

THE PARKLAND NATURALIST



JANUARY–APRIL 2023

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EDMONTON NATURE CLUB

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Inside this issue

Raising Northern Leopard Frogs at the Edmonton Valley Zoo	2	Armchair Naturalist	10
Conservation Corner: Big Picture Conservation	6	Learning from Trail Cams	12
Editorial Notes	7	Outdoor Program, January–March 2023	15
President's Message	8	Over-wintering Trumpeter Swans	20



The Northern Leopard Frog breeding trailer at Edmonton Valley Zoo



Enclosure in which adult frogs spend the spring and summer season

Raising Northern Leopard Frogs at the Edmonton Valley Zoo

“Head-starting”

Did you know that Edmonton Valley Zoo is doing its bit to raise the numbers of Northern Leopard Frogs in Canada? Co-partnering with the Vancouver Aquarium, which began the project in 2009, and the Wilder Institute/Calgary Zoo (2018), it has been raising Northern Leopard Frog (*Lithobates pipiens*) tadpoles from egg masses supplied by the Creston Valley Wildlife Management Area since 2019. The Creston, B.C., area is home to the last Rocky Mountain population of these frogs, where they now have the status of “endangered.” The objective is to achieve sustainability for this genetic population by increasing their numbers *ex situ* and releasing them to suitable sites in the area. The process whereby the frogs are received as egg masses, raised as tadpoles to the pre-froglet stage, and then released back into the wild is known as “head-starting.”

A Species in Decline

Northern Leopard Frog populations, native to parts of Canada and the U.S., were present in the Edmonton area until the 1970s, when the Western Boreal/Prairie populations of the species began a precipitous decline, resulting in their present status of “at risk.” The cause is not known, but is likely due to multiple environmental stressors, including, of course, the dreaded chytrid fungus (*Batrachochytrium dendrobatidis*), to which the species is vulnerable. More recently, also in B.C., increased predation by invasive species such as Bullfrogs and Asian Carp is suspected.

The Zoo Facility

A day after the spring equinox, on a sunny but still icy afternoon, zookeeper and frog-keeper Wayne Woods showed me around the Northern Leopard Frog Breeding Centre at the Edmonton Valley Zoo. Within a trailer painted with a B.C. wetland scene, behind a large interpretive sign, and later at some outdoor enclosures within a larger fenced enclosure, he patiently explained what turned out to be a surprisingly complicated and rigorous conservation process. It includes, among other things, careful record-keeping, fastidious sanitary protocols (with their permeable skins, Northern Leopard Frogs are especially vulnerable to toxins), experimentation with infrastructure and equipment, and a steep learning curve as amphibian specialists across the world share ideas,

knowledge, and research in an effort to meet numerous breeding challenges.

Breeding *de novo*

Apart from “head-starting,” the zoo is experimenting with its own breeding program, that is, generating eggs and raising tadpoles from a resident overwintering frog population. It currently has 39 adult Northern Leopard Frogs, males and females in roughly equal numbers, segregated by gender. Almost all were raised at the Calgary Zoo from eggs collected at Creston. At the time of writing (mid-March), they are hibernating, immersed in oxygenated tanks in which the water is kept at 2°C inside a cooler. They breathe through their skins and are able to move short distances.



Aquarium tanks in which the adult Northern Leopard Frogs are hibernating

For Wayne and the frogs, action starts ramping up in April. The water temperature is raised gradually to 10°C, at which time the males are primed with a hormone to boost sperm development. (Light levels in the cooler are also increased, starting about now.) When the temperature reaches 16°C they are considered ready to mate, and both sexes receive hormone induction on the same day. Around this time the females are examined with ultrasound to determine their egg status, and the frogs are moved outside for mating. Mating occurs in artificial enclosed ponds that have been planted with native wetland vegetation. (While multiple partner opportunities are encouraged, the prospective parents must come from different egg-masses.) Egg masses are removed to tubs in a different enclosure and the now non-breeding adults can relax for the season in a landscaped enclosure, being fed

On the Cover:

Northern Leopard Frog, Photo by Kris Kendell

a varied diet and protected from predators – even from mosquitoes, for there is some preliminary evidence that mosquitoes can act as carriers of the chytrid fungus.

The Fertility Stumbling-block



Enclosure in which tadpoles develop (in tubs) prior to return to B.C.

Unfortunately, although the zoo is raising tadpoles from supplied egg sources, so far it has not been able to raise tadpoles from egg masses produced by its own females. They have not been fertile. Recent research by the Northern Leopard Frog Recovery Team partners have found that captive males have lower sperm counts than wild ones, a phenomenon that remains under investigation, although this is likely not the whole story. Indeed, whether hormone induction is necessary or beneficial and how fertility may be enhanced are all parts of the puzzle that is being put together by trial and error. Wayne, of course, is crossing his fingers that they will have better luck this year. He says even a single fertile egg mass will be cause for celebration!

Ex situ Conservation in Progress!

Catherine Shier, Conservation Coordinator at the Edmonton Valley Zoo, who arranged my visit with Wayne, says the Northern Leopard Frog Recovery Team has four main goals.

- It aims to establish self-sustaining populations of reintroduced Northern Leopard Frogs in a minimum of three interconnected wetlands in B.C.

- It is conducting research to improve success in captive breeding and reintroduction, and it will maintain a captive population as insurance against extinction in the wild.
- Finally, it is working to engage the public (including children) in the conservation of Northern Leopard Frogs and wetlands in general.

I think what I found most heartening about the visit and what I heard from Wayne is that so many people are putting so much time, effort, money, and passion into conserving these endangered species. Despite, sometimes, the indifference of local and regional governments, zoos and botanic gardens all over the world are making powerful contributions to *ex situ* conservation and restoration. Even so, Wayne wishes there was more money for field-work and follow-up. So far, no Alberta populations are being propagated and released, although, clearly, local experience is being gained. Wouldn't it be great to have Northern Leopard Frogs back in our Central Parkland wetlands again, joining our Wood Frogs and Boreal Chorus Frogs in a spring symphony, a sign maybe that so many other things were better in the world?

