Young Naturalist

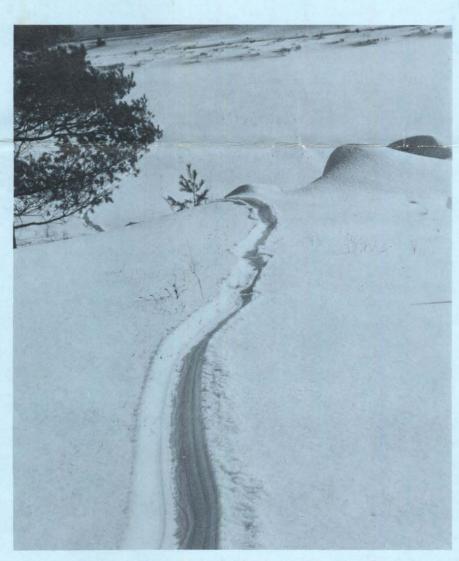
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SECOND CLASS MAIL REGISTRATION NO. 22

Footprints In The Snow

by Russell J. Rutter



The Otter is a very large weasel (about three feet long) which uses its whole body as a snowplough.

R. J. Rutter

My winter letter from Algonquin Park this year is mostly pictures. Often we can learn more from pictures than from reading, and when we are dealing with tracks in the snow this is especially true. Imagine trying to tell somebody what a track looked like. You could never be sure that they understood what you meant, and you would likely get a piece of paper and draw a picture of the track. I have written a little story to go with each picture.

I would like to say that you will never be sorry if you practice the habit of noticing all marks in the snow and trying to understand what made them and what they mean. I have often been with people, right in Algonquin Park where there are so many interesting tracks, who walk right over them without even seeing them. Such people don't know what they are missing. To be a real expert you should have a book on mammals and a book on tracks. You will soon learn that there is not enough room in any book to tell how many different kinds of tracks may be made by the same animal, and that is when it really becomes interesting, because you can start your own track book. Late winter and early spring are the very best times to look for tracks, because animals move about more then than at any other time.

Continued next page



The Wolf is a member of the dog family, and its tracks look like those of a large dog. There were just five wolves in the pack that made all these tracks. The snow-covered mound is a Beaver house and there were Beavers in it, but they were safe from the Wolves because the roof had been plastered with wet mud and at this time it was frozen solid.



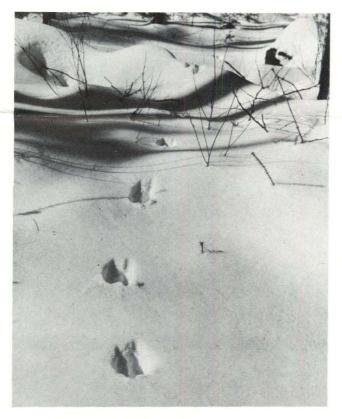
These are the tracks of the Ermine, the little Weasel (about a foot long) that turns white in winter, all over except for a black tip on its tail. In summer it is brown on top and white underneath.



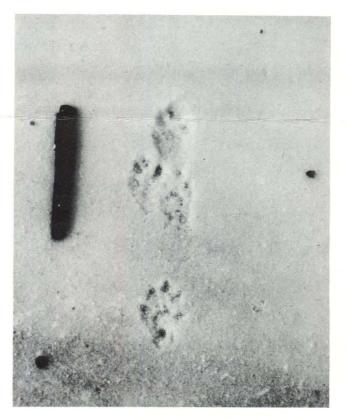
Almost everybody knows the tracks of a Rabbit, but you could be wrong.

The Fisher is a great hunter but it is also a scavenger. In Algonquin Park it gets quite a lot of its food from the scraps left by Wolves after they have eaten a Deer. This one was stealing a piece of meat I had nailed to a tree to attract Gray Jays!





Although the Fisher is as big as a fox you would know it was a Weasel by its tracks. Nobody seems to know why it is called Fisher. It never does any fishing, but lives on Rabbits, Mice, Squirrels, and, of all things, Porcupines! And sometimes it just picks up meat that has been left by somebody else, as you can see in the picture above.

