

This publication is an introductory ecological description of the forest communities in Manitoba. The four communities described cover a large percentage of Manitoba's total area, and emphasize the diversity and interdependence of living things. The reader is made aware of the limitations of the forest community by physical factors such as soil type, temperature, light, rainfall, humidity, drainage and wind. The publication is enriched by photographs, diagrams and charts.

The forest is sectioned into four horizontal habitat zones, each having its characteristic micro-climate. Every living organism in the forest occupies a habitat and maintains a particular niche.

The writer stresses the relationship of habitat and niche requirements by illustrating a classical laboratory experiment wherein *Paramecium aurelia* and *P. caudatum* compete for food while occupying the same habitat and having the same niche requirements. Results show that *P. caudatum* is excluded by competition while *P. aurelia* maintains a stable maximum population level. However, when *P. caudatum*

and *P. bursaria* occupy the same habitat but have different niche requirements, both populations became stable and maximum. In the Manitoba forests, five thrush species can live harmoniously and maintain stable populations in the same habitat if stratified, because their niche requirements vary.

The concept of succession is introduced. Factors which limit or reverse this process such as fire, lumbering, agriculture, radiation, insect infestations and disease are discussed.

The writer points out that the Manitoba government is active in research, protection and conservation of its forest resources.

Many terms, concepts and themes basic to ecology are emphasized in this booklet. Numerous activities and projects could be developed from the material presented — for example, development of a food web showing dynamic inter-relationships of the forest's plants and animals. This publication is a good reference for the general public, as well as for students and teachers involved in elementary and high school life science programs. —*Mary A. L. Brown, Regina.*

Letters and Notes

POISON BAIT STATIONS

A notice dated December 2, 1971, in the Hudson Bay paper warns residents to take precautions with their animals because 1080 Poison Bait Stations have been placed in eight different quarter sections in LID #944.

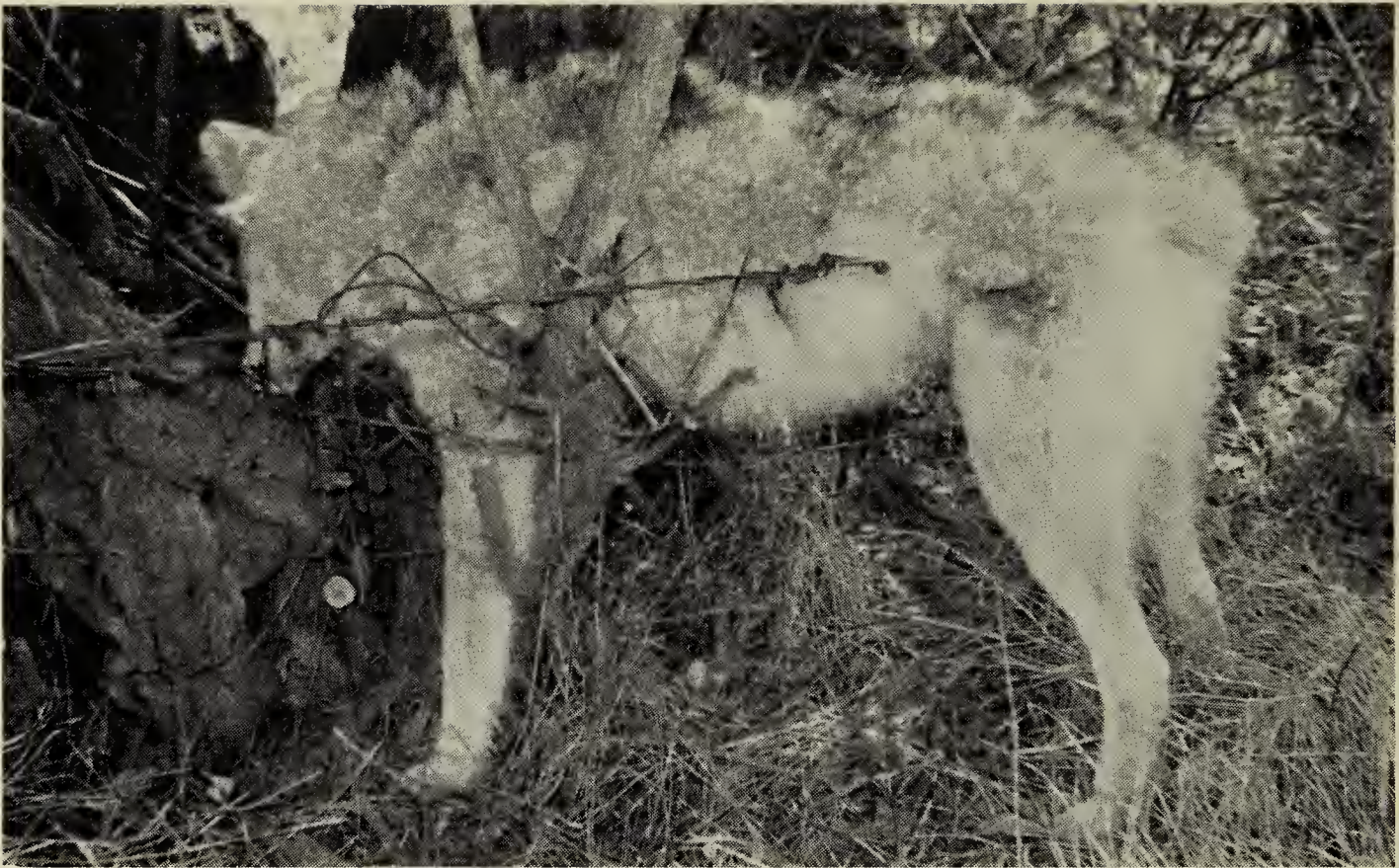
I used to live in the Hudson Bay area and remember when these animals were not harassed by man and snowmobiles. I and my family, although we own skidoos, see no sport in running down animals.

