The Lady's-slipper

Spring 1992
Volume 9, #1

Field Trips and Events

Sunday, February 9 — meet at Canadian Tire parking lot at 8:00 a.m. for the annual ski and snowshoe trip to the Thomson's cabin on Mt. St. Patrick. Dress warmly and bring a lunch and beverage to enjoy around the campfire. Bill Koot is to lead us on this always popular outing.

Saturday, February 22 — meet at Canadian Tire parking lot at 8:30 a.m. for a trip to Mountain Chute, led by Adolf Vogg. Dress warmly and bring a lunch for this interesting trip to find winter weeds and sight eagles. Don't forget your cameras and binoculars.

Upcoming Events

March — Members' Night — time to bring in that interesting item you picked up on your last trip or that photo of a strangely shaped tree.

Also coming up — ***Owl Prowl*** — make a note to come out for a hoot!

Trip to *Baron River Gorge* to walk the MNR Trail.

RR2, Renfrew, Ont. K7V 3Z5
September 21, 1991

Dear Eric:

I've regretfully come to the conclusion that I should give up membership in the MFNC, and also work on the bulletin. I'd hoped that once I had a driver's license I could take a more active role in club affairs, but between trying to make a living and keeping Poison Ivy Acres going on my own, I find that there aren't enough hours in the day.

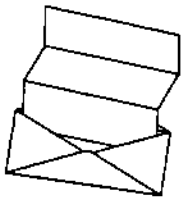
I'll miss all the great people I've met through the club, and hope that those who drop in when they are in the area, will continue to do so.

Are you the mammal co-ordinator? I've met over 30 species of mammal at PI Acres this year and have had some interesting encounters, as follows:

- Came face to face with a bear when canoeing the creek. Went walking in the area weeks later, being convinced that the animal would be long gone. Came across bear droppings, *still steaming*. Left.
- Bats decided to make my home a permanent residence. Over 20 indoors within a week. Nerve-wracking, although I did learn some interesting things about various species of bat, and its a myth that they sleep all day long!
- A raccoon tried to kill my dog Rusty. A horrible experience for both myself and the dog, but it was something else to watch the raccoon at work. Did you know that they swim on their backs while attacking? My 66 lb dog disappeared completely under the water three times and I thought that he was gone for good. He had to have surgery later on an infected leg but is now okay.

Have also encountered coyotes, skunks, least weasels, deer on the lawn, traces of fisher behaviour, and this is only September!

Carol Bennett McCuaig



President's Address

by Donna Thompson

The MacNamara Field Naturalists' Club is now entering its eighth year. As a relative newcomer to the club it has been a thrill discovering more of the natural history of the area. From the Nopiming Game Reserve and the Gillies Grove, to the Pakenham Mountains and White Lake Fens, up the valley to beautiful Algonquin Park, we have enjoyed much of the rich heritage of the valley. The wide range of habitats in the area supports an incredible variety of flora and fauna.

As the seasons come and go, the frequent field trips help reveal the adaptations and changes of the life forms around us.

The Great Outdoors brings with it invigorating recreation, tremendous pleasure, peace and solitude.

The efforts we put towards conservation, the care we give these fragile environments, will hopefully help to maintain the biological diversity we now enjoy.

Another of the atlasing programs, the Mammal Atlasing, begins this year under the direction of our very capable Regional Co-ordinator, Michael Runtz. Seven eager participants of all ages from the club have begun the preliminary work.

Again, many thanks go out to all those who have taken the time and effort to share their knowledge and expertise.

Welcome to all new members and good naturalizing in the year ahead.

Solace Of The Wild

by Donna Thompson

Dusk approaches. The last rays of the sun soften the clouds with the subtle flagrant colours of an autumn sunset. Gradually the light pales in the darkness. We reach for the warmth of our jackets.

It is time to go to Algonquin's Outdoor Theatre and hear Mike's slide and talk show on wolves and watch several short movies of the park's earlier history and canoeists of a bygone era.

The stars have come out and the moon emerges from behind the trees and over the theatre. A gentle evening's breeze caresses our faces as we huddle in our seats, absorbed in the presentation before us.

Afterwards, Mike welcomes everyone to join the wolf howl. Many cars line up and we leave for the Opeongo Road where we had the pleasure of hearing a wolf pack in the morning. We arrive, leave our cars quietly and line up on the road beside the bog. We wait in anticipation.

