

THE HALIFAX FIELD NATURALIST



No. 191
June to August 2023



HFN News and Nature Notes	3
Special Articles	4
HFN Talks	6

HFN Field Trips	10
Almanac	14
Tide Table – July through September	15

Return address: HFN, c/o NS Museum of Natural History, 1747 Summer Street, Halifax, NS, B3H 3A6

HFN is incorporated under the Nova Scotia Societies Act and holds Registered Charity status with the Canada Revenue Agency. Tax-creditable receipts will be issued for individual and corporate gifts. **HFN** is an affiliate of Nature Canada and an organisational member of Nature Nova Scotia, the provincial umbrella association for naturalist groups. **Objectives** are to encourage a greater appreciation and understanding of Nova Scotia's natural history, both within the membership of HFN and in the public at large, and to represent the interests of naturalists by encouraging the conservation of Nova Scotia's natural resources. **Meetings** are held (except for July and August) on the third Tuesday of every month at 7:30 p.m. in the auditorium of the NS Museum of Natural History. **HFN Field Trips** are held at least once a month; it is appreciated if those travelling with someone else share the cost of the gas. **Participants** in HFN activities are responsible for their own safety. **Memberships** are open to anyone interested in the natural history of Nova Scotia. Forms are available at any meeting of the society, or by writing to: Membership Secretary, Halifax Field Naturalists, c/o N.S. Museum of Natural History. Members receive **The Halifax Field Naturalist**, along with its included **Programme**, quarterly. Our membership year is from January 1st to December 31st, and new memberships received from September 1st to December 31st of any year are valid until the end of the following membership year.



HFN ADDRESS

Halifax Field Naturalists, c/o N.S. Museum of Natural History,
1747 Summer St., Hfx, N.S., B3H 3A6 Email: hfninfo@yahoo.ca
Website: halifaxfieldnaturalists.ca

IN THIS ISSUE

HFN News, and Nature Notes	3
HFN Needs You! - Webmaster; 50th Anniv. Chair.....	3
Nature Notes	3
Apr. - Red-bellied Woodpecker, Mourning Coat	3
May - Weasel, Barred Owls, Bee Flies.....	3
Jun. - Frog's eggs, decimated Beech trees	4
New & Returning	4
Special Articles	4
40th Anniversary Memories	4
A Favourite Field Trip - Lesley Jane Butters.....	4
Dream Trip of a Lifetime - Grace Beazley	5
Very Rare Sighting - Richard Beazley	5
Dangerous Encounter - Brian Ferguson.....	6

EXECUTIVE

President	Bernie McKenna.....	434-3202
Vice-President	Janet Dalton	443-7617
Treasurer	Ingrid Plache	475-1129
Secretary	Mille MacCormack.....	445-4522
Past President	Janet Dalton	443-7617
Directors	Ron Arsenault, Don Flemming, Susan Holmes, Allan Robertson, Stephanie Robertson	

COMMITTEES

Membership	Ron Arsenault.....	410-6868
Programme		
AV Set-up	Clarence Stevens.....	701-0752
Talks/Trips	Mille MacCormack.....	445-4522

	Bernie McKenna.....	434-3202
	Clarence Stevens.....	864-0802
	Stephanie Robertson	422-6326

Design

Newsletter

Editor & Design	Stephanie Robertson	422-6326
Almanac	Don Flemming.....	240-8832
Labels	Doug Linzey	1-902-582-7176
Distribution	Don Flemming.....	240-8832

	Bernie/Heather McKenna.....	434-3202
	Bernice Moores.....	422-5292
	Paris	425-1079
	Stephanie Robertson	422-6326

Refreshments

Conservation	Jennifer Hahn.....	1-403-991-9942
	Heather Leslie	
	David Patriquin.....	423-5716
	Clare Robinson	446-6603

NNS Rep.	Ron Arsenault.....	410-6868
YNC Rep.	Vacant	

Website	David Patriquin.....	423-5716
CSC Award	Janet Dalton	443-7617

	David Patriquin.....	423-5716
	Allan Robertson.....	422-6326

FEES

Student	\$15.00 per year
Individual	\$25.00 per year
Family	\$30.00 per year
Supporting	\$35.00 per year
NNS (opt.)	\$5.00 per year

HFN Talks6

Native Plant Benefits - replace those exotics!.....	6
NS Bats - new info and their status now	8
Austral. & Asian Insects - camouflaged!	9

HFN Field Trips10

Hope For Wildlife - 'physical plant' improvements	10
Shubie Railway - more fascinating history	11
NNS 2023 Celebration of NatureTrips	12
Belcher's Marsh - Beaver activity, birds, flowers	12
Russell Lake. - Wild Mustard, Wintergreen	12

Almanac14

Halifax Tide Table - July, Aug., Sept.....15



GRAPHICS All uncredited illustrations are by H. Derbyshire/copyright-free sources. **Front Cover** - Syrphid Fly (a bee mimic) on red flower, Louise Grinstead; **Back Cover** - Laura Grinstead; **p.3** - Wood Frog, Rebecca Betts, Red-bellied Woodpecker, Matthew Bohan; **p.10** - Groundhog, Rebecca Tyrol; **Tide Table** - Canadian. Hydrographic Service, Fisheries & Oceans Canada.

HFN NEWS AND NATURE NOTES

👉 ! HFN NEEDS YOU ! 👈

HFN WEBMASTER

Longtime HFN member Dr. David Patriquin, who is also on our Colin Stewart Conservation Award Committee, and who has expertly handled our website for many years (thank you so much David) would like to step down and hand over his role as HFN Webmaster to another enthusiastic and tech-savvy HFN volunteer.

Please contact President Bernie McKenna, 902-434-3202, or mckennab197@gmail.com, if you would like to help us out and keep our webpage up to date with recent photos, the archiving of our newsletters (so other nature organisations can source out any of our work which would be a help to them), and all our up and coming trips and talks.



HFN 50TH ANNIVERSARY VICE-CHAIR

In 2015, able HFNER Grace Beazley was Chairperson of our 40th Anniversary Celebration. It was fun, tasty (delicious, exquisite appetizers and Gourmandises Patisserie cakes) and gathered many naturalists together at Ashburn Golf Club for our celebration and a wonderful presentation by naturalist and author Harry Thurston. We also had a month-long HFN Members' Art Exhibition at the Museum of Natural History, and a year's worth of newsletter submissions, nature poems, favourite past trips, hikes, and experiences. The outline of ten years of our trips, talks, and nature support and projects started with our Winter Issue #157 through to and including the Fall Issue #160.

Longtime HFN member VicePresident Janet Dalton has offered to be Vice Chair and is looking for another Vice Chair, and also some eager Committee members to share the planning of the up and coming celebration, events, and fun for our 50th Anniversary in 2025. Please contact Janet Dalton, 902-443-7617 or daltonjanet@hotmail.com if you would like to help out in any way.



NATURE NOTES

– S. Robertson & J. Dalton

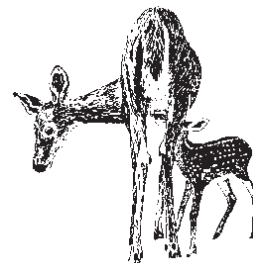
APRIL 12th MEETING

For the first time in her life, Stephanie Robertson saw a **Red-bellied Woodpecker**; it visited her suet feeder only briefly, but long enough for her not to miss its distinctive neon orange/red head colouring. The almost invisible blush on its belly was just glimpsed before it flew off. Judy Keating saw one as well at St. Margaret's Bay on March 29th and again at her home in Glenheaven. Lesley Jane Butters spoke up to say that while at Regine Maass's at Jollimore she also saw a **Red Bellied Woodpecker** and heard its vigorous tapping; the next day she saw one again at her home on Walnut Street.



Nancy Covington spotted a **female Mallard Duck eating a Wood Frog** in their pond in Indian Point! Clarence Stevens said that does indeed happen but not often. On March 5th, Judy Keating saw a **Mink** at Frostfish Cove; she regularly sees them in January and March. She hasn't seen any River Otters for a few years and attributes that to much new development in the area. She also reported a **Red Crossbill**, **Goldfinch**, and a **Red-winged Blackbird** at her sunflower seed feeder.

Lesley Jane Butters spotted a **beautiful black butterfly** in the backwoods in King's County; Don Flemming commented it was most likely a **Mourning Cloak**. Laura Gibson reported seeing **Turkey Vultures**, and Susan Holmes spotted a **flock of Tree Swallows** and a **Woolly Bear caterpillar** at Bissett Lake; Bernie mentioned the fact that there were nesting boxes nearby at Cole Harbour Farm that may be attracting the Tree Swallows; he has also seen **Turkey Vultures** on Hwy #118.



MAY 4th MEETING

Mille MacCormack shared a humorous story. She teaches English as a second language, sometimes reading books to Ukrainian children. Encountering the phrase 'a black sheep in the family' she was told that in Ukraine they are called 'white crows'!

