

TRAIL & *Landscape*

A PUBLICATION CONCERNED WITH
NATURAL HISTORY AND CONSERVATION



T R A I L & L A N D S C A P E

Editors: Anne Hanes
18 Briarcliffe Drive,
Ottawa, Ont. K1J 6E4
Joyce Reddoch
Lorraine Smith

Production Staff:
Leone Brown
Barbara Coleman
Harry Thomson

THE OTTAWA FIELD-NATURALISTS' CLUB
- Founded 1879 -

President: Mrs. Sheila Thomson, 2066 Rideau River Dr.
Secretary: Mr. A. W. Rathwell, Can. Wildlife Service

Objectives of the Club: To promote the appreciation, preservation and conservation of Canada's natural heritage; to encourage investigation and publish the results of research in all fields of natural history and to diffuse information on these fields as widely as possible; to support and co-operate with organizations engaged in preserving, maintaining or restoring quality environments for living things.

Club Publications: *THE CANADIAN FIELD-NATURALIST*, devoted to publishing research in natural history. *TRAIL & LANDSCAPE*, a non-technical publication of general interest to local naturalists.

Field Trips, Lectures and other natural history activities are arranged for local members.
See inside back cover.

Membership Fees: (1973)

INDIVIDUAL MEMBERSHIP: (per year) \$7.00
FAMILY MEMBERSHIP: (per year) \$9.00
SUSTAINING MEMBERSHIP: (per year) \$25.00
LIFE MEMBERSHIP: (one payment) \$200.00
Subscription (only) to Trail & Landscape \$5.00 per year

Apply for Membership (or subscription) to:

THE MEMBERSHIP COMMITTEE,
Ottawa Field-Naturalists' Club,
Box 3264, Postal Station "C",
Ottawa, Ontario K1Y 4J5

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 Box 3264 Postal Station C,
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(Editorial Address: see opposite)

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Choose your representatives:

SUBMISSION OF NOMINATIONS FOR 1973 COUNCIL

The Annual Business Meeting of the Ottawa Field-Naturalists' Club will be held on Tuesday, December 12 at 8:00 p.m. in the main auditorium of the National Research Council on Sussex Drive.

A Nominating Committee is preparing a slate of candidates for officers and additional members of the 1973 Council of the club. This slate will be sent to all members with the notice of the meeting, and an election will be conducted at the meeting.

The Committee would welcome nominations from members by mail now, and will include in the slate all names received by November 15. This opportunity to choose your representatives on the Council, replaces the practice of former years when additional nominations from the floor were acceptable at the Annual Business Meeting.

Nominations should be sent before November 15,
to:

The Nominating Committee
Box 3264, Postal Station C,
Ottawa / K1Y 4J5

Each nomination must indicate acceptance of the person nominated: a club member in good standing who is willing to take an active part in club affairs. The mover and seconder of the nomination should be shown.

If you have any questions concerning nominations you may call a member of the Nominating Committee:

| | |
|------------------------|----------|
| Roger Foxall, chairman | 745-7791 |
| Joyce Reddoch | 733-8325 |
| Hue MacKenzie | 722-8847 |
| Ted Mosquin | 684-5774 |

F O N NEWSPAGE

Federation of Ontario Naturalists

VILLAGE LAKE LOUISE

You will recall we reported in a previous issue of Trail & Landscape that the F O N presented a brief, at a spring meeting in Calgary, opposing the establishment of Village Lake Louise. The proposal was not approved and the Federation warmly congratulated the Hon. Jean Chretien, Minister of the Department of Indian Affairs and Northern Development, on his decision regarding this issue.

ENVIRONMENTAL QUESTIONNAIRE

An Environmental Questionnaire has been prepared and sent to all the Ontario federal election candidates. The conclusions from these questionnaires concerning the candidates' interest and participation in environmental issues will be tabulated and published shortly.

NEW F O N SANCTUARY ACQUIRED

The Federation has purchased a new property in Keppel Township, Grey County, near Owen Sound. This consists of 108 acres of wetlands, part of the 2000-acre Long Swamp. It is said to contain many varieties of plants, particularly of the Heath Family.