The night is still. The moon has climbed higher, casting a silvery sheen on the landscape. A cloud of mist hangs over the bog. The trees on the hills beyond are silhouetted against the bright night sky. Wing beats and a few bird calls from above announce the arrival of some arctic nesters coming down for a rest before continuing their long journey south.

Occasional sounds come from the woodlands around. Some creatures stir as they settle down and the nocturnal ones begin their night's adventures.

Mike is ready! He howls several times, listens and waits a few moments. He howls again. He explains that once there is a response it is prudent to discontinue so the animals can conserve their energy expenditure for their survival needs.

Time passes and then a one-wolf response rises from the hills. Several more join in and a crescendo rises, filling the night with their eerie primitive call.

Spellbound we listen. Their answer does not last long, echoing only in our thoughts.

Stillness returns with the promise of a timeless night and enchantment overwhelms the senses ... .

In the midnight hours our camp is invaded by a ring-tailed pair who make hasty inspections, some more noisily than others.

Predawn arrives and we're off with Mike for the moose call. He chooses bog areas and calls several times from different places but no wayward moose makes an appearance.

Slowly the wilderness emerges from the heavy blanket of morning mist. One hundred and seventy-two avian lovers turn up for the bird walk at the old air field at Mew Lake.

The Algonquin sun beckons and several of us head for the Opeongo Road. We are thrilled by the appearance of a large otter and two smaller ones. After several sharp short 'snorts' they delight us with their playful antics and then swim back into the wetlands. Some fearless gray jays eagerly sail down onto our hands for peanuts. A few of them sport colour-coded leg bands.

Many of us go hiking on the beautiful trails, encountering more wilderness dwellers.

For awhile we are lost in the solace of the wild.

"Weasel" Catches A Weasel

by Ken and Diny McNairn

Weasel is our 2-1/2 year-old neutered male cat. He is descended from a tabby point Siamese father and a part-Persian mother. He was born on our property on the edge of the wilds of the Pakenham Mountains. Because he spends the majority of his time outside he is "street-wise" of his area. Perhaps because of his habitat and heritage, he is an incredible athlete, running and jumping better than any other cat we have seen.

Weasel has always been an active participant in the natural life-cycle of the area, but during 1991 he became an especially avid "collector" of wildlife. Mice, red squirrels, chipmunks, rabbits as large as him, and many kinds of birds ended up on our entry mat for play and feasting. We knew we had a problem but weren't sure what to do about it. Then the nasal "peent" of the American Woodcock captured his attention. He started eliminating these beautiful birds at a shocking pace.

In desperation we started caging him at night but he wasn't always silly enough to show up at dusk. The next thing we tried was a collar and a bell. That only cramped his style for a few days. Then two more carefully-selected cat bells were added to his collar, setting up a symphony with his every motion. This so challenged his abilities that he was reduced to taking bats and snakes for a few weeks.

But talent will prevail! Eventually mice, sparrows, a cedar waxwing, and various other unidentified feathered species were again gracing our entry mat, but at a substantially reduced pace. The ultimate, though, at least in our minds, were the flying squirrel remains and the young half-grown short-tailed weasel. Yes, these last were taken while he was wearing his collar and three bells.

We're not quite sure how the summer of 1992 will go but at least we preserved the local woodcocks as a viable breeding population for another year. With a little luck, a bit more age and a few more pounds added to Weasel's frame will slow him enough to tip the balance more in favour of our other furred and feathered friends.

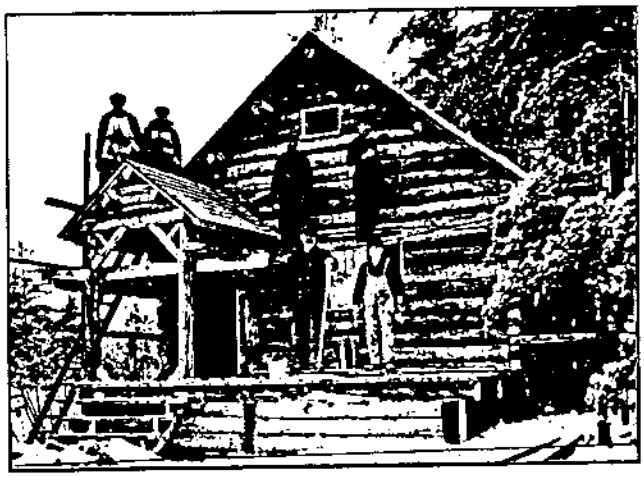
The Log Cabin

by Alison Stein

Charlie Macnamara was a naturalist and an amateur scientist. In order to pursue his interest in nature study and to use the woods close to Arnprior, he built himself a small stopping-off place which he called "The Log Cabin".

