

The Lady's-slipper



Spring 1988

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**The Lady's-slipper is the official newsletter of the Macnamara
Field Naturalists' Club of Arnprior. Contributions are welcomed
from all members.**

President's Address.

Once again winter's icy grip has relinquished its hold and new life has appeared everywhere. Some of the life-forms are obvious and require little searching. Snow-white trilliums and blazing yellow trout lilies have carpeted the sun-drenched forest floors before the bursting out of the leaves overhead. The jewels of the bird world, the wood warblers, have returned to adorn the greenery with their dazzling array of colours and their symphonies reverberate throughout the woods.

Not all rekindled life can be viewed this easily. With a little effort, however, some of the truly spectacular spring phenomena can be discovered and enjoyed. In the evening, when many of us are comfortably reclined with a good book, an array of amazing spectacles are occurring in nearby shallow ditches and ponds. By donning rubber boots and a warm jacket, and toting along a flashlight to these wet areas, one can anticipate viewing an annual but relatively infrequently observed (due to a lack of effort) spectacle- the breeding of local amphibians.

As soon as the ice begins its retreat from these shallow, often ephemeral wet areas, an exodus of soft-skinned creatures begins. Leaving moist areas under decaying wood, rocks or litter, or even from the soft soil, various species of frogs and salamanders begin their journey shortly after the sun drops out of view. By wandering along the edges of these still waters, or even wading in them, and illuminating the shallow wetness with a light, one can view the ageless spectacle of the breeding of these fascinating animals.

Locally, Blue-spotted and Yellow-spotted Salamanders can be discovered in April waters wandering along the bottom of these shallows. Blue-spotted Salamanders tend to lay their eggs in small masses, often on the end of submerged branches, while Yellow-spotted Salamanders lay more globular egg masses. These eggs will hatch in a week or less. The larvae initially only have front leg and breathe with the aid of external gills.

Another salamander that can be found in these wet spots is the Eastern Newt. If you are fortunate enough to find a pair engaged in courtship you will be treated to a truly amazing spectacle. The male clasps the female

from above and twists his tail (which sports a large fin) until it meets the female's face. He then wriggles his tail for extended periods of time, "tickling" his partner's "chin."

The terrestrial hibernating frogs, Wood Frogs and Spring Peepers, also have returned to these ponds and ditches and, although you may have difficulty in spotting them, you will certainly hear their presence. The strange, duck-like clucks of the Wood Frog and the almost deafening shrill peeps of the Peeper fill the invigorating night air. The large egg masses of the Wood Frog are far easier to spot than the often singly dropped eggs of the Peeper.

There is much to see in our local wet areas. As you search the still waters you may find numerous small beetles wandering through the aquatic vegetation, small fishes darting through the beam of light, a leech writhing back into the darkness, or you may hear the explosion of water as a pair of startled ducks escape into the safety of the night. With a little effort, an entire world of natural wonders is there for our viewing. Discover and enjoy!

Good naturalizing!



Animal Eye-Shine

(An exercise in two-way curiosity)
by Sheila C. Thomson.

A whip-poor-will first sparked our interest in animal eye-shine many years ago. A mysterious red jewel, flitting erratically about one summer night, turning out to be the eye of a foraging whip-poor-will. This spark of interest was fanned into flames by a black bear. On a dark rainy night in the Madawaska Hills, we were startled to hear a large animal brush noisily against the aluminum porcupine guard on the corner of the cabin. Going quickly out to investigate, we alarmed the prowler, who went pounding heavily off for a short distance and then turned to stare at the big flashlight, obviously puzzled. Two silvery white eyes, set in a big animal as black as the night, peered through the rain at the flashlight.

The bear's white eye-shine was strikingly different from the beautiful golden eye-shine of the frequently seen deer. We decided to pay more attention to the colour of animal eye-shine. (No doubt there are articles, possibly volumes, of scientific data on this topic. The following, however, are simply the casual observations of one family of naturalists who took to staring curiously back at the night creatures that they found staring curiously at them.)

Eye-shine, reflecting directly back to the source of light, is best seen when flashlight or spotlight is held up near the observer's eye level. Even the eye-shine of a very tiny creature can be seen for a surprisingly long distance. On the other hand, when the source of light is too close to the animal, eye-shine loses its startling impact, or fades altogether, as a flashlight fades in sunlight. Also, we noted that normally coloured eye-shine, reflecting from the pupil of the eye, tended to lose its distinctive colour when seen at certain angles, or when the animal was farther away.

