

confirmed when its flesh stained itself a red-brown when scraped with a knife (another test); a Waxy-cap, *Hygrophorus* spp.; a hard, 'Horse's Hoof', (the name describes its shape and texture), which grows on the vertical sides of trees, *Fomes fomentarius*; then a bolete in the genus *Leccinum*. It's common name is Scaber Stalk and it is mycorrhizal with the birches.

A *Russula*; a *Suillus salmonicolor*, "Slippery Jill" (*Suillus luteus* is "Slippery Jack"); then groupings of tiny, pink slime molds, *Lycogala epidendrum*, on an old damp twig looking just like little blown-up-bubble-gum bubbles; *Pleurotus ostratus* or the Oyster Mushroom – very edible; then a *Hygrocybe nitida* followed by a *Russula sanguinea*.

Twenty-four species in all.



It is interesting to note that this year's walk took place at the same location, and – almost to the day – the same date. Mushrooms were found this year which were not seen last year. In John's experience, this is a very common phenomenon and it adds significantly to the mushroom trips. You never know what you will find when you venture into the woods and it undoubtedly adds to John's enthusiasm for what awaits him on his next visit.

Finally, at 1:00 p.m., as difficult as it was to leave this magical time in our day, I thanked John as I and a few others had to leave the group for other events. Followed by a round of applause from the crowd, half of us made our way back to the parking lot filled with a deep appreciation of all we had learned on this adventure, while John carried on with the other folks who were eager to discover even more.

We are most grateful to John who has already given us the heads up to do it again in 2020!



Mutinus caninus



Coprinus mucronatus

PURCELL'S COVE QUARRIES

– Mille McCormack

Date: Saturday, November 23rd

Place: Purcell's Cove

Weather: Cold!

Leader: Dr. Marcos Zentilli

Participants: 15

Retired professor of Dalhousie's Earth Sciences guided this walk through the historic Purcell's Cove Quarries, launching us off with an introductory talk in the Purcell's Cove Social Club. He explained the industrial and archeological significance of the quarries, and introduced us to the basic geological units to be seen along with the basics of quarrying techniques. After the two-hour guided tour of first visiting the granite quarries and later the King's slate quarry by Bluestone Road, he offered an illustrated, wrap-up

lecture back at the Club.

Purcell's Cove Quarries are located near the Mi'kmaq site of Indian Cove in what was once Mackereel Cove. Quarrying began in 1749 with British settlement and the founding of Halifax.

King's Quarry (bluestone and slate) and Coughlan's, Queen's, and Purcell's Cove Quarries (granite) were the sources of the building stone used in many Halifax historical structures such as the Prince of Wales Martello Tower (1797), Citadel Hill (1826), and St. Mary's Cathedral (1829).

Among the many artefacts we saw at the site were scattered granite which had been shaped into blocks, and here's how it had been done back then. A line of closely spaced shallow holes were drilled by hand with mallet and chisel, and then a wedge was inserted between two shims or 'feathers' in each hole. By hitting all the wedges one after the other, the stone broke along the defined line of holes. Experienced stonemasons knew the preferred paths to delineate, ones which would produce smooth, flat surfaces. We also saw pits, stone foundations, rusty steel cables, and large steel loops inserted into stones where cables would have been anchored for large poles and winches.



INDUSTRIAL RAILWAY

Most impressive was a 400-metre long elevated base made of fitted stone blocks. Upon this a trolley was lowered with cables along a trackway to bring the large, raw granite blocks from the upper backlands plateau down to the port by Indian Cove. The steam engines and rail cars had operated both in the uplands and by the shore since 1834, probably making them the site of the oldest industrial railway of the region.



BLUESTONE

Bluestone was mined at the King's Quarry in nearby Bluestone Road. The thick beds of dark gray slate from the Bluestone Formation were deposited as alternating layers of silt and sand at the bottom of a deep ocean between 500 and 400 million years ago, off the coast of Africa, on the margins of the ancient Iapetus Ocean. Some layers of sandstone and shale contain iron sulphides (the Cunard Formation) and they were less suitable for quarrying because once exposed to air sulfides will rust and consequently discolour buildings' walls.

GRANITE

About 400 million years ago the Iapetus Ocean closed due to plate tectonic motion, and the collision of its borders slowly folded their rocks creating very high mountains over time. The friction and heat generated by the collision melted the deepest rocks

into liquid magma around 380 million years ago which rose up to the surface, and in doing so, was injected as liquid granite at temperatures of ca. 8,000°C, baking the surrounding silt and sand sedimentary rocks, metamorphosing them into igneous rocks as they slowly cooled. This local granite body belongs to a huge mass called the South Mountain Batholith, which extends from Halifax to Yarmouth.