In 1990, my husband David and I had the good fortune to have members of the Charles Macnamara Field Naturalists' Club visit the cabin for the annual outing through the Nopiming Game Preserve. It was a very cold Sunday in early January, but we all had a sandwich, some hot soup and a good fire, and I reminisced about my knowledge of Charlie's use of the cabin. These ideas I thought I might put down for *The Lady's-Slipper*, and along with part of an essay written by my brother-in-law, Martin Hunter, they might provide the present-day naturalists with some information about Charles Macnamara and about his small dwelling place in the woods.

The log cabin was built in the late fall of 1909 and the winter of 1910. The logs were of white pine with squared-off timber ends. The wood was bought from McLachlin Brothers, the lumbering company that Charlie worked for throughout his life. Charlie designed and oversaw the construction of the cabin, and he photographed the men who made the cabin: Baptiste Charbonneau, Severe St. Jules, Eugene Grenier, Edward Diener and Henry Mallette. The stone mason who constructed the large stone fireplace and chimney was John Rowe. The costs are all carefully accounted for in one of Charles' notebooks.



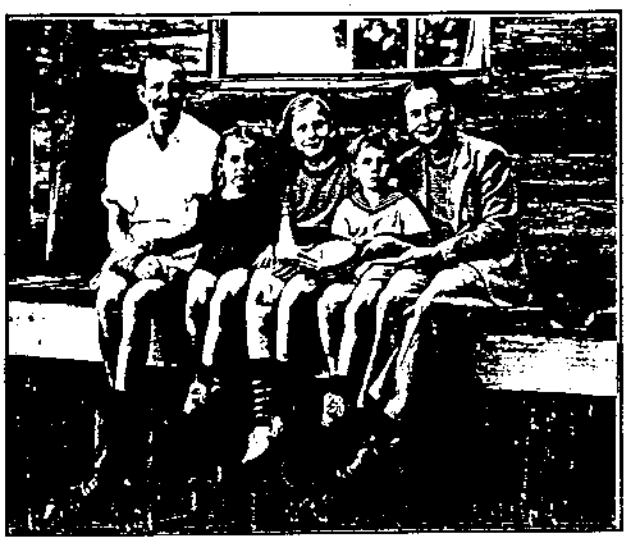
Building the log cabin: from left to right: Baptiste Charbonneau, Severe St. Jules, Eugene Grenier, Edward Diener, Henry Mallette and John Rowe (chimney mason).

Charles in front of the log cabin fireplace, December 22, 1912

The inside of the cabin was lined with rough planks of white pine, and the floor was also of pine planks. There were three windows, one each to the north, east and west; and ventilation was provided by the small openings at the top of the structure as well as the front and back door that, when opened, provided a good cross-draught. A small Findley stove as well as the fireplace provided heat for cooking and warmth. The cathedral ceiling gave this little house a very pleasant proportion, and it appeared spacious and quite perfect.

Charles was forty years old at the time he built the log cabin. He seemed to take a real interest in providing the cabin with amenities. He bought the Quebec-style

Judy reading, August 1939



The Cunningham family, Sept. 3, 1944

furniture from a furniture maker in Hull. He painted the spokes of the chairs in alternating colours of yellow and green to go with the set of tin pots and pans that he hung on the wall. At times, the paint job appeared garish, but when asked about his decorating style, he said, "This is to please the shantyman in me!"

The decor and the look of the interior was homespun and of simple design. He outfitted a small kitchen, and his niece, Jean, helped him choose a set of dishes. However, he rarely cooked there, and we don't think that he actually ever slept in the narrow bed overnight. The tablecloth was of yellow oil cloth, and the cushions on the chairs were of striped yellow, brown and beige material. A small chest kept a few clothes away from the mice.

On the mantlepiece were four candlesticks given to Charlie by Mr. H.F. McLachlin, the president of McLachlin's Lumbering, and Colonel Johnson, the chief engineer for McLachlin's, gave him the Ojibway motto that later was used to name the game preserve that Charlie worked so hard to create: "No-piming-endad jawen-imid" or "The dweller in the woods is always happy."

A frequent visitor to the cabin in the early years was Mr. Armond Burwash, who was also a naturalist and spent time exploring the bush. One of Charlie's best photographs is of Armie Burwash in front of the log cabin fire dressed up in mukluks and a lumberman's coat. The photograph was named "The Habitant", and was a carefully orchestrated piece of photography using a flashlight to provide the appearance of a fire.