Patsy Cotterill

All photos by Patsy Cotterill

Author's note: In preparing this column I was in touch with Kris Kendell, a biologist with the Alberta Conservation Association, who has worked for many years in Northern Leopard Frog recovery in Alberta. He noted there is considerable literature on this work, published and unpublished, dating back to 1999, of which I provide two examples below. He also provided contacts for me to follow up to determine the status of conservation efforts in Alberta to date.

References

Randall, L., K. Kendell, P. Govindarajulu, B. Houston, P. Ohanjanian, and A. Moehrenschrager (2016). Re-introduction of the Northern Leopard Frog in British Columbia and Alberta, Canada. In Soorae, P. S. (ed.), *Global Re-introduction Perspectives: 2016*. Case-studies from around the globe (pp. 45–50). Gland, Switzerland: IUCN/SSC Reintroduction Specialist Group and Abu Dhabi, UAE: Environment Agency-Abu Dhabi. xiv + 276 pp.

Prescott, D. R. C., K. Kendell, and S. D. Stevens (2011). Alberta Northern Leopard Frog recovery plan, 2010–2015. In Alberta Sustainable Resource Development, Fish and Wildlife Division, *Alberta Species at Risk Recovery Plan No. 20*. Edmonton, AB. 33 pp.



Northern Leopard Frogs can reach 11 cm in length and typically have dark, circular, whitish-bordered spots on a green background, although brown morphs and forms without spots also occur. Breeding takes place in Alberta from April to June, and the tadpoles, light brown with black spots, take 70–110 days to develop into froglets 2–3 cm long, miniature versions of the adults. (https://en.wikipedia.org/wiki/Northern_leopard_frog, 2023.04.16)

Photo by Kris Kendell.

What Can You Do to Help?

- Support Edmonton Valley Zoo.
- Help educate about the need for conservation and healthy wetlands.
- Reduce/avoid the use of chemicals in the garden and dispose of all chemicals in the proper place (e.g., Ecostations).
- Learn more about amphibian monitoring: visit Alberta Volunteer Amphibian Monitoring Program, <https://www.alberta.ca/alberta-volunteer-amphibian-monitoring-program.aspx>.



Conservation Corner: Big Picture Conservation

COP 15 Convention on Biological Diversity

“Convened under UN auspices, chaired by China, and hosted by Canada, the 15th Conference of Parties to the UN Convention on Biological Diversity adopted the ‘Kunming-Montreal Global Biodiversity Framework (GBF), including four goals and 23 targets for achievement by 2030.... Held at Montreal’s Palais des Congrès Dec. 7–19, representatives of 188 governments on site (95% of all 196 Parties to the UN CBD, as well as two non-Parties – the United States and the Vatican), finalized and approved measures to arrest the ongoing loss of terrestrial and marine biodiversity and set humanity in the direction of a sustainable relationship with nature, with clear indicators to measure progress.”

Convention on Biological Diversity, December 19, 2022

The signature goal is, of course, the 30x30 target, the conservation and management of at least 30% of the world’s lands, inland waters, coastal areas, and oceans by 2030, together with restoration completed or under way in at least 30% of these same ecosystems that are degraded. Goals also provide some of the mechanisms for achieving this, such as specifying flows of financial means from developed to undeveloped countries, raising funds, and the requiring of large and transnational companies and financial institutions to “monitor, assess, and transparently disclose their risks, dependencies and impacts on diversity.”

Are the Goals and Targets Achievable?

It is no doubt a great achievement to get such widespread international agreement and commitment on these goals, and those of us who have ever struggled to get consensus on a simple mission statement for a society can appreciate the effort that went into it. Yet this is only the first step in achieving those hugely ambitious goals. Only 17% and 10%, respectively, of land and marine areas are currently protected. My reading of the document is that, in order to make the goals even remotely feasible and palatable to governments and society, and given the short time frame for achievement, many of the usual ways in which humanity conducts business are allowable provided they are “sustainable.” There will be accommodation of Indigenous desires for return of traditional land and recognition of the need for greater social equality among world populations necessitating increased consumption. Two major factors affecting biodiversity, human over-population and the western system of perpetual economic growth and consumption that promotes population increase, are not broached. I believe that humanity is in a double bind: if the change in human practice required

is too draconian it will be ignored, if too *laissez-faire*, environmental harm will not be alleviated. Either way, the goals will not be achieved, extinction will continue, and humanity and the planet will suffer. Our current global success with halting climate change is not conducive to confidence.

Nature-based Solutions

However, this is not to dismiss or discourage the honest efforts that are being and must be made. For example, conservationists are already trying to make the targets more palatable using a concept called nature-based solutions (perhaps the subject of another column), promoting practices in which humans and nature work together for mutual benefit.

Local Action

What should naturalists do with this document of good intentions? We can try to tailor our personal lives to align with the GBF targets, of course. However, I suggest we are especially well-placed to advocate for the value of biodiversity and the rights of nature to those who are less convinced, starting in our own backyards.

Thanks to Dr. Guy Swinnerton for drawing my attention to the summary document on which this is based.

Patsy Cotterill

References

A summary of the conference and GBF can be found on the SAPAA website:

<https://sapaastowards.files.wordpress.com/2023/03/cop15-finaldocument.pdf>

<https://www.canada.ca/en/natural-resources-canada/news/2022/12/canada-pledges-to-join-the-bonn-challenge-for-landscape-restoration-at-cop15.htm>

"Ecological restoration becomes a fundamental component of conservation and sustainable development programs throughout the world by virtue of its inherent capacity to provide people with the opportunity to not only repair ecological damage, but also improve the human condition."

Mission statement of the Society for Ecological Restoration, a global organization.



Wetland along Sandhills Trail, Elk Island National Park, A Core Protected Area

Photo by Patsy Cotterill

Editorial Notes

We want to hear from you!

As the editor and copy editor of *The Parkland Naturalist* since 2012, we have enjoyed working with the Edmonton Nature Club's very knowledgeable and talented writers and photographers and presenting their stories and reports to club members. But there's something missing in our writer / editor / reader process – you! We hardly ever hear from members of the club. Do you read the magazine? Do you find it interesting and useful, or not? Would you like to see different topics covered? Have you a story to suggest or contribute? We really would appreciate your feedback!