Red eye-shine:

Decidedly red eye-shine was noted in three animals- snowshoe hare, porcupine and whip-poor-will. The eyes of snowshoe hare, seen by car headlights, we described as "glowing red coals." The one porcupine recorded had ruby red eyes. Whip-poor-wills all exhibited ruby red eye-shine, although two of them with red eye-shine when observed side-on, had silver eye-shine while facing the observer directly.

Golden eye-shine:

Seven animals were observed to have golden eye-shine, including golden-orange, golden-pink and pinkish-orange. The eye-shine of white-tailed deer and of crayfish we described simply as golden. (The crayfish was observed by flashlight under water, during a salamander hunt.) Deermouse eyes, seen by flashlight, are a rich golden-orange. One raccoon, seen by flashlight, also had golden-orange eye-shine. One skunk had orange eye-shine, although two other skunks, observed side-on, showed only silver eye-shine. A barred owl, perched in the lower branches of a big oak, had golden-orange eyes by car spotlight. When he flew farther off to join his mate in a more distant tree, the eye-shine of both owls appeared much paler, a yellowish-silver. The large luminous eyes of flying squirrels appear golden-orange or golden-pink to pinkish-orange. We noticed that a flying squirrel, spread-eagled against the trunk of a tree with its back to us, still exhibited eye-shine from both eyes when viewed from behind.

Yellow eye-shine:

One mammal, one insect and one bird all showed yellow eye-shine. Most startling was the brilliant yellow eye-shine of a young fox as it stood staring into the beam of the car spotlight. A big fragile night-flying moth, beige in colour, nondescript in pattern, had a pale yellow eye-shine. As noted above, barred owls, when seen at a distance, had yellow rather than golden-orange eyes.

Silver eye-shine:

Black bear, long-tailed weasel and woodcock all had silver eye-shine, as did spring peepers and woodfrogs. One woodcock, flying directly away from us, still showed eye-shine from both eyes when viewed from behind.

Green eye-shine:

A long-bodied grey spider was seen to have decidedly green eye-shine, (as did several neighbourhood cats) while long-tailed weasels, seen about 25 feet away on the suet feeder at night, had icy green glints in their predominantly silver eye-shine. (We have a report, however, of one weasel, seen by flashlight inside a ski cabin at a distance of a few feet, with ruby red eye-shine.)

While man, a creature of daylight, requires the aid of a good beam of light to see eye-shine, one wonders whether nocturnal creatures (owls, for instance) can detect eye-shine in moonlight, or even by light reflected from the sky on a clear, starry night. Does eye-shine play any part in helping nocturnal predators to find their prey, or in warning hunted creatures to lie low? We observed that domestic cattle, dogs and cats all still have eye-shine like their wild relatives that feed or hunt by night. Man, the only diurnal creature that we had an opportunity to test at night, showed no eye-shine.

Slaughter

What makes you angry? The indiscriminate killing of birds should be high on your list. In Renfrew County there are far too many people who still think nothing of shooting hawks and owls, even pileated woodpeckers.

Old habits die hard in the country. School registers of the nineteen twenties contained a printed message to school teachers, asking them to encourage their pupils to kill owls and hawks, which were believed to be a threat to farm poultry. These attitudes have persisted in rural areas; those teachers did their work too well.

Education is still the answer. This trend must be reversed. Not everyone feels as we do towards the natural world. We have to work harder to convince them.

Dusk Walk

By Claudia Smith

Dusk walk to drink in the sights and sounds of April. Across the pasture the evening breeze wafted softness and warmth against my cheek. As the sun sank behind the tree line I stood on a knoll and listened to the bzeet, bzeet, call of a woodcock. The call ceased abruptly but I caught sight of the bird climbing to a great height on rapid wings.

In a back lit space between the darkening forest top and a bank of clouds, the bird climbed ever higher, making a chippering sound like a miniature engine. Suddenly the bird headed earthward, plummeting like a stone. The chippering sound changed to a sputtering twitter - faster and faster - and then died out into a burbling warble as the bird dropped straight toward the darkened field edge and out of sight. The bzeets began again at once, presumably when the bird landed beside a suitably impressed female. I heard, but never saw, this performance again as the sun sank too low to lighten the sky window on the horizon.