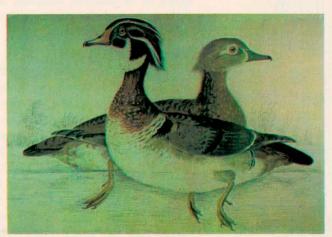


This mink has shown us another style of Weasel track. The front and back footprints were made by the front feet and the two close together in the middle were made by the hind feet. Weasels have strong, slender bodies, and when they run they double up and straighten out again like the caterpillar that we call a "measuring worm."

The Audubon of Canada

William Pope (1811-1902)

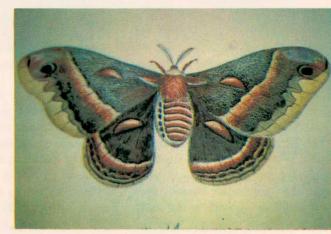
By H. B. Barrett



Wood Duck



Rose-breasted Grosbeak.



Cecropia Moth

(PART 3)

By 1843 William Pope had married an English girl, Martha Mills, and was living on a farm near the famous old Backhouse Mill which still stands north of Port Rowan. He still had plenty of time to hunt in the forest or over the marshes of Long Point. He reported that in the Fall thousands of geese and ducks, so plentiful they blacken the water, appeared to feed on the huge beds of wild rice. "The noise they make when they rise may be heard at a distance of one mile", Pope reports, "though the clouds of ducks is really astonishing, I am told by old settlers that they are not so numerous as they were formerly". Even by 1834 they were being heavily hunted.

He also reports on the abundance of Plover, Woodcock, Bittern, Yellow-leg Snipe, and real Snipe. "In Snipe shooting I should think there can be no better sport to be had in the world than there may be had at Long Point. They simply swarm here and a good shot should have little difficulty bagging twenty to thirty couples (60 birds) in a day's shooting". This is certainly not the case to-day.

On July 29th, 1845, Pope buried Pinto his faithful old retriever, who by this time had twice made return trips across the Atlantic.

It was during the next twenty-five years that most of his paintings were done, and the best of his work was done after 1860. He worked meticulously with pen and ink to produce his subjects and their typical habitat in the background. Then the bird or animal was carefully coloured with paints he mixed himself, often from native plant materials found near his home.

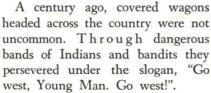
William Pope died in Vittoria at the age of ninety-one in 1902. Few people outside his immediate family knew of his marvellous collection of paintings. Fortunately for you and for me they were preserved, and most of them are now housed in the John Ross Robertson collection in Toronto.

I am sure it would be your wish, as it is mine, that the writings and work of this talented early settler in the Long Point country might bring pleasure for many years to come to you, your children, and many more generations after that, and to remind us of what we once had, and but for man's greed and ignorance should still have. With your help it is still not too late to hold what we still have, and in time bring some of our vanishing plants and animals back.

(Editor's note: This concludes the series on William Pope).

PIONEERS FROM THE WEST

By Patricia Weese



The last fifty years have seen a reverse from these western travels of long ago. Many of our western birds are now singing the tune "Go east, Young Bird. Go east!". Just what causes these bird pioneers to move east is not known; but the fact remains that, although their numbers are still greater in the west, many birds have begun nesting in eastern Ontario.

One such bird is the Clay-coloured Sparrow, an inconspicuous little bird even when it is abundant. You could mistake it for the more common Chipping Sparrow except for its brown rather than rust-coloured cap. Be on the look-out for him in western grasslands, or, farther east, in new forest growth.

Another look-alike is the Western Meadowlark. Which eastern bird do you think he resembles? The resemblance is so close in fact, that for many years the bird remained without a separate name. He had been neglected. And so Audubon gave him the Latin name 'Sturnella neglecta'. Surely no one could neglect the



Evening Grosbeaks

Ont. Dept. of Lands & Forests

Western Meadowlark after having heard his song. The flute-like tones are much different from the Eastern Meadowlark's sweet and simple phrases. Although paler than his eastern cousin, a Western Meadowlark hunting for insects would brighten any grassy field.

