



2024
Winter
Newsletter



LICA
ENVIRONMENTAL STEWARDS

Wildlife Signs

By: Stephanie Sampson

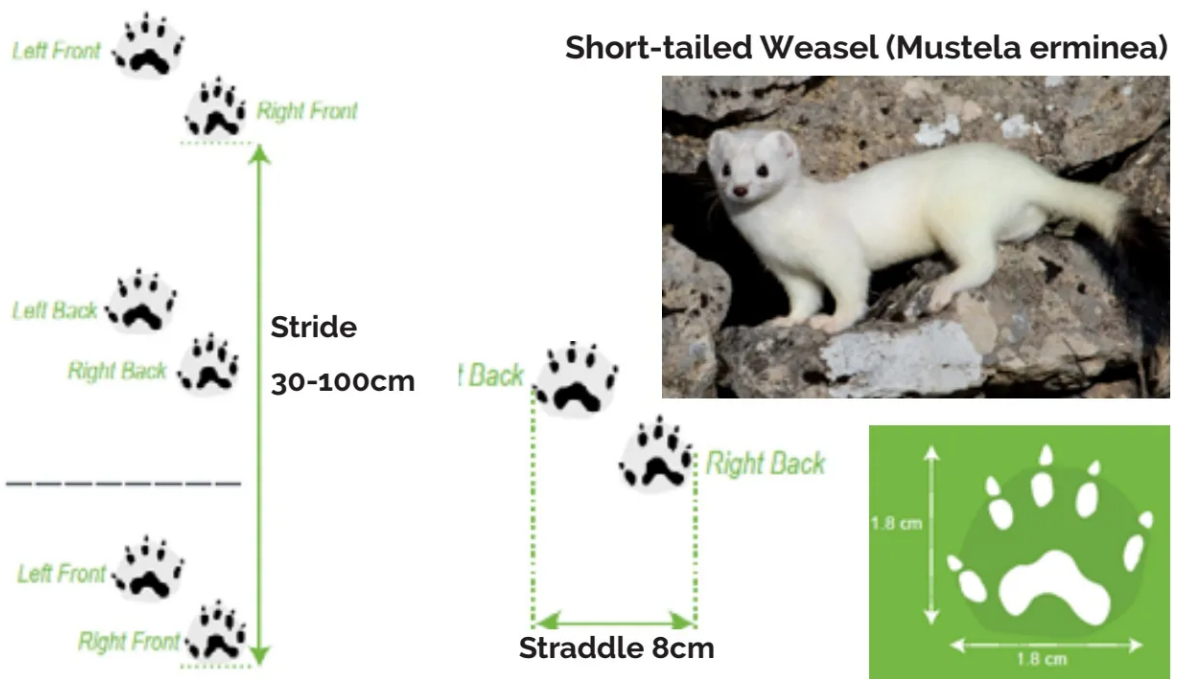
In the dense Boreal, it can often be difficult to see our favourite animals, despite the forest being full of them. Many species inhabit the boreal forest and many of them are elusive and only seen by a lucky few. The best way to determine that species have been in an area is by familiarizing yourself with wildlife signs!

Many people may think that wildlife tracking simply relies on footprints. However, there are so many more hints that wild species have been around! Yes, tracks are a great way to identify wildlife, but do not discount tufts of fur, habitat disturbances, signs of feeding, and scat!

Finding Foot Prints

Finding wildlife tracks is exciting, but unless you know what you're looking at, they can be difficult to differentiate. Winter is a great time for tracking, although tracks tend to be the most clear in soft mud or wet sand! Ensure you use an item to measure the scale, especially when taking photos to study - we usually don't carry a ruler while hiking, but most of us have a lighter or a coin, which tend to have uniform sizing!

While studying tracks, there are a few things to look for that will assist you in identifying the species: size, number of toes, presence or absence of claw marks, and gait (pattern of walking). When measuring an animal's tracks, we measure **stride**, and **straddle**. Gait is the speed at which the animal moves - different species have different patterns of movement, such as the order in which their feet strike the ground.