There were several routes down to the log cabin, over the ice in winter time, or along the boom camp trail via Godwin's Bay, or down through the Brown farm, Mackie's Bush and the Elliott's farm to the east end of Chats Lake.

Over the years, the log cabin was not only a resting place for lunch, but it seems to have provided a place for many photographic studies. There were many photographs of Judith Cunningham (now Hunter) as a child at the cabin. Charlie would entertain her by having her read to him, and by giving her a cookie now and again.

The last time I was with Uncle Charlie was on the Labour Day weekend in 1944. He wanted to take a group photograph of my family, and we all lined up on the porch, my father, Frank Cunningham, myself, Judith, Jamie and my mother, Jean. My memory of that time was of my great-uncle's profound quietness and inner strength.

The Education Of The Enquiring Eye

by Martin Hunter

'Tis better to have loved and lost, than never to have lost at all.'

Charles Macnamara's version of Tennyson's most famous line, delivered to his young niece Jean when she complained of the wandering affections of a wayward beau, suggest the quality of his verbal style: sharp, detached, sardonic.

When McLachlin Lumber went into receivership in 1936 Charles Macnamara, then sixty-six, was ready to return to his library. The Macnamara family had always been readers and writers: Charlie's carefully preserved notebooks and letters written in his distinctively spidery hand attest to his prolific literary activities.

He took correspondence courses and completed a degree in science from Cornell University. He spoke and read French, which he had learned in Quebec, and set about acquiring German, which was then the acknowledged language of science. There were German settlers in Arnprior, with whom he could practise, while the lumber shanties were full of habitants, with whom he conversed in French. To the end of his life he was proficient in both languages and wrote to European booksellers, ordering handsome leather bound nineteen-century editions of Goethe and Molière, in which he carefully pasted his bookplate, bearing the challenging query 'a quoi bon?'.

He also read contemporary authors and was particularly attracted to the works of novelist Joseph Conrad, French essayist and biographer Andre Maurois and the Viennese satirist Bruno Prochaska. He wrote to all of them and their replies are preserved in his files. In fact his whole intellectual life seems to have taken place by correspondence. He had no taste for travel and, in the 1940s, when one eminent German scientist with whom he had exchanged letters for years came to Montreal, he declined to go and see him in person. He had by this time become something of a recluse, though he was still turning out magazine articles. Over the years he contributed to a number of journals, writing about everything from the personality of the snapping turtle to the merits of M Q photographic developer.

As a young man Charlie Macnamara was more gregarious and participated in the social life of the town, which was dominated by a small group of families with professional positions and obligations: the Burwashes, the Cranstons, the Grouts, the Moles. Many of their activities were church-centred; small clubs provided opportunities for theatricals and music-making. His older sister Marian and younger brother Duncan both sang; Charlie played the flute. Then in his late teens he joined the photography club, and a new means of expression opened up. Before long he set up his own darkroom in a cupboard under the stairs and began producing his own gum prints, taking as his subject the local landscape, observed through an eye tempered by the shadowy suggestiveness of French Impressionism or the stark simplicity of Japanese brush drawing.

Photography became Charles Macnamara's most evolved means of expression, but it was never his only one. Throughout his life he would also use it in a practical way to record various phenomena that caught his interest. His photographs of men working in the lumber shanties, which are now housed in the Ontario Archives, provide the most complete visual record we possess of this now-vanished way of life. His enlarged photographs of insects at all stages of their life cycle were of considerable importance to biologists, and at his death they went into the collection of the

National Research Council. Indeed, he discovered a new species, a rather pugnacious springtailed snow insect that bears his name: *isotoma macnamari*. He also compiled a detailed study of a beaver colony, illustrated with photographs taken over a fourteen-year period, during which he visited their dam each week; this document was commissioned by the Royal Ontario Museum.

In the last decade of his life, he experimented with a whole new range of soft-hued colours and not only wrote about the materials and processes he was using, but continued to photograph two of his favourite subjects: women and children. He had always enjoyed photographing his niece Jean. Later he took equal pleasure in photographing her children.

In his later years, Charles Macnamara had a limited tolerance for adults, but he retained a particular affinity for the young. Monte Cranston, son of Arnprior's doctor and father of the celebrated figure-skater, Toller, remembers that he and his four brothers often visited 'Charlie Mac' in his cabin in the woods and were always welcome. He told them about rabbits and snakes, porcupines and chickadees. Sometimes he played his flute for them or gave them cookies. A bit like Lewis Carroll, he seems to have found the ingenuous companionship of the young more stimulating than the grumblings and gossip of grown-ups.

