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This is Young Naturalist Year: 1966-67  
Do you have a Young Naturalists Club in your town?

# Young Naturalist



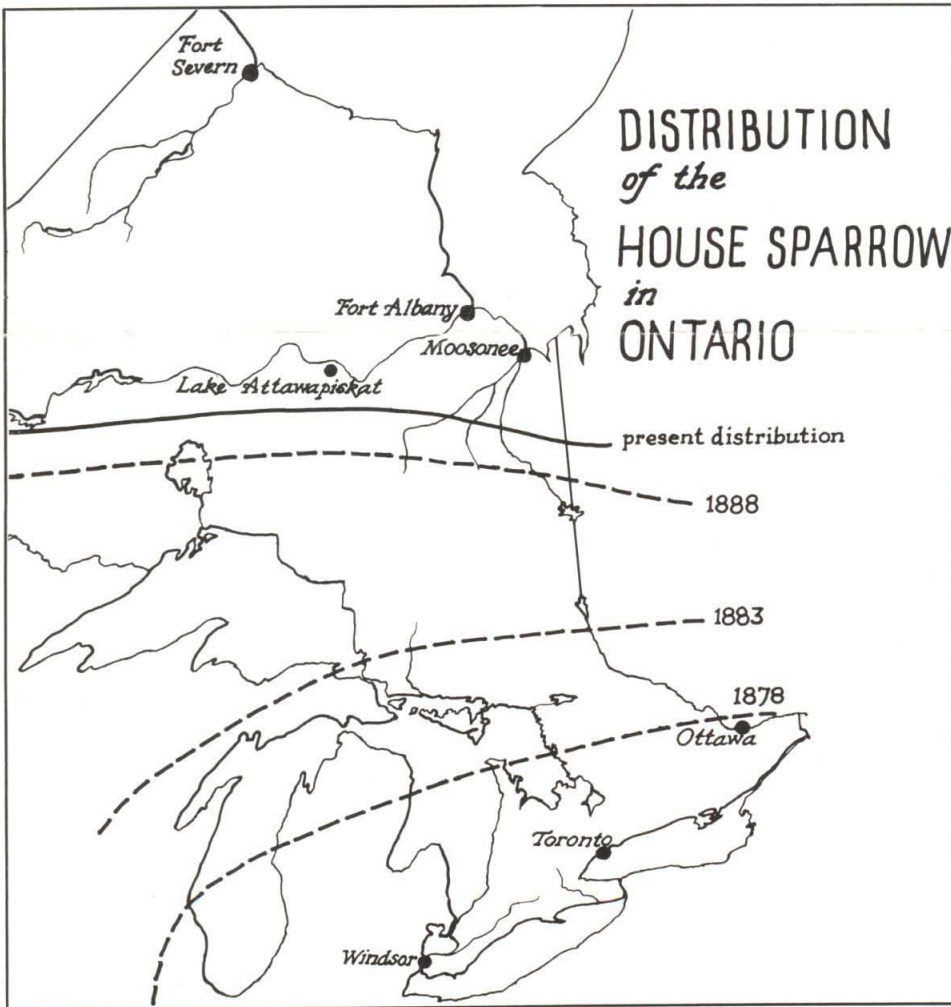
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## Successful Import—The House Sparrow



trees. House Sparrows are especially noted for pirating bird houses and nest boxes set out for other species. Large flocks, sometimes numbering over a thousand individuals, congregate in autumn and are conspicuous around barnyards and other sites where food is available during the winter months.

After experiencing such abundance in the south, the visitor to northern Ontario may be surprised to see few House Sparrows around communities there. In some towns the resident population may consist of no more than 10 or 15 individuals; in other towns the bird may be absent altogether. In the south, House Sparrows may live in the countryside during the summer months only, moving closer to human habitation in the winter. In the north, House Sparrows are almost never found very far from towns. One would almost think that these birds are dependent in some way on man for their very existence. This is, in fact, the case.

We don't really know where House Sparrows originated but it was somewhere in Africa or perhaps at the eastern end of the Mediterranean; in any case, there are many closely related species living in that general area today. The House Sparrow's association with man probably dates to the establishment of the first human settlements in that area. What is termed a "commensal relationship" developed. This is a situation where two kinds of animals live together with one provid-

Probably the bird most familiar to residents of the southern part of Ontario is the noisy House or English Sparrow. To set the record straight, this bird isn't a true sparrow (*Fringillidae*) at all, but rather a weaver finch (*Ploceidae*). Its untidy domed nests,

woven of grasses and lined with down and feathers, are found under the sheltering eaves of both city and farm buildings or within any crevice that such structures may afford. Occasionally holes in trees are utilized or, rarely at this latitude, nests are placed in exposed situations in the branches of