Short-tailed Weasel (*Mustela erminea*)

The Scoop on Poop

When it comes to scat, little else compares for collecting wildlife data. Scat can tell us which species left them, where the animals spend their time, what their diet includes, and can often give us clues about their health. Scat will look different throughout the seasons, depending on the availability of food sources.

For example, moose, elk and deer will often have softer pellets in the summer due to their ingestion of grass, while their winter droppings will be harder as they eat more woody browse. Bears will often have scat full of berry seeds during the late spring/summer.

Some species, particularly wild cats and raccoons will choose a "latrine", spot similar in the way a house cat uses a litter box.

Scat that appears partially white indicates a bird or reptile, as they expel uric acid in their droppings rather than urinating - the nitrogen turns the scat white!



Pete Sucheski

Hunting through Habitat

Habitat disturbances can offer clues about which wildlife is using the area. While dens may be well-hidden, **lays** or **beds** are easier to spot, appearing as impressions in the ground, usually in sheltered areas. Lays are temporary resting places, while beds are more frequently visited. **Nests** are another type of shelter that can be easy to spot, and can give clues to the identity of the birds using them. Some species build homes that are easier to identify - beavers build their lodges out of large woody material, while muskrats tend to build theirs from plants like bulrushes and cattails.

Other disturbances in habitat can be found when animals search for food sources. Some, such as kill sites for large predators, are quite obvious when you locate them (and subsequently get out of there quickly!) If you see strips of bark missing from the upper side of tree branches - you likely located a porcupine's lunch! Deer love to eat the new growth from plants like Red Osier Dogwood, and if the browse is close to the ground, it's likely a rabbit or hare who had a snack.

Different woodpecker species will leave unique patterns in the trees they feed from - Pileated Woodpeckers will leave large rectangular holes, while Yellow-Bellied Sapsuckers will leave vertical lines of shallow round holes.

If you are interested in learning more about Wildlife of the Lakeland, such as birding, or identifying mammal signs, join LICA for one of our workshops!



Steve S. Meyer



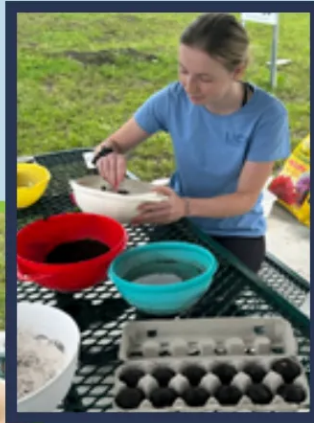
Frank King



Family Fun Day
in the Garden



Bonnyville Oil & Gas Show



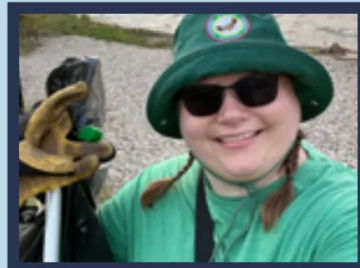
DIY Seed Bomb
Workshop



Community Garden
Work Days



Winning the
Outstanding
Non-Profit
BOYA award
for the
Bonnyville
Chamber of
Commerce!



Shoreline Cleanup LLB



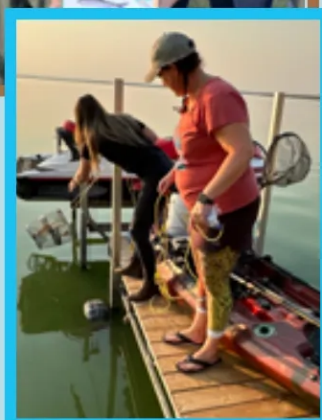
BIRDS at Sir Winston Churchill



Canning Workshop
co-hosted with the
BRFGA Ladies League



Fish ID Workshop
with School of Fish



2023



LICA's 23rd Annual
General Meeting



Kehewin Water Camp

2023-2024 Beaver River IWMP Implementation Projects

By: Kayla Hellum

LICA completed the Beaver River Integrated Watershed Management Plan (IWMP), in 2022, with assistance from Palliser Environmental Ltd., LICA's IWMP Committee, and 3 rounds of engagement sessions inclusive of 15 public sessions and private meetings. Five implementation priorities were identified that have multiple benefits for all stakeholders and rightsholders:

1. Develop and implement a long-term surface water quality monitoring program in collaboration with all stakeholders to leverage resources and achieve mutual goals.
2. Collaborate to implement BMPs and land use strategies to protect water quality and riparian health, particularly where riparian intactness scores are below the target and threshold and water quality is a concern.
3. Seek opportunities to support riparian restoration where assessments indicated health condition does not achieve targets and/or thresholds.
4. Collaborate with stakeholders to prioritize and develop a fishery monitoring program, including key habitat. Update fisheries management objectives prior to tourism and recreation planning (proposed in the Cold Lake Sub-Regional Plan).
5. Prioritize the completion of floodplain maps for watercourses and high-water marks for lakes to support the implementation and enforcement of urban development setbacks through policy and planning.

To support IWMP Implementation, LICA is currently developing a few new programs. To name two; the Riparian Health Campaign and the LICA's Little Environmental Stewards Program are currently being developed and are anticipated to be offered throughout the watershed in the Spring of 2024.



LICA's Riparian Health Campaign

The Beaver River IWMP (2022) and large-scale riparian intactness assessments (2021) influenced the need for a Riparian Health Campaign in the Beaver River watershed. To meet recommendation actions of the Beaver River IWMP at a community level that contributes to healthy riparian areas and wetlands, a greater emphasis on community education and awareness is needed.

Those who sign up for the Riparian Health Campaign will be educated on riparian areas and their role in watershed health. They will receive resources on desirable plant communities, invasive species, and additional information like the Cows & Fish guides to conduct riparian area health assessments on their property. They will also receive a bundle of seedlings to kick-start and support community-based riparian area restoration on their property, which will be complemented by a lawn sign for further awareness of the campaign!



LICA's Little Environmental Stewards Program

To support youth education as part of the IWMP implementation process LICA is currently developing the LICA's Little Environment Stewards Program to support youth education on a variety of environmental aspects. It will take place as a field day with grades 4-5, in addition to being offered over the summer to different youth community organizations. This program will provide hands-on education at three different workshop stations over the course of a full day outside! The topics for the workshop stations include 1) Water 2) Plants & Animals 3) Air Quality and Acid Deposition in the Watershed.

For more information on the Beaver River implementation projects, please email watershed@lica.ca

Meet the Board!

An Interview with Board Member Alyssa Krawchuk

Alyssa Krawchuk found her passion in agriculture at a young age, having grown up on a small mixed farm outside of Saskatoon. "I always knew I wanted to be involved agriculture, which is why I attended the University of Saskatchewan and achieved an animal science degree." It was agriculture that brought Alyssa to the Lakeland region ten years ago, to work as a forager livestock specialist with Lakeland Agricultural Research Association (LARA). Alyssa was recently appointed the Agricultural Director position on the LICA Board of Directors.

Tell us about your history with LICA. What made you decide to become a board member?

"I have known about LICA for over 10 years through work with LARA, where we have been involved in varying capacities. I strongly believe in LICA's mandate and mission and their purpose in our community and I want to see the organization grow."

What does Environmental Stewardship mean to you?

"Environmental Stewardship is considering your environment in all of your actions and considering the impact that you are having, both negative and positive. [It is] also about how we can correct those negative impacts that we are having."

What is it that initially got you interested in Environmental Stewardship?

"The environment is key to basically anything agriculture. It's connected to all facets of life. We need to consider the environment in everything we do, and we need to consider the impact that our daily actions are having on the environment. Particularly in agriculture, with some of the practices that are done that are not the most beneficial for the environment. Through work we really try to emphasize the role that the environment should be playing particularly trying to leave a farm operation in better condition than when you got it."

Do you find that people in the Lakeland region are on board with that?

"It is hit and miss. A lot of the younger farmers that are coming onto the operations are more interested in changing the way things are done, whereas some of the older generations have been doing work the same way for a number of years and it can sometimes be hard to change minds."



You have had some experience with agriculture in different regions. Tell us a bit about that.