Bernie mentioned he had a **pair of Deer** on his back yard; they still had their winter coats and looked healthy but a bit scruffy. Marion Sensen saves old flower stalks for pollinators' overwintering. This past fall she put them all in tomato cages so they didn't get so wet. This allows air around the stalks and the pollinators can also get out when needed; this method works much better than just leaving them on the ground. Judy Keating's **wild strawberries** have started blooming and she has seen **three or four Great Blue Herons**.

On April 27th in the Woodlawn area, Jennifer Hahn spotted a **Bee Fly** with its unique very long proboscis. (the Bombyliidae family) on her two-year old's sleeve. Her research found that they'd been sighted for the first time in Nova Scotia in 2015. She also saw **baby ducks** at Cole Harbour. Regine Maass spotted a **Pileated Woodpecker** around her home, and a **Short-tailed Weasel** on Sambro Road.

Brian Bartlett saw and heard **Barred Owls** at Black Duck Brook, Hemlock Ravine on the 27th and 29th of April. Bernie mentioned that there have been a lot of sightings of Barred Owls recently. Stephanie added her hearing of them in Point Pleasant park. Like Jennifer, Laura Gibson has also seen **Bee Flies**. She has seen **Barred Owls nesting** at Terrence Bay and there is also a **pair of Great Horned Owls** nesting there. On

Facebook Bernie McKenna saw someone had put up a platform with chicken wire in a tree and that they had **Barred Owls** come to make a nest.

Lesley Jane Butters regaled us with her overabundance of **Beavers** and associated problems at her cottage on the Medway River – three huge **Beaver lodges** and very large earth tunnels. Many trees have been taken down, and she feels that the river not freezing over this year was a factor in their increase.

Max Reisi spotted his first **Robin** and then **three Cardinals**. He also saw three **Crows attacking a Raven** on a sidewalk. Don Flemming heard hawks in Point Pleasant Park; checking with his bird call app, he found that they were **Merlins, a male and a female**.

Wendy MacDonald saw **four Osprey** on Saturday; they were using the Nova Scotia Power pole nesting platforms. Bernie MacKenna saw a **Winter Wren**, and had **three Deer** in their back garden. At this point, Nancy Covington wondered about her sighting of a **female Mallard eating a Frog** in April. Biologist Andrew Hebda confirmed that this is normal, as in the spring they need extra nutrition for their developing eggs.

JUNE 1st MEETING

Lara Gibson's Terrence Bay **Great Horned Owls** now have **two chicks** (sadly, by telephone, we learned that one did not survive). On May 28th Jennifer Hahn spotted **Lady's Slippers** at the Dingle's Frog Pond; also some in a Halifax park. Stephanie Robertson reported only **one male Robin** this year in her area near Point

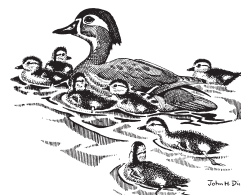
Pleasant Park. On May 26th, Bernie McKenna saw a **male Mallard** on the road to MacIntosh Run. Lesley Jane Butters saw what she thought was most likely a **Black Swallowtail butterfly** at North Mountain in Annapolis Valley.

Around May 28th, at the NNS's Jim Wolford Vernal Pond trip, Shirley MacIntyre saw both **Fairy shrimp eggs and frog's eggs**. On March 31st Lara Gibson saw her first **Hummingbirds** of the year. Ron Arsenault saw a **River Otter** in Porter's Lake, and Ingrid saw her first **Ram's Head Lady's Slippers**, and so also did Elizabeth Mills. Phil spotted about **100 tadpoles** in a St. Croix pond and later a **Catfish**. Max Raisi said the **Gingko Biloba** in the Public Gardens is not in leaf as yet.

Peter Payzant's property on Rolling Hills Drive has **no more Beech trees due to weevil damage**; this has resulted in **no more Red Squirrels** as well. Bernie McKenna has **three Red Squirrels** at his home in Dartmouth. Laren Burke saw **two Muskrats** in Bissett Lake Park. Nancy Covington spotted **Cedar Waxwings** near Mahone Bay, and their Birdhuse is hosting **nesting Red Squirrels**.

NEW AND RETURNING

Shelley Gray
Angela Miller
Aislin Livingstone



SPECIAL ARTICLES

40TH ANNIVERSARY MEMORIES

Looking forward to HFN's 40th Anniversary next year, here is a taste of some of HFN members' reminiscences, favourite trips, places, and close calls submitted to our 40th Anniversary Year HFN quarterlies.



MY FAVOURITE FIELD TRIP

– Lesley Jane Butters

One of my fondest HFN field trips was to Smiley's Provincial Park alongside the Meander River in Hants County. I believe the field trip was on a May day, in the early to mid-eighties, and we were going there to see if the Bloodroot and Trout Lillies were in bloom.

We left the Nova Scotia Museum parking lot in convoy style. I drove with Tim Randall in his little orange 'beetle bug', and Tim gave me a 'pre-lecture' on both species of plants and what to observe about them.

The habitat of Bloodroot, *Sanguinaria canadensis*, is in the rich intervals around thickets and open mixed

woodlands near streams and rivers. It grows in colonies with a thick, prostrate rhizome which contains blood-coloured juice, and this juice stains! The flower is white, with eight elongated petals; its leaf is dark green with round-scalloped edges, and is deeply notched at the base on long, thick petioles.

The Trout Lily, *Erythronium americanum*, grows in similar habitat from a single corm, and like the Bloodroot, grows in colonies. Its flowers are yellow, lily-like, and with a curved upright shape in a nodding position. Its leaves are also scalloped, with a lance shape, and their colouring is mottled.

Near the river's edge, we HFNers were greeted and rewarded by a flowing carpet of white. Absolutely everywhere we looked was white, interspersed with blotches of mingling yellow. Spectacular! We were in naturalists' heaven, for most of the group had never seen either wildflower – and never so prolific as this.

As I recall, the morning was rather overcast, and after spending the rest of our time in and around the floodplain along the Meander River, most of us left the field trip. Tim, camera slung around his neck, was keen for more adventuring. He asked if I would like to go with

him to the gypsum quarries in behind the Windsor area to see if any Yellow Lady's Slippers were in bloom. He also mentioned that we might see the very rare Ram's Head Lady's Slipper. The idea of returning home to Halifax didn't seem at all interesting to me, and a few other naturalists thought exactly the same, so we tagged along behind Tim in search of even more natural adventures!

At the quarries, Tim spotted a few small clumps of the brilliant, golden Yellow Lady's Slipper, *Cypripedium calceolus*. What beauty! Our cameras were just as much an important part of this extended add-on to our field trip, and we were in awe as we snapped our pictures.

The afternoon turned sunny, brilliantly highlighting the whiteness of the gypsum outcrops; also, the brighter daylight aided Tim in finding our treasure of the day, the elusive Ram's Head Lady's Slipper, *Cypripedium arietinum*. It was so very tiny compared to the other wildflowers we had seen throughout the day. As I recall, we only saw the one. It was well-photographed by Mary Primrose, Tim, and others.

I believe this field outing was the forerunner of many more wonderful, 'extended' field trip adventures. In those days, there were more than a few naturalists who did not want to return home immediately after an HFN trip, and Tim was so very knowledgeable about many interesting natural nooks and crannies throughout Nova Scotia. He could always lead us to special places where we discovered extra, and fascinating, bits of Nova Scotia's natural history.

Those were special days!



DREAM TRIP OF A LIFETIME

– Grace Beazley

On the 15th of August, 2003, a dream came true for me when I had a day-trip to Sable Island to celebrate my 60th birthday – with fellow adventurers husband Richard, youngest son, and four friends.

This trip to the approximately 42 km long, crescent-shaped island of sand off the coast of my beloved Nova Scotia happened on as perfect a sunny day as is possible after four morning flight cancellations due to foggy weather. For some perspective, Sable Island is about 290 km from Halifax and is about seven times the size of the familiar McNab's Island in Halifax Harbour. I felt very privileged to be granted permission to visit one of the few restricted places in Canada. I also felt very privileged that Zoe Lucas, one of Sable Island's biggest fans, offered to be our personal guide for the day.

What a unique, interesting, and incredible island to visit. It's so peaceful, so natural, and so wild – like 'another world'. Of course, there are the much-heard-about and protected Sable Island horses, but oh, there's much more – Harbour and Grey Seals, birds, Marram Grass, wildflowers, endless beaches and dunes, fresh water ponds, and the Sable Island Station (now called Main Station) with its beach airstrip. If you are lucky, you may

see a relic from the past, once buried but now, with the ever-changing landscape, in partial or full view. Also, the views of the wind-swept island from the Britten-Norman Islander plane were magnificent, even magical.

Now I have another dream – another trip to Sable Island which became 'Sable Island National Park Reserve' in June 2013!



VERY RARE SIGHTING

– Richard Beazley

Kejimikujik National Park and National Historic site is one of my favourite places in Nova Scotia. I've camped and travelled its front and back country for over 40 years in all seasons, and have been awed by the abundance of its flora and fauna; lakes and streams; mirror-smooth to violently rough waters; granite 'erratics', 'lappers', and 'lurkers'; day and night skies; ice and snow; and its night time sounds.

