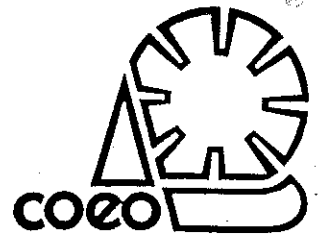


# Pathways



THE ONTARIO JOURNAL OF OUTDOOR EDUCATION

Volume 1, Number 1

PREMIERE ISSUE

January, 1989



ISSN: 0840-8114

# Contributing to Pathways

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## The Ontario Journal of Outdoor Education

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### Getting Started

You've got to know *who* you're writing for - in the case of a COEO member writing for **PATHWAYS** it's easy - imagine you're writing for someone just like you, a person who is interested or involved or both in some form of outdoor education. The only way to get started writing for journals and magazines like **PATHWAYS** is - curiously - by getting started: that means putting pen to paper, fingers to keyboard, mouth to tape recorder, chalk to slate, chisel to tablet ... whatever it takes to sculpt your ideas for public comment.

### Inside PATHWAYS

#### Short Articles

**Tracking** is a section at the front of the journal which includes short news items, event reports, notes on new equipment, and other snippets of regional interest. These pieces are short (less than 500 words), factual, and written in newspaper style - i.e. "Just the facts mam ..."

**On the Land/Environmental Update** is a section just past the middle of the journal that highlights current environmental issues. These entries are much like those contained in *Tracking* - short and to the point. Longer articles about bigger or more involved environmental issues fall in the *Features* department. *On the Land* might contain the first news of big issues or follow-up comments.

**Explorations** is a section devoted to research and new findings in outdoor education. The contributions to this department of the journal are summaries of studies or comments on recent advancements in the field.

**In the Field** is a two page portion of the journal devoted to articles about events, activities, programs, staff and facilities at particular outdoor education centres. In some cases *In the Field* contains one in-depth article about one aspect of one program, and in other cases it may contain a smattering of smaller, shorter pieces about a variety of centres.

**Reading the Trail** is a page at the back of the journal devoted to books, book reviews, bibliographies on special topics, short excerpts - anything to do with literature related to outdoor education.

#### Longer Articles

**Prospect Point** is **PATHWAYS'** opinion page, and it's devoted to medium length (800 words) points of view on any relevant topic. Within bounds of liable and good taste, the more polemical and controversial *Prospect Point* pieces are, the better.

**FEATURES** fill the middle 14 pages of the journal. These articles (1000-2000 words) may be thematically linked or may stand on their own. When possible, these longer articles are supported with maps, diagrams, photos and line drawings to break up the text.

#### Books that might help:

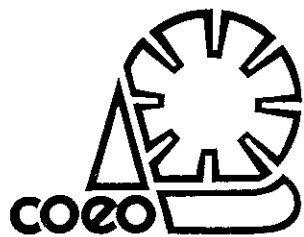
*The Canadian Writer's Guide* prepared by the Special Projects Committee of the Canadian Authors Association and published by Fitzhenry and Whiteside. \$5.95.

*Words for Sale* edited by Eve Drobot and Hal Tennant published by The Macmillan Company of Canada for the Periodical Writers Association of Canada. \$10.95

*Editing Canadian English* published by Douglas & McIntyre for the Freelance Editors' Association of Canada. \$29.95

*The Art of Writing Nonfiction* by Andre Fontaine and William A. Glavin Jr., published (1987) by Syracuse University Press.

Plus any "How to ..." guide that might help get you started, such as *Freelance Writing for Profit* by John Boesch, published by St. Martin's Press, 175 Fifth Avenue, New York, NY 10010. \$9.95



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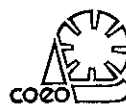
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Pathways is published for the Council of Outdoor Educators of Ontario and mailed to COEO members. Individual membership is \$30.00 for 1988-89, \$40.00 for a family. The fee includes **PATHWAYS**, as well as workshops, courses, and other benefits of membership.

Send cheque or money order to: **John Aikman, Membership Secretary, 47 Rama Court, Hamilton, ON L8W 2B3.** Please allow 4 weeks for processing or change of address.

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# Pathways



THE ONTARIO JOURNAL OF OUTDOOR EDUCATION

Volume 1, No. 1

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## State the Art

The front cover and graphics were done by **Betty Murphy**, a lady whose soft spoken sensitivity towards natural beauty has always been an inspiration. She is also a heck of a grandmother!

# Editor's Log Book

## ACHOICE OF PATHWAYS

There is a lot to be said for natural metaphors and it is both fitting and quite natural for outdoor educators to have a journal with such a metaphor as its title. **Pathways** conjures up varying images depending on the vantage point one has when taking their first glance. To the canoeist it is like watching a discernible portage become a myriad of moose trails all tantalizing and all promising, the first glance of blue through the walls of green, that represents the goal of every canoeist. The canoeist will know that only trails that are infrequently travelled represent such a challenge and such an opportunity to discover where a wrong trail will lead. It is because the trail has not yet been tried that makes the next turn promise the glimpse of the lake and all the discoveries yet to be made. Such is the ex-

citement felt by those hoping to produce a quality journal for outdoor educators. The course is not guaranteed because the goal is not necessarily discernible. Ask a room full of outdoor educators what the goal of outdoor education is and my meaning will not be missed. **Pathways** is a beautiful metaphor because it allows outdoor educators the full range of possibilities, perspectives and experiences to express themselves. **Pathways** (the journal) is a meeting place. Think of it as a spot where our different pathways can merge to give ourselves a better view of the whole. This clearer view and knowledge of what each other is seeing is both a rationale and an emphasis. The move to pathways in part is an attempt to foster enhanced communication through the efforts of the editorial board securing

articles on a wide variety of contexts and concerns of outdoor educators. There is always a need for your input to this process through the submission of articles, or letters to the editor. It is this input that gives **Pathways** its promise of being close to the pulse of outdoor education in Ontario. It is also this input that guarantees that **Pathways** may describe your pathway: be it mountaineering, hiking, birding, or wherever your trail may lead. One of the most interesting things about the divergent interests of outdoor educators is the similarities of concerns that attract us to one another. Though some may not be comfortable with the trail we have taken, I can only tell you to come along a little further, any moment we are sure to catch a glimpse of the lake.



## LETTERS TO THE EDITOR:

### Response to B. Murphy's Article, "If a poplar fell ... would it still be a weed?"

Response to an article appearing in ANEE, Vol. 17, No. 4. George Daicos is a registered professional forester.

Yes, Bruce, it is very apparent that you are still naive, but it is hardly a personal quality that one should take pride in. I would like you to consider some of the practical implications of your ideas. But first, let us properly define our terminology.

You ask whether it is scientific or moral to call a tree species a weed. While neither science nor morality have anything to do with it, it is logical to call any plant a weed if it conforms to the definition. A "weed" is defined as, "Any common, unsightly, or trou-

blesome plant that grows in abundance, **especially to injurious excess on cultivated ground**" (Funk & Wagnall's Standard College Dictionary, 1974). Please note the context. A species can only be considered a weed if it can injure a crop species on cultivated ground.