In Purcell's Cove there are two types of granite, the older of which is poor in quartz, while the younger is rich with white or translucent quartz, a black mica called biotite, and pinkish-white tabular crystals of potassium feldspar. The latter granite (called a monzogranite) was more suitable for quarrying because it has few imperfections and also has two easiest splitting planes, set at right angles, producing useful blocks which could be more easily carved to the desired shapes.

ICE AGES

Ages and ages of erosion had removed as much as eight km of bedrock (much of which had formed earlier) before the last important event took place about 10,000 years ago – the last ice age. The rock fragments which were trapped at the bottom of this miles-thick and very heavy, moving continental ice mass acted like a giant asp which scraped the bedrock smooth producing the surface we see today. On the softer slate this produced striations marking the ice's flow direction, while on the granite it produced elongated, curved ridges called 'whales' backs' which are typical of the Purcell's Cove Backlands. Although we didn't have time to visit it, upon their slow thawing over time, the glaciers left behind large boulders called 'erratics', one of which is referred to as 'the Rocking Stone' (thus Rocking Stone Road), and it is perched at the edge of the plateau a few hundred metres south of the quarries.

Our thanks go out to the Purcell's Cove Social Club; we are very grateful to this 'members-only' Club, which opened two hours earlier than usual to accommodate us, and to Club employees Cindy and Robert (chef) who not only made us feel welcome, but prepared coffee, tea, sandwiches, and chili for which they declined payment.

REFERENCES TO BROUSE:

An interesting booklet which explains the historic aspects of Purcell's Cove quarries is by Elsie (Purcell) Millington, entitled "Purcell's Cove, the little place that helped build Halifax City", Desktop Publishing Ltd., Victoria, B.C. (2000) – 87 pages.

For a 'Planning Thesis' by Cole Grabinsky (2016), go to <http://backlandscoalition.ca/wp-content/uploads/2016/01/ColeGrabinskyThesis2016.pdf>.

And for another 'Planning Thesis' by Rachael Groat (2016), go to <https://cdn.dal.ca/content/dam/dal-housie/pdf/faculty/architecture-planning/school-of-planning/pdfs/studentwork/GroatFinalThesis.pdf>.



NATURE NOTES

OCTOBER

– S. Robertson, J. Dalton, B. Plache

Rita Moore was driving on Beaverbank Road and saw a sign that read "Turtle Crossing". She wondered what turtles would be crossing there. Clarence Stevens who regularly rescues baby Snapping Turtles with his local Turtle Patrol, could not answer her question.

Raymond Provencher was at Charlotte Lane and saw a **Muskrat eating grass**. It then headed off to a nearby brook. David (apologies to David, we did not catch your last name) saw a **Blanding's Turtle** when he was in Ontario in September.

Near the Walton River Wilderness Area, Taylor Hodgkins saw a **Sandhill Crane flying with an Eagle**. Mark Doyle spotted a **Raven at Purcell's Pond**, and another participant reported they had seen a **Blue Jay, together with a Crow, attacking a cat**.

While free-diving at Peggy's Cove, Stephen Fry saw many tropical fish; two identified were a **Triggerfish**, and a **Seahorse** (*brought up north by Hurricane Dorian? - ed.*). At McCormack's Beach Carol Klar spotted **Black Skimmers, a Laughing Gull, a Marbled Godwit, Forester's Terns, and a Black-necked Stilt**.

In the last week of September, Burkhard Plache saw a **Blue Jay acting strangely** on the ground; when it flew up and away, it had a **snake dangling from its beak** longer than the length of the Blue Jay itself. Someone else saw an **Otter and a Beaver** in Shubie Park.

Clarence Stevens Sr. now has 416 bird sightings on his Bird Life List. On October 3rd, he spotted a **White-crowned Sparrow**. Shirley MacIntyre saw a large white bird similar to a Great Blue Heron. Others noted it was probably an **Egret**.

Judy Keating, who lives at Indian Harbour, saw a flock of **30 (immature or female) Red-breasted Mergansers**. Cathy McCarthy saw a **Great Blue Heron** at Red Bridge Pond near Lake MicMac. At 7:00 a.m. at Martin Lake, near Lake Echo, Someone in the audience saw a **Mink swimming around**, checking out a rock wall.

Leslie Jane Butters was at Wolfville and saw a **Painted Lady Butterfly on an aster**. About a month ago she was swimming at Black Lake and saw **hundreds of large Dragonflies**. At the Keji Seaside Adjunct, she observed a **huge fin** moving repeatedly around in the water. It could have been **the Great White Shark** which was reported in the news later in the week to have been in that area about when she saw it.