THE *Little Waiif*
FROM THE *Winter Storm*

Christena R. McVicar
Burnstown, Ontario

Illustrations by Valerie Fraser

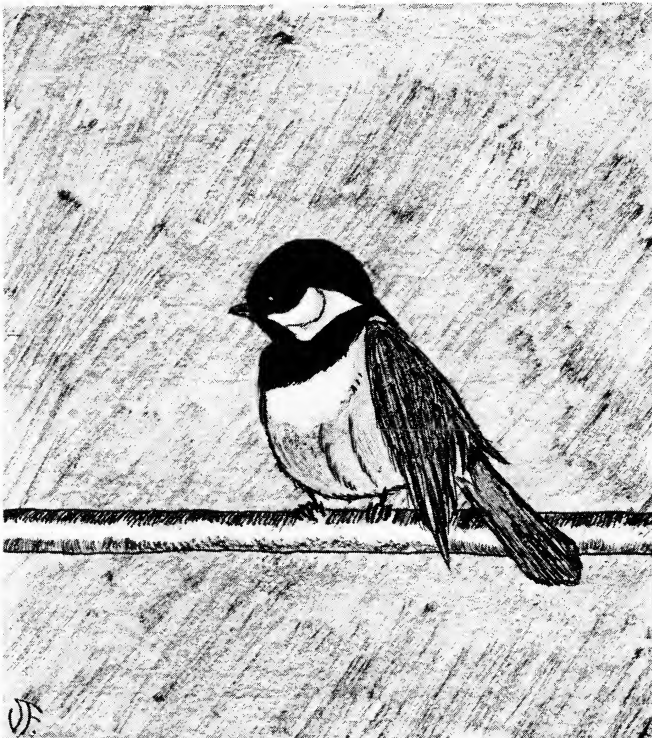
On the evening of March 4, 1971, when I stepped down from the chair that I use while filling the baskets with food for the birds, I found a little, woebegone chickadee clinging to the lower rung. When I stooped to pick her up, she sped into the house. I entered and found her running lopsidedly from one area to another -- something wrong with her left wing. I caught her gently; her bill, whether to express her gratitude or to bite me (if she had the strength), rolled along my arm.

In order to give her an establishment in which to recover the strength of her wing, I handed over to her the sun-room. I put a large piece of plastic over the couch and smaller pieces in strategic areas. On the couch I put a small dish of sunflower seeds, with a piece of suet and one of apple. I put another dish, with a small quantity of fresh water, on a square of foam rubber. She at once seized a seed and struggled wildly with it but she was too weak to tear off the corner, and she was desperately hungry. I crushed the seeds; with a somewhat more controlled effort, she was able to extract the kernel. She would, at times, walk with the kernel extending from her beak; she looked then as though she were taking her temperature or smoking a cigarette. Her injured wing made her look inebriated, since her walk was lopsided. She always appeared gallant, raffish, pathetic.

From the first day, she could hop from the floor to the couch. A little later, she could hop from the couch up to about a third of the way up the window-drape; she would cling there, momentarily, to get her balance, then look around at me. Once, with one small wire of a claw held out, she seemed to tell me: "Look, Mom! Just one hand!" Soon she began to climb up the

drape edge, forcing the injured wing to take its share of the work. She would walk along the finger-sized curtain rod to the next drape, then to the end of that rod. Here, with some difficulty, she would turn to retrace the course. Having arrived, she would aim herself at the couch and half-drop and half-fly down to the couch. Over and over again she took these exercises. Once she missed the couch and landed with some force on the mat. She lay still; as I watched, fearful of what she had done to her injured wing, she was up almost instantly and in training again.

For some time she continued to have some trouble with the seeds. If she had been outside and uninjured, she would have flown to the limb of a tree, placed the seed between her claws, torn the corner off, worked the seed back and forth; extracted the kernel, tested it for swallowing. If it was too large she would have replaced it between her toes and would have pecked at it until it was right size for her small throat. She tried



... a woebegone chickadee clinging to the lower rung ...

this method with the bathmat (she tried three locations in succession) but the seed dropped into the tufts. I folded the edge of my best-mat-in-the-livingroom and its edge gave her a grip and held the seed in position; afterward, almost always, this was her seed-opener. Once, however, she found an opening in a tongue-and-grooved board in my one hundred and fifty-year-old floor; she inserted the seed and wrestled with it wildly (not much strength yet). Finally, she stood it upright (like a tombstone in acknowledgement of her defeat). She walked away with what I recognized as studied indifference.

She climbed up the drape to sleep on the curtain rod, settling down to sleep in exactly the same spot each night. She clutched the rod, tucked her head under her wing and slept. I found it strange that she never fell off when asleep; however I learned that there is,



She
would
walk
along
the
finger-
sized
curtain
rod ...

in the elbow of a bird, a joint which locks when sleep comes. (Always, by Nature's precautions, I am filled with wonder.)