Clearly, if we define our crop to be jack pine, poplar can be considered to be a weed species by definition. However, as I'm sure you are already aware, poplar is the crop species in many areas of Ontario. Levesque Plywood Ltd. in Hearst, and MacMillan Bloedel Ltd. in Nipigon both harvest poplar, and I can assure you that it is not consid-

ered a weed to these people.

It would appear that you have taken the unit forester's comments out of context when you ask the question, "If a poplar fell in a forest without someone to harvest it ... Would it still be a weed?" If there was no one to harvest the tree, the land would not be considered to be under cultivation; therefore, by definition the poplar would not be considered to be a weed. Although you may be surprised at my answer, I'm certain that all foresters would arrive at the same conclusion.

We are not, as you have portrayed us in your articles, "tree murderers". We are not members of the "Green Gestapo",

sending thousands of baby poplars to the gas chambers because of their race. We are dedicated professionals, whose love of the forest and, of life itself, can not be denied.

You argue (with Leopold's assistance) that we should not attempt to manage ecological systems unless we have perfect knowledge of those systems. Does this imply that a farmer should not grow food because he does not have a complete understanding of his impact on the ecosystem? Or does it imply that a physician should not attempt to treat patients until he has perfect knowledge of how the human body functions? I hardly think so!

We were not created with an innate knowledge of the universe. We have been destined to acquire knowledge during our daily struggle for life. With the exception of the very few

inspired geniuses in our society, this learning tends to occur through a process of trial and error. Yes, Bruce, foresters do make mistakes. But we also have approximately one hundred years of collective experience to back up our professional decisions and, to my knowledge, we haven't destroyed the boreal forest yet.

However, what is most disconcerting to me is not your ignorant attack on forest management per se, but your attack on technology proper. How can you possibly denounce the use of forest genetics at a time when a growing society is placing ever greater demands on a shrinking forested land base? Perhaps Ayn Rand has the answer when she describes the mind set of an ecological crusader:

*In confrontation with nature, their plea is: "Leave well enough alone." Do not upset the balance of*

*nature--do not disturb the birds, the forests, the swamps, the oceans--do not rock the boat (or even build one)--do not venture out--what was good enough for our anthropoid ancestors is good enough for us--adjust to the winds, the rains, the man-eating tigers, the malarial mosquitoes, the tsetse flies--do not rebel--do not anger the unknowable demons who rule it all.*

*In their cosmology, man is infinitely malleable, controllable and dispensable, nature is sacrosanct. It is only man--and his work, his achievement, his mind--that can be violated with impunity, while nature is not to be defiled by a single bridge or skyscraper.*

Rand, A. 1975. *The New Left: The Anti-Industrial Revolution*. The new American Library Inc. New York.

Yours truly,

George Daicos, R.P.F.



## LETTERS TO THE EDITOR - Responding to the Response

Right off I have to commend Mr. Daicos for taking the time to give balance to my comments found in ANEE, Vol. 17, No. 4: 30-31. It is through the process of involved committed writing that we can hope to educate towards sustaining our future - Mr. Daicos is certainly part of this trend. I should also thank him for taking me to task for creating the image of foresters being the "Green Gestapo" for this certainly was not my intention. I also found his letter informative, note the examples of the use of poplar by mills in Ontario.

While my slur on foresters was unintentional, my comments on technology proper were quite intentional and

rather than focussing on these, Mr. Daicos attempted to reduce them to insignificance with the aid of Ayn Rand. One cannot help but suspect that there must be something wrong with either the heart or the mind of the "ecological crusader" to impair them to the point that they would ever wish to suggest that there may be something not just more noble, but ecologically sane about choosing what is right for the entire ecological community rather than what merely is expedient for one species. I must admit being disappointed with Mr. Daicos, who while condemning me for the image I created of foresters, uses the term "ecological crusader" as if it is

something someone should be ashamed of. I also cannot help but wonder if anyone who disagrees with a professional forester is cast in the same derisive shadow as the subversive "ecological crusader". To make all decisions based on what is best only for humans is not only the worst kind of chauvinism, it implies a kind of arrogance that suggests as a species, humanity has a little growing up to do. Rather than curb our own insatiable desires for wood products, the first priority is to change the forest's ability to supply. If changing the forest's ability to supply our needs means changing the forests then so be it. One of the problems with genetic hybrids and the

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monoculture (one species) arrangements they are usually planted in is both the arrangement and the species itself usually require help in defence against insects and disease. The use of pesticides in agriculture and forestry will not diminish as a function of an increased dependence on hybrids. Thus the gains perceived in the use of hybrids may have hidden costs such as monetary, health as well as ecologic.

Ultimately one direction that we must pursue regardless of our various views of changing the nature of our forests is to reduce the demand society is placing on ecological systems. Recycling will no doubt play a very large role in this. People already speak of recycled paper as the "other forest". While I do not have any figures

to show how much of a difference these efforts would make to the amount of trees being harvested each year, I like to think that it would be substantial. I also like to think that given the choice, that humans would rather see paper being recycled than forests being converted from complex communities into wood farms or factories.

Lastly, while it would be right to suggest that I have a real link with poplar, Mr. Daicos has opened my eyes to a real concern. While attempting to present the idea that poplars should not be considered weeds I never really contemplated the idea of them as a "crop" either. Consider what our forests would become if scientists discovered a way to produce paper products just with poplar fi-

bres. Would foresters than have the mandate to see only poplar as the crop and all other trees as "weeds"? I see the spectre of a landscape devoid of weeds such as spruces, pines, maples, and oaks etc. as my worst nightmare. Should our concepts of how biotic communities are to be treated involve a sense of moral obligation to the community? Logic suggests the issue of morality is essential to the future of the forests. Definitions for forestry must be discovered reading the land rather than reading dictionaries.

Naturally Naive,

B. Murphy



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## Volunteers Needed

The Advisory Board wishes to establish a **Safety Committee** of two or three volunteers knowledgeable of and interested in this topic. The purposes of the Safety Committee would be:

- to review COEO's present insurance coverage;
- to review the COEO Code of Recommended Practices and recommend whether or not we should revise and reprint that document (now out of print);
- to liaise with Safety Committees of other organizations (e.g., OPHEA) and the Ministry of Education;
- to recommend COEO policies re Safety.

Please contact **Clarke Birchard**,<sup>1</sup> President, COEO, Bruce County Board of Education, Box 190, Chesley, ON N0G 1L0 if you would assist with these tasks.

# Tracking

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## ADVISORY BOARD REPORT

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At the annual general meeting at the Ontario Camp Leadership Centre, Bark Lake, a new advisory board was elected. You will see their names, addresses, phone numbers and offices listed on the inside front cover of this journal. We will do our best to guide the affairs of the Council for the coming year and maintain the high standards of organization and dedication set by previous Board members.

As I take over the presidency I would first like to pay tribute to Cathy Beach, the immediate past president, for her untiring efforts over the two years that she was president of the Council. There are very few that could match her degree of commitment, her superb organizational ability and her sheer hard work. Because of those qualities this year's Advisory Board is at least three months ahead of where we were last year in setting goals, a budget and the organizational structures to get things done.