For his niece Jean, and later for her children and their cousins, he prepared little booklets with stories about wildlife. These 'science primers', which had titles like "The Snake's Cafeteria," are carefully hand-written, and are illustrated with his own photographs of hares and herons, tracks in the snow, and birds in the bush. The tone is cool and gently humorous, never coy or condescending. Charles Macnamara knew nature, both animal and human, too well to be sentimental about children. When his niece Jean showed him her two-month-old son for the first time, his comment was 'Ah yes, the human larva.'

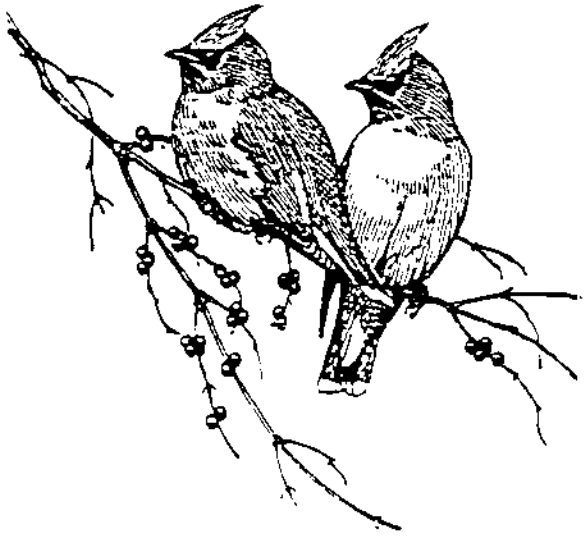
Nature was the centre of Charles Macnamara's universe. He sought to penetrate its secrets intellectually, but also intuitively and physically. Every Sunday he set out from the house in Arnprior and walked four miles through the woods to his log cabin at Marshall's Bay, overlooking the wide expanse of the Ottawa River. In the winter he used snowshoes and lit a fire in the potbellied woodstove, where he boiled his water for tea. He usually took his flute, and of course his camera.

He observed animal tracks: found the shells of turtle eggs dug up and eaten by raccoons or the print of wings in the snow where a hawk had swooped and caught its prey or a Ruffed Grouse had performed its mating dance. He recorded the flowering of rare plants, some so tiny as to be almost invisible; he cultivated the acquaintance of birds, luring them with food and cunning imitations of their own calls. He and his friend Ligori Gormley are said to have been able to summon a dozen species at will. In the end he seemed almost to blend into the woods himself. His great-nephew James Cunningham (the human larva) remembers, "Uncle Charlie was the same colour as the wood of his cabin, a sort of silvery-grey, a bit like an ageing raccoon or fox."

Charles Macnamara is still a presence in Arnprior. His library with its glass-doored mahogany bookcases is a monument to the era when an educated man was not a specialist with degrees from many universities but a self-taught polymath who engineered his own wisdom. In Arnprior the townspeople still speak of 'Charlie Mac' with a mixture of respect and wonder, even though he has been dead for over forty-five years. The nature society, named in his honour, organizes monthly outings to observe

everything from the dam-building skills of the beaver to the mating of the Great Horned Owl. But it is in his cabin at Marshall's Bay that his continuing spirit is most palpable. His self-portrait peers through steel-rimmed spectacles across at the Ojibway legend he painted over his fireplace: No-piming en-dad jawen-imid. "The dweller in the woods is always happy". A simple motto for a full and complex life.

Extracted from *"The Education of the Enquiring Eye"* by Martin Hunter in *Photographs by Charles Macnamara and M.O. Hammond, Pictorial Expressions in Landscape and Portrait*, ed. Maia-Mari Sutnik, Art Gallery of Ontario, Sept. 1989.



Junior Macnamara Field Naturalists

by Donna Thompson

The junior and some not so junior members of the Macnamara Field Naturalists would like to thank Verna McGiffin for the many memorable summer and autumn evenings spent enjoying the natural history of our area.

The group grew from two folks to as many as ten on a field trip. We were introduced to twenty-two different species of ferns, some of which are very rare.

Several field trips included the geological wonders of the valley and the legacies left by the Champlain Sea.

In the summaries following the field trips we had the pleasure of viewing the research she has done and the valuable contributions she has made to the natural history of our area.

We wish to thank Verna for her gracious hospitality and the time and effort she put towards making this a great naturalizing experience.