What worries me about the placing of poison bait is the fact that eagles, hawks, and owls are endangered. Domestic animals that can be replaced are surely not so important as a bald or golden eagle.

Can something be done soon? — (Mrs.) *Jean Harris, Kindersley.*

A WINTER PRAIRIE FALCON

While walking along No. 39 highway just south of Weyburn, Saskatchewan, on December 14, 1971, my companion, Roger Barlow, noticed a large "hawk" flying towards us in a northeasterly path. Though I had no binoculars with me at the time, the bird, which was a falcon, approached closely enough for us to note its large size, pale coloration, and black axillars, which clinched its identification as a Prairie Falcon. Its flight was strong, rapid, and fairly close to the ground. The bird was flying towards some grain elevators at the south end of the city, where we lost sight of it. The sighting was made at about 4:00 p.m. with overcast skies.—*Robert Kneba, 144 Milne St., Regina.*



Here is the picture of a dead coyote that I took in April, 1971. It is a real mystery to me and to others how the animal got into this position. You will note that just behind the front legs the body is firmly wedged between a branch and the main trunk of the tree. There was no evidence of its having made any kind of movement or struggle to free itself from the position. There was a very small trace of blood from the animal's nose but from all appearances it died instantly. —*Sam Alberts, Brooks, Alberta.*

Editor's Note: In the next issue we shall include Mr. Alberts' speculation on how the coyote died along with explanations suggested by readers of the *Blue Jay*.

OUR WILDLIFE

I live at Moosomin, Saskatchewan but I have a farm too. It is located at the edge of the Porcupine Forest. Our farm is just crawling with wild life and some of the animals have become tame. We have had experiences with bush rabbits, woodchucks, mice, deer and even bears.

There are also many beavers and muskrats at our farm. One day when my second cousin and I were walking down the road we saw two muskrats swimming and working busily at a pond. And if you go out to one of our many beaver dams you can sit and watch the beavers working, if you're quiet enough.

One day when my brother and I were walking we saw two big dogs

which we claimed were wolves. There are also coyotes and foxes at our farm.

There are all sorts of rodents at our farm. One is a cute little red squirrel which we call Chee-Chee because each morning he peeps out of his hole in the granary and scolds either our dog, our cat or us with a sharp "Chee" sound.

We have seen some real close-ups of birds. I, myself, have seen a hummingbird (ruby-throated), bluebird, millions of ruffed grouse and a great blue heron. I was thrilled last summer when my mother and I saw a hawk preying on a rabbit. He dived, he bit, he rose and he hovered repeatedly for about a half hour. It was really interesting. Last summer I had another interesting experience while with my

dad. We were walking on the edge of a field when dad and I said in near unison "I could swear that is a Canada Goose I hear." And it was. There were two Canada geese scolding us for something.