Dawne Colwell, colwelld@shaw.ca, and **Judy Johnson**, jatj@shaw.ca

The deadline for submissions to the May–August issue is July 31, 2023. Please email articles and photos to Dawne Colwell at colwelld@shaw.ca.

President's Message



Our President, Brian Stephens

We slowly started to add to the Edmonton Nature Club's outdoor program with our first car-based field trip in several years, and we're hoping for more to come. It is taking time to restore activities since the Covid restrictions.

This year we will continue with city walks, support for the Tofield Snow Goose Festival, World Migratory Bird Day celebration, and May Species Count. In addition, several biodiversity events will be collecting information on plant, insect, and bird variety in the Edmonton area.

Last year we were able to offer Birding 101, with presentations by Nature Calgary. In May we hope to do something with a similar focus for new birders.

As we look forward, the club needs to involve more members in maintaining and developing our programs. We need volunteers to help with field trips, walks, presentations, and executive positions. I urge members to consider their skills and think of how they may benefit the club.

Brian Stephens



Sharp-tailed Grouse, photo by Brian Stephens

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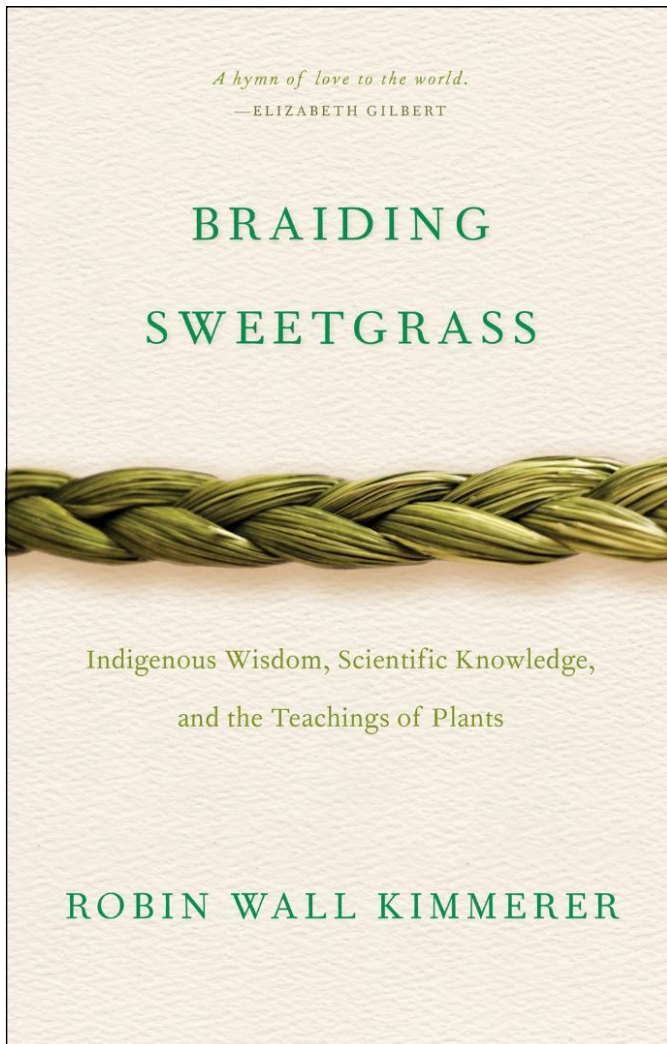
Membership Rates for 2022/2023

Household: \$40.00/year
Students: \$20.00/year

Armchair Naturalist

The place where club members review books about natural history they found particularly rewarding. Some of the recommended books may be borrowed from the Edmonton Public Library (EPL). To check on the availability of books in printed and electronic formats, go to epl.ca and click on “Search.”

Curl up with one of the recommended books and escape into the wonderful world of nature!



Braiding Sweetgrass: Indigenous Wisdom, Scientific Knowledge, and the Teachings of Plants

By Robin Wall Kimmerer, published by Milkweed Editions, Minneapolis, MN, 2013

As implied in the subtitle, *Braiding Sweetgrass* considers the interactions between Indigenous beliefs and practices, academic science, and botany. The author is both Indigenous and a university professor. She weaves the two worlds together in this book which, surprisingly, has become an international best-seller. Kimmerer reflects on the egocentric view of the natural world that has been

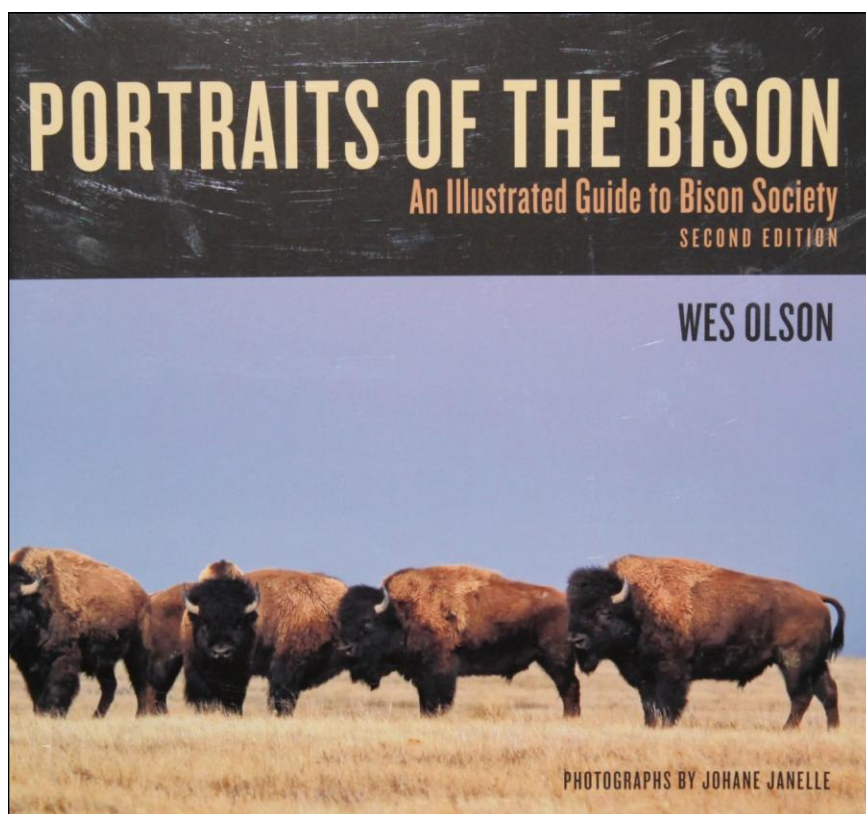
dominant since European colonizers with capitalistic values settled in the Americas. She reminds us through simple examples – harvesting sweetgrass or berries – that there are better ways to live on this earth, beginning with gratitude for what nature offers us, and respect for all living and nonliving things.