It is again a reminder to all of us how precious and fragile our heritage is and the need to respect and care for it.

An Insight Into Environmental Illness

by Ken McNairn

There is a small but growing segment of our population that finds it very difficult to function in "normal" society. That segment is part of a much larger portion of our population which is suffering from environmental illness.

Environmental illness can be defined as an inappropriate response of the body when exposed to an excitant. That is, the body suffers one or more symptoms when exposed to a substance to which it has been over-exposed or sensitized in the past. Almost everyone knows someone who develops headaches, sore eyes, or congestion when exposed to cigarette smoke, or who suffers from hayfever, or has asthma, or gets ill when contacted by various natural substances like mushrooms or grass, or gets ill when stung by a single bee, or suffers a variety of symptoms when around pets, or develops headaches when driving in heavy traffic, or develops a variety of symptoms minutes after being exposed to herbicides on someone's lawn, etc. These are all examples of environmental illness.

Those that belong to that small segment of our population, mentioned previously, suffer many or all of the above problems, simultaneously. They also suffer symptoms (often severe) from being allergic to many foods, from food additives, from pesticides in the environment, from carpet fumes, from vapours outgassing from many common building materials, from cleaners, from exposure to perfumed personal care products, from the inks used in most magazines and newspapers, from contact with synthetic clothing, etc. Their symptoms are often severe enough, and the sources widespread enough, that many sufferers are forced to become semi-recluses.

The products that most often cause these people to almost withdraw from society? Fabric softeners, perfumes, hair spray, perfumed hair shampoo and conditioner, carpets, deodorizers, and cleaners. Many of the chemicals used to make these products are the same ones used to produce those other products that we appreciators of nature so rightly protest, like pesticides, herbicides, factory effluents, PCBs, acid rain, etc. The manufacture and use of the first group of products, often found in our homes, releases toxic chemicals into the environment just as surely as the manufacture and use of the second group of products.

For me, this article contains a very important message to society. I am one of that small segment of our population that finds it very difficult to function in "normal" society.

Let's all take better care of our environment. Not everyone can feel that they can personally affect the production of acid rain or other large concentrated sources of environmental pollution, but everyone can make a positive contribution by reducing or eliminating their use of noxious chemicals, perfumed products, and non-biodegradable products.

Project FeederWatch Counts Birds Killed In Window Collisions

What's ubiquitous, nearly invisible, and deadly to birds? The windows on your house. Birds often fly full tilt into unseen windows; some are killed, others are left stunned and vulnerable to predators. A recent study by Project FeederWatch provides insight as to just how many birds meet death by collision each year.

Project FeederWatch, launched in 1987, is a long term survey of the numbers and kinds of birds at backyard feeders in North America. Over 7,000 volunteers participated in 1990–91. Scientists at the Cornell Laboratory of Ornithology in Ithaca, New York, and Long Point Bird Observatory, Port Rowan, Ontario — the organizations that sponsor FeederWatcher — use the data to track changes in resident songbird populations.

During the winter of 1989–90 FeederWatchers recorded the number of birds killed in window collisions at their homes. Nine percent of all FeederWatchers reported finding one or more window-killed birds, with an average of two deaths per home reporting kills.

Homes where window kills occurred typically had above-average numbers of bird feeders (and therefore large numbers of birds visiting). Window kill sites were usually located in rural areas close to woods and open water, and the yards had plenty of vegetation.

FeederWatchers documented 66 different species of birds killed in window strikes. Most were common feeder visitors: Pine Siskin, American Goldfinch, and Dark-eyed Junco together accounted for almost 44 percent of all window-killed birds.

The most frequently killed species died approximately in proportion to their abundance at feeders. A few species, however, seemed to be unusually unlucky. For example, Purple Finches make up 4.1 percent of all window-killed birds but accounted for only 1.8 percent of all the birds counted at FeederWatch sites.

All of the over-represented window-killed birds (Pine Grosbeak, Purple Finch, Downy Woodpecker, Hermit Thrush, and Cedar Waxwing) are woodland or tree-loving species; thus, these birds are often present at the homes

Dear Fellow Naturalist,

The enclosed article summarizes recent research results from Project FeederWatch. This continentwide survey of the kinds and numbers of birds at backyard feeders analyzes data collected by thousands of dedicated volunteers across the United States and Canada.

Recently, FeederWatch participants documented bird deaths caused by collisions with windows. FeederWatch staff scientists have used this information to estimate how much of a problem window kills pose for feeder bird populations. You are welcome to print all or a part of this article in an upcoming issue of your organization's publication.