For the first three days, she made no sound; then, tentatively she began to sing her name, as though she were reassuring herself of her identity in this strange environment. Gradually, she sang for pleasure or for thanks; she twittered sweetly when I returned after some hours of absence. She nevertheless kept aloof, at a distance of some three feet. If I came closer, she swarmed up the drape. "My wing, you know!" she seemed to say, as she climbed up, looking back.

She began to try circles in flight; she must have been puzzled by the low sky of the ceiling. She flew increasingly farther afield -- to the top of the cupboard in the kitchen, where she ate her thermometer or cigarette, wiped her small neb on the corner of a basket handle. She seemed to approve, at least temporarily, of this new area, since she looked around complacently. Nevertheless, she returned shortly to her own special lodging -- the sunroom. She would make an occasional foray to the top of a window in the livingroom. Here she would look attentively at the white snow from which she had fled. From here she could see her fellow chickadees going back and forth to the baskets of food but she showed no desire to join them.

One morning I hear, from the sunroom, unusually sweet twitterings. When I peered through the half-opened door, I saw a chickadee perched on a wire outside. He flew away, startled. Later I always approached discreetly and silently, as they engaged in conversation. On all such occasions, she took her exercises with great vivacity. I became convinced that this increased activity expressed a longing to be outside. I became concerned about her long absence from her own kind. Perhaps they would not accept her if she were away too long.

Sometimes, when a chickadee appeared outside on the wire, she sat with her back turned obstinately to the window. I was puzzled. Was this not the same one? Was it the same one, but tardy in coming? Was she becoming neurotic?



The snow was almost all gone; I decided to let her do her own choosing. One morning, I opened the outside livingroom door. She flew to the top of a window and sat. I assured her that she was welcome to come back at any time. She sat for about an hour, showing no desire to leave. Some mornings later, I opened the door and both windows. She alighted on the sill of the south window and flew away. I kept hoping that she would come to the baskets again; my house seemed empty.

The merely taking hence
Of her insignificance.

On January 4, 1972, when I stepped down after filling the baskets, a small chickadee was sitting on the lower rung of the chair. She was not woebegone; she sang gaily "chickadee" and flew away. Maybe -- ?

THE MEMBERSHIP COMMITTEE

Last January the duties of the Membership Committee were expanded to include not only thinking about how or whether to attract new members, but also being responsible for looking after those who are already members.

We have the responsibility of sending out membership renewal forms - look for yours in November this year - and processing the dues as they come in at the beginning of the year. When new members join during the year, we see to it that they receive a warm welcome, together with any back issues of the current volume of The Canadian Field-Naturalist and, for local members, Trail & Landscape.

Keeping membership lists up to date and distributing them to the Business Manager of CFN and to T&L is also our job. As you can imagine, performing these tasks for the membership of 1200 is a lot of work. At present much of it is accomplished through the services of a paid assistant, but we are always looking for volunteers to ease the load at the beginning and end of the year.

Another important aspect of our work is recommending for Honorary Membership those members of our club who have made outstanding contributions to the club and/or to the knowledge of Canadian natural history. Names of new honorary members approved by the Council are presented at the Annual Meeting.

If this type of work interests you and you would like to join our Membership Committee, please let us hear from you.

Joyce M. Reddoch
Chairman
Phone - 733-8325

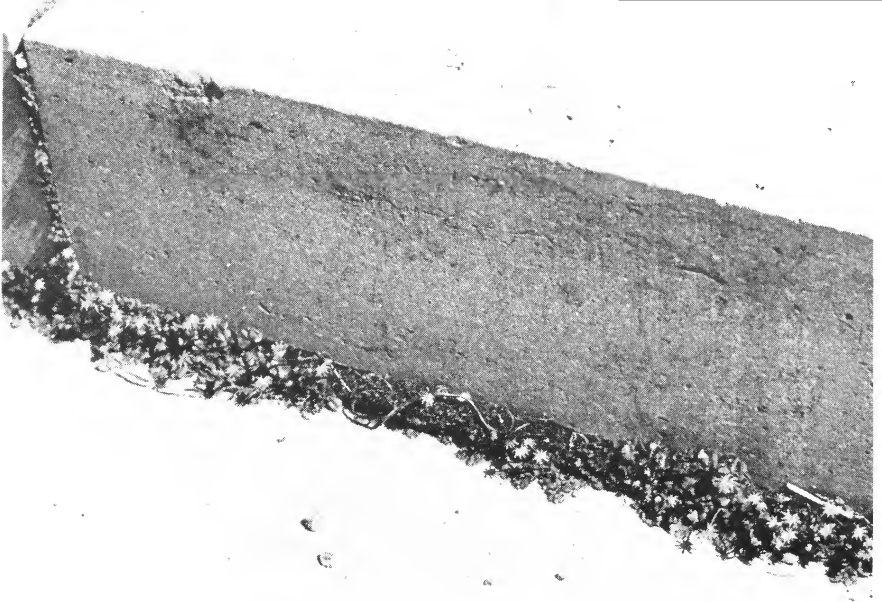


Fig. 1 *Marchantia* growing in crevices between treads of concrete steps in Carleton University Quadrangle.