# Canada's Great Ice Cap

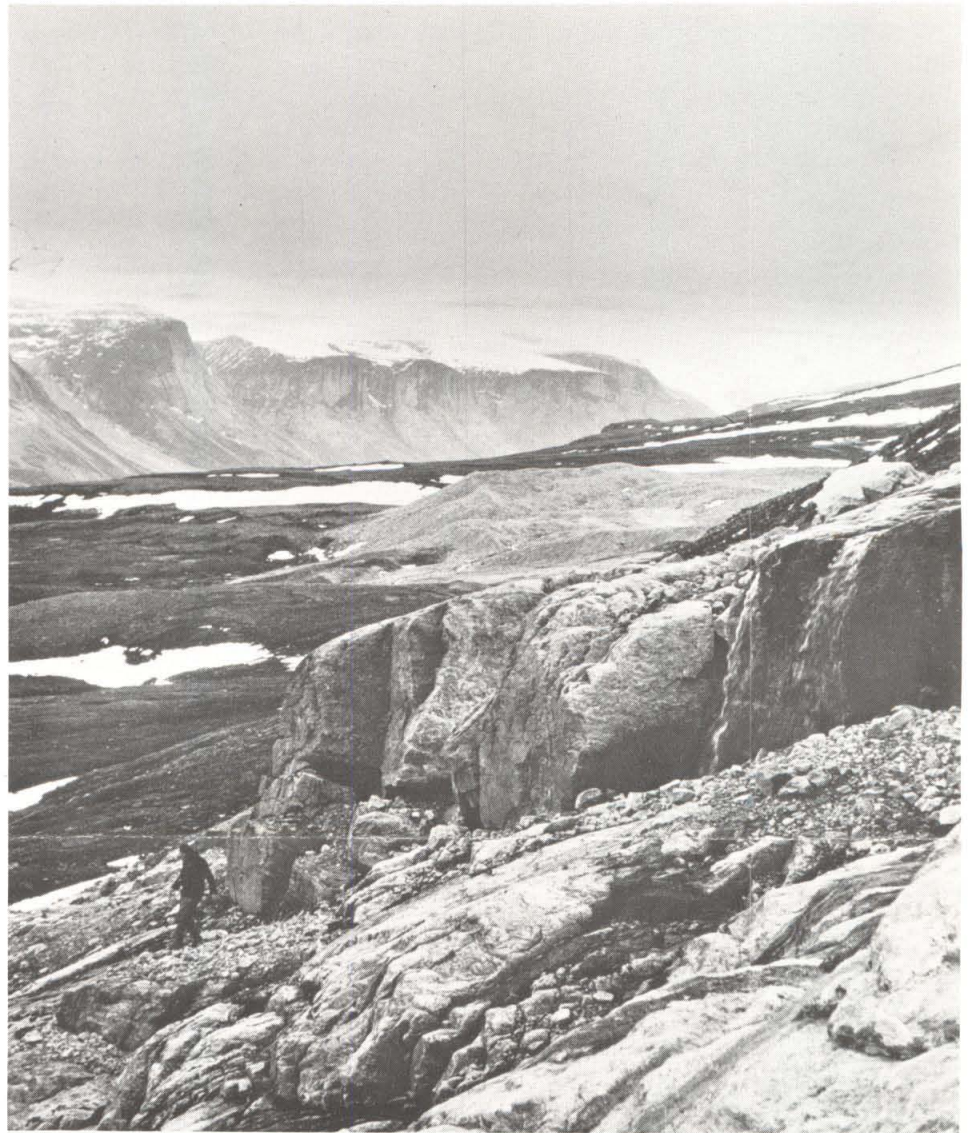
## Part 2 — Glaciers

As glaciers and ice caps grow, they affect the land underneath. Being very heavy, they press down on the surface of the earth and, in the case of very large ice caps, may push the crust of the earth close to sea level or even below it. When the ice melts, the areas below sea level become flooded. Later the earth's crust rises slowly back to its original level. Hudson Bay was formed in this way; many years from now it will not exist.

Glaciers are not stationary lumps of ice but bodies which move over the earth's surface. They are commonly formed at high altitudes in mountain valleys. To understand their effect on the land beneath, imagine that you are moving your hand over a pile of sand. As you do so, you will notice that (1) a pile of sand is pushed up in front of your hand; (2) sand grains under your hand are dragged along; (3) some sand piles up on top of your hand and is carried along.

A glacier moving across the land is similar in effect. First the glacier pushes ahead of it a pile of loose rock and soil. This material is piled up in a hill such as a bulldozer might make. This hill is called a "moraine" by the geologist. Second, the glacier drags material along the ground underneath it. Some of this material freezes onto the glacier. As the glacier moves across the land, the fragments of rock in its base scrape the land. Finally, some rocks fall on the glacier from the side of the mountain and are carried along with the ice.

