing a part in the low fall counts.

American Coot has been notably scarce for the last four years, averaging just 8% of the LTA, but this year thanks to a flock of several thousand on Indi Lake, the count returned to normal levels at 117% of the LTA.

Among the raptors, Turkey Vulture (309%) has set another new high count at 18. Swainson's Hawk (107%) was relatively unaffected last year by avian influenza and was again seen in normal abundance, but the Red-tailed Hawk count (72%) on both the spring and fall counts this year is still recovering.

Barn Swallow (217%) was identified in 2012 as a threatened species and upgraded in 2021 to a species of concern, so it is encouraging to note that the count this year was an all-time high at 721.

Several sparrow species were at or near all-time highs and well above LTA: Clay-colored sparrow (276%), Dark-eyed Junco (376%), White-crowned Sparrow (269%), Vesper Sparrow (250%), Swamp Sparrow (484%), and Spotted Towhee (193%).

Thank you to all who participated in the count this year. We hope you will join us again on future counts.

John Patterson (compiler)  
Stan Shadick (organizer)

### Conservation Committee

The Conservation Committee is looking for members! The committee's objective is "to represent the Society's interests on all actionable conservation-related matters pertaining to the natural environment around Saskatoon and the region". Please contact Sara Bryson, 306-261-6156, if you might be interested.

### Sustainability Speakers Series – Fall 2023

The Sustainability Speakers Series is hosted by the Saskatoon Public Library in partnership with the Saskatchewan Environmental Society. These free events are in the Meeting Room in the basement of Frances Morrison Central Library (311 23rd Street E). The events start at 7:00 p.m. and end at about 8:30 p.m. These are in-person events. Recordings of some of the presentations are posted on the internet several days after the event.

#### November 21 (Tuesday)

##### The Lake Diefenbaker Irrigation Expansion Project

Saskatchewan is proposing a significant expansion of irrigation based on water supplies from Lake Diefenbaker. The history of irrigation in Saskatchewan and planning for the future will be discussed by Robert Halliday, professional engineer.

Recordings of previous presentations in the series are available at:

<https://www.youtube.com/playlist?list=PLRUK7BHZUVfrHCxuJyBeO0lgjjeqBwseY>



### Heads up!

**The Nature Saskatchewan spring meet next June 21-23 will be based in Saskatoon. We'll be celebrating the 75<sup>th</sup> anniversary of Nature Sask. Mark your calendar and think about volunteering!**

### Change of address or phone number

Have you changed your addresses or phone number? Please remember to update us with your e-mail and paper-mail addresses and phone number. Contact [c.bear@sasktel.net](mailto:c.bear@sasktel.net) or send us a note at our postal address (next page).

### Membership Information

SNS memberships go from January-December. **Renew by December 31 to ensure delivery of your newsletter.** New memberships paid after July 1 will continue through the following year.

Donations qualify for a tax receipt.

Don't forget the retail discounts available

- Early's Farm and Garden Centre provides a 10% discount on regular-priced seed, birdhouses and books.
- Wild Birds Unlimited provides a 10% discount on many regular-priced items.
- Don's Photo offers a discount on photo-finishing.

You can find a link to the membership form and information at:

<https://saskatoonnature.org/membership/>

**Saskatoon Nature Society**

**Mailing address:**

PO Box 27013 GROSVENOR PARK  
SASKATOON SK S7H 5N9

**Website:**

<https://saskatoonnature.org>

**Facebook:**

[www.facebook.com/SaskatoonNatureSociety](http://www.facebook.com/SaskatoonNatureSociety)

**Newsletter**



The deadline for the next newsletter is Nov. 15. Please send any announcements or articles to Kathy Meeres. Please email: [godmee@sasktel.net](mailto:godmee@sasktel.net) or call 306-343-8590. The editor would appreciate if articles are complete and submitted electronically.

**Please consider switching from a paper to electronic copy** of the SNS newsletter. You will help us save on paper, stamps, and volunteer time and you will get information more quickly and get pictures in colour.  
**Please contact** Claire Bullaro (c.bear@sasktel.net) with your email address to switch. Thank you.

**Chairs and Coordinators**


Conservation	Sara Bryson .....	306-261-6156 .....	
Display	Greg Fenty .....	306-370-8839	
Facebook Editor	Sara Bryson .....	306-261-6156 (text please)	
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Young Naturalists	Greg Fenty .....	306-370-8839 .....	<a href="mailto:naturekids@saskatoonnature.org">naturekids@saskatoonnature.org</a>

**Board of Directors**

President	Jim Lee .....		<a href="mailto:president@saskatoonnature.org">president@saskatoonnature.org</a>
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Director	Heather Brenneman .....		
Director	David Forbes .....		
Director	Bill Robertson .....		
Director	Jan Spencer .....		

The board of directors meets about once a month, usually in the week before the monthly meeting. If you wish to bring an item to the attention of the board, please contact the president.

## NOVEMBER

Sunday	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday
			1		3	4 YN: Bird Feeder Workshop
5	6	7	8	9	10	11
12	13	14	15	16 November Meeting.	17	18
19 Pres Murray Pk Birding	20	21	22	23	24	25 Forestry Farm Bird Walk
26	27	28	29	30		

## DECEMBER

Sunday	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday
Watch for more Christmas Bird Counts in the next newsletter!					1	2 Gardiner Dam Birding
3	4	5	6	7	8	9
10	11	12	13	14 December Meeting	15	16
17	18	19	20	21	22	23
24	25	26 Saskatoon CBC	27 CBC for Kids	28	29	30
31						

YN: Young Naturalists; GE: Golden Eagles; CBC: Christmas Bird Count