Project FeederWatch, a joint venture of the Cornell Lab of Ornithology and Long Point Bird Observatory, always welcomes new participants. We're sure your readers will enjoy this easy and rewarding way of participating in bird research.

Wishing you good birding,

Erica H. Dunn, Coordinator
Project FeederWatch
30 Davidson Road
Aurora, Ontario L4G 2B1
(416) 727-3519

Table 1. Birds Killed at FeederWatch Homes in Winter, 1989–90. (Total Number of Birds=945)		
SPECIES	% of all window kills	% of all birds seen
Pine Siskin	16.9	11.1
American Goldfinch	13.2	13.9
Dark-eyed Junco	12.9	8.6
Northern Cardinal	8.8	4.1
Mourning Dove	5.5	6.4
House Finch	5.1	7.0
Purple Finch	4.1	1.8
Evening Grosbeak	3.7	3.6
Black-capped Chickadee	3.2	3.3
Pine Grosbeak	2.1	0.6
White-throated Sparrow	1.9	1.8
Common Redpoll	1.6	3.2
Downy Woodpecker	1.5	1.3
House Sparrow	1.5	6.3
Tufted Titmouse	1.1	1.6
Hermit Thrush	1.1	<0.5
Cedar Waxwing	1.1	<0.5
Cassin's Finch	1.1	0.6
Blue Jay	1.0	2.5
American Robin	1.0	0.6
Red-winged Blackbird	0.6	2.1
Chipping Sparrow	0.3	2.3
Common Grackle	0.3	1.4
European Starling	0.1	2.2
43 other species	<1.0	<1.0

(416)

FeederWatch had identified as being prone to window strikes.

Most window strikes probably happen because a bird just isn't paying attention. FeederWatchers don't always witness the events leading up to a window strike. But in 16 percent of the window strikes reported, observers saw a panic-stricken bird escaping from a raptor. In an additional 1.5 percent of window kills, the victims had been chased by other birds or startled by loud noises or passing cars.

The exact number of birds killed in window strikes each year is difficult to determine. Predators and scavengers quickly remove stunned or dead birds; in this study, for example, some FeederWatchers saw hawks grab birds as they bounced off the window. But extrapolating from the 1989–90 study period, scientists estimate that 0.55 birds per FeederWatch home per year are killed in window collisions.

How does that compare to other window kill studies? To date, the best estimate of total annual window-strike deaths in the United States comes from Dr. Daniel Klem at Southern Illinois University. He believes that one to 10 birds are killed annually for every building in the country, for a total of 95 to 950 million victims. Our data suggest Klem's lower estimate may be the more realistic one.

Still, ninety-five million birds is one or two percent of the estimated total autumn population of birds in the United States — not a trivial number. We should strive to prevent window kills, particularly because the birds that die have been lured close to our houses by our feeders.

Recently, Klem also published the results of the first rigorous study of window strike-prevention devices: the hawk silhouettes, wind-socks, one-way films, and screens that are sold by many bird feeding supply outlets. Under Klem's experimental conditions, these commonly used deterrents did not reduce window strikes. The most effective window guard turned out to be closely spaced grid of adhesive strips.

Few people, however, want to obscure their windows to this extent. FeederWatcher participants who have had problems with window strikes recommended a less intrusive contraption: black plastic garden-protection netting mounted on

where many as seven collisions a day had occurred, bird mortality went down to a total of only nine over an entire winter after the netting was installed.

Project FeederWatch coordinator Dr. Erica H. Dunn, presented the data on window strikes at the 1991 meeting of the Association of Field Ornithologists; an article is being prepared now for publication in an ornithology research journal.

You can be a part of Project FeederWatch!

To register for the 1991-92 season, send $12 to:
Project FeederWatch
Cornell Lab of Ornithology
159 Sapsucker Woods Road
Ithaca, New York 14850
(Please make cheques payable to Cornell Lab of Ornithology)

MEMBERSHIP NOTICE

A reminder to all members who have not renewed for 1992. You are urged to do so now.

Membership Categories (please indicate choice):

- ☐ New: _____
- ☐ Family ($12.00)
- ☐ Single ($ 8.00)

Name: _____
Address: _____
Telephone: _____
Date: _____

Please make cheque payable to the Macnamara Field Naturalists' Club. You can give your cheque to a member of the executive or mail to the club at P.O. Box 94, Arnprior, Ontario K7S 3H2.