"After university, I went to Scotland for half a year to do a farming exchange, where I worked at a sheep farm. It was very different because they don't have a lot of large predators. They ran about 2000 head of sheep on 5000 acres of hills, and they didn't have to worry about wolves. Their biggest worry would be wild dogs, or during lambing season, the eagles."

What is one thing that you wish people knew about your trade?

"That the food on your plate came from a farmer – it didn't just come from the grocery store. I think a lot of consumers need some more education on their food."

What do you hope for the future of the environment in the Lakeland Region?

"As a mom, I want to leave a vibrant and diverse environment with both plant and animal species so my children can enjoy it in pristine condition."



What do you enjoy doing in your spare time?

"Spending time with my family – my husband and 2 kids - on our acreage. Horseback riding, hiking, lots of outdoor activities – we are a very outdoor family. We mostly stick closer to home, but as the kids get older, we will do some more camping."

If you had to live the rest of your life as a plant or animal native to Alberta, what species would you be and why?

"I would probably say a lady slipper – because they are so beautiful but they are also elusive."

Thank you for taking the time to speak with me today, Alyssa. Is there anything else you would like to share with our readers?

"I'm excited to have been voted on as a board member and I'm really looking forward to being with LICA for the next two years, learning more about LICA and expanding the number of people that know about LICA and can benefit from the work that LICA does."

Understanding Winter Temperature Inversions in Alberta and Their Impact on Air Quality

By: Mike Bisaga

In Alberta's prairies, winter brings a unique meteorological phenomenon called temperature inversions, which significantly affects air quality. This occurs when cold air near the ground is trapped by a warmer layer above it, reversing the typical temperature gradient. This inversion layer acts like a lid, keeping pollutants close to the ground and reducing air circulation.

For Albertans, this means during winter inversions, pollutants from vehicles, home heating, and industrial activities accumulate in the lower atmosphere. The result is a spike in pollutants like particulate matter and nitrogen oxides, leading to poorer air quality. This can pose health risks, especially for those with respiratory conditions, the elderly, and children, aggravating ailments like asthma and bronchitis.

