

LONG LAKE 2022

TREASURES
AMONG US



Long Lake
Preservation Association

INTRODUCTION

The Long Lake Preservation Association Board of Directors is pleased to present the 2022 calendar, Treasures Among Us. We hope you enjoy using it as much as we did preparing it.

We know that a rural lake setting such as ours is filled with many natural wonders, but do we really appreciate how many? Do we really observe them, not just see, but recognize? This calendar has examples of natural phenomena and living things that are there but often not observed. Some, such as double rainbows and ice thick enough to walk upon but totally devoid of snow, are not often seen because they don't happen very often, but they do happen. Some, such as April's Walkingstick, are hiding in plain sight. Some, such as molting geese having bad feather days, are there every summer, but do we notice? Many local woods teem with Jack-in-the Pulpit every spring, but one must really look to spot them. Some, such as the carnivorous Pitcher Plant, seem downright exotic, yet all are treasures among us; every photograph in this calendar was taken on, at or within a mile or so of Long Lake.

In pointing out these plants, animals and happenings, we hope to make better observers of all of us. The more we look, with attention to detail, the more wondrous discoveries we make. Come with us, then, on the 2022 tour of the Treasures Among Us.

LLPA Board of Directors





Joe Thrasher



LONG LAKE PRESERVATION ASSOCIATION



Barb Lang



Nikki Janisin

JANUARY

2022

SUNDAY	MONDAY	TUESDAY	WEDNESDAY	THURSDAY	FRIDAY	SATURDAY
			December 2021 S M T W T F S 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28 29 30 31	February 2022 S M T W T F S 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28		1
● 2	3					New Year's Day
	Quadrantid Meteor Shower	Quadrantid Meteor Shower				
☾ 9	10	11	12	13	14	15
		Soup-Lunch (Hunt Hill)				
16	○ 17	18	19	20	21	22
	Martin Luther King Day Wolf Full Moon					
23	24	☾ 25	26	27	28	29
30	● 31					

Phenology and weather notes from 2021
Astronomy notes are for 2022

Lady Slipper Orchids *Cypripedium acaule Ait.*

The lady's-slipper orchid, also called the moccasin flower, grows in bogs, mixed hardwood coniferous forests, swamps and deciduous woodlands. Wisconsin has six species of lady's-slipper orchids, found in shades of pink, yellow and white.

Like other orchids, it introduces a variety of amazing adaptations to survive and reproduce. Lady's-slippers have a symbiotic relationship with a fungus that grows in the soil. This fungus is essential in seed sprouting and provides nutrients to the lady's-slipper seed. When the plant is older and able to produce more of its own nutrients, the fungus will extract nutrients from the orchid's roots.

Lady's-slipper orchids also have developed an interesting way to ensure pollination for seed production. The primary pollinators, bees, are lured into the flower pouch by the flower's bright color and sweet scent. Once inside the flower pouch, the only escape is for the bee to leave the way it entered and in the process, rubs past the pollen masses, ensuring the transfer of pollen between flowers.

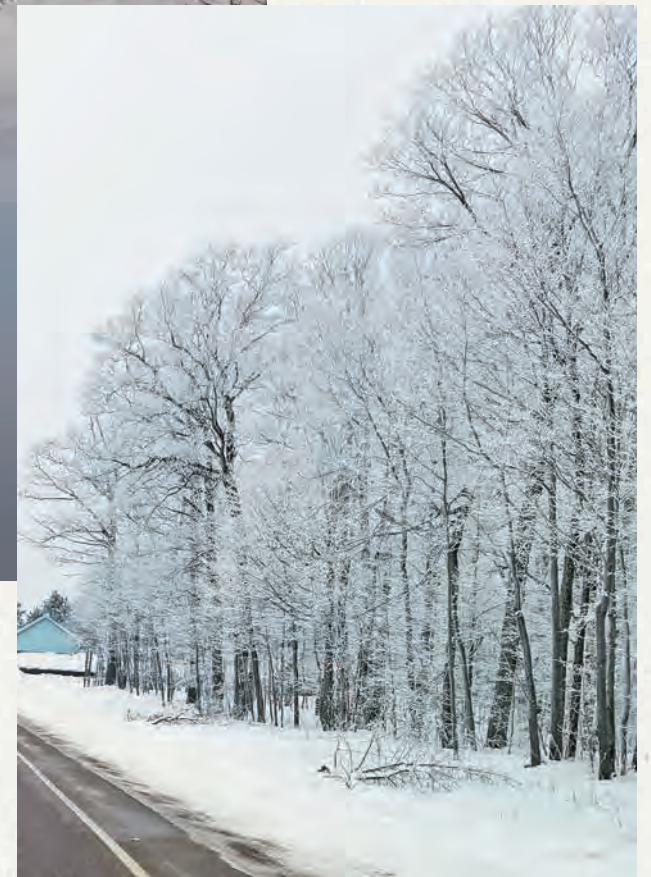
Flowers of the lady's-slipper can typically be spotted in May and June. The pink lady's-slipper is common in our area; however, the Northern Yellow Lady's-slipper (*Cypripedium parviflorum* var. *makasin*) is a Wisconsin Special Concern plant.