At the annual conference one speaker was heard to say "There is always more to be done than can be done". I have noticed that that continues to be a problem for COEO and the Advisory Board. With such an energetic, positive and innovative group it is always more fun to create new projects than to finish old ones. This year we will try to focus on continuing valuable practices from the past such as the Journal and the Conference, we may drop one or two projects that no longer seem as important as they once did and we will try to initiate only as many new projects as can

be handled well.

In that third category look for a journal with a new title and a new appearance and format. Also, although we have not officially agreed on a "mission statement" (a popular practice in organization management these days), we do have the major goal of making COEO more financially stable and seek reliant and less dependent on government grants. To that end, the Advisory Board and other key leaders spent all of Saturday, October 22 involved in a very valuable and intensive workshop on financial management in volunteer organizations.

In the coming days you may hear from your regional representative or one of the committee chairs to ask for your assistance with a task. Please say yes; even better, call and volunteer.

On November 11 and 12 members of the Advisory Board met with the leaders of other organizations involved in Outdoor and Environmental Education and Recreation. These organizations will be sharing information about their goals and their services. We hope that this symposium will result in some new cooperative initiatives that will bring the education groups and the recreation groups closer together.

Many years ago my colleague, Peter Middleton, gave me a poster that remains over my desk which says "It's not the mountains ahead which get you down, it's the grains of sand in your shoe".

We have climbed many mountains together and come a long way in Outdoor Educa-

tion in Ontario in the last twenty years. Let's shake the grains of sand out of our shoes and keep on climbing together.

Clarke Birchard  
President

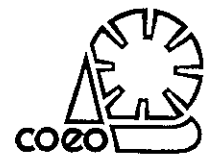
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## C.O.E.O. Detectives

*We Need YOUR Help!!*

The C.O.E.O. travelling display case has disappeared! How will people know what we are up to?? Anyone having any information as to its whereabouts are urged to contact:

BOB TAKADA  
COEO Task Force Member  
(h) 416-497-4816  
(w) 416-839-1146



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Creative writers and poets, warm up your pens and open your hearts. There is lots of room in **Pathways** for this kind of input. Discover the hidden writer in you and take to the path. Write!! It is the only way to make this journal YOUR pathway.

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# Survival Crafts: Making Cordage

Jerry Jordison

In the June/July issue of THE LEADER, I told you how the Hornepayne Scouts made wooden bowls at their fall camporee. While there, they also learned how to make rope from weeds, and that's what I'll describe this month, using the word "cordage" as a more general term for all rope-like materials.

To most people, rope is a common necessity manufactured by some secret method. It's difficult to believe you can make it with your own hands from what is available in nature. The Scouts found it relatively easy and enjoyable to make cordage from all kinds of plant fibre and it's a valuable skill to have if you are lost in the woods where you might need to bind together a shelter, or snare small animals or fish for food.

Hemp is most commonly used to make rope, but you don't find it easily in the wilderness and any plant will do. The adventure is to experiment with various weeds to see which are the strongest and most workable. I've found fireweed, evening primrose, dogbane, cedar and cattails very good, but I've also made cordage from yarrow, goldenrod, clover, vetches and grasses. The bark of cedar trees makes a medium strength soft cordage, and the bark of ash, aspen and willows also works well. Please use only fallen trees if you experiment with bark. Stripping bark from living trees will damage or kill them.

Most plants are best for cordage making when green but some, like cattail leaves, need to dry for a week or so to prevent shrinkage which makes the cord loose and weak. You'll want to experiment here, too, to find the most desirable state for the materials you use. You'll find most weed skeletons in the fall too dry and brittle. On the other hand, fall's dried grasses work well.

After you collect the plant you will use, the first step is to separate the fibre in it. Lay the plant on a smooth log and, using a rounded stick to avoid cutting the fibre, pound it gently along the length of the stem until the fibres begin to separate.

Some plants - golden rod, for example - have a soft pith in the centre you must remove. The pounding will break it down so most falls out, but you may have to give it some extra help by scraping it with a fingernail. A few plants, among them cattail leaves, need not be pounded before you twist them into cord.

The second step is to put two bundles of fibres together, either by folding a fibred stem in half or by tying together two stems. Anchor the pair at one end between rocks or by wedging it in a stick. You can even hold the end between your teeth and make cordage while you walk.

Start by twisting each strand or bundle of fibres in the same direction (e.g. counterclockwise), and roll between the fingers until the twist is tight. Then twist the two strands together in the opposite direction (clockwise). Continue until you have the length you want, then secure the end with a knot. Once you try it, you'll find how easy it is. You'll also be amazed at how well it stays together and how much your twisted weeds look like rope.

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Continued on page 8.



# The Joy of Failure

Skid Crease

The season is fast approaching when the canoes will be put into winter storage and the skis will be dusted off and base waxed in preparation for the first snowfalls. It brings mixed emotions, partly because I'll miss the wilderness waters, and partly because I failed on my skis last season.

Those who know me as a canoeing instructor will understand my plight with complete sympathy. I am in my element on the water, and I give my best in both demonstration and instruction skills. When you're as one with your canoe, it's easy to teach for success. Invariably, those who have difficulty during the course, or in attaining the various ORCA levels, come up with an amusing and creative variety of excuses, and I listen to them with the confident disdain of one who has never had to use any.

Well, canoe fans, take out those excuse sheets I've handed out for the last ten years, and modify them for skiing. If I ever snickered at your use of excuses, I take it all back. I used them all and more when I failed my Level II CANSI last season.

We had the best of instructors on our course - Rob Henderson, Clare Magee, and Jay Thibert - and reasonable conditions considering the winter we had. Regardless of snow conditions from ice crust to slush, these instructors performed their demo skills flawlessly, so we knew they weren't asking for the impossible. No problem, or so it seemed.

Looking back, I realize the excuses started when it became evident that I wasn't physically ready for Level II. Of course, I would never have admitted this at the time. It was easier then to blame the snow conditions, the wax, the long days, the long nights, and the long drives. When the new skills became frustrating, the old skills began to suffer. I got thoroughly ticked off with myself and stopped processing information. The excuses got more insidious with each passing day.

This, like all CANSI courses, was a blended skills/Instructor course, and I quickly rediscovered that direct connection between confident physical performance and positive instructor attitude. Shortly after the ability to perform the physical skills collapsed, the instructor skills went downhill. It was a truly humiliating experience, and I rose to the occasion with some marvellous excuses.

I even tried to play the "favourite instructor" trick by having my final teaching lesson marked by the person I felt would be most sympathetic to my situation. I did my lesson and blew it. I didn't need to ask for feedback. The excuses had stopped. At last, I looked at myself like the professional instructor that I was, and realized that I simply wasn't going to cut it on this course. The old motto of "Know Thyself" had finally surfaced.