If you are fortunate enough to travel to Mexico or the southern States during winter vacation, you may see these two birds. They also journey to the south during our winter season. If you are like most of us, however, and remain in Canada's cold weather, don't feel sorry for yourself. One of our most dramatic looking western birds stays to keep us company. It is the Evening Grosbeak. The yellow-gold plumage, black wings patched with white, and sturdy yellow beak give this bird the appearance of an overgrown Goldfinch. The female has the same chunky build as the male but her body is a dull olive rather than yellow colour.

Years ago, bands of these bright finches visited Ontario during winter in search of food. Liking what they saw, they decided to not just visit our province, but to settle in it. The first record of a nesting pair of Evening Grosbeaks in Ontario is from Lake of the Woods in 1920. Despite the birds' permanent residence, bird-

watchers don't actually see them any more frequently. During the spring nesting season, Evening Grosbeaks stay hidden in northern forests.

Manitoba Maple and Box Elder seeds are the items of their winter search for food — natural food, that is, for no normal Evening Grosbeak could overlook a free handout of sunflower seeds. Two or three may arrive at your station one day — to be joined the following day by about thirty-eight others. They seem to swarm in from everywhere once word of the treat has escaped.

Chickens are known for having a pecking order in which various birds can peck individuals below them in group importance. After watching Evening Grosbeaks at a feeding station for a short time, it is obvious that there is no order to THEIR pecking. Any bird coming within range, male, female, chick-a-dee or blue jay, is the victim of a well-aimed stab. Their strong triangular beaks are as well equipped for handling opposition as for handling seeds.

Watch for the Evening Grosbeak in your locality. And just to be prepared, keep a ten pound bag of sunflower seeds on hand. See how long it lasts once a flock of these voracious feeders arrives from the west.

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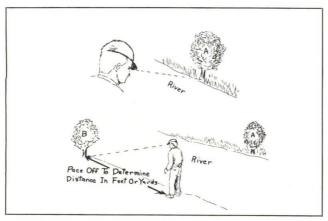
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ACTIVITY PROJECTS

How to Measure the Width of A River Using The Napoleon Method.

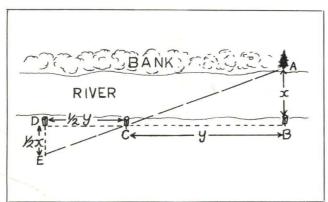


The "Napoleon Method" is a rather simple procedure for approximating the width of a river. The only equipment needed is a hat or cap with a brim. If this is not available, one may hold his hand palm down, just above the eyes. Follow the next three steps:

- STEP 1. Sight under the hat brim or edge of the palm to the opposite edge of the river bank. (Tree A) Raise or lower the head until a proper line of sight is drawn.
- STEP 2. Holding the head perfectly still, turn at right angles to the river (either direction, up or down river; the nature of the terrain may determine this). Line up the hat brim or edge of the palm with some landmark (Tree B).
- STEP 3. The distance from where you stand to the sighted landmark approximates the width of the river. Pace it off, and determine the distance in feet or yards.

PROJECT #2

How To Measure The Width of A River Using the Pace-Angle Method.



Locate a tree on the other side of the river (A).

Place a stick on this side exactly opposite the tree (B). Walk along the shore at right angles to AB. Take 100 paces and at this point place another stick (C). Continue walking along the shore in the same line for another 50 paces. At this point place another stick (D). Turn away from the river at (D), and walk at right angles to DB. When you sight stick C and mark A in a straight line ston. This point is F. line, stop. This point is E.

DE is then half the distance across the river. Pace this distance. Double this number to get the full distance across the river at AB.

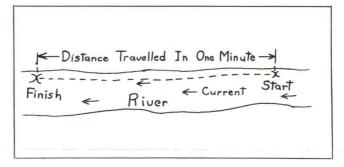
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SOLVING PROBLEMS ABOUT A RIVER

An interesting learning situation often develops when one least expects it. Take the situation when a group is hiking beside a river. Questions frequently arise. "How deep is this river?" "I wonder how far it is to the other side?" "How fast is the water moving?" It is important to be able to stop and consider such problem-solving opportunities without leaving the side of the river.