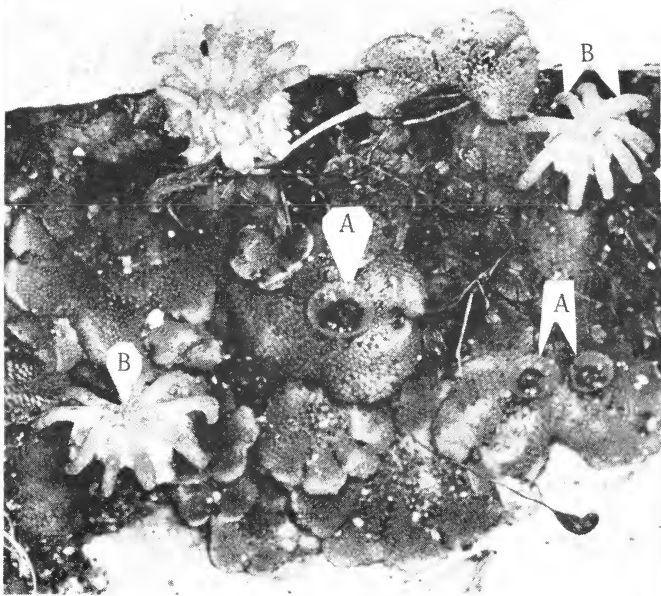


Fig. 2 Enlarged view of *Marchantia* thalli showing gemma cups (A) and female stalks (B).



Fig. 3 Fertilized female stalk producing sporangia which have ruptured to release spores and elaters (E).

SUCCESSFUL FIELD HYBRIDIZATION OF
MARCHANTIA POLYMORPHA L. IN OTTAWA

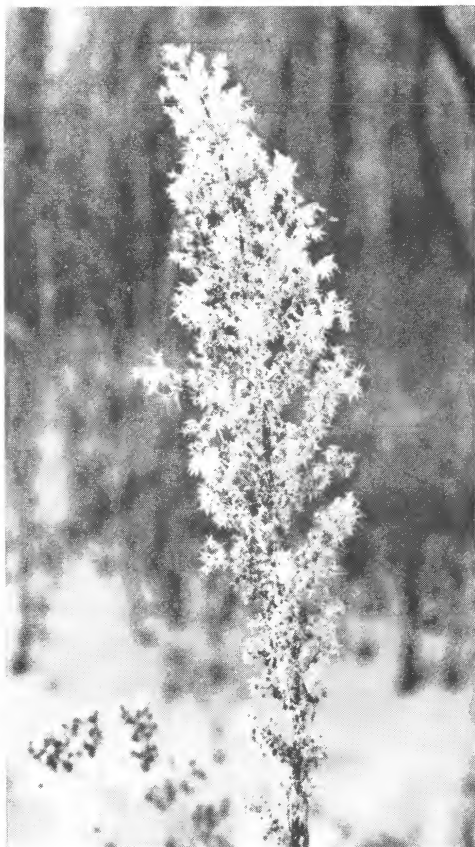
W. I. Illman, ELBA, Carleton University

Over the past number of years a unisexual female colony of Marchantia has aggressively spread along the crevices between pre-cast concrete steps leading from the main quadrangle towards Carleton's Norman Paterson Hall, Fig. 1. Each season this colony has been watched spreading from the initial place where it appeared, first year after construction, in the crevice between the first and second treads. The splash-cups, Fig. 2A, which contain the gemmae have been frequently observed and it is undoubtedly these green pads of tissue which have splattered in driving rain, vaulting to the upper treads, there to grow into the familiar liverwort ribbons. Each summer for several past, these thalli have produced the familiar female stalks, Fig. 2B, from which hang green fingers, like so many ribs of a maxi-dome umbrella. In late July and August it has been the fate of these umbrellas to turn brown and abort for want of a splash of life-giving sperm to fertilize the eggs which they had produced in special structures beneath each finger.

Now enter the meddler!

It was my privilege to botanize for ten days in June 1971 in Alberta and British Columbia. Back from the west came a collection of living male Marchantia and a few bits were tucked in among the female plants between treads one and two.