Kimmerer describes what Indigenous peoples learned from the plants they harvested, managed, and planted for their future uses. Once they are investigated, we see that many of these practices are validated by scientific research. Likewise, traditional Indigenous practices have led to “discoveries” by academic scientists. Western culture puts humans at the top of the evolutionary ladder, but the Indigenous view is more realistic: we are just the most recent arrivals in a long chain. It is not that Indigenous peoples did not use natural resources, but they recognized that without the gifts of the earth, their lives were not possible and that to keep giving, the earth required gifts in return.

An overall theme in *Braiding Sweetgrass* is Indigenous appreciation of and respect for plants and animals. They are not objects to be used, but beings in their own right, to be recognized and honoured as part of our shared world and, beyond that, requiring care in return for what they provide to us. Even the differences in our languages reflect this – while in English a fox may be referred to as a “thing,” Kimmerer points out that to Indigenous people, this would be an insult. In her language, it is called “a fox being,” placing human beings and other living creatures on an equal footing.

When did we last look at a dandelion or squirrel and appreciate its presence before us? In Kimmerer’s view, all living things deserve this reflection. While Kimmerer recognizes that she needs things from nature in order to live, her argument is that our taking is almost always detrimental to nature. Even as naturalists, we must not appreciate nature just for what it gives us, but ask ourselves how we can reciprocate this gift. Kimmerer challenges us to become better citizens of the natural world.

Recommended by Geoff Holroyd and Helen Trefry



Portraits of the Bison: An Illustrated Guide to Bison Society

By Wes Olson, published by University of Alberta Press, Edmonton, AB, 2005

Excellent book – I really enjoyed it! Everything from bison in the past to bison herd social structure is covered. The book is full of beautiful photos, including Wes’s superb illustrations of different age groups of bison. For me, this was where the book really shone: the detailed illustrations of a male on one page and a female of the same age group on the opposite page made it easy to compare them. This book can help you identify the age group and sex of the bison you see. An appendix reference guide to identifying the age and sex of Plains Bison is illustrated with photos of the key characteristics mentioned. Wes also discusses the social structure of the herd through various seasons. If you happen to see a bison skull, he explains how to age and sex it, as well. The differences between Plains Bison and Wood Bison are

also discussed. Both species of bison can be found at Elk Island National Park.

I can’t wait to take my new book with me to Elk Island National Park for a day of discovery, studying the bison seen in the park and using the data sheet provided as one of the appendices to record the bison herd structure that I see and other details! Wes also covers safety around bison; this is really important in Elk Island National Park, as the bison roam freely there. But you will have to read the book to find out what the bison bubble is for your safety, as well as what it means and what to do if you encounter a bison with its tail in a vertical position!

You can purchase the book at the Elk Island National Park Visitor Centre or from an online vendor.

Recommended by Karen Lindsay

I am looking for more reviews of good nature books to share! To suggest a book review, go to the ENC website, click on “Member Entrance,” and log in using the password you received with your membership. Use “Contact us!” to provide your submission, e.g., in the “Comment” section write “Parkland Naturalist book review,” describe the book you’d like to recommend, click “Submit,” and I will get in touch with you.

Thank you. **Karen Lindsay**

Learning from Trail Cams

Does anyone have the number for Trail Cams Anonymous? There's no doubt I'm hooked. For the past two years I've put up several cams at a handful of locations near Edmonton, with the idea of recording animals and behaviours that would be almost impossible to see in person.

There's been a lot to learn – from technical considerations such as learning the capabilities of different models and choosing the best settings, batteries, and memory cards, to the more aesthetic or even artistic considerations, including choosing a good place for a cam based on background, lighting, and, most important, the likelihood of an animal going by.

It's been fascinating to learn about some species' occurrence in the area. For example, I would've thought you'd need to go further west or north to see martens. But it turns out they are fairly abundant less than 80 km from Edmonton. And, of course, it's been eye-opening to see how regularly cougars frequent the area.

Setting the cams to video and watching animal behaviour has been very interesting. My first thought was that putting out a small cam would be fairly unobtrusive. But many animals notice them. They must make at least a bit of noise. Obviously there's a scent that attracts attention. Whether it's mine from handling the cam or the alien plastic smell, I'm not sure. And at night the light catches attention. These are all infrared lights advertised as "low-glow" or even "no-glow." To the human eye, they look like small, dim, red lights, but some animals definitely see them.

Coyotes, especially, notice the lights. Some get quite spooked. Deer don't seem too bothered by the lights, but elk do. Moose get very attracted at times, but maybe it's more about the scent with them? They go up to a cam and snuffle away and often fog the lens. Cougars are too cool to even pretend they notice the lights or the cams.

Squirrels and fishers both like to run up and climb the tree the cam is strapped to. It seems like they'll sit right on top of the cam. Squirrels can be real camera hogs. If I set up on a nice log hoping for a marten or a grouse, I'll sometimes get hundreds of squirrel videos. I think they've got a deal going with Energizer! Fortunately, some of the cams have a solar panel and don't go through batteries.

Deer, especially White-tails, are very common on the cams. I've learned a few things. White-tails can be dominant over Mule Deer. Now, this is based on one video,

but I saw a doe White-tail aggressively chase off a doe Muley. I didn't know that deer ate so many lichens. After a windy day has blown several dead spruce branches onto the snow, the deer often take small branches into their mouths, nibble off the lichens, and spit out the branches. It was kind of disturbing to watch a young Muley buck that clearly had something irritating it. The animal would vigorously shake its head, start bucking around, and generally act very strangely. One suggestion to explain the behaviour was something called a nasal bot fly. If you've got a strong stomach, look them up. Their larvae develop in the nasal passages of a deer. Something like that would certainly cause erratic behaviour!