In all the kilometres which I have hiked, portaged, canoed, skied, and snowshoed with my wife and others, I had seen only one mature Black Bear, *Ursus americanus*, in the wilderness. It appeared momentarily on the bank of the West River "when I wore a younger man's clothes." Around the same time, I had also seen a few 'habituated' Bears in the Jeremy Bay campground and its nearby open garbage site. Needless to say, these particular Bears had to be deported or put down.

This drought of bear sightings came to an unexpected end on a sunny, warm, breezy afternoon in early September of this year (2015 - ed.). Grace and I were enjoying a leisurely paddle along the narrow Western Run of Kejimikujik Lake when she spotted a dark, log-like form in the water 30 metres ahead of us. Slowly, the 'log' metamorphosed into a Black Bear swimming to a small shrub-covered island in the middle of the Run. This Bear was not alone – swimming closely behind her were three cubs. They swam quickly and soon disappeared into the shrubs. We sat momentarily and mother Bear reappeared, gave us a careful look, and then disappeared once more. Again we sat briefly, then paddled on. By the time we rounded the end of the island the four Bears were leaving the water on the far side of the Run; they then quickly disappeared from view.

What a sight! Keji gave us a very rare treat, and a treasured memory.



UNFORGETTABLE CLOSE ENCOUNTER

– *Brian Ferguson*

In the midsummer of 1970, four of us headed for Newfoundland in a Land Rover with two canoes lashed on top. We took the ferry from North Sydney to Port aux Basques, then drove up the windswept eastern coast to St. Anthony; it is situated on top of the peninsula, near the Strait of Belle Isle, across from Labrador.

On approaching the village, we saw a beautiful, large iceberg in the harbour. It was sparkling in the bright sunlight with a blueish hue. Excited, we immediately drove down to the beach and launched our canoes. As we paddled closer, we saw within it a large tunnel. It seemed to run right through the berg's centre.

We entered.

It was like an ice cave inside, and there was an accompanying harsh odour. The iceberg was massive this close up; it was also very, very cold! After a few awe-filled minutes, we slowly paddled backwards out to the entrance. Before finally emerging from the tunnel however, we stopped beside an ice projection so that one of us could hack off a piece with a hatchet as a souvenir, to put in our cooler.

We paddled toward shore, and about two minutes out and away from the ice tunnel's entrance, there was an immense, thunderous roar just behind us. On turning around, we saw that the giant berg had capsized and

split into two! Shakened, we turned our bows to face the oncoming four-foot waves which, luckily, we were able to paddle over without mishap.

I have many treasured 'before and after' photos of this event. What we learned was that icebergs are dangerously unstable entities, as they are always in the process of melting and changing position due to the constant shifting of their centres of gravity.

Motto: Stay well clear of icebergs; they may be dangerous to your health!

(However, the cubes from that iceberg made a fine addition to our cold drinks, and they went 'snap-crackle-pop' because of their trapped pockets of ancient air.)



HFN TALKS

NATIVE PLANT BENEFITS 12 APR.

– *Stephanie Robertson*

When 24 year-old Conservation and Education Technician Samuel Jean applied for his position at Acadia's Harriet Irving Botanical Gardens, he could truthfully say he had had 20 years gardening experience; he had become a besotted young and active gardener at the tender age of four.

His first interest was the showiness of what he grew; later he learned all about Nova Scotia's native plants and their benefits and has ever since been interested in growing only these. In North America, native plants are defined as only those which grew here before European colonisation. A beautiful example? Our own provincial flower, the Mayflower *Epigaea repens*.

Conservation can start right in our own backyards – by including more and more native plants in our gardens each year. Increasing their presence and abundance brings back their associated native insect species (such as is found between the milkweeds and the Monarch Butterfly), bird species, bee species, and associated amphibians. Native plants are the essential base for all our local food chains, and we can and should increase their local diversity by growing them – especially as some are becoming rare in the wild.

An invasive is a plant which has been introduced into areas beyond its original native range and which nega-

tively impacts the environment, the economy, and/or society. Most invasives, such as Japanese Knotweed, Himalayan Balsam, and Purple Loosestrife, are non-natives which were first brought over for use as fast-growing ornamentals, and for perhaps sentimental reasons (memories of home) – but importantly– they don't share the same evolutionary history as our own native wildlife. Without their cospecific predators they're a threat to our environment, spreading like wildfire, reducing biodiversity, destroying our native plant habitats, and consuming much time and money with management attempts. Even worse, sometimes successful management is just not possible. A disastrous example is the Hemlock Woolly Adelgid, likely brought in with infested ornamental non-native Hemlocks.

On the contrary, native plants are not a threat, are perfectly adapted to growing conditions here, and do not require extra watering, fertilisers, or pesticides. But – and this is important – to have success you have to pick the right plant for the right places. This was shown with a colour-coded map of Nova Scotia outlining all its distinct 'ecodistricts' as defined by the Provincial Government. So, select places in your garden suitable for your ecodistrict and your specific native plants' needs, such as sunny and dry, shady, always damp, soil pH and soil composition, etc.



Get to know the plants you are hosting in your garden. For instance if you grow perennial irises, the only native one good for gardens is the *Iris hookeri*. Help prevent non-native irises from spreading by both not planting them and also removing them from your property. Never dump garden waste and plants in natural areas; clean off clothing, gear, animals, cars, ATVs, and boats before and after visiting natural areas; learn more about invasives and their identification' spread the message (awareness is key to prevention); and report any sightings to www.nsinvasives.ca.

Here is a list of some invasives found in Nova Scotia:

Garlic Mustard	<i>Allaria petiolata</i>
Glossy Buckthorn	<i>Frangula alnus</i>
Oriental Bittersweet	<i>Celastrus orbiculatus</i>
Japanese Knotweed	<i>Reynoutria japonica</i>
Norway Maple	<i>Acer platanoides</i>
Multiflora Rose	<i>Rosa multiflora</i>
Privet spp.	<i>Ligustrum obtusifolium</i>
	<i>L. ovalifolium</i>
	<i>L. vulgare</i>
Rugos Rose	<i>Rosa rugosa</i>

To learn more about our invasives here, read Joseph Banks' *Invasive Species in Nova Scotia*, put out by the Nova Scotia Invasive Species Council. Or, go to **Invasive.org**, Maine's Center for Invasive Species and Ecosystem Health.

There are ~20,000 native Nova Scotia plants including ~13,000 insects, ~1,200 shrubs and herbaceous plants, and ~trees species. Samuel's favourites are:

TREES

Larger

Northern Red Oak	<i>Quercus rubra</i>
Yellow Birch	<i>Betula alleghaniensis</i>
White Pine	<i>Pinus strobus</i>

Smaller

Serviceberry (six or seven spp.)	<i>Amelanchier</i> spp.
Striped Maple (gold in Jan.)	<i>Acer pensylvanicum</i>

SHRUBS

Red Elderberry (toxic!)	<i>Sambucus racemosa</i>
Common Elderberry	<i>S. canadensis</i>
Wild Raisin	<i>Viburnum cassinoides</i>
Hobblebush	<i>V. lantanoides</i>
Black Chokeberry	<i>Aronia melanocarpa</i>
Black Huckleberry	<i>Gaylussacia baccata</i>
Highbush Blueberry	<i>Vaccinium corymosum</i>
Red Osier Dogwood	<i>Cornus sericea</i>
Common Winterberry (attracts bees)	<i>Ilex verticillata</i>
Sheep Laurel	<i>Kalmia angustifolia</i>
Northern Bush Honeysuckle	<i>Diervilla lonicera</i>
Virginia Rose (red hips in fall)	<i>Rosa virginiana</i>
Northern Bayberry	<i>Morella pensylvanica</i>
Buttonbush	<i>Cephalanthus occidentalis</i>
Steeple Bush (bees/butterflies)	<i>Spirea tormentosa</i>

NATIVE FERNS

Maidenhair	<i>Adiantum pedatum</i>
Christmas Fern	<i>Polystichum acrostichoides</i>
Beech Fern	<i>Phegopteris connectitis</i>
Royal Fern	<i>Osmunda regalis</i>

PERENNIALS

Blue Vervain	<i>Verbena hastata</i>
Boneset	<i>Eupatorium perfoliatum</i>
Cardinal Flower	<i>Lobelia cardinalis</i>
Spotted Joe Pye Weed	<i>Eutrochium maculatum</i>
Swamp Milkweed	<i>Asclepias incarnata</i>
Cutleaf Coneflower	<i>Rudbeckia laciniata</i>
White Turtlehead	<i>Chelone glabra</i>
Water Avens	<i>Geum rivale</i>
Wild Virginia Strawberry	<i>Fragaria virginiana</i>
Bearberry	<i>Arctostaphylos uva-ursi</i>
Three-toothed Cinquefoil	<i>Sibbaldia tridentata</i>
Eastern Wintergreen (Teaberry)	<i>Gaultheria procumbens</i>
Bunchberry	<i>Cornus canadensis</i>
Canada Anemone	<i>Anemonastrum canadense</i>
Wild Ginger	<i>Asarum canadense</i>

GROUNDCOVERS

Virginia Strawberry	<i>Fragaria virginiana</i>
Bearberry	<i>Arctostaphylos uva-ursi</i>
Three-toothed Cinquefoil	<i>Sibbaldia tridentata</i>
Eastern Wintergreen	<i>Baultheria procumbens</i>
Bunchberry	<i>Cornus canadensis</i>
Canada Anemone	<i>Anemonastrum canadense</i>
Wild Ginger	<i>Asarum canadense</i>



Where can we obtain native plants? The demand (and the offerings) of native plants has been increasing, and some local nurseries can order and/or propagate them for you. Bring or send a list of those you desire. Creating-a-year after year demand for them will enable nurseries to obtain the ones which are not available as yet.