---Nikki Janisin

LONG LAKE PRESERVATION ASSOCIATION



Joe Thrasher



Steve May

FEBRUARY

2022

SUNDAY	MONDAY	TUESDAY	WEDNESDAY	THURSDAY	FRIDAY	SATURDAY
		1	2	3	4	5
	Phenology and weather notes from 2021 Astronomy notes are for 2022		Groundhog Day			
6	7	☾ 8	9	10	11	12
		Soup-Lunch (Hunt Hill)				Abraham Lincoln's Birthday
13	14	15	☉ 16	17	18	19
Super Bowl	Valentine's Day		Snow Full Moon			
20	21	22	☾ 23	24	25	26
	President's Day					
27	28		January 2022 S M T W T F S 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28 29 30 31	March 2022 S M T W T F S 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28 29 30 31		

Hoar Frost

Hoar frost = white crystalline deposits of frozen water vapor formed in clear, still cold weather on vegetation.

Hoar frost forms on plants and trees early in the morning hours of cold, calm winter days. The moisture in the air adheres to the trees and as it freezes the crystalline shapes build to create beautiful shapes.

While hoar frost is not very common in northern Wisconsin it seems like we are blessed with the weather event maybe 10 days a year when conditions are just right. When you are up early enough to witness the rare event, it is breath taking! Because of the clear calm conditions needed for formation of hoar frost in conjunction with the snow on the ground, the landscape looks more like a beautiful painting in real life! The condition usually does not last very long before the sunlight or a light breeze destroys the conditions needed to support the event.

These rare few days every year are among my favorites. A walk on days like these are calm, still, peaceful, and beautiful...makes me glad I live on the Long Lake water shed!

---Steve May

LONG LAKE PRESERVATION ASSOCIATION



Barb Lang

MARCH

2022

SUNDAY	MONDAY	TUESDAY	WEDNESDAY	THURSDAY	FRIDAY	SATURDAY
		1 ●	2	3	4	5
		Mardi Gras	Ash Wednesday	<i>First Robins</i>		<i>Winter Festival (Hunt Hill)</i>
6	7	8	9 ☾	10	11	12
		<i>Soup-Lunch (Hunt Hill)</i>		<i>First Thunderstorm</i>		<i>Redwing Blackbirds Arrive</i>
13	14	15	16	17 ○	18	19
Daylight Saving Time Begins		<i>Sandhill Cranes Calling</i>		St. Patrick's Day	<i>Worm Full Moon</i>	<i>Grackles Return</i>
20	21	22	23	24 ☾	25	26
Spring Equinox <i>Robins Return</i>		<i>Chipmunks Emerge</i>				
27	28	29	30	31	February 2022 S M T W T F S 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28	April 2022 S M T W T F S 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28 29 30
				<i>Ice Out</i>		

Jack-in-the-Pulpit

It is almost a look of modesty the way the Jack-in-the-Pulpit curves its petal or hood downward. Who is it hiding from? You have to bend down and look close to realize there is a spectacular little flower hiding in plain sight. This year in the calendar we are featuring those small and big wonders that surprise us on Long Lake.

The Jack-in-the-Pulpit can be found in rich, moist deciduous woods beginning in March and lasting until June. You need to look closely for its often-striped flower of green or purple. You will find this little gem if you are walking in woods that are rich in nutrients. Three leaves and sometimes a showy cluster of small berries also characterize the *Arisaema triphyllum*.

Where you find one, you will most likely find others, but it doesn't take away from the excitement of that first sighting of this unique spring perennial. Photograph and walk on by, as all parts of this plant are poisonous if ingested. The plant reproduces by means of pollen transfer from male to female flowers as well as through the corm. The corms send out shoots early in the season to produce new plants. Take a walk in the woods in early spring and you may be lucky enough to find yourself in a colony with a tall female plant surrounded by new smaller male plants. Happy Spring!

---Sandy Hovey Campbell

<https://extension.illinois.edu>
<https://wisconsinpollinators.com>

LONG LAKE PRESERVATION ASSOCIATION



Hunt Hill Staff






Walkingsticks

How unique is this creature? Mother Nature really out did herself when it came to the camo department.

This insect is called a Northern (or Common) Walkingstick (*Diaperomera femorata*). They are long, thin, slow-moving bugs that blend into their natural surroundings by resembling a stick, twig, or branch. World-class hiders, Walkingsticks use their appearance to safely hunt. Because of their unique shapes and habits, they've collected such nicknames as Devil's Darning Needle, Devil's/Witch's Riding Horse, and Prairie Alligator.