We have also, many different types of plants. The grounds are covered with birch, tamarack, spruce and willow. In the grassy meadow and in the brush you find sprinkled blotches of lilies, lady slippers, blue bells, harebells, violets, buttercups, golden rod, strawberry blossoms, fleabane, daisies, asters and many unidentified kinds. Not only are there flowers, trees, grasses, and mosses but also many, many types of mushrooms. We have eaten redcaps, puffballs, oyster mushroom and morels, and we have studied many other kinds.

Like I said, our farm is just crawling with wildlife.—*Roberta Smith* (age 13), Moosomin.

REFLECTIONS ON RUTS

A rut, unlike a rose, is not a rut, is not a rut. On a scale of values of 20th century civilized man ruts may range from "bad" (-10) to "good" (+10) depending on location, mode of origin, and age.

Ruts in the Arctic made recently by motor vehicles are so low on the scale that they do not even merit a non-emotional description. They are called "scars on a fragile environment" (Muir, 1971. *Blue Jay*, 29:172-178). That would hardly be a set of terms suitable for the tracks made by Parry's cart in 1820 when he crossed Melville Island, although some cite the persistence of part of the ruts as evidence for the fragility of the Arctic. However, it is not likely that the words "scars on a fragile environment" will appear on historical markers if and when these will be placed next to Parry's cart trail. Neither is it likely to see these words used as the caption to a photograph showing the multitude of trails trampled by migrating caribou, a natural destruction of the environment that does not lend itself readily to evaluation in human terms. It is something accepted uncritically, as an "Act of God."

Historical markers in Saskatchewan call the traveller's attention to trails used by horses and ruts made by Red River carts (Figure 1). With the help of such high-class advertising the ruts became "good" (10+). They attain this exalted status on account of their (for Saskatchewan) respectable age, the fact that they were made by beast-



Fig. 1 Ruts. The first sentence on a Saskatchewan Historic Site marker west of the site shown in the above photograph in SW $\frac{1}{4}$, Sec. 14, T. 1, R 6 W. 2, reads in part: "Along the edge of the coulee . . . the ruts of the Boundary Commission trail are still visible."

drawn, hand-fashioned (remember: no nails!) vehicles, and their location mainly in Palliser's Triangle which even John Macoun did not regard as exceptionally fragile. That "on some of the more commonly used routes . . . as many as twenty parallel ruts marked the course" (Alcock, 1947. A century in the history of the Geological Survey of Canada. Nat. Mus. of Canada. Spec. Contrib. 94 pp.) and that in places the damage thus done is still visible and substantial (Fig. 1) somehow does not put Saskatchewan's historical ruts in the "bad" category.

Undoubtedly the reader is as confused about the above as the author. But then, possibly conservationists and historians use different value systems leaving the common man right in the middle of a ratty problem.—*W. O. Kupsch, Saskatoon.*

SNOWMOBILES

On Saturday, January 22, in the morning, I noticed a snowmobile on my dad's land. Then I saw three more snowmobiles come from behind a hill and converge on our neighbor's land. At that instant I saw a fox running on the open land. Soon the two drivers had the fox trapped and the third driver came in and killed the animal. Since I was a half mile away from the action, I couldn't clearly see whether the fox was stabbed or shot, but I didn't see anybody in a shooting position. I have heard people talking of similar situations, and the fox population around here is pretty low.—*Richard Loewen, Dalmeny.*

RABIES IN BATS

Most of us are aware of the role that skunks, foxes, and coyotes play in carrying and transmitting the rabies virus. We tend to neglect the fact that *bats* can also carry the infection.

According to Dr. W. G. Davidson, of the Department of Public Health, two persons were bitten by rabid bats in this province in 1970. These instances