A word about cultivars/nativars to help you shop: these are both variations of a species which are often propagated vegetatively. For instance, *Asclepias incarnata* Cinderella is a Swamp Milkweed cultivar. If you'd like to learn more about this, search *How Native Plant Cultivars Affect Pollinators* by landscape designer Annie White. If you want to find out for sure if a plant is native or not, got to <https://data.canadensys.net/vscan/search> and <https://gobotany.nativeplanttrust.org/>. For plant lists, go to <http://www.pollinator.org/guides>, and <https://birdgardens.ca>, and <http://www.accdc.com/en/ranks.html>.

When gardening with wildlife in mind, leave the leaves! Leaf litter increases the organic content of the soil and acts as a mulch. Many pollinators and other beneficial insects need leaf litter and other 'garden debris' in order to successfully overwinter.

Samuel finished by inviting us to The Harriet Irving Botanical Garden's native plant sale on Saturday, June 3rd. When you receive this it will have taken place.

I definitely plan to go!

NOVA SCOTIA'S BATS

4 MAY

– Bernie MacKenna



This wonderful presentation was informative, animated, and at times humorous. Andrew Hebda, an old friend of both the Halifax Field Naturalists (HFN) and the Nova Scotia Museum of Natural History (NSMNH, having toiled there for 24 years) took us on a very well attended journey into the lives and mysteries of our native bats, of which we have three permanent residents and two transitories. He led us through all their basic information, ecology, the different species, and their sometimes-specific challenges and our understanding (or not) of their nature.

Our permanent resident bats are the Little Brown Bat, the Long-nosed Brown Bat, and the Tri-coloured Bat. The two transitory ones which we only normally see during their migration times are the Red Bat and the Hoary Bat. Although they are mammals just like us, they have the distinction of being the only class of mammals which have the ability for true flight. There are others which are often referred to as 'flying' but in truth they only glide, although at times a significant distance. As mammals they bear live young, (pups) generally only one per year. However the Hoary Bat often bears two. Mothers suckle their pups to maturity and they can then fend for themselves. Mostly hair-covered they do have hairless body parts particularly those used in flight. They have a hairless membrane attached to their hind legs and incorporated into the tail to further assist their hairless wings. Their toes are very elongated and tipped with sharp claws which enable their normal head down perching and resting position.

Navigating mainly by echolocation, their normal hearing range is up to 100KHz, well past our own. They hunt and navigate through the night and this echolocation is so finely tuned that they can differentiate between different prey species, other bats, and also just obstacles. Nova Scotia bats all use echolocation but there are a few other species that hunt in daylight and consequently don't need this skill. (A personal observation here. We were on a whale-watching boat several years ago about two hours out of Brier Island when a Small Brown Bat flew out of the cabin, circled the boat a few times then returned to the cabin. It was then caught in a cardboard box and taken ashore by a crew member to be released on the island. I can only assume it used both echolocation and sight during its brief daylight flight.)

The pulses echolocating bats send out are at a very high volume while the echo bounced back to them is considerably lower. To prevent injuring their ears when sending out these loud pulses a section of their inner ear disconnects when doing so. The skin of bats' very large ears have evolved multiple ridges which assist in

accurate location of prey and surroundings.

The maternal calls of mother bats vary from 15 to 100 KHz; the combination of recognisable calls and sense of smell allows mothers to find their own young amongst thousands of others in the maternal colony. Truly impressive, bats bear young while hanging upside down and can also, remarkably, fly, hunt, and manoeuvre with their pup tightly hanging on.

Our native bats are all insect eaters, taking their prey whether it is flying, stationery on a plant stem, or even on the ground. Other species have different diets and feeding techniques, be it pollen, nectar, small vertebrates, fish, or even blood. For instance, the feet of fish-eating bats have evolved 180 degrees forward to catch their meals as they skim the water! The noted Vampire Bats of central and northern South America bite their prey and then lap up the blood that flows from the wound.

Our full-time resident bats are with us 12 months of the year and must seek out the warmest most stable temperature locations in which to hibernate during the colder months – be it caves, mines, or human-built structures. As previously stated, we only see Red Bats and Hoary Bats as they migrate through to warmer winter surroundings. Our three resident bats are all about the same size and weight; depending on the source, their weight can be up to 12 grams but is often less. The Red Bat ranges up to 13 grams while the Hoary can get to 35 grams. All these weights can and will vary by individuals and geographic locations. Most species have a lifespan of less than 20 years but one has been documented at 30 years.

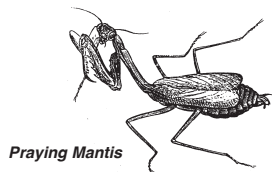
Bat issues which concern people are Rabies and Histoplasmosis, both of which are fatal if left untreated. Approximately 3% of bats carry the Rabies virus which affects the central nervous system. A common sign of an infected bat is it being unable to fly and being found in an uncommon location, i.e., on the ground or floor. Histoplasmosis is an infection caused by the *Histoplasma fungus*. This fungus lives in the droppings of bats or pigeons, and left untreated the mortality rate is >90%. (Note, be sure to wear both gloves and a mask and keep dust to a minimum while cleaning up these areas.) White Nose Syndrome *Pseudogymnoascus destructans* (Pd for short) originated in Europe and was carried here by immigrants. It is continuing to be spread by both people and tourists exploring caves and/or mines as well as, now that they have been infected, from bat to bat. It gets its lay name from the the white fuzz the disease produces on the nose and other hairless body parts and causes lesions which leak fluids. It has been found in N.B. and mainland N.S. since 2009 and Cape Breton since 2015. Another serious physical hazard to bats is wind turbines. Their outer blade tips can reach speeds of 320 Kph and this causes a 'cavitation' effect which, when bats get caught in the area, causes their lungs to literally burst. Only 3% of dead bats found at windmill sites were killed by physically hitting the blades or mast; the remainder were from this cavitation effect.

We can really assist these little guys by avoiding entering caves or mines for the sole purpose of explor-



ing. Also, by reporting any bat sightings to the Mersey Tobeatic Research Institute (MTRI). They have been researching our bats for quite some time and continue to do so today. On an optimistic note – a count in a southwest Nova Scotia bat maternity colony turned up 58 bats, the following year 157 bats were documented. Please visit www.batconservation.ca to report any bat encounter.

Following a spirited Q and A session Andrew closed off and was very appreciatively thanked by Mille MacCormack for this most informative, surprising, and engaging presentation.



Praying Mantis

INSECTS OF ASIA & AUSTRALIA

1 JUNE

– Bernie MacKenna and Stephanie Robertson

(Stephanie) From 2004 to 20014, Dr. Norm Pinsky and his family lived and worked in Australia (see his Papua New Guinea adventures in “Papua New Guinea”, Winter Issue #189, 2023). While there he became so fascinated with Australian insects, moths, and butterflies, especially their unique camouflage adaptations, that he went on many photo trips to record them.

(Bernie) He shared this extensive collection, a very colourful and descriptive series of grasshopper and moth photos he had taken, with an emphasis on their ability to blend effortlessly into their environment. It seems they have developed this ability through the use of colour, texture, physical shape, and mimicry. Clearly, copyright rules did not apply! While we in Nova Scotia have about 25 species of grasshoppers and crickets combined, Australia has several hundred – so many that I hesitate to try and put a number on them. The only two native grasshoppers that come to mind for me are the Carolina Locust *Dissosteira carolina* and the Pygmy Grasshopper, in the family Tetrigidae.

(Stephanie) His first photo was one of his son Will, about six years old at the time, sporting a large Praying Mantis on his body, then of Norm with it on his cheek! We saw a ‘triangular spider’ (alluding to its shape - the only one he saw there), and one which looked and acted like a flower bud while waiting for prey! Another spider had developed into a long and skinny shape to disguise itself on its own web (it was very hard to find it in the shot). A lot of Norm’s pictures were of this nature. He would show one on the screen and then ask “Can you see the insect (moth, butterfly, spider)?” Some were impossible to find!