Standing bemused and grateful for the sighting of the woodcock's aerial display I soaked in other evening sounds. The spring peepers, several killdeer calling back and forth, the far-off winnowing of a snipe and a late evening robin's piping call. Then loons began to wail and cry, first from one end of a nearby lake and then from the other. Their wolf-like cries, that rose into a wild yodel, reverberated into a wonderful chorus up and down the lake.

A tiny slip of moon hung in the blue-black sky and I wondered if the loon choir's spring carol reached up, up into the heavens, paying homage to Luna the goddess of moon, fertility and cycles. The evening was full of rituals that each year renew and nourish the earth's cycles, and I felt so at one with the dark.

Short-eared owls at Arnprior

by

Michael W.P. Runtz.

Sloan Watters observed a Short-eared Owl flying over the third line near Harry Toop's farm in late March, 1987. Prior to this, approximately six birds wintered three miles to the east, with two being observed on the Christmas Bird Count. (Dec. 26, 1986.)

On Wednesday May 6, 1987, Donnie Gordon and I observed two birds sitting in trees on opposite sides of the road, in the same vicinity where Sloan had seen one. We returned the following night (May 7) to search for a nest. After unsuccessfully watching a low cattail area for activity, we returned to the initial site where a flying bird was seen. After several minutes a second bird flew over the same fallow field, only to be chased off by the first. Both birds were approximately the same size, so it was suspected that both were males.

After several minutes of hunting activity, the territorial bird landed on a fence post. From this perch, as well as from a nearby sapling, the bird made frequent short forays over the adjacent field, flying in a figure eight. At the centre of the figure eight, the bird would look down. Suspecting that a mate on its nest might be present, we walked towards this point. As I neared the spot, another bird could be seen sitting amongst some grasses. The bird was not flushed and we quickly departed.

I returned the following morning and flushed the female after taking several photographs. Eight whitish eggs were viewed quickly before I departed. The nest was more or less a depression in the grasses, with an arch of dead grasses pulled over the top, forming a very loose roof.

On May 8, Verna McGiffin informed me that she had heard of an owl's nest near Pakenham. A farmer cutting grass had apparently flushed a bird off a nest. Verna was able to provide the name of the farmer after a call to the garage where she had heard of the owl. The next day, Bill Ryan informed me that a couple of weeks earlier he had indeed flushed a brown owl off a nest contained six eggs. Approximately three days later the bird was flushed by someone else, but only three eggs remained in the nest.

When Donnie and I searched the field with Bill that evening, no nest was found. However, after I wandered around in the vicinity, a bird flushed in front of me. The bird had been sitting among tall grasses. In the spot a freshly dropped pellet remained. In addition, several down feathers and some droppings marked the spot. As we suspected this to be a male's roost, subsequent searching was done. Several minutes later, Donnie flushed a second bird from a nest containing six eggs.

These two nests were monitored over the following period:

Short-eared Owl nests, 1987.

<u>Third line nest</u>	<u>RCMP nest</u>
May 7: 8 eggs	May 8: 6 eggs
May 12: 1 young; 7 eggs	
May 13: 2 young, 6 eggs	
May 18: 7 young, 1 egg	
May 21: 8 young	May 20: 2 young
May 25: 5 young on nest	May 25: 5 young, 1 egg.

As young shortears tend to move off the nest rather quickly, it is quite likely that on May 25 all eight were present in the nest area at the third line, but only five were directly on the nest. It was interesting to me that the behaviour of the two males was so different. In the case of the third line birds, the male would constantly fly around overhead whenever the nest was approached. In contrast, the RCMP nesting male would fly off and land in a distant part of the field, never returning to fly around the intruders.

The Short-eared Owl can be considered a rare bird in this area, and it has only been recorded on our Christmas Bird Count twice. There are only a few spring records, with Sloan Watters having found most of the birds over the years. These are the first nesting records for this area, two of only a handful of nesting records for the Ottawa Valley. These owls range as far north as the tundra, and I have seen them in Hudson's Bay in July.

These truly beautiful owls are best seen either right at dusk or in the early hours of the morning. They feed primarily on small rodents, in particular on Meadow Voles in this area. The nest on the third line usually had from one to several voles stashed around it.