APRIL

2022

SUNDAY	MONDAY	TUESDAY	WEDNESDAY	THURSDAY	FRIDAY	SATURDAY
		March 2022 S M T W T F S 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28 29 30 31	May 2022 S M T W T F S 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28 29 30 31		 1	2
	Phenology and weather notes from 2021 Astronomy notes are for 2022				April Fool's Day	
3	4	5	6	7	8	 9
Frogs Sing Loon in Open Water		Mayflowers Bloom				
10	11	12	13	14	15	 16
Palm Sunday		Soup-Lunch (Hunt Hill)			Good Friday	Pink Full Moon
17	18	19	20	21	22	 23
Easter Sunday	Tax Day Cowslips Bloom				Earth Day Lyrids Meteor Shower	Lyrids Meteor Shower
24	25	26	27	28	29	 30
					Arbor Day	

They reside in deciduous woods where they can find their preferred food source. Walkingsticks are herbivores who are particularly fond of oak or hazelnut leaves. Their camo disguise allows them to graze on leaves in peace. Mostly nocturnal, Walkingsticks do have a daytime plan...they employ behavioral camouflage tactics by remaining motionless or swaying in the breeze for hours.

Despite being one of Mother Nature's better camouflage jobs, some predators are not fooled, including songbirds, rodents and reptiles. The Walkingstick's most effective hunter is the bat which is not fooled by the stick-like appearance as they employ their echolocation system to detect the insect.

The Walkingstick's appearance differs between the sexes. The male is usually brown and about 3" in length while the female is greenish-brown and about 3.7" long. Walkingsticks reproduce in late summer or early fall. After mating, the female drops her eggs (about 150 of them) from the treetops where they free-fall to the ground and nestle in the leaf litter over winter. They remain here until hatching in spring. Meanwhile, the adults perish when temperatures drop below freezing.

Beyond the woods, Walkingsticks can also be found in agricultural fields, urban gardens, and residential yards. So, open your eyes, be observant, and with luck you might find one of these amazing creatures in your own backyard!

----Barb Lang

LONG LAKE PRESERVATION ASSOCIATION



Joe Thrasher



MAY

2022

SUNDAY	MONDAY	TUESDAY	WEDNESDAY	THURSDAY	FRIDAY	SATURDAY
1 May Day	2	3	4	5 Cinco de Mayo	6	7
8 Mother's Day Hummingbirds Arrive	9	10	11	12 Orioles	13	14
15 Flower Full Moon (Total Lunar Eclipse)	16	17	18	19	20 Swallows	21 Armed Forces Day Monarch Butterflies
22	23	24	25	26	27	28
29	30 Memorial Day	31	April 2022 S M T W T F S 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28 29 30		June 2022 S M T W T F S 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28 29 30	

Phenology and weather notes from 2021
Astronomy notes are for 2022

Dragon's Mouth Orchid

Arethusa bulbosa, otherwise known as Dragon's Mouth Orchid, is a flower worth the wet walk or bog-side paddle to discover. This orchid prefers quality sphagnum bog sites, such as the bogs at Hunt Hill Audubon Sanctuary. These small, yet vibrant flowers sprinkle the sphagnum mats with pops of bright pink color in late June and early July.