He found very many moths on his photo excursions, and there were lots of unique and weird camouflage shapes and colours that exactly fitted wherever they preferred to live – bark, sand, pebbles, leaf litter, twigs, leaves. There was a shot of the smallest moth in Australia, a little brown one that he had snapped in their bathroom; it was much, much smaller than Norman’s little finger nail. A black moth was almost invisible on some

dark and mottled bark, and a gnarly piece of wood was not a gnarly piece of wood – it was a leaf hopper! There were many, many of grasshoppers there - only one kind was our traditional western green colour.

(Bernie) When I think of a typical native grasshopper’s shape, I visualise a blocky, squarish, short, and non-descriptive body. While that may be so with some of the Australian grasshoppers, it clearly is not with many, many others. In Australia, grasshoppers have taken blending into their environment to a whole other level of refinement. Through the use of colour, texture, physical shap, and mimicry they have evolved into countless versions we could not even imagine, where, as said before, ‘copyright rules’ do not even seem to apply. While Australian grasshoppers possess the same physical abilities as ours, they surpass ours in in their extreme variety of shapes, colours, and textures which they have evolved and perfected. Their longish cylindrical shape coupled with other variables gave them the ability to blend or disappear even though right in front of you. As already stated, Norm had many photos where many of us were at a loss to quickly pinpoint the insect even with hints and prompts. Some of them had a body shape which more resembled a walking stick rather than my image of any grasshopper. When one realises the very large number of species they have, then you come to understand the level of variability possible there.

Norm also took us into the world of moths on that continent through more of his photos. Here, as in the case of the grasshoppers, the moths have evolved to easily adapt and disappear into their surroundings, whether that be tree bark, a leaf, or even bare earth. Again, finding one in some of his photos was not an easy task. At the same time some of their moths and caterpillars are brightly marked, as are ours, to warn predators of their undesirability (think Monarch Butterflies). Also, some of their markings were such as to confuse their predators and throw them off the hunt. Almost vibrant, Norm had many moth photos that would rival the display of any tropical bird at it’s finest. One species in particular stood out for me, more for its name than its colour – the Death’s Head Moth – so called because of the skull-like marking on its upper thorax. Despite this gruesome name, they feed mainly on nectar (so they are great pollinators) or by raiding bee hives for honey (the finished product of bee-collected nectar). Measuring up to eight inches in wingspan they likely make for a formidable foe when coming for a bee hive’s honey.

Not wanting to belittle our native moths Norm also showed us photos of a number of our natives and they didn’t disappoint. For instance, the Rosy Maple Moth *Dryocampa rubicunda* has a head and thorax of a deep golden hue with wings of pink and yellow/gold, a very striking moth. Listening to comments, there were just as many ooohs and ahhs for his native photos as I did for the Asian ones.

Norm had our attention from start to finish and the very engaging Q and A period backed that up. In conclusion, he was thanked was made very welcome to return to give us another at his convenience.



HFN FIELD TRIPS

HOPE FOR WILDLIFE 16 APRIL

Date: Sunday, April 16th

Place: 58 Prince Albert Road, Dartmouth

Weather: 5909 Hwy 7, Seaforth

Leader: George Ryan

Participants: 25



Hope for Wildlife (HFW) is open to visitors on Saturdays from 1:00 p.m. to 3:00 p.m. There is a new parking lot now beside its Educational & Admittance building, so there is no more having to park on the side of the Highway.

Our visit started with a talk on endangered species, such as the Bobcat. HFW is trying to get a Bobcat license (so they can legally care for them if they are brought in) as we are the only province that does not have one. It is their policy to co-operate with all Government Agencies which protect endangered species and especially all their rules about releasing rehabilitated animals.

We started by meeting 'Clover' – an exotic tortoise captured at the border as an illegal import – an endangered species in Africa. Fully grown, his shell is about 6" wide and they believe he is $\pm$ 40 years old; he may live to be 70 years old.

Our next patient was in a cage on the floor – a Groundhog called 'Twisty' who had suffered brain damage and a consequent permanent head tilt so he can never be released. Most Groundhogs they get are orphans, as are most of their Red Foxes. Sometimes people catch a Groundhog, Raccoon, or Squirrel and then re-locate it outside of the city; a day or so later HFW will get a call that there's a lot of baby Groundhogs or Squirrels in trouble, because 'Mum' is gone.

Raccoons are tough to deal with. They come to backyards because of food and/or garbage having been left out. To frighten them away, use a sensitive water sprinkler or a motion-detector light; also, take all your birdfeeders in at night. If you have a Raccoon in your attic, place a lamp and a turned-on radio there. This will make them so uncomfortable that mother will gather up her young and leave.

George brought up the fact that people in developing countries make a lot of money by catching their native species and then selling them to pet store owners. They are then again sold onward to customers for even larger profits. It is illegal but very difficult to stop.

There were other animals in the Education Centre, but George talked only about the rarities. We saw a fish-like white creature which had come from Mexico and which was swimming in a saltwater aquarium. It looked like a fish but had legs like a salamander. It also had

lungs and could live on land but preferred the water. It is the only creature that can grow new brain tissue, as well as being able to grow a new tail or leg.

George mentioned that creatures in captivity do not mate easily. As an example there were two Kestrels in a cage. The female Phoebe just tolerates the male Norman's antics (he has a broken wing). He is a unique character, but they were not mates.

The next building we visited was the state-of-the-art, air-contolled, two-storey animal hospital and surgery built in partnership with the World Wildlife Society. The examination room, surgery, and x-ray are on the first floor and the countertops are made of material that would not allow bacteria to grow. The X-ray machine is the newest type and does not emit any radiation. It is manned by both a veterinarian and intern veterinarians doing their internship who live in a cottage on the property. Not only does it save a lot of money, but it saves wear and tear on the animals who no longer must endure the trip to the Dartmouth Veterinary Hospital.

The second floor was an animal care room, with high walled sinks where they animals are bathed, and food, towels medicines. The high walled sinks prevent the animals from jumping out. They have everything there to look after the animals – food, towels, and medications. In the spring, they go from no Raccoons to 100 baby racoons. Raccoons are injured the most by cars, thus all the baby orphans. Porcupines also like to go to the highways – for the salt! The other side of this second floor was a room with all the cages, stacked three high, where animals are kept after being examined.

We then traveled up the hill and viewed the crow and raven cages then a cage for Porcupines. This was a quiet time of the year for Hope for Wildlife when they have the lowest number of animals – 140. We passed some solar panels which on most days provide 100% of the power requirements.

The largest building at Hope for Wildlife is the Nutrition Building; its ground floor is a food storage area. We had to take our shoes off for the second floor, where a large food preparation kitchen is for the growing baby animals who need the best nutrition. They go through many dozens of eggs in the height of the baby season, and, HFW never uses any live prey. A side room contains a washer and dryer, and on the opposite side are cages for the young animals. In the main kitchen-like room there was an owl resident – Oliver. Blind in one eye, he likes to stand beside the dryer for its heat and vibration! The front of this building had three decks of screened in porches. On the second-floor porch were a few birds. Hope lives in the third-floor apartment.



The Critically Ill Building is where the very seriously sick/injured animals are cared for. There were eight of them at this time, hidden by towels covering their cage fronts to give them peace and quiet. We had to be very quiet there as we listened to George softly talking. These very ill animals are attended to every two hours by the intern veterinarians who live in the cottage next door.

We were told that as we were very special visitors, we had been allowed into those last three buildings which were usually off limits to the public. Close to three o'clock the tour ended. It was a wonderful visit!

SHUBENACADIE RAILWAY

– *Bernie McKenna*

Date: Thursday, May 11th

Place: 58 Prince Albert Road, Dartmouth

Weather: Sunny, with a cool breeze

Leader: Richard MacMichael

Participants: 15

This day saw 15 members and non-members arrive at the Shubenacadie Canal Railway and integral Flume House at 58 Prince Albert Road. We were immersed in an in-depth and comprehensive talk on all aspects of the operation by our walk leader Richard MacMichael, the very same Richard MacMichael who had previously led the HFN walk at the Shubie Park Canal last year. Having worked at the Museum of the Atlantic for over 30 years, he is clearly well versed in leading such walks.

After a brief introduction he gave us a 'Cole's Notes' (showing our age here) version of the canal, the railroad, and the Flume House. The canal was originally conceived, planned, and initially started by Charles Rufus Fairbanks with work starting in 1826. No doubt a costly venture, it was backed by several prominent individuals, including Michael Wallace, Samuel Cunard, and Enos Collins – Collins being the founder of what is now the Canadian Imperial Bank of Commerce. However, by 1832 monies had dried up and all work ceased and stayed ceased until 1854 when another Fairbanks, Charles Rufus's son (another Charles) took it on and finally completed it in 1862. Time and the railroads eclipsed it however, and it only operated for 10 years before closing down completely. The railroads offered better rates, faster service, more locations, and predictable schedules!