Beavers are famous as nature's engineers. But one I watched would often bring a big stick or a log to its dam and then just toss it over the dam. Maybe there was more to it, but it didn't seem to be accomplishing much. At another pond you could see the beavers changing the landscape. There was a small clump of three or four small dead birch trees near the edge of the pond. Over a few weeks, the beavers chewed away at the earth and slowly the clump and the trees all disappeared.

I didn't know that both magpies and ravens would be scared of a little short-tailed weasel. At a cam set up beside a dead moose I could see birds lingering near the carcass, but they wouldn't approach. Soon I knew why when a weasel jumped out of the body cavity of the moose.

Black bears must think they're videographers or something. A few times a bear approached a cam and pushed it around – must not have been happy with the camera angle or position.

Cougars have a reputation of being stealthy and quiet, but it must be hard to be sneaky when you're crossing on a beaver dam. Video showed the cat crunching and sliding and even huffing and puffing. And another time a cat was also breathing heavily as it passed a cam, obviously not in hunting mode.

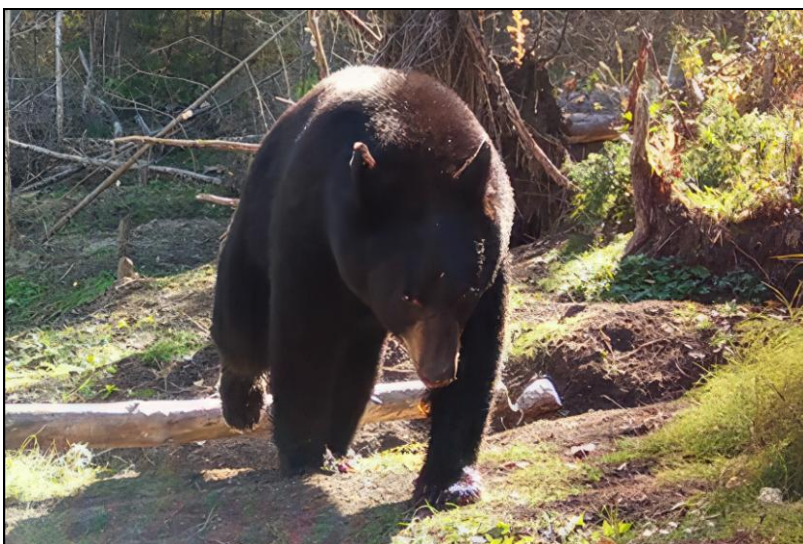
Getting into the camera trap world has been very interesting and educational. Seeing all the critters and watching little snippets of their lives in the wild is pretty cool. I've got a few ideas for new situations to set cams on. And I'm still hoping for a wolf!

Gerald Romanchuk

All photos by Gerald Romanchuk



Coyote



Black Bear



White-tailed Deer



Fisher



Marten



Moose

Outdoor Program, January–March, 2023

Thanks to all our returning leaders, we were able to start the Outdoor Program for 2023. We continued with the Covid protocol of limiting the activities to members only and requiring pre-registration through Janice Hurlburt. A total of 33 individuals participated in the following walks, with a total of 45 registrations.

The final count for the Edmonton Area Winter Count (December through February) was 82 species. This is not quite as many species as in some previous years, but a good effort nonetheless. A big thanks to all who participated and to Gerry Fox for maintaining the list. The most notable birds missing this winter were Northern Pintail, American Wigeon, Green-winged Teal, Varied Thrush, and Ring-necked Pheasant.

Here are some highlights from the walks. Full detailed trip reports are available on the Edmonton Nature Club's Nature Talk (ENCnaturetalk@groups.io|Search), filed under #tripreports.

Whitemud Creek North, February 21, 2023

Wayne Oakes and one participant braved the -18°C weather to kick off the first walk of 2023. Birding-wise, it was extremely quiet. The highlight was a female Pileated Woodpecker getting her lunch from the top of an old balsam poplar and then moving down to a dead white spruce.



Pileated Woodpecker, photo by Wayne Oakes

Grey Nuns White Spruce Park, March 1, 2023

Percy Zalasky led eight participants through the newly renovated Gray Nuns White Spruce Park, which has been extensively urbanized with new trails and added picnic shelters. It has been quiet for birds, probably a result of the construction activity. There were some Black-capped Chickadees, Downy Woodpeckers, Black-billed Magpies, two White-breasted Nuthatches, a Pileated Woodpecker, and fleeting glimpses of a fly-by Bald Eagle. The group dipped on the Northern Shrike that has been hanging around the area, but enjoyed great conversation and the fabulous weather, along with the birds seen.

Whitemud Creek North, March 7, 2023

The walk had a chilly start (-12°C) for Wayne Oakes and three participants, but by the end the temperature had soared up to a balmy -6°C . There was overall an extremely low level of bird activity. The group was treated to a distant Northern Shrike and were just able to hear a bit of its song. During the walk they saw lots of swollen leaf buds, the near-

perfect square or rectangular holes Pileated Woodpeckers make in tree trunks, 12 circling Common Ravens, a Red-breasted Nuthatch starting to drill a possible nesting hole, and a pair of Black-capped Chickadees which appeared to be engaging in the act of mating. The sighting of two male Northern Shovelers was by far the highlight of the morning. This is only the second time that Wayne has seen this species at Whitemud Creek, and there are very few winter sightings in the Edmonton area.



Northern Shovelers, photo by Wayne Oakes

Opal Road Trip, March 12, 2023

Sean and Marnie Evans lead the first road trip of the year, up to Opal. There were three vehicles with 11 birders, with a good mix of new folks and seasoned veterans looking to see some owls or any other bird that was brave enough to face the cold. They did manage to find several lifers for half of the group – and hopefully provide some new ideas on where to go birding in the future.