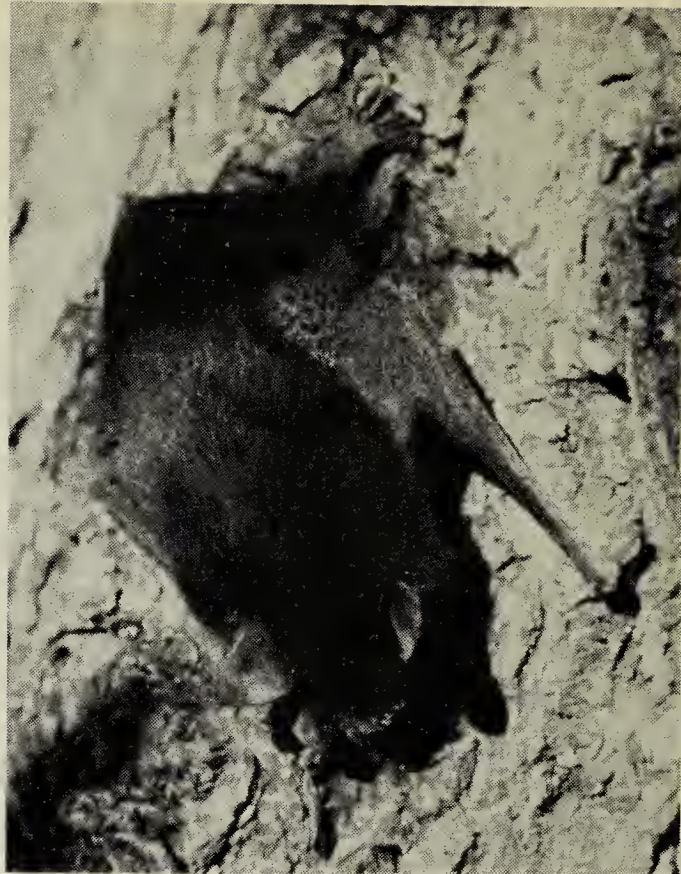


Photo by R. J. Long

Big Brown Bat

are rare, but they point out the importance of regarding all bat bites as potential exposure to rabies. Medical attention should be sought immediately. Where possible, the bat should be retained for examination by the Department of Public Health.

It may be significant that both cases in this province involved bats that entered human habitation. It is not unusual for bats to do this while seeking a roost or hibernaculum, but they should be treated with caution. This is especially true if they exhibit unusual behaviour, such as daytime flying.—*Robert J. Long, Museum, Regina.*

LARK SPARROWS AT BULYEA

Several years ago we discovered a pair of Lark Sparrows nesting under one of the evergreens in our spruce grove. Every year since then we have been greeted each spring with their cheerful chirps and musical song while they raised their families.

In 1971 three pairs nested on the ground under spruce boughs and close to the trunk, each about 50 feet apart. They are friendly birds and often

would sit on a branch preening themselves 4 to 5 feet from us while we were working in the garden. The young all hatched at about the same time. And then overnight the nests were robbed, leaving two nests empty and a dead fledgling in the third. However, it did not take the Lark Sparrows long to start building again. This time they built in the branches about two feet above the ground, a useful precaution.

At about the time our Agriculture Representative gave us a warning over the air to check evergreens for sawfly infestation, we discovered that one of the trees with a Lark Sparrow nesting in it was badly infested. To preserve the tree we had to spray it, but saving

the female bird and her eggs was our first concern. This was solved by keeping the bird off the nest and covering the nest with Saran wrap while the tree was sprayed. Afterwards, the female Lark Sparrow returned to her nest; she continued brooding until the eggs hatched and she eventually raised her family, without any interruption from marauders.—*Mrs. Vern Nordal, Bulyea, Saskatchewan.*

PINE GROSBEAK AFFECTED BY OIL SPILL

The University of Saskatchewan, Saskatoon, had a small oil spill on Friday, October 15, 1971. The oil ran from the sewer system, down a stream



Photo by Al Grass, Burnaby, B.C.

Red-tailed Hawk in Fraser Valley, B.C., mobbed by about 500 blackbirds and starlings.

in a small wooded ravine and into the river. The oil coated everything it touched in the ravine and floating logs, willows, and parts of the shoreline of the South Saskatchewan River for a few hundred yards downstream.

When I visited the area on October 23, a straw dam had been built at the mouth of the ravine. Oil built up behind it and was over an inch thick on the water.

This spill was not a major one. Yet, on October 22, John Mullie and I found a male Pine Grosbeak in this ravine, unable to fly apparently as the result of oil on its wings. I brought the bird to Dr. Stuart Houston who kept it for several days after which it had regained some of its flying ability and was released. Apparently the bird only needed an opportunity to allow the oil in its feathers to dry and to preen some of it off.

This is not significant except in so far as songbirds are not generally thought of as being affected by oil spills. I checked Biological Abstracts for the last ten years but could find only one reference to songbirds which

had been affected by an oil spill. In this case the deaths of the songbirds were believed due to a severe storm rather than to the actual spill. Finding a Pine Grosbeak affected by this oil spill (I watched a flock of Pine Grosbeaks in the same place and saw them bathe in oily water, perch on oily branches, and hop over oily rocks and soil), has convinced me that water and shore birds are not the only species to suffer from oil spills. Although it is doubtful that this occurrence is as common among songbirds as among water and shore birds, it is obvious that songbirds are also sometimes affected by oil spills.—Dale Hjertaas, Saskatoon.