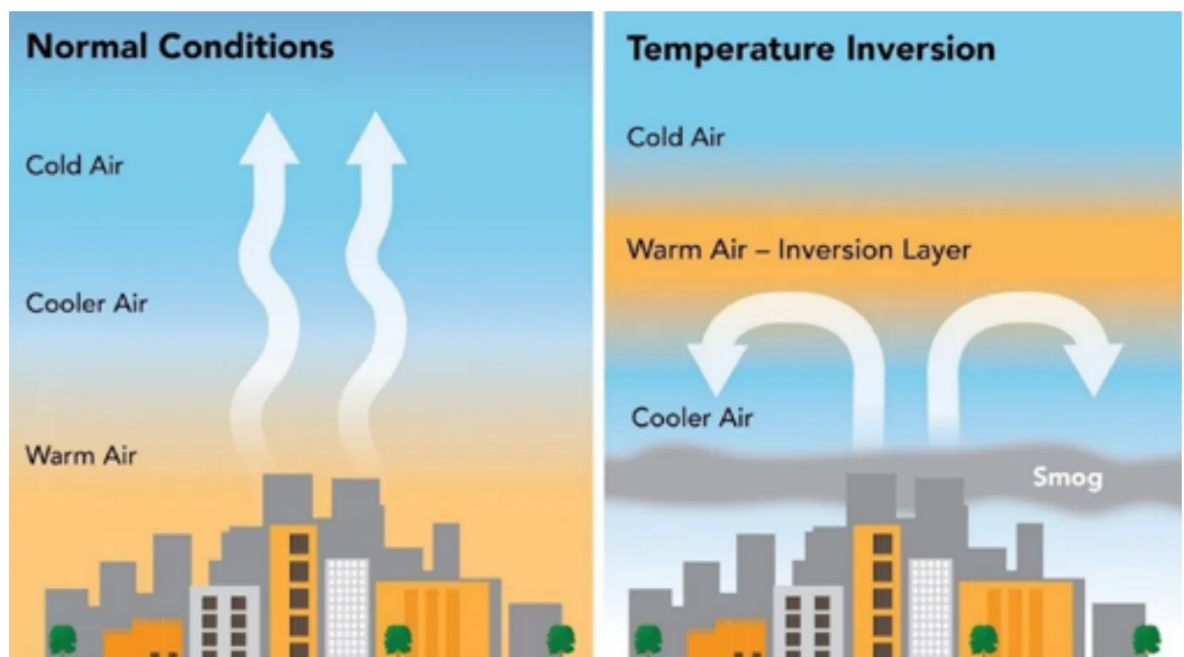


Image Source: <https://lotusarise.com/temperature-inversion-upsc/>



Residents are advised to stay informed about air quality advisories and limit outdoor activities during severe inversions. Reducing pollution by limiting vehicle idling, carpooling, and following local regulations, such as burn bans, can help mitigate these effects.

Awareness and proactive measures are crucial in maintaining healthier air quality in Alberta during winter temperature inversions. Check out the local Air Quality Health Index (AQHI) on our website!

AQHI: The Air Quality Health Index



AQHI Lantern at the Cold Lake Energy Center

The AQHI, uses a colour-coded scale with risk values ranging from 1 to 10, and suggests exposure mitigation steps for each risk level.

Very High Risk (11+)

Avoid Strenuous Outdoor Activities

High Risk (7-10)

Reduce or Reschedule Strenuous Outdoor Activities

Moderate Risk (4-6)

Consider Reducing or reschedulling strenuous outdoor activities

Low Risk (1-3)

Enjoy Usual Outdoor Activities

Check out the current AQHI here: <https://lica.ca/airshed/>

Get to Know LICA!

My favourite winter memory is...

Kristina

"Ice fishing with my father. Since I was a little girl, I was his ice-fishing buddy. From the moment I got home from school until supper time, we would head down to the ice shack and fish. This gave us time to catch up on life, play games, and enjoy the peace and quiet on the frozen lake. Sometimes, my father would even clear an ice skating rink for me, so I can skate while the fish weren't biting. This experience taught me the importance of patience, gave me a passion for sport fishing, and taught me many basic survival skills."



^Kayla

"My best winter memory is ice fishing with my family."

Eveline

"Hiking or snowmobiling through a hoar frosted forest"



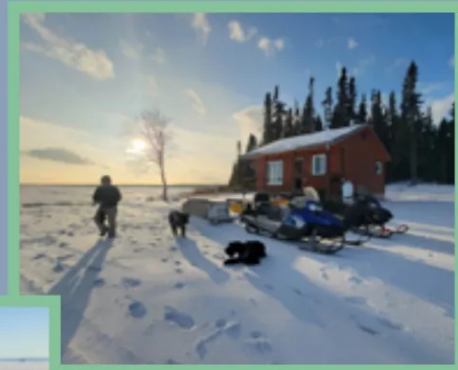
Stephanie>

"When I was a kid, we would visit my grandparent's house on Christmas Eve. I remember vividly the blue and white lights on their house and the smell of woodsmoke in the crisp winter air when we got all bundled in our snowsuits, ready to head home and put out cookies and milk for Santa!"



Mike >

"A favourite winter memory for me is taking the dogs by snowmobile (in a komatik) to the cabin in Labrador."



Lori >

"Building snowmen with my children!"



Maria

Experiencing winter frost around our rural property for the first time. It was like a winter wonderland and each time this happens in the winter I am still amazed at how beautiful my surroundings get.

Upcoming Events

January-March

February 5th, 2024

Wildlife ID Workshop
LICA Office, Bonnyville
6:00 pm-8:00 pm

Jan 25th, Feb 22nd, Mar 21st 2023

LICA Board of Directors Meetings
9:00am - 12:00 pm

March 5th, 2024

Vermicomposting Workshop
Bonnyville Municipal Library
6:00 pm-8:00 pm

March 19th 2023

Soil Painting Night
LICA Office, Bonnyville
6:00 pm - 8:00 pm




Please check out the LICA website
or Facebook page for more
information on upcoming events!
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