The group came across a female Snowy Owl, which flew across the road in front of them...and didn't stop. On the way to Opal they got a nice look at a Northern Shrike. In the Redwater area, they saw a Bald Eagle and a tiny speck of a distant Northern Hawk Owl. It seems to be a good year to see a Northern Hawk Owl in the Opal general area. Further north, there was a very photogenic one not far from the road. No luck on seeing a Great Gray Owl, which is more likely to be seen later in the day, unlike Snowy and Hawk Owls. On the way back, they swung by Fort Saskatchewan and saw a male Snowy Owl out in the open, which was a nice way to end the day. It was resting on a fence line very close to where Snow Buntings were seen earlier in the morning.



Photo by Chris Rees



Northern Hawk Owl, photo by Rhianna Toop



Snowy Owl, photo by Lien Luong

Whitemud Creek South, March 15, 2023

Chris Rees and ten participants headed out walking the trail for Whitemud south of the Snow Valley ski hill. It was -10°C when they started, but by the end of the walk it was -1°C . There were lots of Black-capped Chickadees and nuthatches every time they stopped. They found a tree that had fresh-flaked bark around the base, a sign that a Black-backed or Three-toed Woodpecker had been around. They heard a Boreal Chickadee and a Red Crossbill, and saw White-winged Crossbills high in a spruce tree, in all a total of 12 species of birds in eBird. All agreed it was great to be outside walking with other ENC members again.



Photo by Chris Rees

Whitemud Creek North, March 25, 2023

Wayne Oakes and six participants headed first to the North Saskatchewan River with a somewhat moderate temperature of -4°C . On the river there were Canada Geese, Mallards, and about 16 Common Goldeneye, plus the first 4 Ring-billed Gulls to arrive here this spring.

Returning up the creek, the group observed that pussy willow season is quickly shifting into full splendor. They saw that lots of the seed catkins of paper or white birch, and the river or gray alder have gone uneaten this winter. There was a dead paper or white birch that showed evidence of past feeding by Yellow-bellied Sapsuckers. The group saw coyote scat, and some low-level twigs that have been chewed on by Snowshoe Hares. About an hour into the walk an absolute white-out started, but it only lasted about 10 minutes and was spectacular. The group observed several swarms of Bohemian Waxwings, with the largest numbering about 1,000.



Photo by Wayne Oakes



Sapsucker holes, photo by Wayne Oakes



Photo by Delores Steinlicht

Gold Bar Park, March 31, 2023

Eight birders set out with Vince Cottrell at Gold Bar Park on a chilly overcast morning. They were greeted by a juvenile Great Horned Owl right at the outset. They walked the pavement and scouted out the groves of aspen poplar and white spruce before heading to the riverside trail. After a Red-breasted Nuthatch and chickadees, a Brown Creeper was spotted, which was a lifer for at least one birder in the group.

Next, they went to the footbridge that leads to Rundle Park. Looking eastward in the distance, Canada Geese, Mallards, and Golden-eyes were spotted. Looking west, Northern Shovelers! The river was wide open, with any remaining ice all on the north side of the river. Three gulls were also on the river, two Ring-billed Gulls and a California Gull.

They walked the riverside off-leash area all the way to the sanitation outlet, with hardly a Mallard anywhere! After a quick break at the parking lot they went to the springs but couldn't find robins or anything else. The occasional flock of Bohemian Waxwings flew by and towards the end, a Pileated Woodpecker. There were 18 species in all.