We were indeed very fortunate to have located two of the nests of these interesting birds. It was most rewarding, also, to know that both attempts at nesting were successful. I hope that these most unusual owls will remain in the Arnprior area for many years to come.

Note: In the following spring (1988) I searched for these delightful owls without success. The breeding habitat for both sites was apparently not suitable, for the tall grasses had been mowed the previous fall. I hope that somewhere in our area the owls have found suitable fields and are presently raising young.

Fool-Hens of the North

by

Michael W.P. Runtz

One of the truly thrilling experiences for any field-naturalist is the observation of the ritualized breeding behaviour of any wild creature. By knowing when the phenomenon occurs and by using a couple of tricks, one can even become part of the experience.

The Spruce Grouse is a boreal species that can be found nearest to our region in Algonquin Provincial Park. They are famous for their tameness and have been assigned the name "fool-hens" because of their approachfulness and sometimes easy capture. These northern grouse breed in early spring, and this year Donnie Gordon and I attempted to photograph this ritual.

Arriving in Algonquin at daybreak (which meant leaving town at 4.30 a.m.) we checked some of the traditional spots for these birds. We located a male at Spruce Bog Boardwalk trail, but he did not respond to a taped female call that we had brought along.

Several hours and miles later, while we were returning to our truck on the Opeongo road, we heard the distinctive flutter flight of the male. As part of the courting ritual, the male makes a noisy flight from the ground up to a nearby coniferous tree. We eagerly entered the boggy woods laden with camera gear and "props". The props consisted of a tape recorder and a stuffed female spruce grouse. We played the tape, and a female immediately began to call from a nearby black spruce. She was undoubtedly the reason for the male's display.

As we played the calls, the male strutted over to our feet and began to noisily flash his tail open and closed, displaying the beautiful chestnut feather tips and white edges of the softer undertail feathers. The crimson combs over his eyes were incredibly inflated, as were his jet-black throat and chest feathers. As he paraded around our feet, he occasionally would beat his wings, producing a dull thud. He soon addressed his attention to the female mount and began to peck at her neck. To our amazement, he climbed on her back and attempted to copulate. Even more amazing was his lack of inhibition as Donnie lifted the mount off the ground. The grouse stayed right on top of the mount, even when Donnie held it beside his face!

Not wishing to disrupt the male's opportunity to meet a living female, we took a few photographs and left this 'fool-hen' to more rewarding endeavours.

As if this experience was not enough for us, another incredible event took place as we were leaving. A Gray Jay had quietly been accompanying us throughout the session. It followed us back to the truck as we began to pack away our gear. Before we had a chance to put away the female mount, the jay landed on the snow beside it. A moment later it landed on the mount's head, pecked at the glass eye, and then at its back! If only the female mount could talk, think of the tales it could tell!

Editor's note: Michael has some excellent colour slides of these happenings. Unfortunately we saw them too late to include them in our picture pages this time. However, they do exist, and I'm sure that Michael will be glad to show them to anyone who is interested.



Pictures of a bull
moose, cow and
calf, adapted from
colour slides taken
in Algonquin Park
by

Michael W.P. Runtz.





In our last issue we published the story of Sloan Watters' grandmother, who used wild hops as an aid to bread making. Here, Mrs Annie Paterson of Almonte examines hops at the pioneer Gemmill home in Lanark Township, where her grandma also used hops to make the dough rise.

Photo courtesy Almonte Gazette.



This barred owl, photographed from inside the house, was a Sunday morning visitor to Don McCuaig's feeder on at least two occasions in the winter of 1988. It was hunting short-tailed shrews which were eating spilled seed.

Botanists of another day.

by

Carol Bennett McCuaig

The late Mrs D.W.Stewart Sr. of Renfrew was a keen gardener and amateur botanist. She was also a talented photographer who developed and printed her own pictures in the days when cameras were not common to every household. Visitors to Renfrew were often taken to view her lovely flower garden, but she also loved wild flowers. Her impressive collection of pressed plants eventually went to Queen's University; she and a woman friend ranged far and wide in their efforts to discover new specimens.

Over a five year period Mrs Stewart conducted a correspondence with James Fletcher, an entomologist and botanist at Ottawa's Central Experimental Farm, concerning plants of the Renfrew district. Such correspondence was welcomed by the staff of the Experimental Farm, whose letterhead was printed with the following:

"All inquiries about insects or plants should contain as full particulars as possible and be accompanied by specimens. Insects may be packed in a close tin or wooden box, and plants between sheets of paper or in a newspaper. Such parcels, as well as letters, are carried FREE by mail."