Now let us get back to that Flume House, which was the heart of the whole Shubie Canal system and without which none of it was do-able. Opening the flume house, Richard revealed an exact replica of the original's workings – all built by original methods – with wooden pegs, joinery, and no nails. Here, using a water-powered system of steel cables 5 cm wide, plus pulleys and the actual rail line, it moved vessels of 100 tons up a 17-metre rise then depositing them into Sullivan's Pond. The cables were wrapped and stored on a large, gear-driven drum/reel which was powered by water pressure and which, it should be noted, produced no CO₂. The

barges themselves were moved by rail from Dartmouth Cove to Sullivan's Pond on a platform/cradle connected to the pulley system. The main advantage of using the railroad was that it reduced the travel distance from Dartmouth to Maitland on the Fundy shore by 33.5 km, a sizeable gain in distance and time.

The canal itself was built mainly by Irish and Scottish labourers called 'navvies' who lived in Irish areas in both Halifax and Dartmouth. Richard mentioned two significant problems that arose here. First – the granite they used did not hold up well to our Nova Scotia winters. Secondly, one of the locks was not measured correctly and was built too small to handle the tow boat and the barge. Making the correction must have taken enormous time and money.

Leaving the Flume House we crossed over Prince Albert Road and came to the outflow of Sullivan's Pond. Here the fairly recent daylighting of a portion of Sawmill Brook was seen up close, and looked extremely well-made and functional. Also, from here you get a good view of the pond itself, plus a small man-made island which holds a totem pole, a miniature lighthouse, and a goose-nesting building. Going up the east side of the pond it was noticeable that a good number of park benches had been situated at convenient locations around the entire pond. The geese themselves were out and about and continually eating (careful where you step!).

Richard said the pond's deepest point is 35 ft down. Here also we got a good look at the fountain which was in full flow and showed nicely with the wind moving the spouts of water around. On the opposite side of Prince Albert Road is a Heritage Home at #119 Prince Albert Road. It's the former home of lock-keeper Henry Findlay and is referred to as the Lock-Keeper's Home. Very well kept, it's a credit to its owner.

On the corner of Hawthorne Street and Prince Albert Road is Dragonfly Garden Park, well planted and between it and Moir Garden a little further on I think you could start with A for Astilbe and between the two gardens use virtually the whole alphabet. Dragonfly Garden had a planting of Tulips and Hyacinths which saturated the air with their fragrance. The Moir Garden further along Hawthorne was donated by Lorne and Audrey Moir in 2009 and fills a whole hillside just before the canal culverts. It was densely planted with many varieties all at different degrees of growth.

Past the culverts we crossed over Hawthorne Street and walked up the west side of the canal to Lock #1. It has a modern flow-gate system which can control the volume of water passing into Sullivan's Pond. On this stretch from Hawthorne to Lock #1 both sides of the canal are shaded with mature trees of several kinds, pretty much forming a beautiful canopy over it. Maples, Grey and White Birches, and a nice Willow really stood out to me. Also on the west bank is a large tangle of briars, whether they were Sweet Briar or Multiflora I am not sure (but I lean to the latter). Below, at water's edge, were clumps of foot-high flags – probably Blue Flags.

A big but not unexpected disappointment was the large quantity of Japanese Knotweed; it was everywhere



and trying to go further. Richard said it has been a real problem for some lock blocks on the east wall of the lock as it is threatening to cause damage and weaken the wall. Here, it had travelled along the top of the east wall as far as the flow-control gate. After running down the Japanese Knotweed for its lack of virtues we reversed direction and headed back towards the flume house, our original starting point. Going down the west side of the pond this time the park benches again drew note, as did a domestic duck which was sitting with its wild cousins behind the bandstand.

In concluding I must thank Sue Moxon for sharing her walk notes with me, as it's always a big help to have another's take on things. During the whole time the weather was good, the pace was good, and the briefings Richard gave were excellent. All in all, a very pleasant event and one we thank Richard for making happen.



The first inclined plane near the now gone Starr Manufacturing complex which used the main workings of the Flume House (now behind this spot) to power its skate-making machinery. Sketch by L.B. Jenson



NNS CELEBRATION OF NATURE BELCHER'S MARSH

– **Bernie McKenna & Wendy McDonald**

The Halifax Field Naturalists offered three different walks in conjunction with the Celebration of Nature event on Sunday, May 28th. All three started at 1:30 p.m. and were scheduled for a two-hour duration. The weather person was generous and we had full sun, temperatures in the high 20's, and a pleasantly welcome breeze. The three walks were Belcher's Marsh off Parkland Drive in Clayton Park West, the Sackville 2nd Lake Park Trail, and the Russell Lake Trail in Dartmouth.

The Belcher's Marsh Walk had 12 participants and was led by Wendy McDonald and Ron Arsenault. Three of the younger participants had also taken part in the Wetlands of Excellence programme offered to Park West students, hosted by Ducks Unlimited.

On arrival, everyone was given a brief introduction to the area and the walk. The trail itself has a gravel walking surface (2.5 km one way; 5 km return) which circles the marsh. This time, the adjacent pond was not visited. Being a popular and convenient neighbourhood location, you are virtually never alone and almost assured of meeting other walkers.

For several people this was their first visit to the park and both Wendy and Ron enjoyed introducing them



to the its many assets. Established in the 90's, it has two interpretative panels detailing both its natural and historical features. The panels themselves have been installed by the Halifax North West Trails Association who, I should add, are to be commended for their ongoing efforts in stewarding this park. A major asset is the raised viewing platform which provides a panoramic view of the entire marsh and its inhabitants. An active Beaver Lodge can be seen from there, and judging by the number of recently chewed, light-coloured sticks on the lodge, and the number of trees felled or partly felled, – it is definitely an active lodge.

Being early afternoon, not a great number of birds were out and about, a noted absence being the normally resident Great Blue Heron. What we did see however were Canada Geese, Black-Capped Chickadees, Red Winged Blackbirds, Tree Swallows, Mallards, Common Grackles, and Dark Eyed Juncos. The geese already had five goslings in tow and were proceeding in their normal orderly way. A pair of Chickadees were busy ferrying food to their brood in a former woodpecker cavity in a birch. Robie Tufts says they normally lay 5 to 9 eggs, so between keeping that crew fed and getting rid of their fecal sacs from dawn to dusk makes for a very busy pair of parents. Also in nesting mode was a pair of Tree Swallows, busy scooping insects out of the air for their young which were in a nesting box. Apparently, it's the first time in several years that a pair has set up housekeeping in a nest box at the marsh.

Two wildflowers were noted in bloom, – Clintonia (Blue Bead Lily) and Mianthemum (Canada Mayflower) but not in large numbers. Serviceberry and Rhodora were in flower, the former well along and the Rhodora just coming on. Cinnamon Interrupted Ferns as well as Bracken were also present. Dominant trees were Striped Maples, Speckled Alders, and numerous spruces. A number of mature trees had been downed by past winds and no doubt a park cleanup is in the works.

The day turned out to be a very pleasant and interesting outing, both from a weather and location standpoint, with more than enough breeze to keep flying insects at bay. It was enjoyed by all and comments on doing a return visit were expressed by several participants.



RUSSELL LAKE

– **Bernie McKenna**

The Russell Lake Walk was the third leg of the NNS Celebration of Nature event. On paper I was listed as leader, in practice we had at least four knowledgeable leaders – Tamara Elwood, Grace and Richard Beazley, and myself. Between us we had a pretty good handle on most points with much discussion sometimes being the norm.

At the trailhead there was a large display of Wild Mustard in full bloom brightening the area with their yellow flowers. Given a taste test, both the flowers and plant

were very mild with just a very faint mustard taste. In a short time this very same spot will be covered in Chicory with their welcome blue flowers. Here too is a large Pear tree, most likely a remnant of someone's previous orchard. Taking the earthen lakeside path, we saw numerous Speckled Alders on both sides of the boardwalk. This area, being wet all the time, it's a perfect spot and much to an alder's liking; however, being not too particular, they're just as happy in an abandoned gravel pit. This lake side of the boardwalk was solid Cattails or Bullrushes, still in last year's form, the seed heads looking ragged and worn. Red Winged Blackbirds of both sexes were in abundance and no doubt several nests were close at hand. From the boardwalk we had a good view of the Beaver Lodge on the other side of the lake. An active lodge, it had multi freshly-chewed sticks on the lodge itself. Along this stretch of the trail many trees had their bottom three feet or so wrapped in protective wire to keep hungry beavers away. Also here were stumps where the wire had not been used and the beavers obviously took advantage. I found it curious that not more recent active beaver cuttings were to be seen. Along here, and really along the whole walk, Serviceberries were in full bloom or even a bit past, and the many wild Blueberry bushes seemed to be mostly past full bloom and fruit set was already happening. Two other plants in number were Sarsaparilla and Wintergreen. The Sarsaparilla (a member of the ginseng family) still had their early flower heads hidden below their large arching leaves while the Wintergreen was very plentiful in some locations. I always find the Wintergreen and Mayflowers such a welcome and encouraging sight in spring with their berries still so tasty even after the winter months. Along here we had a Yellow Warbler dancing around in the branches over our heads; it didn't stay long in any one spot. Coming to a small viewing deck we stopped to see a Red-winged Blackbird which was happy to stay close.