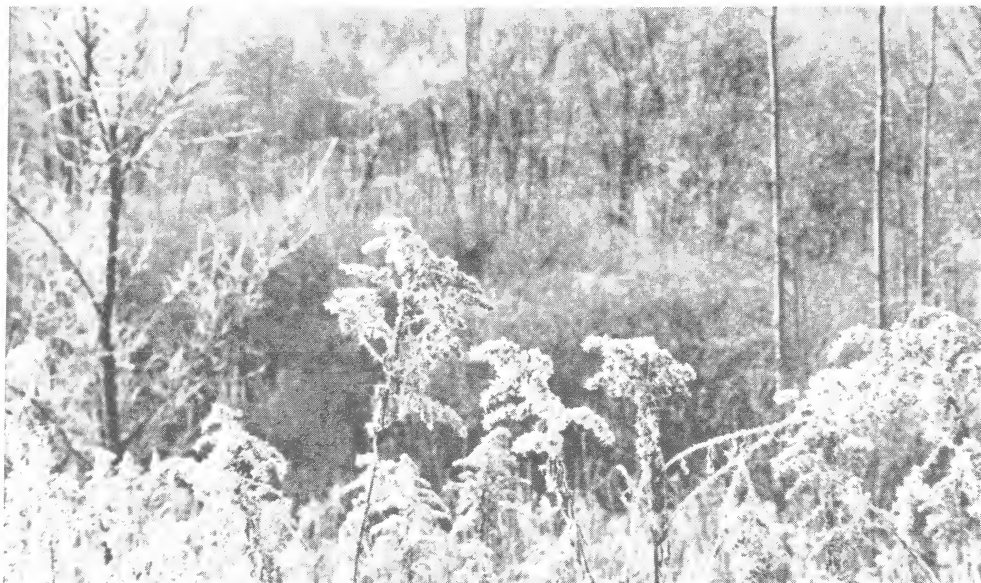
This Spring, nature took its rightful course and splashed sperm from the platforms of the western male clone onto nearby native Ottawa female umbrellas. In due course, in late July, the rotund yellow sporangia by their development had lifted the fingers into the everted position. They released their multitude of spores with the help of wriggling hair-like cells sensitive to the slightest change in humidity, Fig. 3E. Interestingly, at the same time, female umbrellas on the upper tiers of the stairway were beginning to brown and shrivel - the sperm had not successfully reached them!



*A
TOUCH
OF
FROST*

Anne Hanes





Horseweed

Canada Goldenrod

Sugar Maple

Muhly Grass

NOTES ON THE EAST END FEEDING STATION

G. H. McGee

The success of the OFNC bird feeding station on the Jack Pine Trail in the west end encouraged Council to seek a suitable location to establish a similar station in the east end for the enjoyment and convenience of those living in the eastern portion of the city.

The picnic area together with parking lot and the beginning of a series of walking trails under development by "Lands and Forests" on the Davidson Road (6th Line) between the Conroy and Hawthorne Roads appeared to fill the bill, and an experimental feeder was set up and maintained during the 1970-71 and 1971-72 winter seasons.

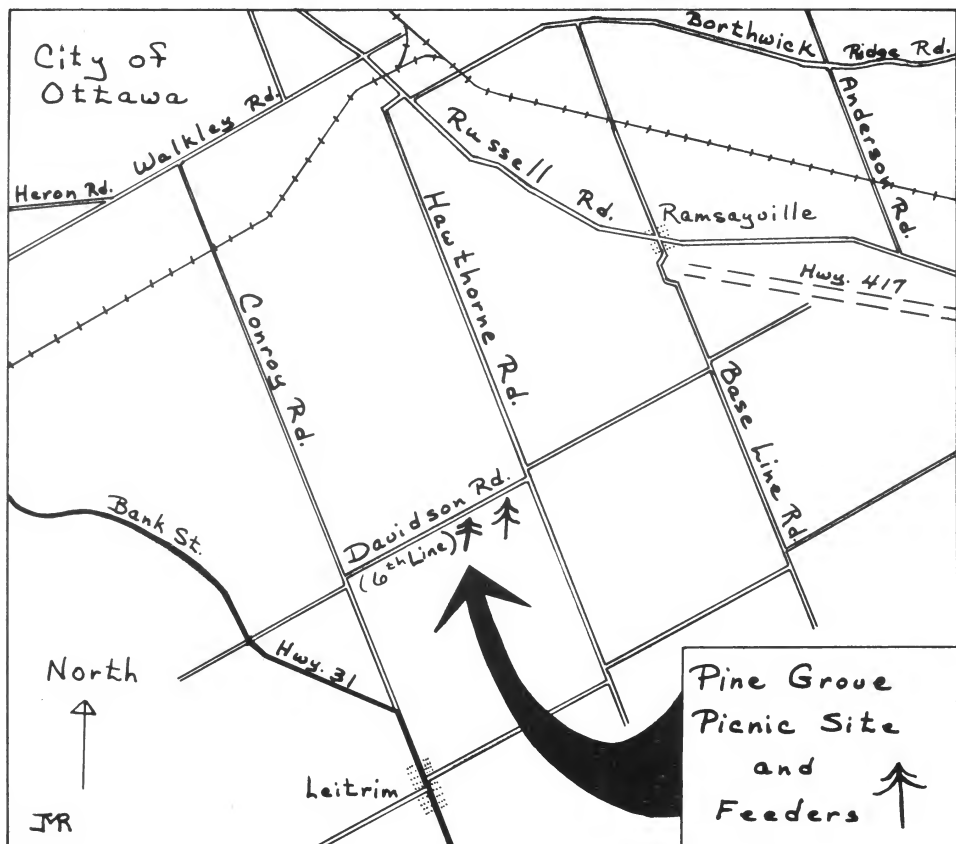
Use of the area during the winter months by birders, trail skiers and hikers has increased rapidly since the opening of the parking lot. Interest in the feeder has been demonstrated not only by attendance but also by material assistance toward its maintenance.