I left the course feeling like I just wanted to ski for the fun of it again. I had decided that the difference between Level I and Level II was like the difference between pleasure skating and compulsory figures. I knew in the end that I was going to be a far better Level I CANSI instructor, and that I had an awful lot of future fine tuning to apply to my Level II skills and instruction before I ever attempted it again. I also realized how easy it is, even for a seasoned outdoor skills instructor, to fall into the ex-

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cuse trap. I gained a lot of humility and understanding through that experience.

It reinforced the concept that teaching skills and the ability to instruct through accurate detection and correction/reinforcement of successfully mastered skills, is dependent upon confident physical skills acquisition and analysis. Therefore, a structure that permits a physical skills consolidation course prior to an instructional skills course is far preferable.

It taught me that feedback during a course should be positive but ruthlessly honest at the same time. It is of no benefit at all to be told that you're steadily improving, and then be given a final evaluation that indicates your skills were weaker than when you started the course. Clear communication between instructors, and between instructors and participants, regarding skills standards and evaluation criteria is an essential ingredient of a successful course.

Most of all, it reinforced the crucial ingredient of learner responsibility. While the frustration level can be minimized by an honest and accurate instructor and a well structured course, the final success or failure is totally the ownership of the learner. No excuses.

Ah, the joy of failure - it can teach you a lot when approached realistically. This summer, I tried to apply all of this retrospective analysis to the canoeing skills course I ran. This time I smiled with empathy as participants chuckled through their excuse sheets; when you're all in the same boat, a little humility goes a long way.

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### **Survival Crafts: Making Cordage**

Continued from page 6.

To make long pieces of cordage from short pieces of plants, you have to splice it. Start with one of your two fibre bundles about 10 cm longer than the other. When you have about 8 cm left to go on the short bundle, take another bundle and start twisting it together with the first. As long as you step the splices, your cordage will be strong.

To make thicker, stronger rope, twist together two completed pieces of cordage in the same way. I found it exciting and challenging to twist together three pieces of two-stranded cordage to make a six-stranded rope that looks like the real thing. ...

Learning the skill of cordage-making can make wilderness hiking more interesting and safe. You never know when you may need it in a survival situation.

*Scouter Jerry Jordison is assistant leader with the Hornepayne Scouts, ON, and Scout Scott, his son, a member of the troop. Scouter Jordison read descriptions of cordage and bowl making in Tom Brown's Field Guide to Wilderness Survival, did his own experiments, and introduced the activities successfully to the Scouts.*

Reprinted with permission from THE LEADER, August/September, 1986.

# Challenge- Discovery Workshop, April 1988

Mike Laurence

Time was running out. The dreaded pygmy warriors with their poisonous blow-darts were only minutes away. Would we get everyone across the dangerous lava pit in time? This was only one of the challenges we faced on the weekend of April 22-24. Sixteen people from throughout Ontario gathered together for a Challenge-Discovery Instructor Training workshop. Our instructors were Mike Laurence and Donna Putman. The workshop took place at the Adventure Training Centre at Brock University. The Centre, operated by Brock's Department of Recreation and Leisure Studies, trains instructors in Adventure philosophy and skills. During the workshop, we used a ropes course, indoor climbing wall, and the Athletic Complex facilities. The ropes course is built in a forest on the edge of the Niagara Escarpment. Carefully planned paths leading to each activity protect the rich variety of wildflowers on the forest's floor. Hepatica and Dog-toothed Violets were blooming that weekend in the forest. We later learned that the Centre builds an awareness and respect for the environment into all of their programs. The Centre's public programs are used by schools, recreation groups, rehabilitation/therapy groups, and management teams.

We began Friday morning with deinhbitizers. After Flying Sock Tag, Rabid Nugget Name Game, and Impulse, we discussed and agreed upon a Full-Value Contract. This Contract outlines specific commitments for participants and instructors during the program. Trust falls and levitation started the afternoon off, with emphasis on safe spotting techniques. We were asked to present initiative problems the next day. In groups of three, we chose initiatives and discussed how we would present them.

On Saturday, we did warm-ups outside in the sleet and icy wind. Mike then presented us with an initiative. All discomfort forgotten, we listened closely to the gripping story, and then tried to do the initiative, technically known as Zig-Zag. We were successful. That initiative gave us motivation and practical guidance for our own presentations.

Later, we found that initiative presentation is not as easy as it looks. The scenario must cover seven criteria. The safety briefing must be complete, recognizing any possible hazards and noting the first aid kit location. The scenario and safety briefing were the easy parts. Spotting was trickier. The most difficult and challenging aspect of our initiative presentations was the debriefing. We had to make sense of the experience. What did we accomplish? How did we achieve goals? What skills and knowledge did we take away with us?

We did initiatives Saturday afternoon and Sunday morning. Sunday lunch was a hurried, quiet meal because everyone was cramming for the exam. We wrote the exam in the large gym. Mike orientated us to the environment before we say down. "Please leave any books or papers at the front of the room," he said solemnly. "Sit at a desk that has a paper at it. Write your name and student number at the top of the paper." He almost caught us on that one.

After the exam, we moved on to the high ropes and the



climbing wall. We used goal-setting in the form of a Personal Growth Contract. You decided what you wished to accomplish on the element, told the group, and requested the type of support you wanted. It worked quite well. Using the contract helped to put ropes into the role of a learning tool.

Highlights of the workshop were the inventive scenarios and the feeling of camaraderie that quickly developed over the weekend. "The mating yaks are getting closer to the edge of the precipice," warned one of our group during an initiative presentation on low cables. Debriefing sessions got easier and easier. Our last debriefing taught us a few things about ourselves. Two people had been given disabilities during the initiative. One was blindfolded: the other was asked not to talk. Chris and Jan, the two participants chosen, paired up during the activity. "He couldn't see, and I couldn't tell him where not to go," said Jan during the debriefing. Donna, our other instructor, saw something else. "You gave Chris disabilities he didn't have," she told us. "I saw people moving his arms and legs for him." This experience points to a useful application of initiatives - facing our usually unconscious behaviour towards people with perceived disabilities.

Approximately two-thirds of our group received course qualification for the Level I Instructor course. The rest of the group received course completion and were invited back to future workshops to practice their skills. We all left with some new ideas, a better understanding of group process, and a greater awareness of our own role within a group. It was certainly a worthwhile course.

Mike Laurence  
Director, Adventure Training Centre  
Department of Recreation and Leisure Studies  
Brock University  
St. Catharines, ON L2S 3A1  
(416) 688-5550, ext. 3120

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## **Snowshoe Harnesses For Sale:**

The Waterloo County Board of Education, Outdoor Education Department has class sets of "used" leather snowshoe harnesses for sale.

Used harnesses may only be ordered in sets of 15 at a cost of \$75.00 per set.

Send requests to: Dennis Wendland  
c/o Blair Outdoor Education Centre  
R.R. # 33  
Cambridge, ON N3H 4R8

# Urban Fisheries for the Classroom

Deborah Martin-Downs  
Urban Fisheries Biologist  
Ministry of Natural Resources

Fish in the city are not a new thing - on the contrary, fish and Toronto city dwellers have been sharing the same waters since the late 1700s. While we city dwellers have definitely been getting the upper hand on our finned friends since then, many of them have continued to exist in spite of us.