The correspondence began rather diffidently in 1903 with questions about a cactus plant which had an unpleasant smell. In the following year Mr Fletcher expressed interest in a shipment of insects, on which he blamed the "injury to your asters."

That fall, Mrs Stewart wrote to ask for a pamphlet which Mr Fletcher had produced, so that she could help her daughter to identify weeds which she had collected for a school fair.

"I think perhaps your best plan will be to pack up the whole of your daughter's collection of weeds and send them to me here," he wrote in reply. "It is hardly likely that there will be any plants included with which we are not familiar, and it will give me great pleasure to do this for you."

Within a week the Stewarts had received a handwritten list of the 21 plants, neatly identified in both English and Latin. The child's collection included these plants:

mouse ear chickweed; wild madder; bull thistle; hard head (not blazing star); milk thistle; white lettuce; Canadian hawkweed; horse gentian; ribwort plantain; fringed loosestrife; blue vervain; water smartweed; hemp-nettle; strawberry blite; maple-leaved goosefoot; sun spurge; barnyard grass; Canada lyme-grass; smooth lyme-grass; slender nettle; Canada fleabane.

Was it this homely collection which spurred Mrs Stewart on to greater things? By 1906 she and Mr Fletcher were corresponding on more professional terms as she produced more exotic specimens for his consideration.

"My dear Mrs Stewart," he wrote in August of that year, "it is a pleasure to name plants put up as you do them. Send as many more as you like. There are two plants I should like further details about, *Mertensia paniculata* (the tall lungwort) and the yellow bedstraw. I am surprised at your finding the *Mertensia* at Renfrew. If you did so will you please let me know, and also give me the exact locality and date of both of these plants."

We don't know what Mrs Stewart's reply was to this, but in his next letter he made the cryptic comment that "railways drop many seeds of plants nowadays." A few days later he wrote to thank her for another package of plants, which included "a dead flower of the *Baptisia* that we wanted. Now if you could find the empty pods of that plant it would answer my purposes probably just as well..." This turned out to be the *baptisia tinctoria* or wild indigo, and it is interesting to note that this plant, as well as others discovered in the area eighty years ago by Mrs Stewart, is listed today in the Peterson- McKenny Field Guide as being native to southern Ontario and the United States.

In June 1907 Mrs Stewart submitted several specimens of violet for Mr Fletcher's appraisal.

1. *viola cucullata* (marsh blue violet)
2. *viola affinis (albino)* (Le Conte's violet)
3. *viola dicksoni*
4. *viola macouni*
5. *viola dicksoni* with flowers of a different colour from # 3."

In the fall, Mr Fletcher wrote to ask "did you this year secure better specimens of the *Medicago falcata*, your treasure of last year? I should like very much to get a few seeds, if you can procure them and also a good specimen for the herbarium."

This is a plant of the medick family, not listed in the Field Guide. Evidently Mrs Stewart rose to meet the challenge, for some time later Mr Fletcher was "very much obliged to you for the specimens of *Medicago falcata*. These will help out our series very much. It was very foolish of me not to write to you sooner about the seeds, which I wanted particularly..."

In a letter written the following January, Mr Fletcher mentioned that the *falcata* was a European variety, a specimen of which he had sent down to the New York Botanical Garden for verification. Then, later in 1908: My dear Mrs Stewart, it was very good of you to remember my wishes with regard to *medicago falcata*. I see that there is one pod forming on the plant you send and I think that possibly you are right in your suggestion that the single plant does not become properly fertilized. However I notice that there is one pod at least on the plant and if I remember rightly there was a seed which you sent me last year but which had accidentally got crushed. ... I intended to have got some seed from Germany last winter, but forgot it like so many other things I intended to do. I hope that you may yet get some this summer. I should not care to risk taking a piece off the root of your only plant.

I was very pleased to hear from you again on a botanical subject. I did not think that you had lost your taste for these studies but imagined that it was probable that you had been too much occupied with other things to find time to write about plants."