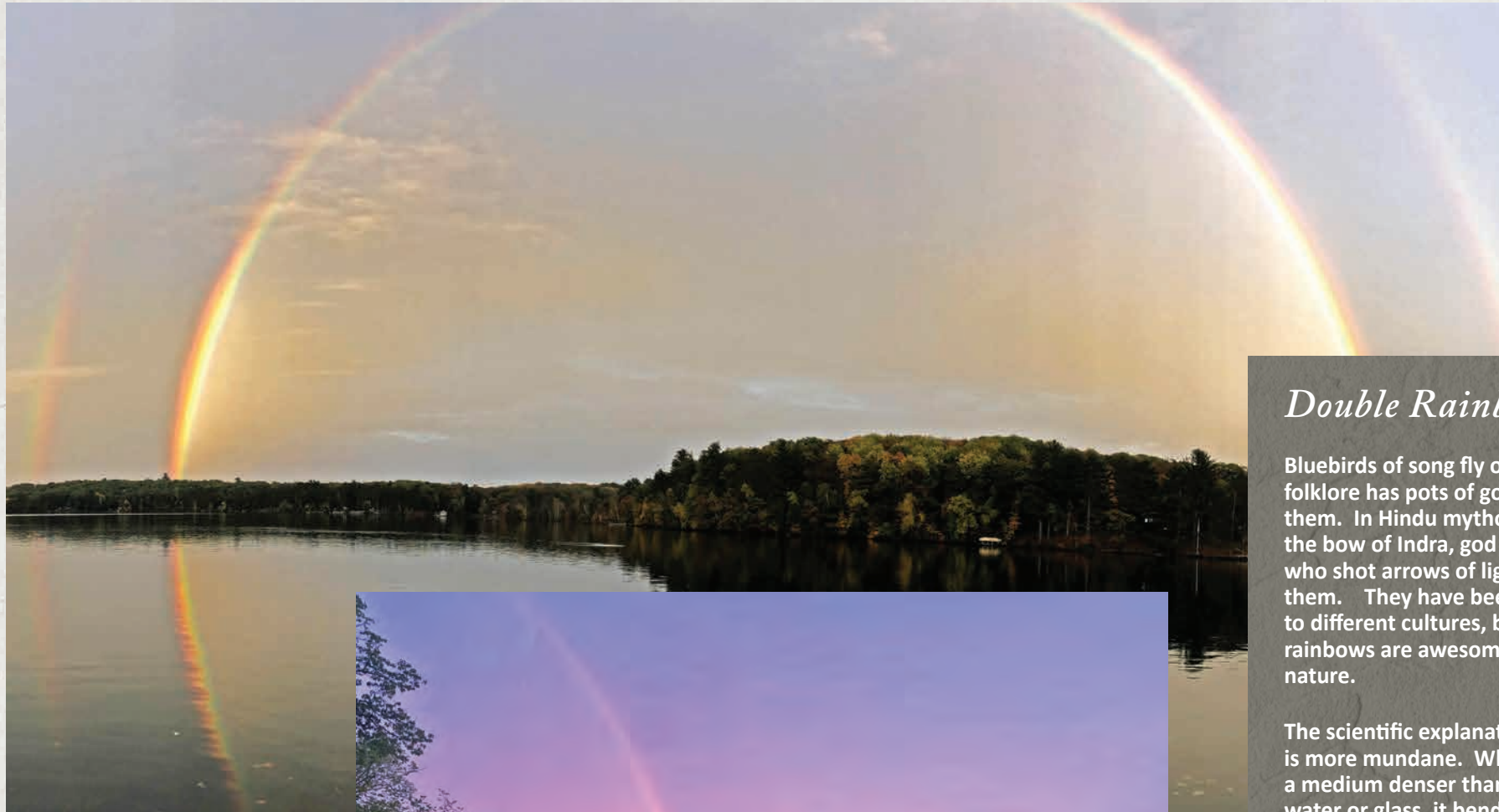
Dragon's Mouth Orchid is a master of deception. The petals of this orchid are arranged and colored so that when staring straight into the flower, one could imagine a dragon's mouth opening up and flames about to blow out. This 'flaming tongue' serves another purpose. The yellow bristle-like structures on the labellum (or lower lip if you're still envisioning a dragon) absorb ultraviolet light, attracting bumblebees. Once inside the flowers, the bees find little to no nectar and leave the flower, pollinating it in the process. However, this pollination trick depends on inexperienced bumblebees as they quickly learn to avoid these flowers.

According to the North American Orchid Conservation Center, this orchid is considered globally secure (uncommon but not rare), although it is endangered or threatened throughout much of the eastern United States. In Wisconsin, it is still presumed to be secure and not listed as threatened or endangered.

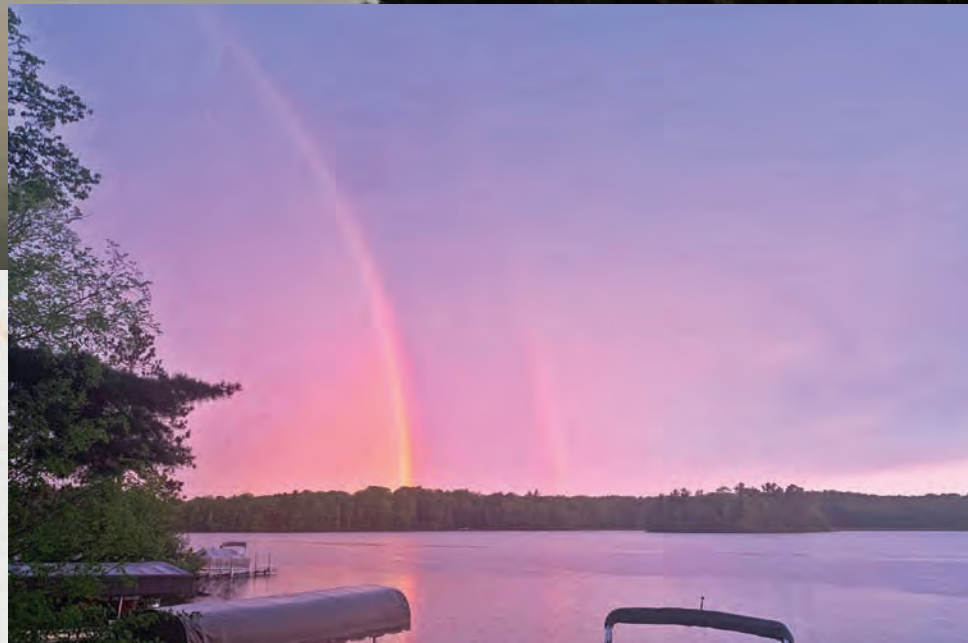
Those interested in seeing this orchid, can easily spot them while sitting on the bog walk at Hunt Hill Audubon Sanctuary during blooming season.

---Nikki Janisin

LONG LAKE PRESERVATION ASSOCIATION



Randy Posnansky



Linda Flynn


Double Rainbows

Bluebirds of song fly over them. Irish folklore has pots of gold at the end of them. In Hindu mythology they were the bow of Indra, god of thunder, who shot arrows of lightning with them. They have been many things to different cultures, but all agree that rainbows are awesome displays of nature.