Fish in the urban area face a number of insults including garbage in the water, severe floods, removal of habitat particularly through channelization, dams, burial of stream sections or whole streams, removal of stream side vegetation and water quality deterioration resulting from such things as sewer discharges, erosion, illegal inputs, road salt and snow dumps.

Nevertheless many species prevail in Lake Ontario and in the rivers and ponds in the Toronto area - but that fact surprises many people. Often our perception is that water with pollution concerns cannot support fish. While this may be true in some cases, it is not the usual case in our local waters.

To change this, the Ministry of Natural Resources, in conjunction with other interested agencies, has begun an Urban Fisheries Program aimed at increasing

- 1 the level of participation in urban fishing,
- 2 the awareness of local residents of the fisheries resource at their doorstep, and
- 3 the efforts towards aquatic rehabilitation.

The rationale behind this program is that an informed public interested in fish and/or fishing will work to protect those waters.

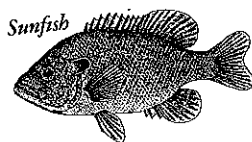
While fishing may be viewed as a consumptive or destructive activity by some, it, in reality, has the potential to create new conservationists. Through fishing, we begin to understand what fish habitat is, fish behaviour, the foods of different fishes, the different types of waters and water quality, water flow, and perhaps more importantly, respect for a resource that we enjoy. As with many new initiatives, this program will have its greatest impact on children, and therefore the program is primarily directed at them. Fishing may be an interest that the kids already have which is readily adapted to a learning situation and hands-on outdoor education programs are ideal vehicles for this.

Urban fisheries and waters provide resources for three major educational topics:

- 1 ecology
- 2 man's influence on the environment, and
- 3 ethics or environmental conscience.

## Ecology

Fish and fishing start kids thinking about the water. Water is no longer just there; under the surface is a whole different world of living creatures. There are different types of waters: large lakes such as Lake Ontario that are deep, cold and clear with low productivity; small ponds that are warm, productive and perhaps a little murky; and streams and rivers which may be small or large, cold or warm, rapidly flowing or slow. Each offers water conditions and habitat that are best suited to certain kinds of



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fishes. Each also supports other organisms that are essential in the functioning of the ecosystem. It is important to understand the relationships between organisms; the support organisms, be they plants, insects or other fish, are essential to the development and maintenance of the sport fish which fishermen seek. The sport fish may be at the top of the food chain or they may just be a link in it. Bass and pike are examples of top predators, while other sport fish, such as sunfish and catfish, are links in the chain.

## ***Man's Influence***



Studies in the urban environment allow students to view a variety of influences that man has on our water bodies - dams, sewer outfalls, garbage, concrete channels, streams in pipes, snow dumps, extreme plant growth, shoreline restructuring, sediment in the water often from construction, major floods, and possibly chemical spills. I am reluctant to use the word 'pollution' even in this context for it is one of the most abused and misunderstood words of this century. Pollution is a concept that few adults can understand no less children. As an example, I recently asked a group of school children what colour the water in a fish tank was. Instead of seeing that it was green they replied that it was polluted. When we clarified that polluted was not a colour, I asked them what might have caused the water to be green, they again replied pollution instead of plants. When pressed for the answer they knew the cause but were really incapable of understanding what pollution really is.

However, outdoor studies may help correct that problem when students can connect cause and effect through observation. If given the opportunity to view a fairly natural stream and describe its components and then go to a very urbanized stream and do the same, the cause/effects may become very apparent to them. By the same method, the students may also be encouraged to view urbanized streams that have not been altered substantially by man - at least physically - and prepare a list of similarities. In this way perhaps they will be able to understand why fish can still live there. During certain times of the year, usually spring and fall when spawning runs of fish are on, fish in the rivers are very apparent and again vividly demonstrates to students that there are organisms in the water that require protection.

## ***Ethics***

Fishermen and ethics or environmental conscience should be particularly closely bound. The fisherman has an added responsibility to protect the resource for they use it, usually selectively, and therefore may exert a direct impact. For example, fishermen who fish out of season for a particular species may exert a significant impact on the reproductive success of that species each year. Size limits and limits to the number of fish caught are necessary to ensure the continued production of the species. Fishermen who take more than their limit may eventually de-

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plete a population.

Fishermen are quick to form opinions about 'desirable' and 'undesirable' fish to the extent that the 'undesirables' are often treated less than fairly. 'Desirable' is another term that I don't use. **There is no such thing as a bad fish.** Through your ecological studies you will see that each organism plays a role - the young of one species may be the food of another. A fisherman who mindlessly tosses a sunfish, chub or catfish onto the bank may be doing his 'desirable' bass more harm than good. In addition, what is 'undesirable' to one fisherman may be desirable to another. Children do not start their fishing careers with these preconceived notions of good and bad. They are picked up from other anglers - fathers, brothers, grandfathers. Left to their own devices, a child is thrilled with catching anything and no matter how big or small. While all fishermen graduate from catching anything to seeking certain species of larger sizes, they should not forget that there are still generations behind them who will treasure their first sunfish.

### ***Activities for Teachers***

Fishing related activities are provided in some resource education packages such as the Resource Kit published by the Ministry of Natural Resources.

Some examples of activities include:

- 1 Building fish habitat. Make field visits to local streams observing components of habitat. Back in the classroom reconstruct habitats in a cardboard box.
- 2 Prepare for a fishing trip. Learn about your waters to be fished, the kind of fish that might be there, what they eat, the rules and regulations for those waters, whether you can eat the fish (Guide to Eating Ontario Sport Fish), etc.
- 3 Prepare a tackle box for your fishing trip with appropriate baits for your fishes.
- 4 Have a local fishing expert relate habitat, fish bait and fishing at a local fishing hole. Maybe the students can try their own hand.
- 5 Pose moral and ethical situations to the students and have them discuss their viewpoints.

For further information contact:  
The Ministry of Natural Resources  
Maple District Office  
10401 Dufferin Street  
Maple, ON L0J 1E0  
(416) 832-2761, ext. 355

# Science - Social Studies - E.E. Action Program Search

As a part of a doctoral study, I am looking for examples of educational practitioners/teachers who, as a part of their instructional program, have guided and empowered students to engage in a group action project and/or program. Examples of the **group action** might be the outgrowth of gathering data on a site or subject (e.g., stream studies), and then using the data to change a problem condition(s) in the community, carrying out group wildlife habitat improvement projects, changing school or community policy, law and/or practice in order to improve environmental conditions. While I am interested in all teachers using action elements in teaching, I am particularly interested in identifying educators who have made '**group action**' part of their instructional program for **three or more** years.