PROJECT #3 How to measure the speed of a river.



The speed of water can easily be determined by floating an object in the moving water and measuring the distance it travels in one minute (or a certain number of seconds).

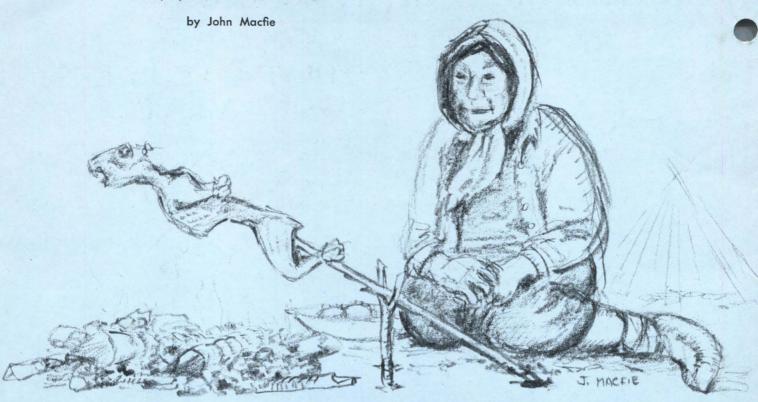
For example, suppose a small piece of paper or small stick is carried 176 ft. in 1 minute. Then, because there are 60 minutes in 1 hour, it would travel 60 x 176 ft., or 10,560 ft. in 1 hour. By dividing 10,560 by 5,280 (the number of feet in a mile), the children would find that the speed of the object and the water carrying it is 2 miles per hour.

ALTERNATIVE METHOD

- STEP 1. Find the number of seconds a floating object takes to travel 100 ft.
- STEP 2. From the results of step 1 determine the number of feet the object travels in 1 second. (If the object travels the 100 ft. in 20 seconds, then by dividing 100 by 20, it can be found that it travels 5 feet per second).
- STEP 3. Determine the number of seconds in 1 hour (3,600). Multiply this number by the number of feet per second that the object is travelling. (If the object is travelling 5 ft. per second, $3,600 \times 5 = 18,000$, the number of feet it travels in 1 hour).
- STEP 4. Divide the number of feet the object travels in 1 hour, by the number of feet in a mile to find the speed of the water and object in miles per hour. (If the object travels 18,000 ft. in 1 hour, then 18,000 ÷ 5,280 = 3.4 miles per hour, approximately).

EDITOR'S NOTE: This continuing series is designed to provide information and activity ideas for teachers who want to encourage their pupils to become actively involved in nature study as an exciting feature of their outdoor education program. Text by Don Baldwin, science master, Upper Canada College, sketches by Don Foxall.

Woodlore



This Cree woman would tell you she is ponasking her rabbit. It is the original form of barbecuing, still widely used in Northern Ontario.

OLD-FASHIONED COOKING

Barbecuing is not a new idea. The current boom in backyard cookery represents a return to popularity of what is probably the very oldest way of preparing meat for the table. It is supposed that the idea of cooking originated when one of our carnivorous ancestors accidentally left a piece of his kill too close to the campfire, and found the charred flesh to his liking.

The charcoal you buy is wood from which smoke and flame producing

elements have been driven by heating in the absence of oxygen. Charcoal also occurs naturally as a by-product of any campfire, the hot coals over which you toast marshmallows and roast weiners.

Steaks, chops, and fish fillets can be cooked by the reflected heat of campfire coals too. Start with a good sized fire of dry hardwood and let it burn down to a bed of nearly flameless coals. Place seasoned pieces of meat or fish on a wire grill, or better still, a two-piece wire bread toaster which permits easy turning, and suspend it across a couple of rocks over the coal bed. Add a bit of butter to dry fish like bass and pickerel.

If you want to cook in really primitive fashion, tack your meat or fish to a slab split from a block of wood and prop it up facing the fire. In this case you need not wait until the last flame has died to start cooking.

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