Cave-dwelling Beaver

by Sheila Thomson

In August last summer we explored the shoreline of the Schooner Lakes in the Madawaska Valley by canoe. A section of limestone cliff along one shore was eroded and sculptured, with miniature caves worn in the rock by wave action over the years. As we paddled along the rocky shore, we were amused to come upon bundles of beaver sticks stuffed into the entrance of two small cave-like openings at the waterline. We did not grasp the significance of this phenomenon at first.

Drifting along in the canoe while we scanned the cliffs for ferns, we began to hear soft mooing sounds, and then high-pitched mewing, coming from behind a bundle of beaver sticks that stuffed one cave entrance. Between the two twig-stuffed entrances, we discovered there was an underwater diving entrance to a beaver cave. A freshly cut beaver branch, green leaves still attached, had been dragged down into the underwater entrance. We surmised that the two surface entrances to the cave had been plugged with sticks against the danger of predators. For some minutes we sat listening to the mewing of the beaver family, wishing that we could see inside this rock cave that the beaver were obviously inhabiting.

Late that evening, we returned to the cliff in time to see two small beaver swimming in a bee line from the cave area towards a stretch of wooded shoreline where it was possible for them to climb out on land and forage for food. (In the immediate area of their cave, there was no way the beaver could get ashore or predators could approach from land, as the rock cliff was more or less vertical, and in places bulged out over the water in an overhang.) In the dusk, we paddled along the shore, following the rippling wake of the swimming beaver, but caught only a brief glimpse of one beaver out on land. It scrambled back down into the water as we approached, and silently dived out of sight. Unfortunately, darkness precluded any further observations of these cave-dwelling beaver, who had appropriated a ready-made 'lodge' that no predator could possibly tear apart.

PAKENHAM-ARNPRIOR CHRISTMAS BIRD COUNT
DECEMBER 26 1991

COMMON GOLDENEYE	2	WHITE-BR. NUTHATCH	69
COMMON MERGANSER	4	BROWN CREEPER	12
SHARP-SHINNED HAWK	1	GOLDEN-CROWNED KINGLET	9
NORTHERN GOSHAWK	1	BOHEMIAN WAXWING	248
RED-TAILED HAWK	2	CEDAR WAXWING	5
AMERICAN KESTREL	5	NORTHERN SHRIKE	4
GRAY PARTRIDGE	37	EUROPEAN STARLING	451
RUFFED GROUSE	13	NORTHERN CARDINAL	2
ROCK DOVE	526	AMERICAN TREE SPARROW	142
MOURNING DOVE	115	SONG SPARROW	1
GREAT HORNED OWL	12	DARK-EYED JUNCO	24
SNOWY OWL	4	LAPLAND LONGSPUR	1
NORTHERN HAWK OWL (5)	(1)	SNOW BUNTING	1146
BARRED OWL	(1)	COMMON GRACKLE	1
LONG-EARED OWL	**1**	PINE GROSBEAK	67
DOWNY WOODPECKER	49	PURPLE FINCH	13
HAIRY WOODPECKER	46	HOUSE FINCH	48
"3-TOED" WOODPECKER SP.	1	RED CROSSBILL	1
PILEATED WOODPECKER	**23***	COMMON REDPOLL	80
HORNED LARK	108	PINE SISKIN	117
BLUE JAY	366	AMERICAN GOLDFINCH	221
AMERICAN CROW	118	EVENING GROSBEAK	617
COMMON RAVEN	40	HOUSE SPARROW	649
BLACK-CAPPED CHICKADEE	939		
RED-BREASTED NUTHATCH	92		

LEGEND

UNDERLINED AND **BOLD**	=	NEW SPECIES FOR COUNT
ASTERIX * AND **BOLD**	=	NEW HIGH COUNT
BOLD	=	TIES HIGH COUNT
BRACKETS ( )	=	NUMBER OF COUNTS RECORDED (FIVE OR LESS)

TOTAL SPECIES: 48

TOTAL INDIVIDUALS: 6435

Finer weather than what we experienced on count day is rare. Unfortunately, the birds did not co-operate as well as the weather did. A poor crop of cones resulted in few of the larger northern finches being spotted, and low numbers of meadow voles resulted in a scarcity of diurnal raptors. However, a surprising number of owls were recorded, with the best finds being a Long-eared Owl, a long-anticipated new species for the count, heard in the Cedar Hill area, and our fifth record of Northern Hawk Owl, found in the Blakeny area. To all that participated, a heart-felt thankyou. Best wishes for the upcoming year and good birding.

Michael Runtz

* Please note circled areas tie previous counts.