As an experienced leader in implementing environmental education programs, I would appreciate your referral of teachers you may know who regularly are involved in such action program components: I need their:

Name: \_\_\_\_\_  
Address: \_\_\_\_\_  
City: \_\_\_\_\_ State: \_\_\_\_\_ Zip: \_\_\_\_\_  
Phone No: \_\_\_\_\_  
School: \_\_\_\_\_  
Subject(s) Taught: \_\_\_\_\_  
Grade Level(s): \_\_\_\_\_

**Brief description of group action program:**

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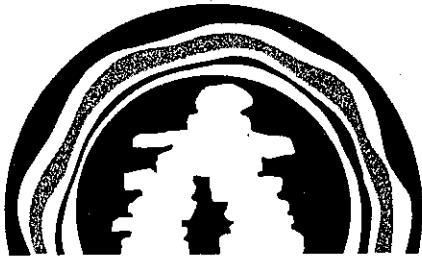
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I will include them in my study based on your recommendation and my follow-up communications with them. Thanks for your assistance.

Bill Hammond  
Director, Env. Educ./I.D.S.  
5456 Parker Drive  
Fort Myers, FL 33919



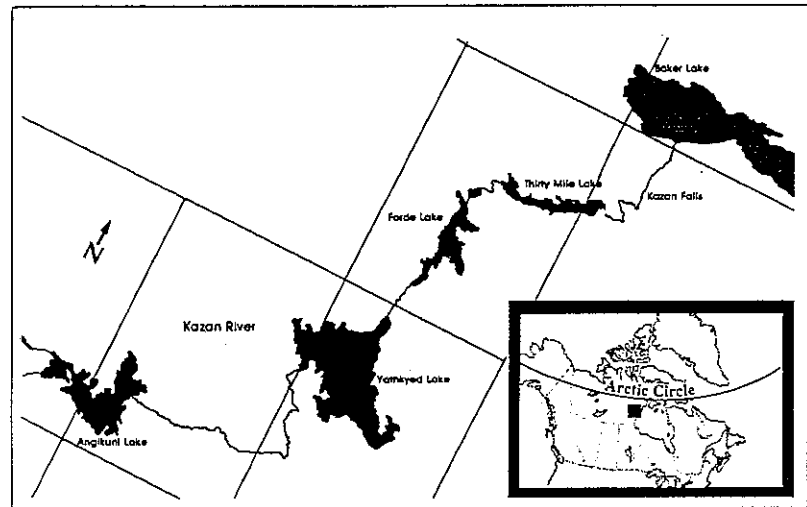


# Operation Raleigh Canadian Arctic Expedition

Expedition Leader:  
David Pelly

Chief Scientist:  
Chris Hanks

The following excerpts are taken with permission directly from the Operation Raleigh Canadian Arctic Expedition 1988 Summary.



Operation Raleigh's Canadian Arctic Expedition was conducted on the Kazan River in the Keewatin Region of Canada's Northwest Territories in July and August 1988. Operation Raleigh was a four-year around-world-expedition in three month phases, that coincided with the 400th anniversary of Sir Walter Raleigh's circumnavigation of the globe. Based in England, this huge international initiative for science and community service had phases in approximately 40 different countries spanning the period October 1984 to April 1989. Participants, or venturers, age 17-24, were chosen from eleven different countries for the Canadian Arctic Expedition.

The Canadian Arctic Expedition was a seven-week, 500 kilometre canoe expedition down the Kazan River, during which a variety of scientific projects was conducted, with an archaeological survey of the river being of primary importance. Prior to the actual river portion of the expedition, venturers spent one month in intensive scientific orientation and survival training at Moorelands Camp and Trent University in southern Ontario. While on the river, 24 venturers from 11 different countries, 4 scientists and 4 group leaders travelled in four independent groups to minimize environmental impact and to maximize the amount and quality of scientific data collected.

## Scientific Projects

Six distinct scientific projects were conducted by the Canadian Arctic Expedition, - each one an important and complete study in itself. But a noteworthy aspect - with the potential for lasting impact on scientific work in the North - is the multidisciplinary approach to field work and analysis. Not only did all members of the expedition participate in all the scientific projects, the studies themselves were designed to support one another. The information collected and the resulting analysis from

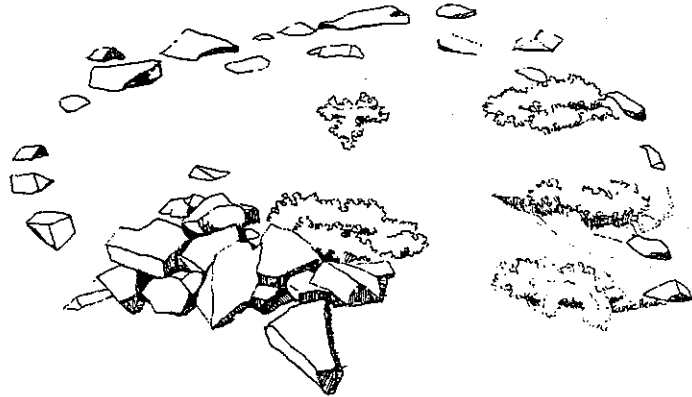
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all the studies are interdependent. In this context, for example, the anthropological research includes consideration of climatic factors, which in turn have determined the historical movement of the treeline. The Canadian Arctic Expedition's approach to the scientific work recognized this interdependence and the results are therefore all the more significant.

These results were achieved by a team of lay volunteers, albeit with limited professional supervision, but with enthusiasm and care that would be hard to exceed.

### Archaeological Survey of the Kazan Valley

A systematic walking survey of the lower Kazan River was conducted for the first time. In addition to shoreline survey, selected interior regions up to 10 kilometres inland from the river were also walked, providing comparative settlement data between inland and river-edge environments to be analyzed by archaeologist Andrew Stewart. The majority of the evidence found relates to Caribou Inuit habitation since the mid-19th century. Virtually every habitable section of the river bank and rocky upland had some evidence of use. The expedition discovered approximately 250 distinct archaeological sites containing at least 600 tent rings, even more meat caches, and many fire hearths, graves, hunting blinds, kayak stands and inuksuks. These features were mapped, photographed and sketched.



### Breeding Bird Atlas for the Northwest Territories

The expedition, under the supervision of biologist Judith Kennedy, identified 54 species out of a possible 66 tundra species which one might expect to see in the Northwest Territories. This list includes snowy owls, northern harriers, peregrine falcons, rough-legged hawks and sandhill cranes. Of the 54 species recorded, breeding was confirmed for 32, including peregrine falcons, rough-legged hawks and sandhill cranes.

Some species, for example northern flicker, were confirmed not by live bird sightings but by feathers and remains on the ground left by animals and birds of prey. Some species not normally found in this region, according to the distribution maps in accepted bird books, were identified such as white-winged scoters, black scoters, and northern harriers.



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- **Modern Pollen Content of Barrenland Lake Sediments**

- **Study of Treeline Position and Stability in the Kazan River Valley**

- **Wild Flower Collection**



### **Mammal Sightings**

All wildlife sightings were carefully noted with date, position (UTM), habitat, observations of the animal's physical characteristics and behaviour. This information was recorded for the Northwest Territories Department of Renewable Resources for inclusion in the catalogues of the animals of the Kazan area.