The scientific explanation of rainbows is more mundane. When light enters a medium denser than air, such as water or glass, it bends; this is called refraction. Stick a straight object into water at an angle and it appears to change directions at the surface. Different colors within sunlight represent different wavelengths, and bend in differing amounts, so suddenly what appeared as white light is broken into bands of different colors; this is known as dispersion. That's how a prism works.

JUNE

2022

SUNDAY	MONDAY	TUESDAY	WEDNESDAY	THURSDAY	FRIDAY	SATURDAY
	May 2022 S M T W T F S 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28 29 30 31	July 2022 S M T W T F S 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28 29 30 31	1	2	 LLPA Annual Meeting	4
5	6	☾	7	8	9	10
12	13	☉	14	15	16	17
19	☾	20	21	22	23	24
Father's Day		Summer Solstice				
26	27	●	28	29	30	

Phenology and weather notes from 2021
Astronomy notes are for 2022

Atmospheric water droplets can act as prisms. When sunlight enters from behind the viewer it disperses, and sometimes it will reflect off the far side of the droplet back toward the viewer. If the angle of view is just so, a rainbow appears. The longest wavelength, red, always appears on the outside of the bow, and violet, the shortest, on the inside; the order of colors never changes. The shape of the bow reflects the curvature of the sun.

Rainbows are not an everyday event, but are common enough that everyone has seen them. Less common are double rainbows. They appear when light rays from a low-lying sun take a double bounce off the inside of the water droplet before exiting toward the viewer. The order of colors is now reversed, with the second paler bow being about ten degrees outside the first.

Double rainbows are not common, but amazingly were, in the summer of 2021, photographed by LLPA members on at least three occasions, with two being included here. Note that the space between the two is, as always, darker than the rest of the atmosphere. This is known as Alexander's band. No, not the fictional ragtime band leader of musical fame, but Alexander of Aphrodisias, a Greek philosopher who first described the phenomena in 200 AD. To other Greeks the rainbow was personified by Iris, the goddess linking the gods and humanity. A highway to heaven, as it were.

---Joe Thrasher

LONG LAKE PRESERVATION ASSOCIATION



Joe Thrasher



Molting Canadian Geese

Whoa! What's happening here – a bad hair day?

Nope, these are molting Canadian geese. During this annual process all body, wing and tail feathers are replaced. Molting occurs from mid-June through July and is necessary to rejuvenate flight feathers in preparation for the fall migration. Unlike song birds, which only lose one feather at a time (sequential molting), geese lose all of their flight

JULY

2022

SUNDAY	MONDAY	TUESDAY	WEDNESDAY	THURSDAY	FRIDAY	SATURDAY
		June 2022 S M T W T F S 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28 29 30	August 2021 S M T W T F S 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28 29 30 31		1	2
	Phenology and weather notes from 2021 Astronomy notes are for 2022					Camp Tomahawk Open House
3	4	5	☾	6	7	8
	Independence Day					Cakes at the Lake (Hunt Hill)
10	11	12	☉	13	14	15
			Buck Full Moon (Supermoon)			
17	18	19	☾	20	21	22
24	25	26	27	●	28	29
Parent's Day						
31						

feathers (simultaneously molting). This means that for 20 to 40 days they are unable to fly and are particularly vulnerable.

What's interesting is Canadian geese handle the annual molt differently depending on their breeding status.

Geese without goslings - the non-breeders (geese don't breed until 2 to 3 years old) and failed breeders - migrate to Canada for their summer molting season. They take shelter in natural wetland habitats which afford them a good food supply, access to water and seclusion from predators. Watch for high altitude, northward bound Vs of geese in late May as they wing their way to Ontario.

On the other hand, Canadian geese with goslings don't migrate. They stay in their home territory and tend to their broods. When the goose families regrow flight feathers, the parents teach their young to fly.

One beautiful Sunday afternoon, Joe and I were taking a leisurely pontoon ride down the thumb of Long Lake when we saw a family of geese taking off from the water at a very low elevation, but one gosling was left behind. I thought this was weird; then I realized, and I said to Joe, 'Oh my God, we just saw a test flight of new geese pilots!' Of course, the family reunited with the frightened gosling and, in time, I know the young one gathered its courage and spread its wings.

---Barb Lang

LONG LAKE PRESERVATION ASSOCIATION



Nikki Janisin



Joe Thrasher


Pitcher Plants

This multi-colored plant with a uniquely shaped structure is a Northern (or Common) Pitcher Plant (*Sarracenia purpurea*). This innocent looking plant has a secret – it's carnivorous. It traps and digests flying and crawling insects and is one of the few carnivorous plants in North America. What's interesting is this species grows right in our neighborhood!