Great Horned Owl, photo by Delores Steinlicht

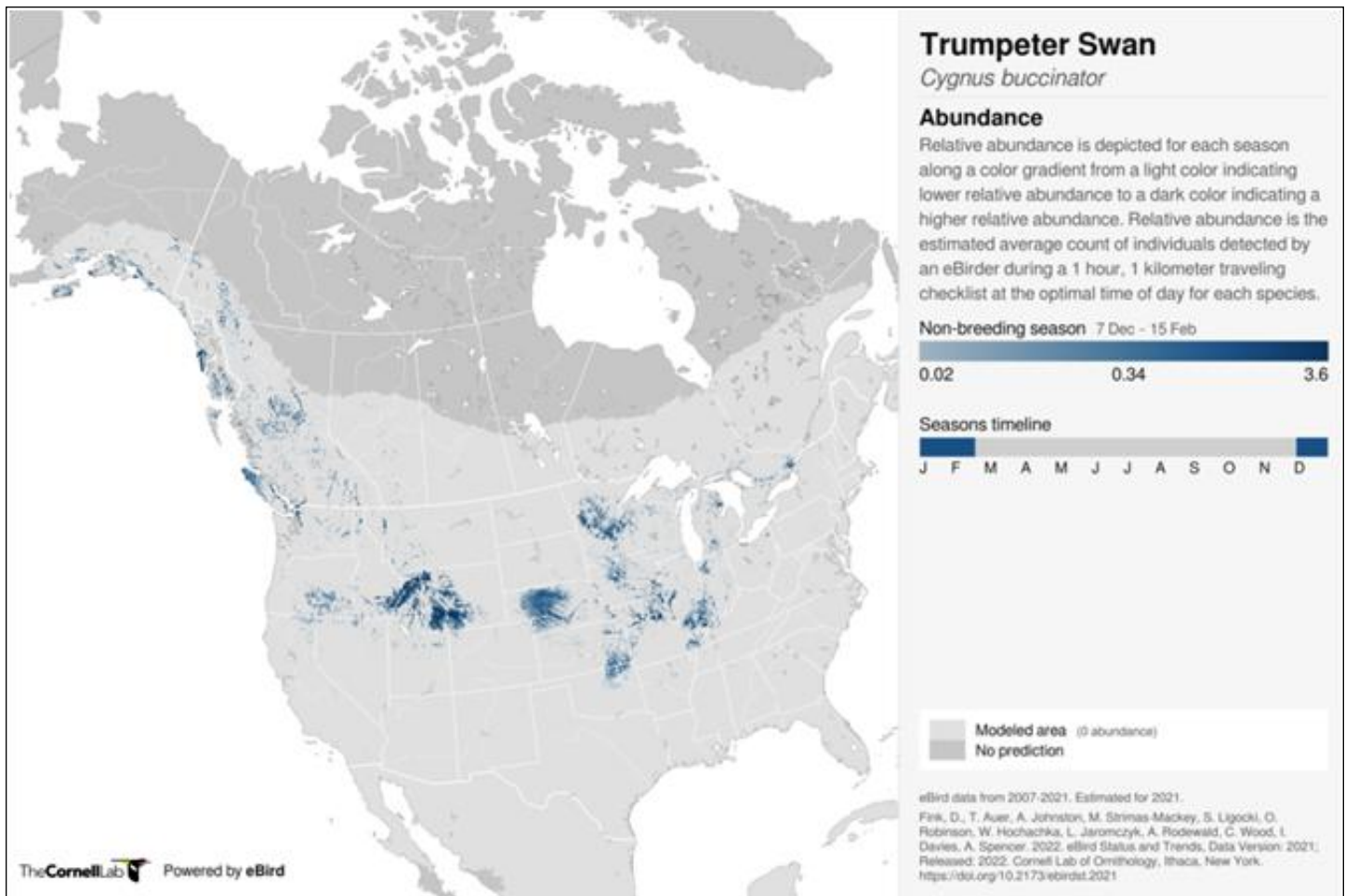


Photo by Delores Steinlicht

Janice Hurlburt and Chris Rees, Outdoor Program Directors

Over-wintering Trumpeter Swans

The Trumpeter Swan is the largest North American native waterfowl. It was hunted almost to extinction in the early 1900s, but conservation efforts have successfully restored the bird to most areas of its former range. An important local step was the translocation of Trumpeter Swans from the Grande Prairie area to Elk Island National Park in 1987, re-establishing a breeding population in the Central Parkland region. Based on the eBird abundance charts for the non-breeding period, Trumpeter Swans spend the winter in the northern United States, the west coast and central B.C., and even up into the Yukon and Alaska.



Source: <https://science.ebird.org/en/status-and-trends/species/truswa/downloads?static=true&week=1>

There are a few locations in Alberta where Trumpeter Swans over-winter. The cooling ponds associated with the Keephills and Genesee electrical generating plants are known by local birders as excellent places to see waterfowl, including a few swans, in the winter months in the Edmonton area. The ponds have open water all year round; however, for at least the last two years, much larger areas of the ponds have frozen over in extremely cold weather as the plants are being changed over from burning coal to burning natural gas. I first noticed this in the winter of 2021/2022, when the northeast bay of the Keephills pond was completely frozen over. A trip this winter on December 22, 2022, found the northeast bay on Keephills again completely frozen over and at Genesee at least the west half and much of the south shore was covered with ice. I began to wonder, what if the ponds froze over completely? How would this affect the Trumpeter Swans that can be seen wintering on the ponds? Fortunately, by January 26, 2023, the weather had begun to warm up and both the northeast bay at Keephills and the pond at Genesee were starting to open up.



Trumpeter Swan Family, Wabamum Lake, November 1, 2021



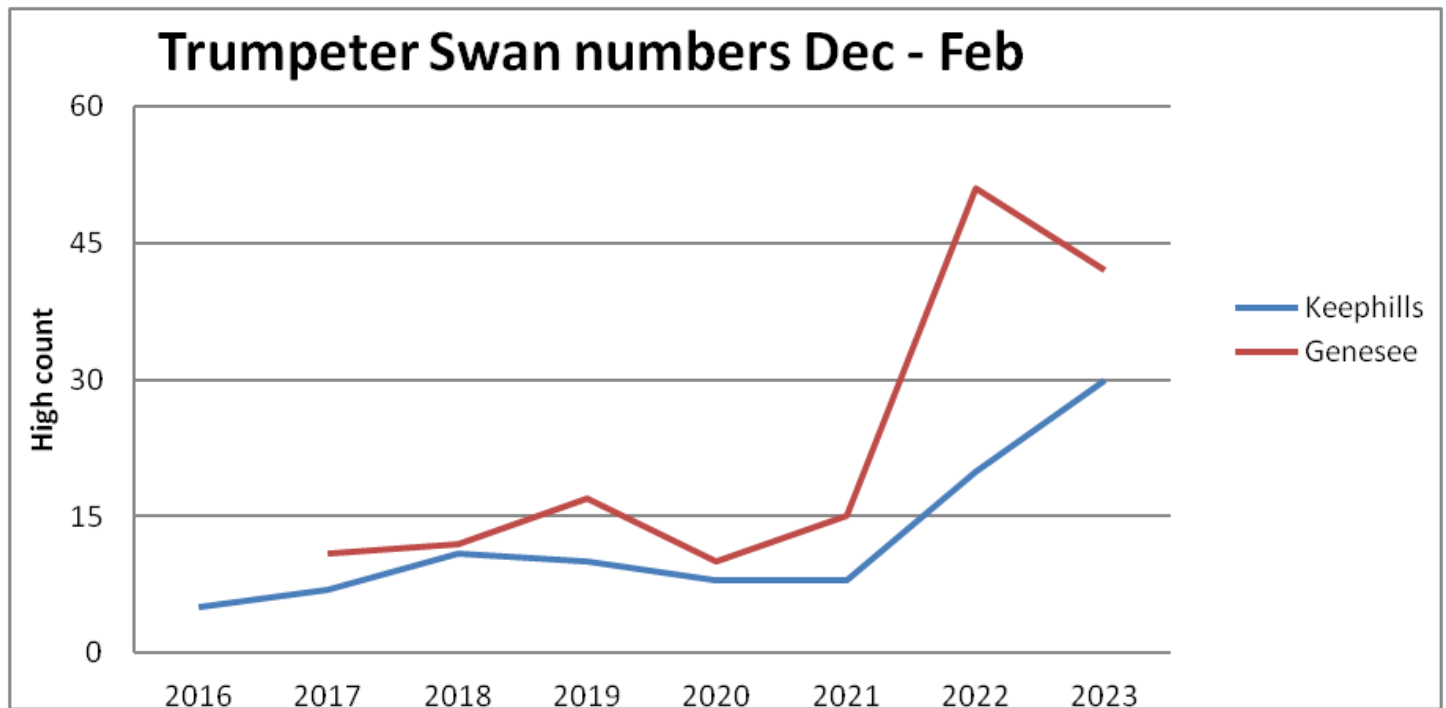
*Genesee cooling pond, December 22, 2022,
looking northwest*



*Genesee cooling pond, December 22, 2022,
looking northeast*

On Friday, February 17, 2023, two of us headed west from Edmonton to look for water birds at Keephills and Genesee. We found an amazing number of Trumpeter Swans, 70 to 75 in total. Thirty Trumpeters were observed on the Keephills cooling pond, and forty Trumpeters plus five other swans we could not get a definitive identification for on the Genesee cooling pond. By February 17, 2023, both ponds were at their normal extent of ice coverage that I had seen prior to the winter of 2021/2022. The major group of Trumpeters on Keephills was in the channel close to the plant. The major group at Genesee was along the western shore. One has to wonder where all the birds appeared from, as on prior visits to the ponds and on subsequent visits we did not find such large numbers of swans.