ARTIFACT DEPOSITORY

The Institute of Northern Studies and the Departments of Anthropology and Geology are collecting, storing, cataloguing and identifying various materials used by Indians in Saskatchewan and adjacent areas. If you wish to know more of the project write to Garry Adams, General Purpose Building, University, Saskatoon.

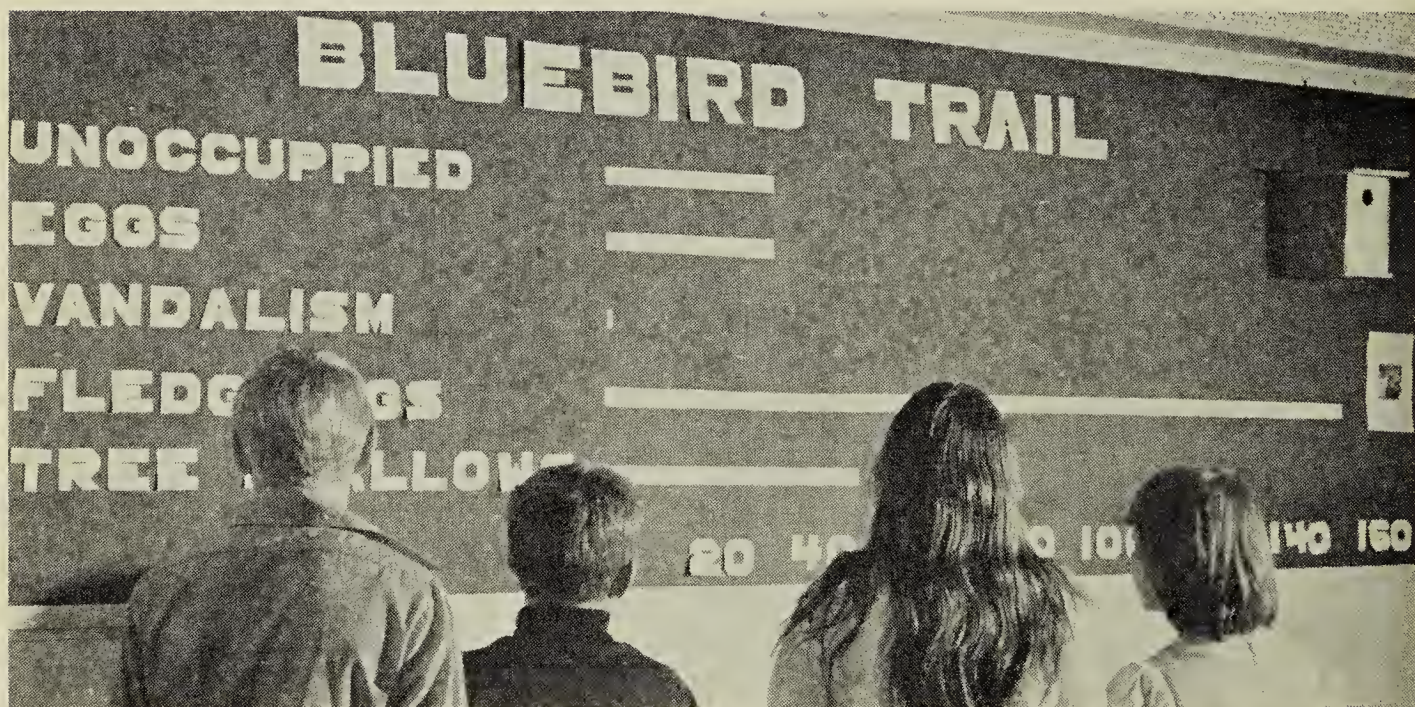


Photo by Gary W. Seib

Brian Mantai, Allen Genereux, Verna French and Judy Genereux, students of Glen Elm School, Regina, consider the results of their 1971 Bluebird Trail. Sylvia Heinek (Grade 6) wrote to the *Blue Jay* to tell how the students of Glen Elm with advice from Lorne Scott built 84 bird houses and set them out, two every mile, along Dewdney Avenue and #1 Highway west. In the June check 30 houses were unoccupied and three were vandalized but in the remaining houses there were 30 eggs and 140 fledgling Tree Swallows.