The "other thing" which had occupied Mrs Stewart that summer was the birth of her youngest daughter, Elsa, now Mrs R.A.Stewart of Pakenham. However, she did keep her hobby in mind, for in October Mr Fletcher wrote to acknowledge "the nice root of *Medicago falcata*, which certainly will be surer than the seeds which you are also good enough to send. "

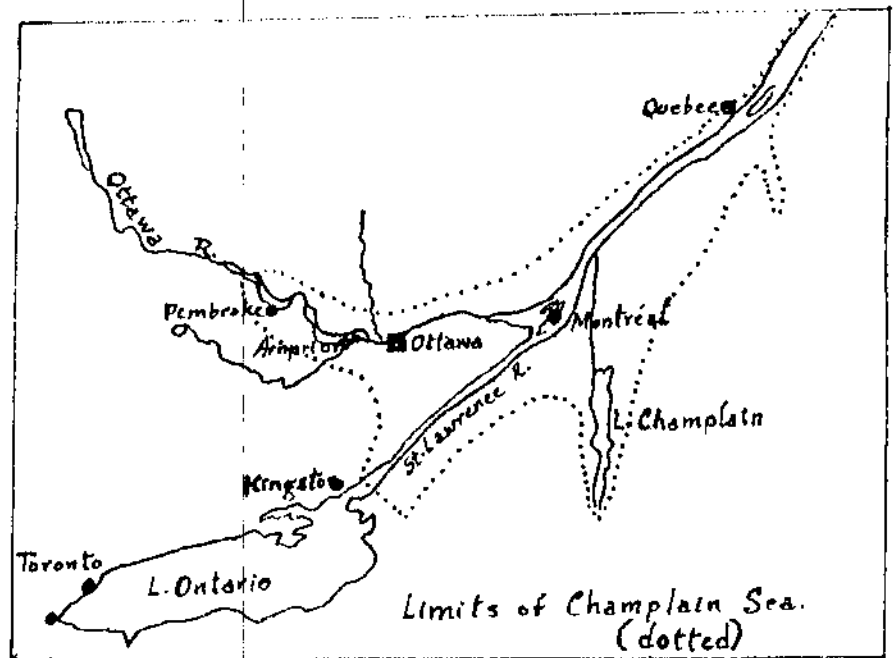
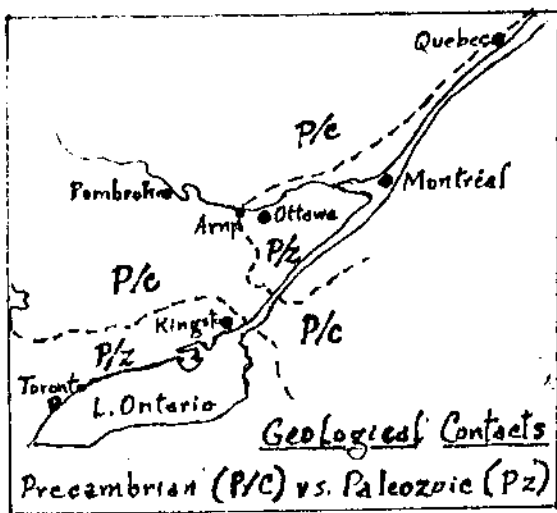
Mrs Stewart's legacy to her children and grandchildren has included an enjoyment of gardening and a love of nature. James Fletcher, botanist at the Experimental Farm, can take partial credit for this. He corresponded enthusiastically on a variety of subjects, from roses to thistles, from lady bugs to "things that ate asters". Their correspondence seems to have come to an end in 1908. Mrs Stewart was busy with her growing family, while Mr Fletcher's final letter mentioned that he wasn't "feeling very well." It is pleasant to reflect, however, that these people must have derived great enjoyment from their observation of the natural world, more than eighty years ago.

High seas over Arnprior

by
Jack Gill

A visitor to the Arnprior area would see little to suggest a dynamic maritime history in our pleasantly wooded landscape, far from the salt seas. Still less would the visitor be likely to dream of shelly creatures, fish, seals and whales swimming through and around our stately church towers, so recently the haunt of pigeons and peregrine falcons.

Admittedly the seas have been gone for many human lifetimes, but they left a record that humans can read, albeit incompletely. At least three invasions of the sea occurred; the first of unknown date but before one billion years ago, the second about 450 million years ago and the last only left here about 10,000 years ago.