A good variety of winter birds has been observed at the station by the writer, including Chickadees, Jays, Nuthatches, Brown Creepers, Redpolls, Tree Sparrows, Hairy and Downy Woodpeckers, Evening Grosbeaks, etc. Specialties reported in the area include Barred and Great Horned Owls, Pileated Woodpeckers and Red Crossbills. It is planned to set up a diary to provide a record of observations by visitors during the 1972-73 winter.

In view of the apparent interest, Council has voted funds for the construction of an improved feeder which, with the cooperation of the Greenbelt Forests management, will be erected in the now-designated "Pine Grove Picnic Site" in good time for the 1972-73 winter season.

Acknowledgement of assistance in the development of this project is due to the many members and friends who have taken an active interest. These people include donors of feed either by cash donations or directly at the feeder, the donor of a squirrel-proof bin for reserve feed, and the staunch volunteers who saw to it that feed was available when most needed on those wintry days when deep snow made the trek to the feeder no small chore.

Special mention is made of the publicity given to the feeder by our well-known bird columnists John Bird and Wilf Bell, and of the encouragement and assistance provided by Mr. G.A. (Alf) Gowdy, Chief Ranger for the Ottawa area of the Ontario Ministry of Natural Resources (formerly the Department of Lands and Forests), who is responsible for the management of the Greenbelt forests.



The Winter Mushroom, Collybia velutipes

J. GINNS

Each species on this earth has its own unique features and this little mushroom is no exception. It is common in the Ottawa area and is not difficult to recognize in nature. First, of the estimated 3,000 species of gilled mushrooms in Canada, C. velutipes is one of the few that grows attached to wood. Usually clusters of fruiting bodies, also called basidiocarps, are seen protruding from crevices in the bark or wood of tree trunks or branches. In this region the winter mushroom is commonly seen on dead elm trees. Secondly, several features of the basidiocarp itself are distinctive. The cap, reddish-yellow to chestnut-brown, is smooth and slimy. The slimy or viscid layer is readily peeled off. The gills are a pale yellowish color. The stipe or stem about $\frac{1}{4}$ inch in diameter and 2.5 inches long is tough, velvety-tomentose, yellowish next to the gills and varying tawny, dark brown or blackish below depending in its age. Another species in the Ottawa Valley which also occurs on wood, has a brown, velvety stipe and yellowish gills, is Paxillus atrotomentosus but it is distinctive in being much more robust, the stipe $\frac{1}{2}$ to 1 inch in diameter, and the cap dry and matted tomentose.

Finally, the most striking feature of this fungus is its apparent cold hardiness. Although it fruits in the cooler weather of spring and late fall, it is not unusual to find it during winter thaws. Three or five days into our January thaw basidiocarps will have appeared and within a few days they are fully developed. Although often frozen at night they thaw and continue to grow. If only some of this hardiness could be bred into our roses.

C. velutipes is edible and is a good species for the casual collector because it occurs in the winter when few other fungi are available. The slimy layer of the cap as well as the entire stalk should be removed before cooking.



The Winter Mushroom, Collybia velutipes on dead elm
Photo - Anne Hanes

FIELD MILKWORT (POLYGALA SANGUINEA L.)

