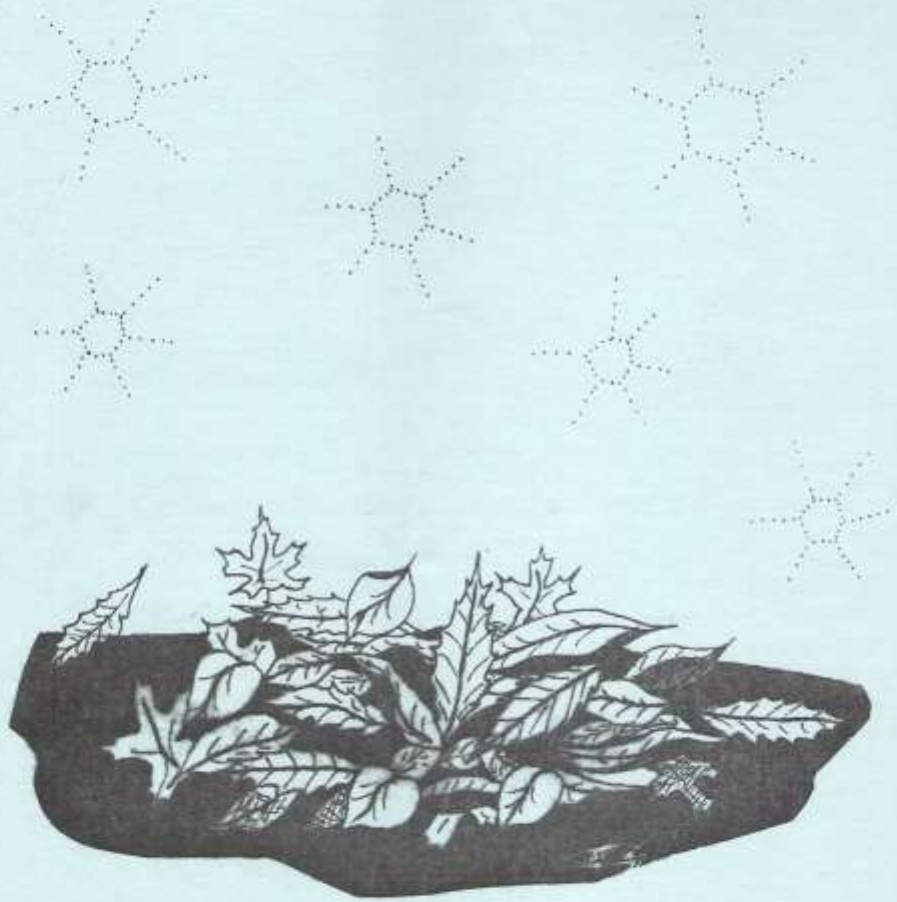




# N.B. NATURALIST

9(1) JANUARY 1979



N. B. FEDERATION OF NATURALISTS / FEDERATION DES NATURALISTES DU N.-B.  
277 Douglas Avenue, Saint John, N. B., Canada E2K 1E5 Tel. 693-1196

The federation was formed in 1972 in order to

- develop an understanding interest in nature among amateur naturalists
- serve as a means of communication and cooperation among nature-oriented groups and individuals
- promote ecologically sound policies and programs of resource management
- foster public awareness of the relationships between man and nature.

Officers

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Henrik Deichmann, *past president*  
Freeman Patterson, *vice-president*  
David Christie, *secretary*  
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Owen Washburn, *Rep. Director (CNF)*

Federated Clubs

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5 Shamrock Terrace, Fredericton  
Moncton Naturalists' Club  
166 North Street, Moncton  
Saint John Naturalists' Club  
277 Douglas Avenue, Saint John  
Chignecto Naturalists' Club  
P.O. Box 1590, Sackville  
Miramichi Naturalists' Club  
276 Heath Court, Newcastle  
Kennebecasis Naturalists' Society  
P.O. Box 1547, Sussex

NEW BRUNSWICK NATURALIST ISSN 0047-9551

Five numbers a year.