Someone saw an **Otter and a Beaver** at Shubie Park. On October 2nd at Belcher's Marsh Shirley MacIntyre noticed a **Great Egret** (brought here by Hurricane Dorian); also at Belcher's Marsh, Pat Leader saw a **Great Blue Heron**. At Point Pleasant Park,

also right after Hurricane Dorian, Gareth Harding observed **flocks of swallows feeding on flies** on the washed-up kelps and seaweeds. At Queensland Beach, Nadia Ivanova spotted a **Groundhog** – people were feeding it potato chips.

And lastly, Mary Kennedy requested people to send any pictures of their nature sightings to iNaturalist.



NOVEMBER

– S. Robertson, J. Dalton

Clarence Stevens reported that someone had found a **giant Conch shell** in the Bay of Fundy.

Grace and Richard Beazley were cycling in Keji recently and met a staff member, Alexia. She was born and still lives in Albany New, across the river from HFN member Lesley Jane Butters' summer cottage. She said she had **rescued a duckling** from the river this year (she called it 'Puddles').

Mille McCormack who lives on Kearney Lake Road reported on the **White-tailed Deer buck with a broken leg**, which she has observed for years in her area. She spotted it last fall, and much to her delight she saw it again in her neighbourhood this year. She estimates it to be around ten years old or more now.

Terry Boswell announced the Halifax/Dartmouth Christmas Bird Count event, to take place on December 15th. He and Fulton Lavender are looking for volunteers for this count. Clarence Stevens had said there were **three very young Deer** looking after one another without any adults in and around the Pleasant Hill Cemetery ever since July. They are still doing well. Stephanie Robertson noted that she and Allan had come across **three lone young deer** crossing Point Pleasant Drive to enter Point Pleasant Park.

Wendy McDonald reported **Wych Hazel in bloom**, while Ron Arsenault saw **Red Osier Dogwood in full bloom** at Africville's dump.

Shirley McIntyre has been observing **the very full blooms of this year's Canada Holly**, making up for the lack of many blooms last year. Clarence Stevens Sr. reported on his 2019 bird list – 290 species for Nova Scotia, and 263 for Halifax County. His Life List for Nova Scotia is 416.

Clarence Stevens Jr. stated that the **female Snapping Turtles** had done their egg laying later than usual this year. This means that there are still baby turtles to be helped to safety from their nests. Once the freezing weather comes, any unhatched young will perish.



DECEMBER

– S. Robertson, J. Dalton

Stephanie Robertson had been hearing what she thought were **Northern Red Cardinals** in her neighbourhood and wondered if it was normal for them still to be hanging around; the answer from audience birders was a resounding "Yes". On December 3rd near St. Mary's Bay (exit 5A on the 103), on old Bowater property, Jason Dain saw a **young Moose** (he measured the tracks).

Judy Keating spotted a **Great Blue Heron**, a **flock of Buffleheads**, and a **Pileated Woodpecker** at her home Indian Harbour. Marion Sensen advised that putting your real Christmas tree somewhere on your property after Christmas is good for birds in the winter; last year hers provided a favourite place for a Song Sparrow.

Lesley Jane Butters reported a **death of birds** this past Autumn in Albany New, mentioning especially **Ovenbirds, Ravens, and Crows**. She saw more than the usual amount of **berries** this year – **Mountain Ash, Autumn Olives, and Holly berries**, but – no birds to eat them. However on the last weekend of November she was happy to see a **Belted Kingfisher**. Both Judy Davies and Ron Arsenault reported seeing more birds than usual. The audience reiterated, with some reporting hardly any birds, while others were seeing more than the usual amount.

Bob McDonald noted a **Sharp-shinned Hawk being driven away by Crows**. Dennis Hipper saw **no Robins at all** this fall; Burkhard saw **five or six Robins** at Herring Cove. Wendy McDonald reported that her garden's **Wych Hazel was still in bloom**.



SOME LATE NOTES FROM SUMMER 2019

– Stephanie Robertson

This past summer, our family had some time to observe more closely some of the fauna along the road to Roy's Island. Spotted were a **House Sparrow**, a **Ruby-crowned Kinglet** (joy!), and a **Yellow Warbler**.

And, in our boathouse/garage two absolutely beautiful, fairly large moths – a **Rosy Maple Moth**, *Dryocampa rubicunda*, and a **Modest Sphinx**, *Pachysphinx modesta*.

Also, when we had returned to our cottage in July, three baby Racoons, tightly packed in a galvanised bucket, were relocated by their mother from underneath our back cottage. Later, from the same room, but high up on a pipe, three baby Robins successfully fledged from the nest which their mother had constructed there (we unintentionally had left door open and that's how the female got in. When the eggs were discovered by my grand daughter, we propped the door open permanently until after they fledged).