Suppose we take a visitor down the Ottawa River shoreline, in Robert Simpson Park. Here one can walk on outcrops of a crystalline, layered, soft grey rock, easily scratched by steel, leaving a white powdery streak. Tested with dilute hydrochloric acid, the vigorous bubbling reaction will reveal a high content of calcium carbonate (lime.) This reaction, plus the great volume of similar rock in the area, indicates that a sea deposited limestone here years ago, in Precambrian time.

However, much has happened since these sediments were laid down and changed into rock. Late in Precambrian time, between 1.3 and one billion years ago, the rocks were struck by wave after wave of energy from deep below the earth's crust, causing deep burial into hotter zones. At the same time, enormous lateral pressure, folding and upthrust of mountains, a catastrophe known as the Grenville event swept over a large part of the Canadian Shield, now a relatively stable rock mass. The limestones became recrystallized into marble, their original layers obscured or overprinted by a new set, tilted and bent. Primitive, soft-bodied creatures were quite possibly present, but their weak traces did not survive these violent changes. The actual age of deposition of the rock was erased, and the radio-isotopic "~~clock~~" became reset to Grenville time, about one billion years ago.

The great Grenville mountains are now, at best, respectable rounded ski hills like the Laurentians and the Calabogie hills, but around here they have been eroded to a rugged hummocky surface, almost a plain.

The land surface was exposed to some millions of years of erosion before more pulses of energy deep in the earth caused a broad vertical downsinking, this time "inviting" warm Paleozoic seas to penetrate the heart of North America. Layers of fresh sediment were deposited on the old, worn Precambrian surface, teeming with shells of marine invertebrates. Our visitor can see much of this story in Braeside. At the river's shore near the old Gillies chimney is an excellent exposure of near-shore sediments; cross-bedded red sandstones and green shales. Up above, in rock cuts, are fossil-rich, flat-lying limestones of Ordovician age, about 150 million years, a period comprising part of the long Paleozoic era. Unlike the chemically similar marbles, they have been gently treated by nature, having seen only broad, regional uplift and erosion.

Large numbers of fossils of now more advanced vertebrates with hard parts survive: shells, worm burrows and, rarely, traces of fleshy parts. Corals, always restricted to warm water, indicate that the Ordovician seas were tropical. The soft limestones were wide-spread in Ontario but had to suffer much erosion, leaving relatively small patches in Renfrew County before the next sea came in.

About one million years ago, increasing cold and snow in the Arctic regions caused the polar ice cap to thicken and spread as a plastic mass southward under its own great weight to form the continent-wide Pleistocene glacier. Probably a mile deep in places, its weight was enough to depress the land surface. The rocks beneath were smoothed, scored and sculptured somewhat by the advancing glacier, but not extremely eroded.

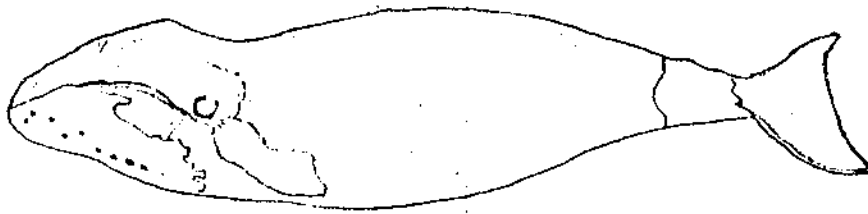
About 12,000 years ago the climate was again warming up. The glacier was rotting away at its southern edge leaving deposits of boulders, gravels, sands and clays. The land was slow to rebound to its former elevations, enabling the Atlantic ocean to flood low places such as the St. Lawrence and Ottawa River valleys and some tributaries.

This youngest of "our" seas we call the Champlain Sea. It was polar to sub-Arctic in temperature and reached a depth of 600 feet in places. It had a short life, as the rising land drove it very rapidly back to the east. It was only a memory to the early tribesmen around it by about 9,800 years ago. At this late date the fossils it left were very close to modern types of cool sea life. South of Annprior its waves lapped against Mount Pakenham at about the present 500 foot contour, and to the north against the Laurentide escarpment. Its clays are very extensive throughout Ottawa Valley farmlands. Exposures are very common, as at Claybank.

Unlike the Ordovician fossils which are chiefly replacements and cavity-fillings, the Champlain Sea bones and shells survive intact. Small fossils of this sea have been reported along the road between Braeside and Dewar church. Several bones from a young beluga (white) whale were discovered during well-digging on the farm of Patrick Cannon near Pakenham in 1906. It was found beneath 14 feet of blue clay. Specimens gave a radiocarbon date of 10,400 plus or minus 80 years before the present.