We talked about how the lake hosts both American Eels and Gaspereau (Alewife). The eels live in fresh water but spawn in salt water far away in the Sargasso Sea while the Gaspereau (herring) live in salt water and spawn in fresh, either lakes or running water. This lake which they both use, has a maximum depth of about 30 ft., an average depth of 12 ft., and covers 35 hectares of surface area. It's main inflows are from Penhorn Lake and three or more storm sewer pipes.

Just past here we saw several dead or dying birch which had been attacked by the Bronze Birch Borer, one of 25 species of the genus which attack dead or stressed birch trees. The female lays an egg on the bark and when it hatches the larvae bore through the bark and its life cycle begins. In our Nova Scotia climate, it's a two-year process. Further south, one year is enough for egg to adult completion. Several trees showed multi-holes where adult beetles had exited the tree. On the right side of the trail were both White and Red Spruce and Richard took the time to explain how to



tell the two species of spruce apart. There was also a large Tamarack tree and a sapling, the smaller sapling allowing for a good look at how Tamaracks sprout their needles. That brought us to a pathway junction where a small Red Squirrel was having some seeds someone had left for it. Being very small, I would think this squirrel had been from the first litter of the year.

Turning left we proceeded west across the causeway separating the lake from the pond area. Later in the year its right bank is a prime location for seeing Garter Snakes sunning, but today – nothing. Both causeway sides boasted the following trees, White and Grey Birch, Beech, and Poplar; as well there were Wild Blueberries. Coming to the pumphouse area we turned left/south and headed for the Osprey nest which NS Power had relocated. On the trail side here were both Sweet Brier and Multiflora and I think what is a small Hawthorn. Several young spruce and White Pine are established in this area and a few large ones had fallen in fairly recent months. Coming to the nest but staying well back we could see both 'Ethel' and 'Oscar' on the nest and we were told their young had hatched and were doing well on their fresh fish diet. Turning back Richard showed us an easy way to tell White Birch from Grey, welcome information as some of us were not aware of it.

Now we took the paved trail back to the original starting point, and heading back there were several opened fresh water mussel shells in the water. Not seeing what had eaten them, I surmised it was probably a Muskrat which had had them for a meal. To the left of this area is another smaller marsh area where no doubt some wonderful amphibian places are to be found. As the walk wrapped up most people went straight to their vehicles; however three of us went further on the trail to the lake outflow. On the way a Mayfly landed on my arm so we talked a bit about their mostly aquatic life span and the shortness of their life as an adult. Their nymph stage lives about a year in the water, while an adult lives no more than a day or so. At the outflow culvert the flow was restricted and looking under it we saw that the beavers had started a dam which was about twelve inches high at that point (no doubt they have bigger plans for it!). By now there were only three of us left so we made our way back the vehicles and went our separate ways. Thank you to Tamara Elwwod, and Grace and Richard Beazley – the three of you greatly enriched our hike with your natural history knowledge.





"Late August, given heavy rain and sun / For a full week, the blackberries would ripen.
At first, just one, a glossy purple clot / Among others, red, green, hard as a knot."

– from *"Blackberry Picking"*, by **Seamus Heaney**

NATURAL EVENTS

- 4 Jun.** New Moon
- 4 Jun.** Venus at greatest eastern elongation (view in the western sky after sunset)
- 8 Jun.** World Ocean Day (<https://worldoceanday.org>)
- 10 Jun. to 21 Jun.** Earliest mornings of the year in Halifax area (sunrise at 05:28)
- 18 Jun.** New Moon
- 20 Jun. to 2 Jul.** Latest evenings of the year in Halifax area (sunset at 21:03)
- 21 Jun.** June Solstice (first day of summer in Northern Hemisphere) occurs at 11:51 ADT
- 3 Jul.** Full Moon, Supermoon (moon near its closest approach to the Earth)
- 17 Jul.** New Moon
- 28-29 Jul.** Delta Aquarids Meteor Shower (meteors radiate from constellation Aquarius)
- 1 Aug.** Full Moon, Supermoon
- 10 Aug.** Mercury at Greatest Eastern Elongation (view low in the western sky after sunset)
- 12-13 Aug.** Perseids Meteor Shower (meteors radiate from constellation Perseus)
- 16 Aug.** New Moon
- 27 Aug.** Saturn at Opposition (closest approach to Earth and face fully illuminated)
- 31 Aug.** Full Moon, Supermoon, Blue Moon (second full moon in the same month)
- 15 Sep.** New Moon
- 19 Sep.** Neptune at Opposition
- 22 Sep.** Mercury at Greatest Western Elongation (view low in the eastern sky before sunrise)
- 23 Sep.** September Equinox (first day of fall in the Northern Hemisphere) occurs at 03:43 ADT.
- 29 Sep.** Full Moon, Supermoon

Sources: Sea and Sky Astronomy Calendar

SUNRISE/SUNSET ON HALIFAX SUMMER AND EARLY FALL SATURDAYS, 44 39 N, 063 36 W (ALL TIMES ADT)



3 Jun.	05:31	20:54	1 Jul.	05:32	21:03
10 Jun.	05:28	20:58	8 Jul.	05:37	21:01
17 Jun.	05:28	21:02	15 Jul.	05:43	20:57
24 Jun.	05:29	21:03	22 Jul.	05:49	20:51
			29 Jul.	05:57	20:43
5 Aug.	06:04	20:24	3 Sep.	06:37	19:49
12 Aug.	06:13	20:33	9 Sep.	06:45	19:36
19 Aug.	06:21	20:40	16 Sep.	06:54	19:23
26 Aug.	06:29	20:47	23 Sep.	07:02	19:10
			30 Sep.	07:10	18:57

– Source: www.timeanddate.com

ORGANISATIONAL EVENTS

Blomidon Naturalists Society <https://blomidonnaturalists.ca>

- 4 Jun.** "Jim Wolford Memorial Hike to the Vernal Pond", 10:00 a.m., Soren Bondrup-Nielsen, Blomidon Prov. Park.
Go to <http://blomidonnaturalists.ca/events> for more details.

Friends of Blue Mountain/Birch Cove Lakes <https://bluemountainfriends.ca>

- 26 Jun.** AGM, 7:00 p.m., Canada Games Centre, 26 Thomas Raddall Dr. Doors open at 6:30 p.m.

Nova Scotia Wild Flora Society <https://nswildflora.ca>

- 3 Jun.** Acadia University Native Plant Sale, 9:00 a.m., Harriet Irving Botanical Gardens, Wolfville.

Nova Scotia Bird Society <https://www.nsbirdsociety.ca>

- 29 Jul.** (Storm Date 30 Jul.) Mahone Bay Trip, 8:30 a.m. to 3:00 p.m., Three Churches parking lot, with James Hirtle.
Pre-registration is necessary with James (see website calendar for details).
- 28 Sept.** "Resightings of Greenland Collared Canada Geese", via Zoom 7:00-8:30 p.m., with Dr. Tony Fox, of Aarhus University, Denmark. Go to <http://nsbirdsociety.ca/calendar> for Zoom ID/passcode.

NS Department of Natural Resources <https://www.novascotiaparks.ca>

- 16 Jul.** "Canada Parks Day". Look for events at your local Parks Canada sites.

Royal Astronomical Society of Canada Halifax Centre, <http://halifax.rasc.ca>

- 11- 13 Aug.** 14th Annual Kejimikujik Dark-Sky Weekend, Keji Park, with RASC and Parks Canada. Free with park admission.