Editorial Committee

Barry King, *editor*  
David Christie     Mary Majka  
Henrik Deichmann     Peter Pearce

Advice to Contributors

Preferred articles are those from one-half to two pages in length, having relevance to the natural history of New Brunswick. Authors of potentially longer articles are invited to contact the editors. Drawings and cover illustrations should be in black ink and in the same size and proportions they would occupy in the N.B. Naturalist. Observations for "Nature News" should be submitted promptly after March 15, May 31, August 15 and November 15, or more frequently.

Aux Naturalistes Francophones

Nous avons besoin d'articles en français, aussi de volontaires qui voudraient écrire des résumés en français des articles en anglais.

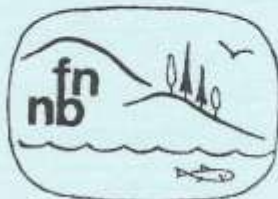
Memberships - Subscriptions

Mail to Janice Dexter, 956 Dever Road, Saint John West, N.B. E2M 4J3. Annual fees: \$3 (individual or family), \$1 (students to age 18), \$3 (libraries).

Correspondence

Re the N.B. Naturalist to editor, N.B. Naturalist, 277 Douglas Ave., Saint John, N.B. E2K 1E5. Articles and reports are always welcome.

Re federation policies and programs to Harry Walker, 276 Heath Court, Newcastle, N.B. E1V 2Y5.



FROM THE PRESIDENT

Dear Fellow Members:

I am happy to say that this issue of the N. B. NATURALIST should mark the resumption of its regular publication. The difficulties in getting it published were resolved at a meeting of your executive, held at Mary's Point on October 21, 1978.

BARRY KING is our new editor. Barry has had past experience in this field of work, having been editor of the Nova Scotia Speleological Society Newsletter.

To DAVID CHRISTIE, as editor, and to MARY MAJKA, as assistant editor, we owe a debt of gratitude for their unselfish service to us in the past. However, during the past year and a half, David has lacked the facilities to publish the paper and this explains why you have not been receiving it. David and Mary will still be assisting Barry.

A number of issues were brought up at the above mentioned executive meeting. It was decided to place \$500 of current funds in a special account for natural area preservation and nature scholarships for youth. Exact details of how the funds will be used are not yet decided.

Hank Deichmann expressed a desire to compile a natural history guide for the province of New Brunswick; and from the discussion that ensued, it appeared that he could secure some valuable assistance from a couple of our directors, namely Owen Washburn and Mary Herbert. Although it is still in the embryonic stage, I believe that it will become a reality.

Mary Majka voiced some concern about the future of Machias Seal Island. She felt that there were so many people visiting the island that its value might be destroyed. David Christie volunteered to write the Canadian Wildlife Service, which controls access to the island, and find out what their plans for the island are. When a reply is received, the executive will decide on whether or not any action seems necessary to

safe-guard these birds.

Here on the Miramichi, Vernon Goodfellow and Bill Stewart have been responsible for the creation of a number of nature trails in the area. These are beautiful trails which are well planned and cross a good variety of habitats. Vernon has had a number of men employed on this project through an L.I.P. grant. Two of the trails are located on the fish hatchery property off the South Esk Road a few miles out of Newcastle. One of these trails is 1 mile long and the other about 3 miles long. Another trail follows the Sevogle River and is about 10 miles long. It runs off the road to Cruikshank Pool and ends on the Fraser-Burchill Road at about mile 13. If you are in this area don't forget to take a walk on some of these trails.

Up in this corner of the province, the Atlantic Centre for the Environment is working on a project to establish a sanctuary for migrating waterfowl at Tabusintac. This is the same organization that has been conducting the Living River's Program at Tabusintac during the last few summers. A number of members of our Miramichi Naturalist Club have been on this program and found it a very enjoyable, educational experience, as well as very economical.

During our last annual meeting at Plaster Rock, Erwin Landauer and Fred Tribe led us on a hike to Shea Lake. A variety of uncommon orchids were found on this trip; so much so, that Erwin is planning another hike over the same route next spring. If you would like to go along on this hike, Erwin will be providing details in a future newsletter.

