

# 2023 Spring Newsletter



**LICA**  
ENVIRONMENTAL STEWARDS

Photo: John Webber

# Vermicomposting

by Stephanie Sitkowski

Vermicomposting is an easy and inexpensive way to incorporate natural fertilizer into your gardening. By keeping a bin of worms, and feeding them your kitchen scraps, you can have a renewable source of organic castings. Nicknamed "black gold", castings are the waste from worms - and they are full of nutrients for your plants. You can mix the castings directly into your soil (1 part castings to 3 parts soil), and you can even make a compost tea out of them!

The worms we use in our bins are red wiggler worms (*Eisenia fetida*), which are a different species of worm than you may be used to seeing in your garden. These worms are much smaller, and prefer warmer temperatures and sub-surface soils - this makes them ideal for keeping in your in-home bin! These worms are easy to raise, and if managed properly, do not smell.

Worms require bedding (potting soil) and shredded paper. They only require approximately half a cup of food per week to start. They can eat almost any kitchen scrap, but some foods are best avoided for various reasons. Acidic and spicy foods are not well tolerated by the worms. Other foods such as meat and dairy produce a rancid smell when they break down.

Worms reproduce quickly when they are well cared for - the population of worms in your bin will double after 6 months. Often our participants mention that they have to give away worms to their friends to start their own bins! As for your gardens - you should have castings after 3 months.





## Did You Know?

Vermicomposting 101 is our most popular community workshop! Our bins go into homes and classrooms all over the LICA region.



So far in 2023, LICA has supplied our communities with



# 139

Vermicomposting Bins!

To build your own bin, join LICA at one of our vermicomposting workshops! Keep an eye on our Facebook page for community events, or call to book one for your group! The workshops are free of charge, and include all supplies - including your worms!



## BIRDS

by Kayla Hellum

From February 1 – April 1, 2023, LICA organized a Winter Bird Monitoring program. Community members were encouraged to track and identify different bird species within the LICA region at a location of their choosing. To provide support in bird species identification, LICA developed a Basic Bird ID workshop that focused on ID principles, skills to identify bird families, and different tips and tricks to make for an enjoyable experience for everyone!

With the data collected, LICA contributed to ebird's online database. [eBird](#) was created by [Cornell Lab of Ornithology](#) for the purpose of supporting both birders and bird conservation. Data submitted to ebird contributes to science and conservation as the Cornell Lab conducts a detailed analysis of the database and produces valuable maps and data products on bird distribution, abundance, and migratory behaviour.

This citizen science project provided an opportunity for naturalists, both novice and experienced, to meaningfully contribute to science and the conservation of biodiversity in our Region!



### Did You Know?

The LICA region resides along main travel corridors for migratory bird species, and specifically in the Cold Lake and Lac La Biche areas of our boundary, we can find world-class birding!

Of the Species at Risk found in Alberta, there are 16 bird species listed that spend all or part of their life within the LICA region.



**12 bird species were observed by community members during the Winter 2023 Bird Monitoring program!**



Bird Species	2023 Count
Bald Eagle	1
Evening Grosbeak	8
White-breasted Nuthatch	5
Hairy Woodpecker	2
Great Horned Owl	1
House Sparrow	76
Black-capped Chickadee	73
Common Raven	9
Black-billed Magpie	16
Blue Jay	31
Downy Woodpecker	7
Rock Pigeon	10



A House Sparrow, the most abundant species observed.

# Acid Deposition Monitoring

## *Sampling Methods*

by Mike Bisaga

### *What is Wet Deposition Sampling?*

Acid deposition can occur in wet and dry forms. Wet deposition consists of rain, sleet, snow, or fog that has become more acidic than normal. Monitoring wet deposition involves using a **precipitation gauge** to accurately measure the volume of precipitation and a **precipitation collector** to gather a sample in a bucket; the precipitation sample is then sent to a laboratory for chemical analysis.

The **precipitation gauge** determines precipitation amount and rate by using a balance to measure the weight of precipitation. A specially designed wind screen surrounds the gauge and minimizes the formation of strong updrafts that can distort the path or trajectory of precipitation particles falling toward the gauge.



*Figure 1: Rain gauge with wind screen*



The screen also generates turbulence over the gauge orifice to break up streamlines (or horizontally blowing rain and snow) and therefore improves the catch.

The **precipitation collector** uses a sensor to detect the onset of precipitation and automatically uncovers a sample collection bucket. Within two minutes after the precipitation stops, the sample bucket cover returns to its closed position to minimize evaporation and exposure to dry deposition. The sensor also detects drizzle, heavy fog, or light snow, which may be significant contributors to deposition.

Every seven days, contents of the bucket in the precipitation collector are sent to the Central



*Figure 2: Precipitation collector with lid in open position*



*Figure 3: Precipitation collector with lid in closed position*

Analytical Laboratory in the Wisconsin State Laboratory of Hygiene at the University of Wisconsin-Madison. Samples are analyzed for parameters that are needed to determine potential acid deposition including pH, calcium, magnesium, sodium, potassium, sulfate, nitrate, chloride, and ammonium. The Wisconsin lab analyzes samples for the National Trends Network, a component of the National Atmospheric Deposition Program, which includes over 250 sampling locations across North America;

LICA is excited to become a contributor for this program.

# Get to Know LICA!

My favourite sign of spring is...

"Taking the cats and dogs for walks, and seeing all the critters and tracks."  
-Vicky

"Robins! Hearing their calls first thing in the morning and seeing the yard full of Robins doing their worm hunt is definitely a sign of spring for me!"

- Mike



"My favorite sign is water running in the ditches, along the curbs in town and running over the frozen streams out in the country.

I just love that sound and the reflection of the water in the sun as it makes it way to a larger puddle or lake!"

- Eveline

**Tulips!**  
- Lori

"Hearing the birds chirping is a sure sign of spring! I love waking up to the sunshine and all the different bird songs!"

-Stephanie

"My favourite sign is when the trees start budding. To me, this represents resilience after a long, dormant winter. Seeing new foliage always makes me smile!"

- Kristina

"My favorite part of spring is heading outside with the dogs to look for sheds as the snow melts, and to spot the first Prairie Crocus of the year!"

-Kayla





# Upcoming Events

May-June

**May 2nd, 2023**

FREE Seed Starting Workshop  
Cold Lake Library South Branch  
6:00pm-7:30pm

**May 6th, 2023**

Visit us at the FCSS Discovery Day!  
Bonnyville C2 Center

**May 16th, 2023**

Garden Orientation  
LICA Board Room  
5:30pm-6:30pm

**May 20th, 2023**

Bonnyville Community Garden  
Opens for the Season

**June 4th-6th, 2023**

Lac La Biche Enviro Week  
McArthur Park

**June 21st & 22nd, 2023**

Bonnyville Oil and Gas Show  
Bonnyville C2 Center

Please check out the LICA website  
or Facebook page for more  
information on upcoming events!  
[@infolica](#)



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## Newsletter Contributors

**Content:** Michael Bisaga, Kayla Hellum, Stephanie Sitkowski

**Design:** Stephanie Sitkowski

**Editors:** Eveline Hartog, Lori Jodoin, Kristina Morris



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