**Caribou:** Very conservative estimates put the number of animals seen at at least 30,000. The most impressive sighting was a 3-day flow of caribou on the east side of Yathkyed Lake. The expedition also saw singles, small groups, and larger herds of 500-1000 beside the river downstream from Yathkyed Lake.

**Muskoxen:** Muskoxen were sighted on 22 occasions for a total of 60 animals. Of these 1/4 were calves.

**Wolves:** 8 sightings in total. 10 animals in all. There was one confirmed sighting of an active wolf den with she-wolf and cubs, and one unconfirmed sighting of a wolf den not in current use. Colour of these animals varied from creamy grey with brown tinges to pure white. Two wolves were sighted in amongst caribou herds.

**Foxes:** Five sightings for a total of 5 animals ranging in colour from pale fawn to chocolate brown. One active fox den was found.

**Arctic Hares:** 4 animals sighted.

**Incidental sightings:** Arctic Ground Squirrels, a weasel, fresh barrenground grizzly bear tracks, and moose tracks.



# Personal Responsibility

HARMONY, AUGUST 88  
 Newsletter of Harmony  
 Foundation of Canada  
 19 Oakvale Avenue  
 Ottawa, ON K1Y 3S3

Jacqueline Munroe

Global environmental crises dominate today's headlines and news broadcasts. From the sounds of it, our world is in BIG TROUBLE. Heads of States are fencing over acid rain while ozone layer depletion accelerates; the greenhouse effect is raising climatic temperatures; wetlands are being drained; forests are being devastated; deserts advance; and new species are added daily to the endangered or extinct lists. Meanwhile, worldwide population continues to increase, food sources decrease, and toxic and non-biodegradable garbage from industries and individuals threatens to poison and bury the land. The fruits of generations of indifference threaten us with disaster.

Most of us are paralyzed by the overwhelming complexity of the situation. Historically, contamination of our water, soil and air, along with atmospheric disturbances, were all blamed on big, bad, industry. Although people were vaguely aware that something was amiss, most felt helpless to produce any change. They waited for governments and big business to solve all the problems, to fix whatever was wrong. Their concern, though genuine, was passive and impersonal.

But concern without action is misplaced and nonproductive. Today many people are asking what they can do, personally, to minimize those habits which are damaging the environment. They seek ways to take more responsibility for their own actions to safeguard this endangered planet Earth. But it's all so mind-boggling; where to begin?

The logical place to start is at the centre, our homes, where the examples of environmental abuse are numerous. The very cleaners we use domestically are frequently part of the environmental problem. Chemicals which are poisonous, or 'harmful if taken internally', are hazardous to people and their surroundings. Many of these harsh chemicals contain persistent organic compounds which release poisonous vapours. When disposed of in garbage landfills, their toxins leak and evaporate, contaminating the land, water and atmosphere. They eventually migrate back into our bodies.

A constructive policy is to avoid poisonous substances for cleaning and polishing. There are safe alternatives such as biodegradable soaps instead of detergents, and organic waxes and polishes rather than chemical ones. Avoid products with "DANGER!" labels, for they are also dangerous to the environment.

Biocides (insecticides, pesticides, and herbicides) are in the same category as the above, only more so. It has been demonstrated that physical and chemical violence to the natural world inevitably comes back to haunt us. We can find non-violent and non-hazardous alternatives to these 'cides' which will rid our homes and gardens of unwelcome or damaging pests and weeds.

Aerosols should be phased out of our daily lives. In addition to polluting the atmosphere with their propellants and contributing to ozone layer depletion, these cans explode and release dangerous gases when incinerated.

When purchasing food for the home, we can keep environmental benefits in mind both in the packaging and source of the

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produce. Whenever possible we should buy fresh foods, produced locally. This eliminates long distance transport, which pollutes the air and aids to the heating of the environment. It also reduces our exposure to chemical preservatives used to maintain freshness during lengthy transport, while enabling us to support our local growers. Rule of thumb: buy locally!

Packaging of food for consumption, be it fast foods or supermarket varieties, is an area in which we can have a positive effect by exercising the power of our purse strings or wallets. Over-packaging is a national pastime, and at least one-tenth of our average weekly shopping bill is for material which winds up in the garbage as soon as we get it home. Food rarely needs more than one or two layers of wrap, yet many luxury foods such as gift chocolates have up to seven layers to plow through before you reach anything edible. Best answer: buy bulk!

Whenever possible, we should avoid plastic containers and items which are not recyclable. Many complex plastics do not decompose naturally and are extremely hard to incinerate, due to toxic fumes and resistance to burning. Better to buy glass, metal and paper products which are recyclable. While we're at it, let's refuse the unneeded plastic and paper bags foisted upon us by retailers as we leave their shops. We will reduce the garbage overload on our communities by remembering that the less packaging we buy, the less we have to dispose of at home.

These are only a few examples of areas in which we can do something to contribute to our environment's health. The global overview of crises may be overwhelming; a close look around our homes and communities might dishearten us with the sheer magnitude of problem areas. However, with new awareness comes the desire to change those personal habits which have been detrimental to the environment, and change begins at home.

Moderation and simplicity will give us direction toward achieving greater environmental harmony. With new understandings of various causes and effects, we can change one or two things daily in our lives, beginning with not littering and being aware of the colour of the sky, the scent of trees and flowers, and the beauty and grace of other animals. As we learn healthier habits and assume personal responsibility for our actions, our sense of well-being will increase accordingly. Deliberately minimizing our negative impact on the environment is an important goal for each of us, not only for our own sake, and the sake of our world, but for that of the future.



Reprinted with permission from HARMONY, August 88.



# Explorations

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## ON LEARNING HOW TO MAKE GOOD BEER

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A long time ago a happy drinker asked a brewmaster how he made such good beer. He replied that he didn't know what he was doing, but it must be something right.

Outdoor educators are a little like the brewmaster. Much of what we do looks good and feels good. Our students seem to learn important lessons and they do enjoy their work with us. But in truth we have little idea of how and why it all works even though we believe we're doing something right.

The purpose of **Explorations** is to describe the discoveries being made which could improve our ability to answer the brewmaster question. Outdoor educators are not always able to articulate their convictions and their knowledge in terms which others can understand and appreciate. One of the great benefits of research made sensible to practitioners is to allow us to give effective answers to questions about what we are doing.

There is another great benefit. We could do better. Factors like continued environmental degradation and limited opportunities for persons of all ages to benefit from outdoor education suggest there is much more than could be done in our field. One of the fruits of research is the knowledge and insights to stimulate our creativity and to help us to do better in terms of both quality and quantity.

Furthermore, research provides a special kind of support in times of uncertainty. That support comes from the knowledge that what we do is valid, and

that the problems are being studied.

Have you noticed how cunningly I introduced that R word, research? Research doesn't have to be scary and off-putting because of connotations of difficulty, obscurity and irrelevance. **Explorations**, with the participation of readers, will make research much more accessible, even interesting and exciting to everyone of us.