Our next annual meeting of the New Brunswick Federation of Naturalists will be at Caraquet on the first week in August, 1979. Since some of the largest peat bogs in North America are situated in the northeastern part of our province, it was decided that the main theme of this meeting will be peat bogs. Owen Washburn has already obtained permission to use the facilities of the fisheries school as headquarters for this meeting.

HARRY WALKER

Man goes into nature to learn what nature is, but in doing so, he introduces possibilities of distortion through his own presence.

-----  
T.C. Schneeta, 1950.

#### TREE SILOUETTES

In winter the outlines of a tree's bare branches reflect its struggle to arrange its leaves so a maximum amount of sunlight will reach them. The process of photosynthesis by which plants produce food requires sunlight and water.

Winter is a time of drought for trees. Most water is frozen within the ground or above it as snow and is inaccessible to them. To adapt to this many trees in temperate climates drop their leaves and seal over the point of attachment. Next year's leaves wait as winter buds under a covering of moisture-conserving scales. Evergreens have special adaptations to conserve water such as thin or small needlelike leaves with waxy coatings.

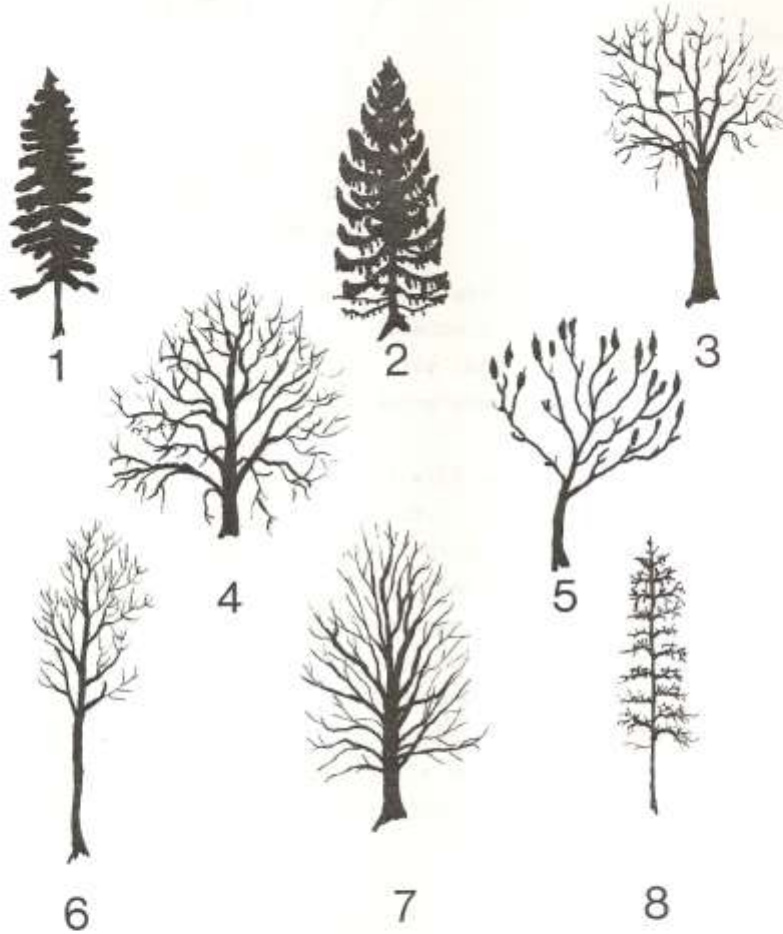
Each species of tree has its own distinct form molded both by a struggle for light and by growth. In winter these forms are more clearly visible with the trees' loss of leaves. They present a new perspective from which to view trees.

#### Cycles 2

These things I ponder as the kettle sings, and the good oak  
burns to read coals on white ashes. Those ashes, come spring,  
I will return to the orchard at the foot of the sandhill.  
They will come back to me again, perhaps as red apples, or  
perhaps as a spirit of enterprise in some fat October squirrel,  
who for reasons unknown to himself, is bent on planting acorns.