IN THE OTTAWA AREA

Allan H. Reddoch

In early September of 1964 Anne Hanes encountered an unusual flower near the 6th Line between Hawthorne and Albion Roads. She identified it as the field milkwort (Polygala sanguinea L.). This appears to have been a new record for the Ottawa region for the plant is not listed in Gillett's Checklist of Plants of the Ottawa District. In September of this year the writer had a similar experience in more or less the same area, finding one to two hundred plants not far from the Pine Grove Picnic Site on Davidson (6th Line) Road. (See map p. 147.) Thus the species seems to be well established in the area.

Presently its range is given as Nova Scotia to Ontario and Minnesota and south to Oklahoma, Louisiana and South Carolina. Possibly Ottawa is near the edge of its range. It was first reported in Quebec in 1935 in the Eastern Townships. Marie-Victorin believed it was not indigenous to Quebec.

While the flowering plants of our area have been fairly well collected and recorded, additions can still be made from time to time either because a rare or inconspicuous plant has been overlooked, or because a plant has recently become established in the area. Examples are the orchids helleborine (Epipactis helleborine), which moved into the area about the turn of the century, and twayblade (Listera auriculata), which was discovered in 1967 (T&L 2, 134, 1968). The most recent checklist of the area is Gillett's of 1958 which, although based only on the Dept. of Agriculture herbarium is probably fairly complete aside from a few discoveries since it was published.



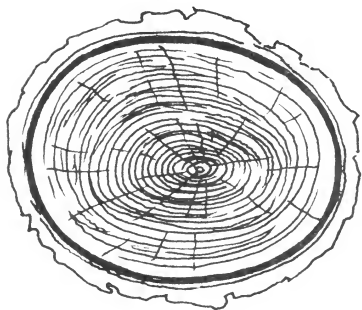
Note small bracts
on stems and small
sepals pointing
downward from
lowest flowers

Photos by the author



At first glance from a distance the field milkwort suggests red clover and is similar to the extent that each species produces heads about $3/4$ " in size consisting of several dozen small, closely-packed, purple flowers, and each stands 4" to 12" high. The local milkwort has a somewhat brighter colour at the top of the head than does clover, and has a greenish-white colour lower down. (Elsewhere, forms are known with white or green flowers.) A closer look shows great differences from clover however. The leaves are very narrow, and the head, at least when it is well-developed, is cylindrical. Sometimes a number of small bracts are seen on the stem below the head. It is still difficult to see much resemblance between the field milkwort and its more familiar relative the fringed polygala (*Polygala paucifolia*) with its central tube and two wings. However, if one of the small flowers is removed from the head of the former, the characteristics of the genus can be seen. Of the five sepals three are very tiny and green, while two are much larger and coloured like the petals. They tend to overlap in the field milkwort instead of spreading apart as in the fringed polygala. The three petals are united as a central structure on the side of the two sepals nearer the center of the head.

The local plants have so far been found in open, sandy, wet areas. They are growing together with nodding ladies'-tresses (*Spiranthes cernua*), slender gerardia (*Gerardia tenuifolia*) and marsh fern (*Thelypteris palustris*). This suggests that the field milkwort might possibly occur on the western approaches to the Mer Bleue.



THE
AGE
OF
TREES

Some time ago scientists found that certain species of trees showed marked variations in the width of their annual growth rings. Investigating this matter further they found that these variations were related to variations in precipitation. In a dry year a narrow annual ring of growth was formed; in an average year a ring of average width resulted; and in a wet year the rings were abnormally wide. By examining the wood of representative sample trees, the year to year climate of the region could be established as far back as the age of the oldest tree.

The age of any tree can be established without the need for cutting it down, by taking a core sample with an increment borer. This is a drill equipped with a hollow, tube-like bit that extracts a rod-like core of wood extending from the bark to the pith. This core contains a sample of every growth ring of the tree. After extraction the core, which is thinner than a pencil, is examined. This can be done by the naked eye or by examination under a microscope. Working with cores extracted from bristle cone pine trees in California, the ages of trees 4,600 years old were discovered and a complete climatological record that extended back more than 4,000 years was established.

NEWSLETTER Ont. Dept. Lands and Forests

For Peat's Sake!

MER BLEUE PEAT BOG The Syracuse and Oswego Peat Co. intend to open up works next spring, as Ottawa and Mer Bleue Peat Co.; product to be developed at \$4 per ton.

note in DAILY CITIZEN Oct. 7, 1876

YEAR-END SALUTE

The staff of Trail & Landscape is indebted to a number of persons who provided invaluable help in producing this year's volume. We wish to thank Charlotte Dill, Elizabeth Amey and John Kempt for their assistance in our Nature Photography Workshop.