When the ice melts, it leaves the land looking much different from when it started. The small river valleys are



C. W. Bridge

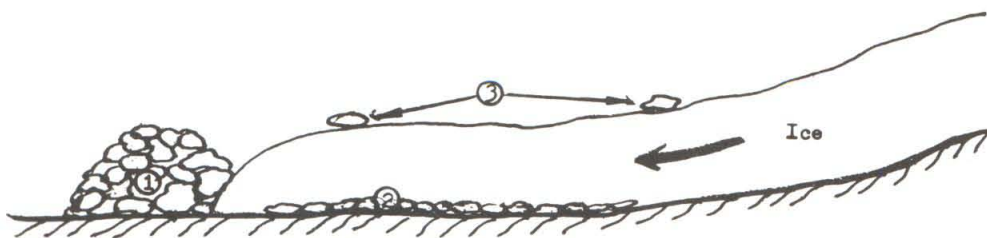
Note the moraine in the centre of the photo. (A moraine is a mass of loose rocks and soil.) The rocks in the foreground were polished by a glacier.

now deep, U-shaped trenches. In some areas these are flooded by the sea and are then called "fiords". The rocks in

the valleys have been smoothed by the scraping of the rock frozen in the ice. Along the valley floor are piles of rocks, sands, and clay all mixed together. This material, called "glacial till", is the material which makes up the moraines.

What caused the great ice sheets that covered most of Canada about a million years ago? At present, this remains a mystery of nature, a mystery which scientists are working to solve. Perhaps in the future you will join in the search.

C. W. BRIDGE



A glacier carries rock in three ways; (1) by pushing material ahead of it; (2) by dragging material beneath it; (3) by carrying material on its surface.



# Club News



## THE MACOUN FIELD CLUB

For over 100 Ottawa boys and girls between grades 4 and 13, the Macoun Field Club is the place where new experiences in natural history are gained and shared. The club, named after the famous Canadian naturalist John Macoun, was organized in 1948 under the joint sponsorship of the Ottawa Field Naturalists' Club and the National Museum of Canada.

The club is divided into three sections — junior, intermediate, and senior — each of which meets separately except for occasional joint field trips. Each section elects its own officers and keeps its own records. An adult "chairman", generally a member of the National Museum staff, is present at each meeting.

Meetings are held once a week at the National Museum in a special room set aside for the club. An up-to-date natural history library and reference collections of birds, shells, rocks and other items are kept in the club room for the use of members. At the weekly get-togethers members relate and discuss experiences, projects, and research. Natural history films are frequently shown, especially in the junior and intermediate sections. Besides discussing their own work and carrying

out special projects, the seniors invite experts in natural history and related fields to speak to the group or lead discussions.

The club undertakes four to six field trips a year in areas of nearby Quebec or Ontario. Since the interests of the members cover a wide range of subjects including birds, mammals, reptiles, botany, geology, paleontology, and even anthropology, the club is fortunate in having specialists from the National Museum and Ottawa Field Naturalists' Club as participants in most of its outings.

IRWIN M. BRODO

Many boys and girls have organized a natural science club in their school or classroom. If you have such a club, you are invited to share your experiences with others by reporting your activities in this column. We would be pleased to have pictures of your outings and projects. Be sure to describe your activities fully, giving the names of the leaders and assistants. Write to Mrs. Barbara Wilkins, Editor of Club News, 213 Rosedale Heights Drive, Toronto 7, Ontario.

## SPARROW — from Page 1

ing food or shelter or both for the other. The benefitted partner gives nothing in return but what he takes doesn't really harm the host. Because of this close association, House Sparrows can live in much colder climates with man than would be possible without him.

We complain today about the noisiness and messiness of House Sparrows and it would seem that their habits have long been a source of annoyance. It is therefore rather surprising that when European man moved into new parts of the world he didn't leave the House Sparrow behind. However, peo-

ple tend to think back to the country they left and feel the need of something to remind them of former days. At other times, they may recall how a certain bird or animal was helpful in controlling an insect pest and they see no reason why it couldn't serve a similar purpose in the new country.

Thoughts or experiments of these kinds undoubtedly helped prompt certain people to import House Sparrows into North America. A few birds were brought from England in 1850 and released in New York City. The first colonizers failed but a reintroduction in 1852 of several hundred birds caught on. Thereafter, more birds from other parts of western Europe were

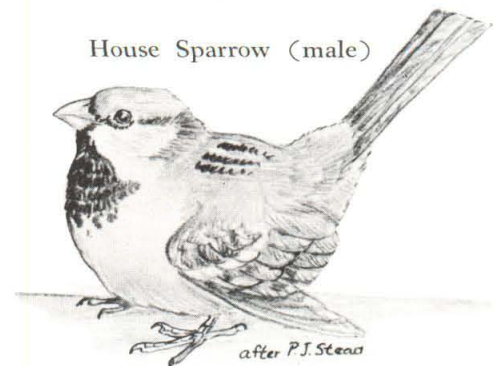
introduced elsewhere in the eastern United States. The Western Hemisphere had no bird species that lived around man as House Sparrows did in the Eastern Hemisphere. An entire continent with thousands of farms, towns and cities—just the kinds of places in which House Sparrows flourish—lay empty and waiting. By 1903 the numbers of House Sparrows had increased enormously and the species had spread across the continent to the Pacific coast.