A SAND COUNTY ALMANAC  
Aldo Leopold, 1966.

# DO YOU KNOW THESE TREES ?



Do you know these trees (ANSWERS):

- 1 White Spruce *Picea glauca*
- 2 Eastern White Cedar *Thuja occidentalis*
- 3 White Elm *Ulmus americana*
- 4 Beech *Fagus grandifolia*
- 5 Staghorn Sumac *Rhus typhina* L.
- 6 White Birch *Betula papyrifera*
- 7 Sugar Maple *Acer saccharum*
- 8 Tamarack *Larix laricina*



### THE ODD COUPLE

The harsh, winter environment appears to be an uninviting prospect for any form of life whether it is a plant or animal. Most trees empty their branches of leaves and retreat into a dormant winter condition until

warm weather returns. Many animals greatly reduce their activity in winter, or in the case of many birds, abandon our climate to accept the sun's warm invitation nearer the equator. For those of us who cannot escape the reality of winter, we have learned to enjoy some of the unique conditions it provides.

Not all plants greet winter with such drastic transformations as our wildflowers and cowardly hardwoods. One such group are an obscure group of plants known as lichens. These include such unusual and varied members as Old Man's Beard; British Soldiers, and Reindeer Lichen ("Reindeer Moss"). Although normally overlooked, this group contains numerous colourful species inhabiting the ground, dead stumps, rock, and even tree bark. Lichens have been forced to accept some of the harshest conditions on earth in order to compete and survive on a planet dominated by faster growing, more demanding plants. Lichens have accepted this challenge and form the dominant vegetation of polar regions and also enjoy a comfortable home on bare rock and exposed to the hot desert sun.

"In one experiment, dry lichens were exposed to a temperature of 434°F. This, you will recall, is more than twice that of boiling water. The lichens were exposed to this heat for seven hours, at the end of which time they began growing again!"

PLANTS WITHOUT LEAVES

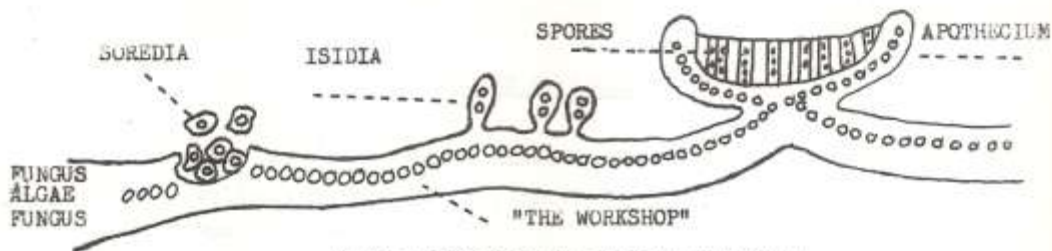
Ross E. Hutchins

How do lichens withstand such unfavourable environments? Actually, lichens are two plants which have united their structures to form an extremely hardy combination. Many people describe this as a "partnership"

but I prefer the term "marriage". Like most marriages, they are often mistaken for partnerships but are actually dominated by either the husband or the wife. This can be expanded into an amusing analogy.

In the case of lichens the "husband" is the hardworking soul who operates a "factory" and converts his hard work into food to feed the entire household. In lichens, the husband is an algae and it works to convert the raw materials available in the air into sugar using sunlight as a source of fuel to power the factory. The sugar is the food which the algae provides for the household.

The wife is a fungus which maintains the household and keeps its algal partner confined to the "workshop". The "workshop" is normally a thin layer near the surface of the lichen where it can obtain lots of light.



CROSS-SECTION OF THE LICHEN HOUSEHOLD

As in most marriages, the algae and fungus will normally have a few children, and in lichens there are several alternatives to choose from. Many lichens produce "children" called isidia which contain both an algae and a fungus component. The isidia eventually become separated from their parents and must set up housekeeping on their own. As they grow, this produces another lichen. Another possibility is to produce soredia. These are basically similar to isidia but are smaller, more untidy, and often kept confined to a structure known as a soralium. Often, the fungus decides to have children without help from the algae. In this case the children are known as "spores" and are kept in a fancy cup-shaped "crib" known as an apothecium. No algae are contained within the spores, so when these daughters are released, they must develop into a fungus and then



capture an algal husband in order to survive. How successful the spores are is difficult to determine. The algae are not very common outside of the lichen and it is undoubtedly a proud spore which does succeed.