The Pitcher Plant's native habitat is primarily sphagnum moss bogs, yet they can be found in any wetland

AUGUST

2022

SUNDAY	MONDAY	TUESDAY	WEDNESDAY	THURSDAY	FRIDAY	SATURDAY																																																																																												
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14	15	16	17	18  <small>Sturgeon Full Moon (Supermoon)</small>	19 <small>Perseids Meteor Shower</small>	20 <small>Cakes at the Lake (Hunt Hill) Perseids Meteor Shower</small>																																																																																												
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28	29	30	31		<p>July 2022</p> <table border="1"> <tr><td>S</td><td>M</td><td>T</td><td>W</td><td>T</td><td>F</td><td>S</td></tr> <tr><td></td><td></td><td></td><td></td><td></td><td>1</td><td>2</td></tr> <tr><td>3</td><td>4</td><td>5</td><td>6</td><td>7</td><td>8</td><td>9</td></tr> <tr><td>10</td><td>11</td><td>12</td><td>13</td><td>14</td><td>15</td><td>16</td></tr> <tr><td>17</td><td>18</td><td>19</td><td>20</td><td>21</td><td>22</td><td>23</td></tr> <tr><td>24</td><td>25</td><td>26</td><td>27</td><td>28</td><td>29</td><td>30</td></tr> <tr><td></td><td></td><td></td><td></td><td></td><td></td><td>31</td></tr> </table>	S	M	T	W	T	F	S						1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30							31	<p>September 2022</p> <table border="1"> <tr><td>S</td><td>M</td><td>T</td><td>W</td><td>T</td><td>F</td><td>S</td></tr> <tr><td></td><td></td><td></td><td></td><td></td><td>1</td><td>2</td><td>3</td></tr> <tr><td>4</td><td>5</td><td>6</td><td>7</td><td>8</td><td>9</td><td>10</td></tr> <tr><td>11</td><td>12</td><td>13</td><td>14</td><td>15</td><td>16</td><td>17</td></tr> <tr><td>18</td><td>19</td><td>20</td><td>21</td><td>22</td><td>23</td><td>24</td></tr> <tr><td>25</td><td>26</td><td>27</td><td>28</td><td>29</td><td>30</td><td></td></tr> </table>	S	M	T	W	T	F	S						1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	
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Phenology and weather notes from 2021
Astronomy notes are for 2022

which can retain standing water for long periods, including roadside ditches.

This striking plant displays a single purplish-red flower on top of a tall leafless stem. The plant base has curved pitcher-like chartreuse leaves with purple/red veining. The hollow pitchers naturally fill with rainwater.

The nectar that forms around the top of the pitcher leaves and the plant's coloration attract insects. When the bugs go to feed, they slip and fall into the plant's 'mouth.' The pitcher's walls are lined with downward curving spines and a glassy-smooth area that entraps the insect. The 'victim' eventually falls into the collected water and drowns. Enzymes secreted by the plant aids in the digestion and absorption of nutrients.

The Pitcher Plant depends on trapped insects for 80 percent of the protein needed in order to obtain the required levels of nitrogen and phosphorous to survive.

Interesting fact: You can see thousands of Pitcher Plants in the great bogs of Newfoundland where it is their national flower.

The Pitcher Plant is one of many fascinating nature stories surrounding us that are in plain view if we just take the time to look and learn about these little miracles that enrich our lives. You can do this by visiting the Hunt Hill Bog Boardwalk to see these plants up close.

---Barb Lang

LONG LAKE PRESERVATION ASSOCIATION

Joe Thrasher



Casey Forbes

Loons

Loons are far more commonly seen than the subjects of most of the other pages of this calendar, although nesting birds are often obscure. But there may be some facts about them that are not commonly known, especially concerning winter habits (and besides, Casey's photo of the juvenile loon is too good not to publish).

The young loon shown here is from September. It is by this time alone, parents nowhere to be seen. Fear not, it has not been simply abandoned. Chicks hatch in June, and while fully dependent on adults at first, are finding their own food by about six weeks of age. They fly by 11 or 12 weeks.

SEPTEMBER

2022

SUNDAY	MONDAY	TUESDAY	WEDNESDAY	THURSDAY	FRIDAY	SATURDAY	
		August 2022 S M T W T F S 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28 29 30 31	October 2022 S M T W T F S 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28 29 30 31	1	2	3	
	4	5	6	7	8	9	10
		Labor Day				Harvest Full Moon	
11	12	13	14	15	16	17	
Grandparent's Day Patriot Day							
18	19	20	21	22	23	24	
					Autumnal Equinox		
25	26	27	28	29	30		
Rosh Hashanah Begins							

Loons do not all migrate south, which from Wisconsin is mostly to the Gulf of Mexico, at the same time. First to leave are the unmated adults, or "floaters." Then the parents go, leaving the juveniles behind. Interestingly, while the same mated pair will likely return and reunite in the spring, they do not fly south or spend the winter together, making for rather long separate vacations.

The juveniles may stay until near ice-up. They will eventually return to the lake where they hatched, but not any time soon. They will stay in salt water until three to five years of age.

It has long been known that loons return to the same nesting area each year. Only recently has it been established that they also spend winter in the same place annually. A recent study by the Biodiversity Research Institute of Portland, Maine, demonstrated that about 85% of loons return to within two kilometers of previous locations every winter.