Checking eBird on February 20, 2023, based on sightings reported in the last 30 days, there appeared to be Trumpeter Swans at only three locations in Alberta: along the Bow River in Calgary, at the Keephills cooling ponds, and at the Genesee cooling ponds. Based on the December–February data on eBird for various years (2016–2023), it appears the number of over-wintering Trumpeter Swans at Keephills and Genesee has increased in the last two years. The data reflect the high count value for the December–February time frame for each winter. See photo, page 23.



Data source: eBird

(Keephills: bottom line above, Genesee: top line above)

For now, it seems my fear of the ponds freezing over may not be an issue. We should still be able to see Trumpeter Swans and perhaps experience the thrill of them flying and calling in the winter.

For additional information about the Trumpeter Swan in Alberta, see:

Alberta Environment and Sustainable Development and Alberta Conservation Association (2013). *Status of the trumpeter swan (Cygnus buccinator) in Alberta: Update 2013*. <https://open.alberta.ca/publications/0778509214>

Carter, Nick (2023). The Recovery of Trumpeter Swans in Alberta. *Nature Alberta Magazine*, Winter 2023.

eBird Status and Trends, Trumpeter Swan, Trumpeter Swan – Abundance map – eBird Status and Trends. <https://science.ebird.org/en/status-and-trends/species/truswa/abundance-map>.

Friends of Elk Island Society. (n.d.). *Trumpeter Swan Reintroduction*. <https://www.elkisland.ca/conservation-research/trumpeter-swan-reintroduction>.

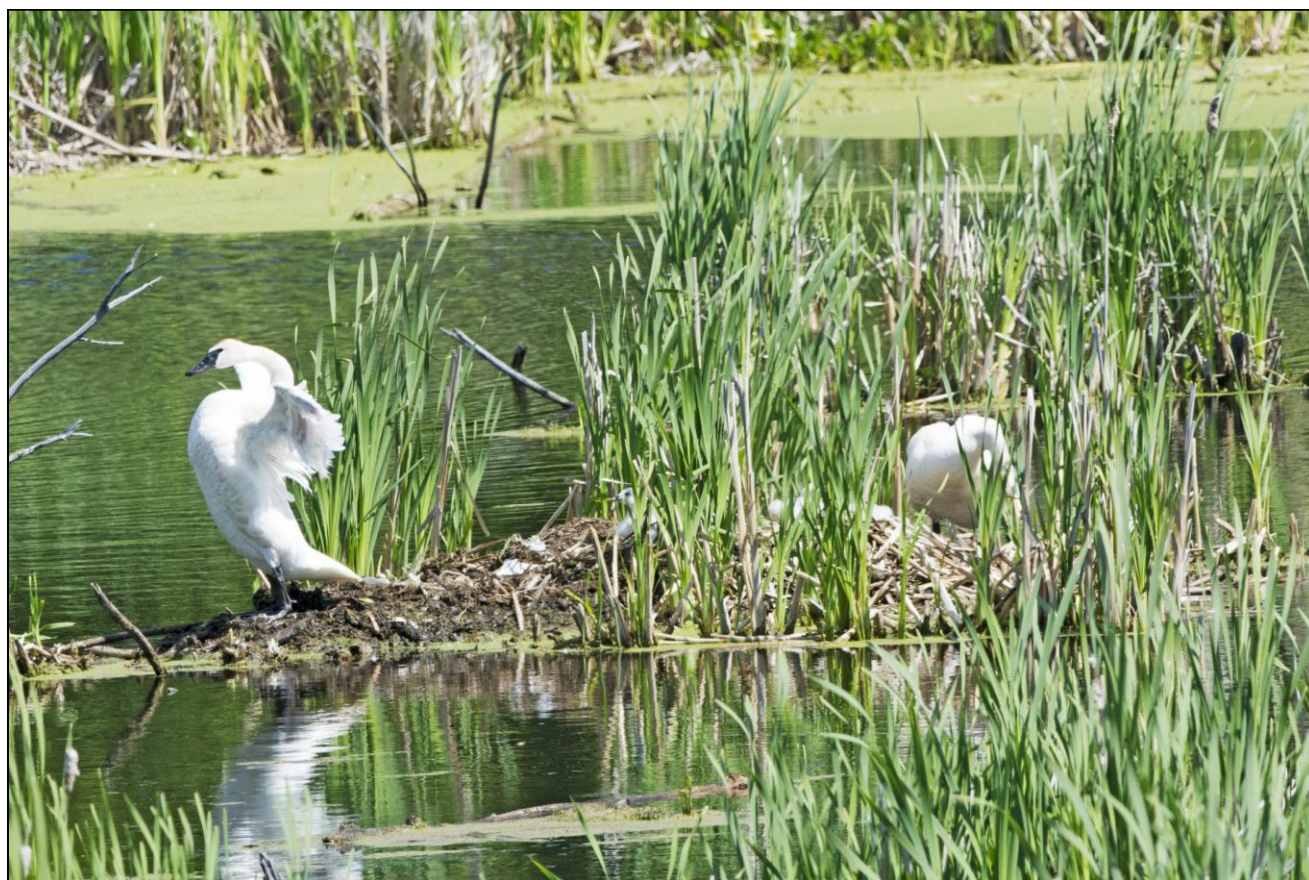
Chris Rees



Trumpeter Swans at Keephills, February 17, 2023



Trumpeter Swan in flight



EINP–Beaverhills–Cooking Lake Moraine Trumpeter Swan nest site, 2017

All photos by Chris Rees