The lichens spend much of their life in a dormant state, reviving whenever moisture swells the tissues of the plant, usually after a light rain. This prevents the lichens from growing rapidly, yet this conservative growth may continue indefinitely, perhaps for a thousand years or more if left undisturbed. Although they are extremely hardy when exposed to natural conditions, they are extremely sensitive to air pollution. Examining trees exposed to the exhaust of cars and industry close to town, you are likely to find few lichens. The next time you are snowshoeing or skiing through the forest, however, inspect any branch or trunk of a tree. There should be a broad array of these amazing plants awaiting you.

Ian Walker

#### FACTS ON LICHENS

Lichens have been used as indicators of time and climate; lichens provide evidence on the age of glacial moraines, of lava flows and of ancient human monuments.

Lichens were once widely used as a source of natural dyes.

Litmus, used as an indicator paper familiar to chemistry students, and other reagents are still obtained from lichens.

The perfume industry continues to make use of lichens in various fragrances, the most widely employed species is Evernia prunastoi (Oak Moss).

Lichens have an Achilles heel: They are strongly susceptible to the substances with which man now pollutes the atmosphere. They are therefore good indicators of air pollution.

Certain lichen colonies have been estimated to be more than 2,000 years old.

## KNOW AND PROTECT OUR ENDANGERED SPECIES ?

NEW BRUNSWICK:

EASTERN PANTHER

LYNX

BALD EAGLE

OSPREY

PEREGRINE FALCON



Have you seen any of our endangered species?  
If you have write and share it with us.

If you see an EASTERN PANTHER (cougar) call the Canadian Wildlife Service  
in Sackville immediately before it leaves the area or its signs are erased,  
or your nearest office of the Department of Natural Resources.  
Sackville phone number is 536-3025.

THE NORTHERN SHRIKE - FEATHERED BANDIT

Even if not a true "bird of prey", the robin-sized Shrike is definitely a predator! For their size they're as blood thirsty as any hawk. Redpolls, Song Sparrows, even Pine Grosbeaks have all been numbered among their victims. Small wonder this species has earned the sobriquet "Butcher Bird". But we may tend to forget that the Shrike is a songbird. Birding once with the late D. Kermodé Parr, on the Jemseg, we heard from the tangled cover of willow and alders, some high-pitched unmusical whistles. We never did locate the author, but both felt we'd been treated to the vocalizations of a Shrike. More recently on October 30 of last year, I was lucky enough to observe a dull-coloured immature at Martin Head, on the Fundy shore. While I watched, it delivered a brief unmusical dialogue of chirps and chuckles, such as you'd expect from a practising catbird.



Not having strong feet, the Northern Shrike dispatches prey with its robust toothed bill, often with a bite to the neck. We generally see Shrikes practising "still" hunting, i.e., intently staring at the ground from an elevated perch. As befits their vocation, Shrikes themselves are wary, being watched in their wicked ways seems to make them nervous. They always seem to move on.

Although obviously difficult to observe, Shrikes apparently "hunt" while coursing through cover on the wing. Now before you load up your 4-10 to intercept a Shrike, consider this quote from Godfrey in "Birds of Canada" - "never abundant it has no great effect on its prey species".

Still a bit of diligence may yield you a respectable series of records. Several of us associated with Fundy National Park (besides the author, Barry Spencer and my wife Joanne, got 54 records from late October to late April during the winter of 1974-75). According to the "Birds of New

Brunswick", the season in our Province runs from October 3 through to April 25. One might suspect it could linger a bit longer in the northern sections.

An excellent reference on this species has been prepared by Tom Cade, who had one as a pet. "Ecological Aspects of Predation by the Northern Shrike" in the LIVING-BIRD, Cornell Laboratory of Ornithology, Cornell University, Ithaca, N.Y. (1967).