– compiled by **Don Flemming**

HALIFAX TIDE TABLE



July-juillet

August-août

September-septembre

Day	Time	Metres	Feet	jour	heure	mètres	pieds	Day	Time	Metres	Feet	jour	heure	mètres	pieds	Day	Time	Metres	Feet	jour	heure	mètres	pieds
1	0002	0.2	0.7	16	0117	0.3	1.0	1	0128	0.1	0.3	16	0213	0.3	1.0	1	0244	-0.1	-0.3	16	0236	0.3	1.0
SA	0603	1.5	4.9		0713	1.6	5.2		0727	1.7	5.6		0814	1.7	5.6		0845	2.0	6.6		0843	1.7	5.6
SA	1201	0.5	1.6	SU	1336	0.6	2.0	TU	1337	0.4	1.3	WE	1422	0.6	2.0	FR	1517	0.2	0.7	SA	1453	0.4	1.3
SA	1759	1.8	5.9	DI	1907	1.7	5.6	MA	1931	2.0	6.6	ME	2013	1.8	5.9	VE	2059	1.9	6.2	SA	2057	1.7	5.6
2	0055	0.1	0.3	17	0159	0.3	1.0	2	0220	0.0	0.0	17	0245	0.3	1.0	2	0333	0.0	0.0	17	0303	0.3	1.0
	0653	1.6	5.2		0757	1.6	5.2		0819	1.8	5.9		0848	1.7	5.6		0931	2.0	6.6		0913	1.7	5.6
SU	1256	0.5	1.6	MO	1416	0.6	2.0	WE	1435	0.3	1.0	TH	1451	0.6	2.0	SA	1611	0.1	0.3	SU	1528	0.4	1.3
DI	1851	1.9	6.2	LU	1951	1.7	5.6	ME	2024	2.0	6.6	JE	2049	1.8	5.9	SA	2148	1.9	6.2	DI	2132	1.7	5.6
3	0147	0.1	0.3	18	0238	0.3	1.0	3	0310	-0.1	-0.3	18	0312	0.3	1.0	3	0422	0.1	0.3	18	0332	0.4	1.3
	0744	1.7	5.6		0838	1.7	5.6		0910	1.9	6.2		0921	1.7	5.6		1015	2.0	6.6		0944	1.8	5.9
MO	1351	0.4	1.3	TU	1451	0.6	2.0	TH	1533	0.3	1.0	FR	1521	0.5	1.6	SU	1706	0.2	0.7	MO	1606	0.3	1.0
LU	1943	2.0	6.6	MA	2033	1.8	5.9	JE	2116	2.0	6.6	VE	2124	1.8	5.9	DI	2236	1.8	5.9	LU	2208	1.6	5.2
4	0238	0.0	0.0	19	0313	0.3	1.0	4	0359	-0.1	-0.3	19	0338	0.3	1.0	4	0514	0.2	0.7	19	0404	0.5	1.6
	0835	1.7	5.6		0916	1.7	5.6		0958	1.9	6.2		0952	1.7	5.6		1058	1.9	6.2		1016	1.7	5.6
TU	1447	0.4	1.3	WE	1522	0.7	2.3	FR	1632	0.3	1.0	SA	1556	0.5	1.6	MO	1802	0.2	0.7	TU	1648	0.4	1.3
MA	2036	2.0	6.6	ME	2113	1.8	5.9	VE	2207	1.9	6.2	SA	2159	1.7	5.6	LU	2323	1.7	5.6	MA	2245	1.6	5.2
5	0330	0.0	0.0	20	0344	0.4	1.3	5	0451	0.0	0.0	20	0406	0.4	1.3	5	0611	0.4	1.3	20	0444	0.6	2.0
	0926	1.8	5.9		0952	1.7	5.6		1045	1.9	6.2		1023	1.7	5.6		1142	1.8	5.9		1051	1.7	5.6
WE	1546	0.4	1.3	TH	1554	0.7	2.3	SA	1731	0.3	1.0	SU	1634	0.5	1.6	TU	1858	0.3	1.0	WE	1738	0.4	1.3
ME	2129	2.0	6.6	JE	2151	1.8	5.9	SA	2256	1.8	5.9	DI	2233	1.6	5.2	MA				ME	2325	1.6	5.2
6	0423	0.0	0.0	21	0414	0.4	1.3	6	0544	0.1	0.3	21	0437	0.4	1.3	6	0012	1.6	5.2	21	0537	0.6	2.0
	1018	1.8	5.9		1027	1.7	5.6		1130	1.9	6.2		1055	1.7	5.6		0712	0.5	1.6		1131	1.7	5.6
TH	1648	0.4	1.3	FR	1629	0.7	2.3	SU	1831	0.3	1.0	MO	1718	0.5	1.6	WE	1228	0.7	2.3	TH	1837	0.5	1.6
JE	2221	1.9	6.2	VE	2227	1.7	5.6	DI	2347	1.7	5.6	LU	2310	1.6	5.2	ME	1956	0.4	1.3	JE			
7	0516	0.0	0.0	22	0444	0.4	1.3	7	0640	0.2	0.7	22	0514	0.5	1.6	7	0105	1.5	4.9	22	0010	1.5	4.9
	1108	1.8	5.9		1101	1.7	5.6		1216	1.8	5.9		1128	1.7	5.6		0814	0.6	2.0		0646	0.7	2.3
FR	1752	0.4	1.3	SA	1711	0.7	2.3	MO	1929	0.3	1.0	TU	1808	0.5	1.6	TH	1320	1.6	5.2	FR	1218	1.7	5.6
VE	2313	1.8	5.9	SA	2303	1.6	5.2	LU				MA	2349	1.5	4.9	JE	2053	0.4	1.3	VE	1942	0.5	1.6
8	0612	0.1	0.3	23	0518	0.5	1.6	8	0038	1.6	5.2	23	0602	0.6	2.0	8	0209	1.4	4.6	23	0104	1.5	4.9
	1158	1.8	5.9		1136	1.7	5.6		0739	0.4	1.3		1205	1.7	5.6		0917	0.7	2.3		0758	0.7	2.3
SA	1855	0.4	1.3	SU	1759	0.7	2.3	TU	1304	1.7	5.6	WE	1904	0.5	1.6	FR	1425	1.5	4.9	SA	1316	1.6	5.2
SA				DI	2340	1.6	5.2	MA	2027	0.3	1.0	ME				VE	2150	0.5	1.6	SA	2047	0.5	1.6
9	0006	1.7	5.6	24	0557	0.5	1.6	9	0135	1.5	4.9	24	0035	1.5	4.9	9	0336	1.4	4.6	24	0215	1.4	4.6
	0708	0.2	0.7		1212	1.7	5.6		0839	0.5	1.6		0702	0.7	2.3		1018	0.7	2.3		0905	0.7	2.3
SU	1248	1.8	5.9	MO	1851	0.7	2.3	WE	1358	1.6	5.2	TH	1249	1.7	5.6	SA	1546	1.5	4.9	SU	1428	1.7	5.6
DI	1955	0.4	1.3	LU				ME	2124	0.4	1.3	JE	2005	0.5	1.6	SA	2246	0.5	1.6	DI	2151	0.4	1.3
10	0103	1.6	5.2	25	0022	1.5	4.9	10	0242	1.4	4.6	25	0130	1.5	4.9	10	0457	1.5	4.9	25	0345	1.5	4.9
	0805	0.3	1.0		0642	0.6	2.0		0940	0.6	2.0		0809	0.7	2.3		1115	0.7	2.3		1010	0.6	2.0
MO	1341	1.7	5.6	TU	1251	1.7	5.6	TH	1501	1.6	5.2	FR	1344	1.6	5.2	SU	1658	1.5	4.9	MO	1551	1.7	5.6
LU	2054	0.4	1.3	MA	1945	0.6	2.0	JE	2220	0.4	1.3	VE	2108	0.5	1.6	DI	2339	0.5	1.6	LU	2251	0.3	1.0
11	0206	1.5	4.9	26	0111	1.5	4.9	11	0402	1.4	4.6	26	0239	1.4	4.6	11	0551	1.5	4.9	26	0500	1.6	5.2
	0903	0.4	1.3		0735	0.6	2.0		1040	0.6	2.0		0915	0.7	2.3		1205	0.6	2.0		1113	0.5	1.6
TU	1438	1.7	5.6	WE	1335	1.6	5.2	FR	1611	1.5	4.9	SA	1452	1.7	5.6	MO	1750	1.6	5.2	TU	1706	1.8	5.9
MA	2150	0.3	1.0	ME	2040	0.6	2.0	VE	2316	0.4	1.3	SA	2211	0.4	1.3	LU				MA	2348	0.2	0.7
12	0317	1.4	4.6	27	0210	1.4	4.6	12	0516	1.4	4.6	27	0403	1.4	4.6	12	0026	0.4	1.3	27	0556	1.8	5.9
	1002	0.5	1.6		0834	0.7	2.3		1138	0.6	2.0		1020	0.6	2.0		0633	1.6	5.2		1214	0.4	1.3
WE	1538	1.6	5.2	TH	1428	1.6	5.2	SA	1715	1.6	5.2	SU	1609	1.7	5.6	TU	1246	0.6	2.0	WE	1806	1.9	6.2
ME	2246	0.3	1.0	JE	2138	0.5	1.6	SA				DI	2314	0.3	1.0	MA	1832	1.7	5.6	ME			
13	0428	1.5	4.9	28	0320	1.4	4.6	13	0008	0.4	1.3	28	0517	1.5	4.9	13	0106	0.4	1.3	28	0041	0.1	0.3
	1101	0.5	1.6		0936	0.7	2.3		0612	1.5	4.9		1124	0.6	2.0		0709	1.6	5.2		0645	1.9	6.2
TH	1637	1.6	5.2	FR	1529	1.7	5.6	SU	1230	0.6	2.0	MO	1720	1.8	5.9	WE	1321	0.6	2.0	TH	1312	0.2	0.7
JE	2340	0.3	1.0	VE	2237	0.4	1.3	DI	1808	1.6	5.2	LU				ME	1910	1.7	5.6	JE	1900	1.9	6.2
14	0530	1.5	4.9	29	0433	1.4	4.6	14	0055	0.3	1.0	29	0012	0.2	0.7	14	0140	0.3	1.0	29	0131	0.1	0.3
	1158	0.5	1.6		1038	0.6	2.0		0657	1.6	5.2		0617	1.7	5.6		0742	1.7	5.6		0731	2.0	6.6
FR	1731	1.7	5.6	SA	1634	1.8	5.9	MO	1314	0.6	2.0	TU	1225	0.4	1.3	TH	1351	0.5	1.6	FR	1406	0.1	0.3
VE				SA	2336	<																	