For many years now, the final copy of nearly every issue of T & L has been typed by one willing volunteer. Leone Brown is not only a fast and accurate typist, but perhaps more important, she is always cheerfully available to enable us to meet ever-recurring deadlines. During Mrs. Brown's vacation we were grateful for the helping hands of Heather Morfoot and Mrs. C. P. Hughes in typing the September issue. Also in connection with typing arrangements, many thanks to Dorothy Freeborn.

The Club's financial burden for producing T & L this year has been lightened through the generosity of two institutions:

We wish to thank the Canadian National Sportsmen's Show of Toronto for their welcome donation of \$250 to the Ottawa Field-Naturalists' Club to assist in publication of Trail & Landscape.

The National Museum of Natural Sciences has contributed a generous sum to cover costs of publishing two major articles by members of the museum staff in 1972. We are grateful to the authors, and to their director, Dr. J. H. Soper.

Anne Hanes
Editor

The Incident at Ritchie's

Last Fall, a friend was in Ritchie's Feed and Seed on an errand familiar to owners of bird feeders hereabouts: the purchase of a large supply of sunflower seed to support assorted birds in the manner to which they are accustomed. The diners include colourful blue jays, cheery chickadees, nasal nuthatches and various finches, but above all, evening grosbeaks who live up to their well-deserved nickname 'greedy-beaks'. A number of people were evidently in the store for similar purchases though unaware of my friend's purpose. The clerk, recognizing an old customer, asked my friend if he had seen any grosbeaks yet. "Yes", my friend replied with tongue in cheek, "I saw one on the road yesterday - tried to run it down, but I missed." In the shock wave of silence that spread throughout the store, the clerk felt the makings of a nasty scene. Hastily he explained to the bird lovers that his customer provided several hundred pounds of seed for feathered wildlife every winter. But only narrowly was a lynching at Ritchie's averted.

(A.H.)

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arranged by the Excursions and Lectures Committee
Ewen C. D. Todd, chairman (225-4316)

Saturday
11 November

OUTING: VISIT TO THE OBSERVATORY
Meet: Observatory, Experimental Farm
Time: 7:30 p.m.

Weather permitting, we will see the surface of the moon under good conditions. Planets also may be visible. In addition, one film will be shown on the Continental Drift theory. If weather is not suitable for viewing, a two-hour film program will be presented, on Continental Drift or other geotectonic studies. Dress warmly. THOSE WISHING TO ATTEND MUST CALL EWEN TODD (225-4316 or 996-5775) NO LATER THAN 8 NOVEMBER.

Wednesday
29 November

LECTURE: DEER STUDIES IN NEW ZEALAND
Speaker: Dr. Don Flook
Meet: St. Andrew's Presbyterian Church,
Kent & Wellington - Kent St. door
Time: 8:00 p.m.

Before the colonization of New Zealand by Man, the only land mammals were bats. The Polynesians, and the British explorers and colonists, however, brought in many mammals, including European and North American species such as deer, which were suitable for hunting. Most of the herbivorous mammals that became established created problems as a result of their impact on the native vegetation. Dr. Flook will give an illustrated presentation on the effect of mammals in New Zealand, in particular the Fallow Deer, which he studied for two years. This lecture illustrates the dangers of introducing alien species into an environment.

Tuesday
12 December

O F N C ANNUAL BUSINESS MEETING
Speaker: Dr. E. F. Roots
Meet: Main auditorium, National
Research Council, Sussex Drive
Time: 8:00 p.m.

Dr. Roots will take us on a pictorial journey of discovery to inspiring, spectacular, and inaccessible corners of Canada.

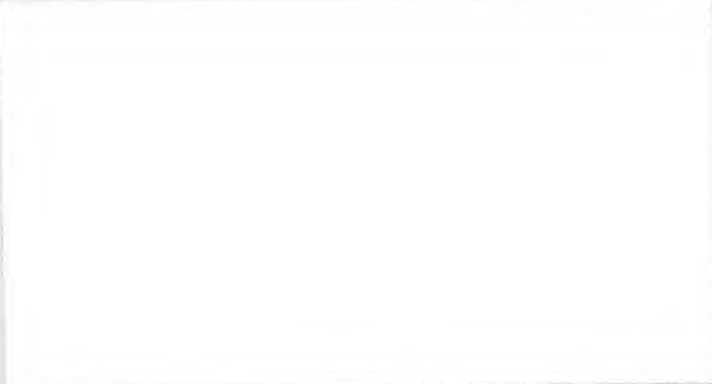
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