Oldtime falconers recognized the keen alert vision of the Shrike, they used them as monitors while seeking initiates. A tethered Shrike would become excited when passing Falcons came near, but still out of sight for our human eye.

Hope you'll have some luck in seeing the lone feathered bandit for yourself this winter.

K. H. DEICHMANN

#### BOOK REVIEWS

##### ON FOOT TO FUNDY

Published by Fundy Hiking Trail Association, Inc.  
edited by Brenda Parsons.

Hiker's Guide to the Dobson Trail. It is divided into two sections. The first section is a storehouse of practical information for the hiker. The second section contains detailed descriptions of the nine continuous sections of the Dobson Trail. A waterproof topographical map of the trail can be found tucked into the back cover. This booklet is invaluable for anyone planning on hiking the Dobson Trail. The guide is on sale at the Trail Shop and in book stores for \$1.95.

B. KING

ENVIRONMENTAL CHANGE IN THE MARITIMES

Published by Nova Scotia Institute of Science

Members interested in long-term environmental changes and their effects on flora and fauna will enjoy reading Environmental Change in the Maritimes, a collection of papers published by the Nova Scotia Institute of Science, c/o MacDonald Science Library, Dalhousie University, Halifax, N. S. B3H 4J3 (available for \$5; or ask your local library). It treats primarily post-glacial changes in landscapes, climate, vegetation, marine invertebrates and insects, as well as isotopic geochemistry and the impact of man.

DAVE CHRISTIE

PHOTOGRAPHY FOR THE JOY OF IT

by Freeman Patterson

Publisher - van Nostrand Reinhold

What's in a Picture? After reading Freeman Patterson's book "Photography for the Joy of it" one can safely say "a lot". The author by guiding the aspiring novice as well as the expert, is able to demonstrate that the skill of producing good images does not hinge on an array of expensive gadgetry, special films or spectacular subject matter.

Very simple, very down to earth things, like a fallen branch in the darkness of a forest may produce the most striking photograph. Neither is the camera nor the film responsible but rather the person behind the camera. In the author's words "the camera looks both ways" - This is where the element of "joy" comes in.

Photography can simply be the recording of happenings or scenes, but it can also become an expression (portrait?) of the photographer and his appreciation, interest in the subject perhaps even the mood he was in while taking the picture. In this sense "there is a lot in a picture" and that branch in the forest will speak of one's personality, perceptiveness, sensitivity -- it becomes a work of art.

Freeman Patterson's book while aspiring to be a "how to" book is actually much more than just that. Although it has all the factual information and advice, it also teaches how to look at one's self and how to train one's eyes and senses to see beyond the mechanics of taking a picture. What you are taking is a small part of life itself that you were able to capture and retain for the joy of it!

MARY MAJKA

ANNOUNCEMENT - "A NATURALISTS' GUIDE TO  
NEW BRUNSWICK"

A small group of individuals are working on a project which could result in a book describing the natural landscapes, mans' influence on the land, flora and fauna and other things for our beloved Fiddlehead country. How much progress is made depends on how many storms and blizzards occur. The reason for this is that in order to get some work done, frousome weather is required, as all these people would rather push cross-country skis, or point a camera, than a pencil or pen. Wish us luck!

For more information write: K. H. Deichmann  
Box 73,  
Alma, N. B. EOA 1B0  
or call: 887-2110 (Res.)  
887-2000 (Bus.)

THE OTTER

Let's walk on crusty snow today  
To where the Tobique flows.  
We'll follow on the otter's way  
And see which path he goes.

Yesterday in the soft snow  
We saw him tumbling by,  
And as he leaped he did not know  
We watched him on the sly.

Now Imprints in the crust lead on  
To the river's edge he slides  
And down the steepest bank he's gone  
Into the icy water glides.

Margaret W. Sutherland  
Nictau

CYCLES |

Energy flows from the sun to plants and then to animals.  
All energy originates from the source, the Sun.  
You are a piece of the sun.