A word of caution about these photos. While swimming loons may approach a boat out of apparent curiosity, let them come toward you, do not pursue them. Nesting birds are easily disturbed by boats and should not be closely approached. This photo of a nest was taken from a comfortable distance with a lens of 24x magnification. While nests are often hidden, when not please stay 200 feet away.

---Joe Thrasher

LONG LAKE PRESERVATION ASSOCIATION



Nikki Janisin



OCTOBER

2022

SUNDAY	MONDAY	TUESDAY	WEDNESDAY	THURSDAY	FRIDAY	SATURDAY
			September 2022 S M T W T F S 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28 29 30	November 2022 S M T W T F S 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28 29 30		1
☾ 2	3	4	5	6	7	8
☉ 9	10	11	12	13	14	15
Hunter Full Moon	16	17	18	19	20	21
	23	24	25	26	27	28
	30	31				

Phenology and weather notes from 2021
Astronomy notes are for 2022

Yom Kippur

Boss's Day

Orionids Meteor Shower

Orionids Meteor Shower

Halloween

Roundleaf Sundew

One of my favorite early summer activities is to look for sundews, specifically the Roundleaf Sundew (*Drosera rotundifolia*). These tiny plants form a rosette of basal leaves close to their growing substrate. Around Long Lake, I have had the best luck finding this tiny plant while visiting the bogs at Hunt Hill Audubon Sanctuary. Hidden among the plush 'carpeting' of sphagnum moss, these tiny green plants with hot pink hairs, blend in well with the greens and reds of the moss. On a sunny day, they can be spotted more easily by looking for a glint of light reflecting from the droplets secreted from the end of each tiny hair.

With the largest part of the plant being no bigger than a pinky fingernail, it can be difficult to spot these insectivorous plants. But I find it is worth the effort. Once spotted, I like taking time to see if the plant has successfully caught a meal.

The pink hairs that cover the end of each sundew leaf excrete sticky droplets that draw in midges and other small flies. Once the insects touch the droplets, they become trapped by the sticky liquid and the leaf responds by folding in half. Digestive enzymes break down the insect into soluble materials that can then be absorbed by the leaf cells. This awesome adaptation is necessary to ensure the plant gets enough nutrients to survive.

---Nikki Janisin

LONG LAKE PRESERVATION ASSOCIATION



Sandy Hovey Campbell



Nikki Janisin

NOVEMBER

2022

SUNDAY	MONDAY	TUESDAY	WEDNESDAY	THURSDAY	FRIDAY	SATURDAY
		☾ 1	2	3	4	5
6	7	☉ 8	9	10	11	12
Daylight Saving Time Ends		Election Day Beaver Full Moon (Total Lunar Eclipse)			Veterans Day	
13	14	15	☾ 16	17	18	19
				Leonids Meteor Shower	Leonids Meteor Shower	
20	21	22	● 23	24	25	26
				Thanksgiving	Black Friday	
27	28	29	☾ 30			
	Cyber Monday				October 2022 S M T W T F S 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28 29 30 31	December 2022 S M T W T F S 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28 29 30 31

Phenology and weather notes from 2021
Astronomy notes are for 2022

Ghost Pipe

Within moments of taking this picture I expected the ghosts to disappear. The find was too precious, too hidden, and oh so pale. I almost looked around to see who was watching me, and so unseen, I shared a moment with this trio of ghost white shapes.

They are called *Monotropa uniflora*, Ghost Pipe or Indianpipe and they live in the darkness of a forest. It was once believed that needing no chlorophyll they survived on decaying matter but it is now known that they are associated with a fungus that borrows nutrients directly from the roots of green plants.

The Ghost Pipe sighting stuck with me and reading about this odd little plant I thought about how we also rely on our surroundings for nourishment, and we count on each other.

Former biologist and author, Barbara Kingsolver writes:

*And when I walk among ghost pipes,
their little
spectral music in the dark wood
quickens my heart:
song of a moment, the risky road yes
taken
to desire, escape. The day that
changed everything.*

To hear Barbara Kingsolver read her entire poem visit:

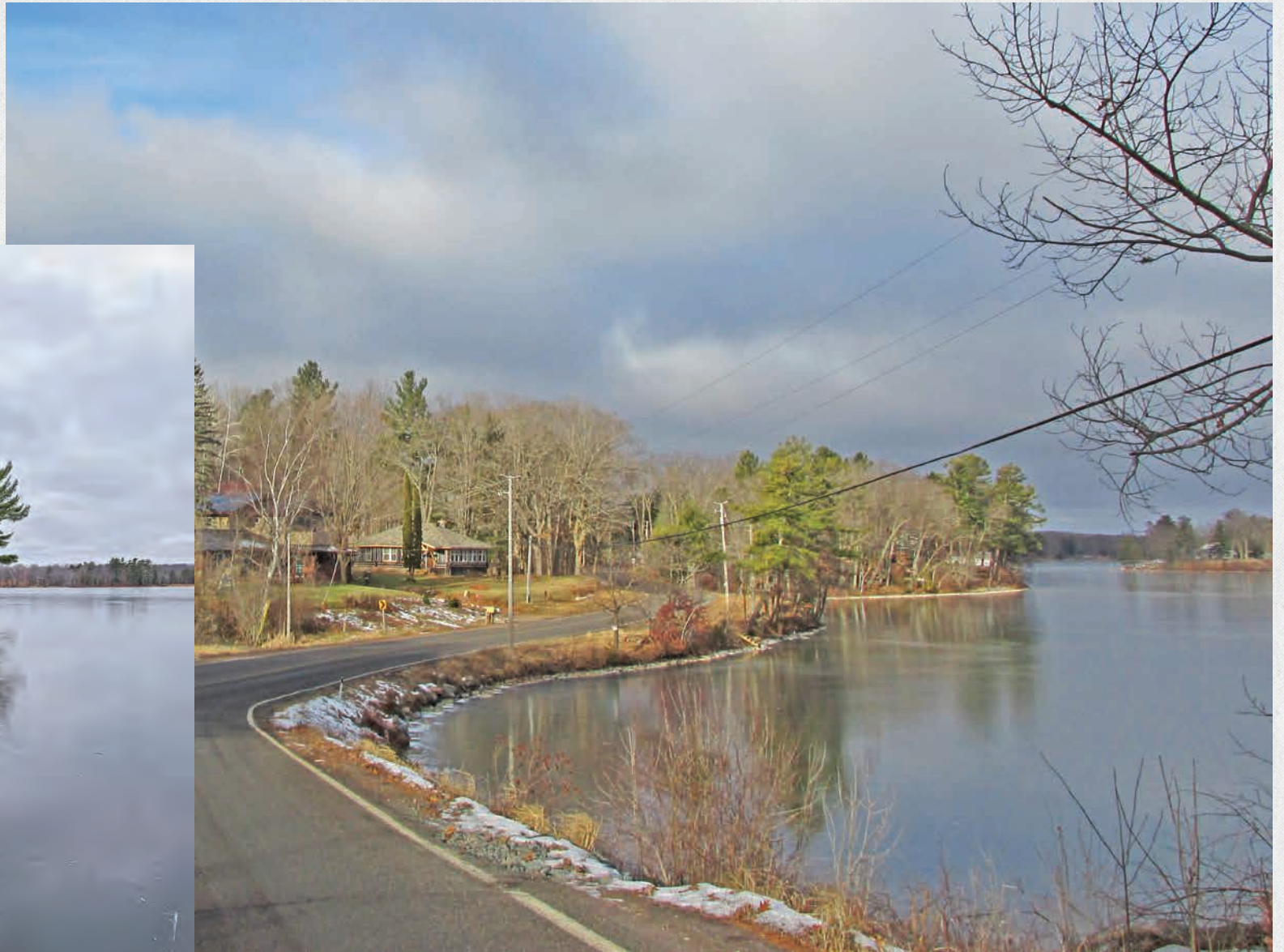
<https://pirpoetry.com/2020/10/13/ghost-pipes>

---Sandy Hovey Campbell

LONG LAKE PRESERVATION ASSOCIATION



Steve May



Jude Genereaux

DECEMBER

2022

SUNDAY	MONDAY	TUESDAY	WEDNESDAY	THURSDAY	FRIDAY	SATURDAY
	November 2022 S M T W T F S 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28 29 30	January 2023 S M T W T F S 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28 29 30 31		1	2	3
4	5	6	○ Cold Full Moon Pearl Harbor Remembrance Day	8 <i>Ice Up</i>	9	10
11	12	13 <i>Geminid Meteor Shower</i>	14 <i>Geminid Meteor Shower</i>	15	16 ◐	17
18 <i>Chanukah/Hanukkah Begins</i>	19	20	21 <i>Ursids Meteor Shower Winter Solstice</i>	22	23 ●	24
25 <i>Christmas</i>	26	27	28	29 ◑	30	31 <i>New Year's Eve</i>

Clear Ice

As one of those few people who actually like winter...I always hope the lake will freeze over before the snow comes.

If it is cold long enough (with no snow) the lake sometimes gets thick enough to venture out on it. Sometimes we are able to walk and skate on the CLEAR ICE.

Clear ice with no snow is very rare...it happens every 5 years or so in front of my home on Long Lake. It happened in late 2020 and 4 years earlier as well.

It is eerie to stand or skate on clear ice! It feels like you are able to stand, walk, or skate on the surface of the water! You look down and can see the bottom of the lake below you. It seems as though the lake is inside an aquarium or is a snap shot to be examined or studied! To see the rocks and plant life on the bottom of the lake while you are standing directly over it is really cool and unexpected!

Last year I was able to skate from my house on Schnacky Road all the way down to Lincolnwood and back...I did stay very close to the shoreline the entire way just in case!

While it is very neat to experience clear ice, please be very careful, as they say, "No ice is safe."

---Steve May