Beluga (White) Whale.
(Deiphinapterus leucas)



Bowhead Whale (Balaena mysticetus)

Another rare find was dug up in 1975 by Mr Allan Jones of White Lake, while hauling sand from a pit on the farm of John Hanson, west of the village. Dr C.R. Harington identified the bones, some very large, as those from a mature bowhead whale, probably 40 to 65 feet long, and, in life, weighing between 40 and 70 tons. Laboratory tests gave a radiocarbon date of about 11,400 years.

The bones from both occurrences are preserved in the National Museum of Natural Sciences at Ottawa.

Our visitor, if a practical minded sort, is likely to wonder what benefits, other than scientific interest, these three maritime invasions have brought.

The advantages are real. Lowest in the time scale are the mineral deposits hosted by the Grenville marbles and their close relatives. The famous Calumet Island and Galetta ~~hard~~^{lead}-zinc deposits and the magnesium mine at Haley's Station have this association.

Large quantities of Ordovician limestone are quarried on the road to Glasgow near Braeside. The Eganville caves, in rocks of similar age, attract many tourists. Latest in age, but of most importance, Champlain Sea sands and clays represent a great gift to the present day farmer of the Ottawa Valley. Limestones and marbles also relieve some of the acidity of overlying soils here. The flat structure of Ordovician beds contributes to a more level terrain for crop land.

The visitor may have a long wait ere the next sea rolls in, but until it does, there might be enough of interest in these mighty floodings of the past to divert him for some time.

References

<u>The Pakenham Whale</u>	C.R.Harington & G.R. Fitzgerald The Ottawa Journal Saturday, April 28, 1973.
<u>Whales and Seals of the Champlain Sea</u>	C.R.Harington Trail & Landscape, Ottawa, Ont Vol 15, no 1, Jan-Feb 1981.
<u>Whale Bones Found</u>	Clyde C.Kennedy A-12- The Mercury, Renfrew, Ont Nov 30, 1977
Map 1599A Scale 1:50,000 Geological Survey of Canada.	S.H.Richard Surficial geology Annprior, 1984.

What was the first bird sent out of the ark by Noah at the time of the flood? No, it wasn't a dove!

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From the editor's desk... by Carol Bennett

Some people say that nothing ever happens in the country. That certainly isn't the case here at Poison Ivy Acres! We have four large setters who demand two runs a day, and one morning last month I was out walking with them when something quite unusual occurred.

We have a system of trails which we use for snow-shoeing in winter and for hiking the rest of the year. I was on a side trail with three of the dogs, while the fourth one, eighteen month-old Blue, was lagging somewhere behind. As I turned onto the main trail, not far from the house, Blue galloped past me, panting heavily. About three yards behind him was a large coyote, or brush wolf as many country people call them.

When the wolf saw me it stopped in its tracks and then ran back the way it had come. At that moment the other dogs arrived from the side trail. My old red setter, Bunny, is so badly crippled with arthritis that he usually hobbles along, but he experienced a sudden rejuvenation and charged after the wolf, chasing it down to the beaver meadow before returning home, bright-eyed and excited.

Meanwhile, poor Blue arrived home, pounding on the door with his paws and leaping up to look through the glass. Donald opened the door and the dog rushed in to greet his bewildered master. Only a few months ago this lovely little dog spent a night in a wolf snare; fortunately we found him alive and steroids and antibiotics brought him back to normal after several weeks of treatment. It seemed ironic that he should now be intimidated by a wolf.

We frequently hear coyotes/ brush wolves at night, especially when there are cubs about. The animal that I saw was larger than the dog, probably 40-50 pounds, based on a comparison with my sixty pound Bunny. It was in splendid condition with a glowing coat, and I didn't get an impression of viciousness during our short encounter. The chase was probably a territorial thing, or perhaps there were cubs to be protected nearby.

Moments before I had found the fresh remains of a junco which had obviously been pulled apart, much as we might deal with fried chicken. I had suspected a fox, but perhaps I had disturbed the coyote at its breakfast. Anyway, the whole episode was one of those entrancing once-in-a-lifetime happenings. Who says that country life is dull?