But what of the House Sparrow in Canada and more especially in Ontario? Although this bird would have reached Canada from the United States on its own, someone decided to speed up the process. In 1865 House Sparrows were released in Quebec and by 1870 they were seen in Ontario at Ottawa. Thereafter they spread rapidly over the southern half of the Province. By 1911 they had reached Moosonee on James Bay. This is the northernmost breeding colony in the Province and a few birds can be found there nearly every year.

At the beginning of the article I mentioned that at present House Sparrows are much more common in southern Ontario than they are in the north. The difference between the sizes of the populations in north and south was much smaller in the past. When horses were in common use as draft animals and for transportation, their presence always meant an abundance of grain, especially in the winter when other kinds of food were difficult for House Sparrows to obtain. A reduction in the numbers of House Sparrows all over North America, and especially in the most northern parts of the range including Ontario, occurred when horses were replaced by motor vehicles.

JON C. BARLOW

House Sparrow (male)



The Curious Naturalist



# WOODLORE FOR THE NATURALIST

## *Don't Get Lost*

Getting lost in the Ontario bush is an unpleasant experience in any season, and a grave danger in late fall or winter. A little forethought can help you avoid it.

Plan your bush trip with the aid of a large-scale (one mile to an inch or larger) topographical map which shows such useful reference features as clearings and relief (hills and valleys) as well as the usual roads, water courses, etc. Carry the map with you so that you can keep a constant check on your whereabouts. *Always* carry a compass, and follow a pre-determined

compass course if your route will take you out of sight of visible reference points. Refer to your compass frequently, correcting your course as necessary. If you fail to attain your objective, set a reciprocal (directly opposite) course on your compass and follow it carefully back to your starting point.

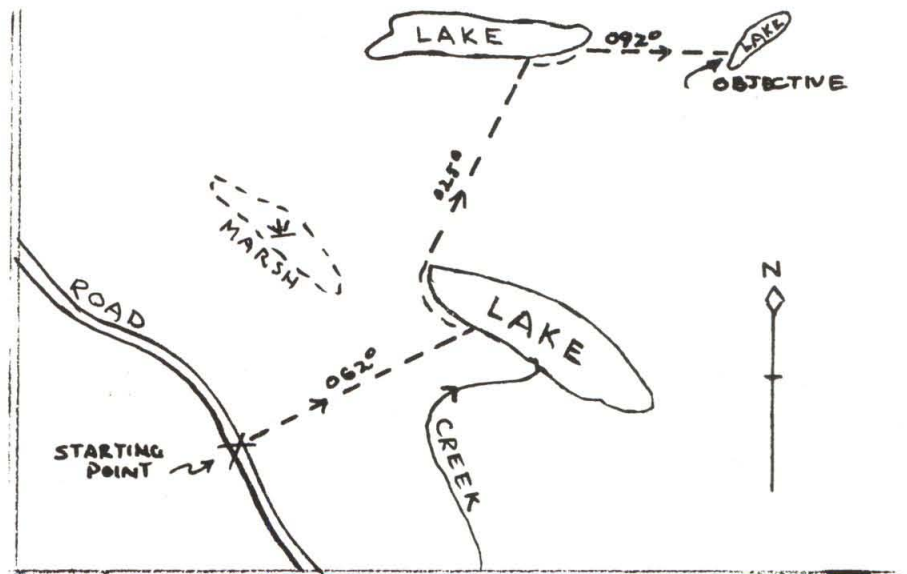
Remember that a broad target such as a long lake or road lying at a right angle to your course is the easiest objective to strike. It is sometimes wise to plan a lengthy cross-country trip in two or more legs having such easily attained and readily recognizable features as check-points (see illustration). Note on your map features that you

are likely to strike if you stray too far to the right or left.

In winter the safest way home is to "backtrack", that is, follow your tracks back to your starting point. But have a compass and keep track of your position, for a heavy snowstorm can obliterate tracks in an hour or less.

In spite of all precautions, you may still get lost — or hurt — on a bush trip. Be sure someone responsible knows *where* you are going and *when* you expect to return. Carry waterproof matches, a knife or small axe, fly repellent in season and a little emergency food in addition to your expected needs.

JOHN MACFIE



COMPASSING TO REMOTE LAKE USING  
TWO CHECK POINTS

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