Remember the brewmaster: there would be a lot more bad beer around today if, over the years, brewmasters had not paid attention to the relevant explorations of researchers. (I thought I heard someone mutter that there is no such thing as bad beer. Oh well, every analogy has its weakness.) It might help to think of research as a disciplined form of inquiry, a disciplined way of exploring questions and uncovering new knowledge and new relationships.

Outdoor educators often work with the concepts of science. Yet, the most important aspect of our work is the human dimension. It is encouraging to realize that research is not necessarily scientific. Science provides an excellent and powerful discipline for exploring the world. It is not the only one, however. On this page, all explorations relevant to outdoor education will be included, whatever their disciplinary base.

In a similar way, it is helpful to recognize that not all valuable research is done by highly financed, highly technical, highly qualified academics. Some is uncomplicated, inexpensive, and performed by interested,

caring and curious but otherwise ordinary mortals. A lovely example was given by Milton McClaren at the COEO Annual Conference, 1988, when he gave the results of his survey of the characteristics most sought after by employers as indicated in their "help wanted" ads. **Explorations** will pay attention to all useful findings regardless of the grandeur of their source.

Research is responsible for generating new facts. It also shows us new ways of looking at the world and new patterns for organizing known facts. Researchers often develop critical points of view that improve understanding and appreciation of programs and teaching practices.

**Explorations** will include all types of research that bear on outdoor education.

Donald Schön has written several books about the importance of reflection in professional practice. One of his central points is that a reflective practitioner who sees problems as opportunities and who constructively reflects on actions is in fact a researcher. Such practitioners generate entirely novel insights and important knowledge almost without realizing it. Schön's book, *The Reflective Practitioner*, (Basic Books) is not light reading, but it is a major contribution to understanding thoughtful professional practice. I recommend it to any teacher ready to consider exploration in the research realm.

**Explorations** needs responses from you. What puzzles you out there? What

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Continued on page 22.

# On the Land

## ENVIRONMENTAL UPDATE

Welcome to the *Environmental Update* column of your journal! The purpose of this column is to provide you with encapsulated information on current environmental issues and advances in environmental stewardship. It is my intent to focus on matters that are likely of immediate interest to your students. I invite you to share in future columns by doing one or both of the following:

- Send me a short description of an issue or advance that you would like to see published in a subsequent issue of this journal.
- If you or your students have a question of current interest for which you cannot find an answer, send the question to me and I will try to answer it in the next issue of this journal.

### ***Tritium: A Hot Topic***

Tritium is a radioactive isotope of hydrogen that has a half-life of 12.3 years. That is, a sample will lose half its radioactivity in 12.3 years, half of what remains in the next 12.3 years, and so on. Though only tiny amounts of tritium occur naturally, this isotope is readily produced as a by-product in nuclear reactors.

Tritium is used as a radioactive agent in luminous paints for non-powered illuminating devices such as emergency lights at helicopter pads. It is also used as a tracer in the diagnosis of certain diseases and in medical research. Further, more and more of it will be used as research on fusion energy accelerates over the next two or three decades. Unfortunately, tritium is also used to make nuclear (hydrogen)

bombs.

Recently Ontario Hydro has decided to separate tritium from heavy water at the Darlington Nuclear Station near Bowmanville. Trucks have already moved some of the radioactive material from the Pickering Nuclear Station to Darlington and, within two years, trucks will be moving it across Ontario from the Bruce Nuclear Station. Should an accident occur, close to 10 000 L of tritium-bearing heavy water could be dumped on the road. Crops, wildlife, plants, and drinking water could be contaminated.

Ontario Hydro has a debt of over \$25 000 000 000. Tritium currently sells for \$15 000 per gram. The Darlington plant will eventually isolate 2500 g of tritium per year, resulting in an income of about \$40 000 000 to help defray the large debt. The Provincial government and Ontario Hydro say they will only sell tritium for peaceful purposes.

However, opponents of the sale of tritium argue that, if it were sold to the United States for peaceful purposes, the United States could then divert tritium from other sources to the manufacturing of weapons.

*What should we do? What do you advocate? What do your students feel about this issue? A risk/benefit analysis is the best way to deal with such controversial topics.*

### ***Foam Cups and the Ozone Layer***

Most people know that the making of plastic cups has an adverse effect on the ozone layer. However, only certain

plastic cups are involved. If a piece of the cup crumbles into small pieces when it is crushed, this cup was not made by a process that affects the ozone layer. If, on the other hand, the piece of cup bends, stretches, and compresses easily, without breaking, it was likely made by a process that damages the ozone layer.

The "foamy" plastic from which these cups are made was blown full of insulating spaces with the use of CFCs (chlorofluorocarbons). After these compounds have foamed the plastic, they rise into the upper atmosphere. Chlorine atoms are released from the CFCs and they react with the ozone through a chain reaction so efficient that one chlorine atom can result in the destruction of thousands of ozone molecules.

Ozones help screen the earth from ultraviolet radiation that can damage plant and animal life and cause skin cancer in humans. In the extreme, food and forest crops could be seriously depleted.

Plastic cups are just the tip of the problem. Even including foamed food containers, they account for only about 2% of the CFCs released into the atmosphere. Much of the rest is coolant released from refrigerators, air conditioners, and freezers. If you have the coolant fluid changed in your car air conditioner, the old coolant escapes to affect the ozone layer. When refrigerators, air conditioners, and cars with air conditioners are crushed at the wreckers, CFCs escape.

*What is the solution to this problem? What can your students do today to lessen CFC*

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release? What can they do in the future? Have a discussion with your class.

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### **Ducks in Decline**

I suspect most of you are quite familiar with the highly successful and educational activity-based program called "Project Wild". Recently I attended a workshop in Saskatchewan on "Aquatic Project Wild" which the Canadian Wildlife Federation is in the process of adapting for use in Canadian schools. During part of this workshop, we were exposed to a table that listed on one side the factors that help increase duck population numbers in an ecosystem and on the other, the factors that help decrease duck population numbers. On the latter side, along with insufficient food and habitat destruction, was a factor called **illegal hunting**. Being the curious type, I asked if that should not simply be "hunting". After all, a duck is dead and the population number has been affected whether or not it was shot legally or illegally. The workshop leader replied (and this is a direct quote): "No; it is generally recognized by wildlife biologists that legal hunting has no impact on duck populations".

Mallard ducks have declined 43% below the 1965-1987 average. In fact, they declined 25% in the last year. Pintails are down 80% below the 1961-1987 average and down 50% from last year. Blue-winged teal, canvas-back, and redhead numbers have also plunged dangerously in the last few years. Consumptive users of ducks tend to at-

tribute this decline to habitat destruction.

Though I am not a biologist, I know that it takes ducks to make ducks. (I grew up on a farm.) I visited several wetlands in Saskatchewan this summer and found "empty habitats" where I had seen ducks, and photographed them, on earlier visits. Where are they now? Clearly, if there is reduced habitat, there will be reduced duck numbers. But surely the recent decline is far out of proportion to the rate of habitat decline, even taking into consideration the dry summer this year.

*Has illegal hunting increased? Could legal hunting be a factor in the decline? Is habitat vanishing at an unimaginable rate? What can we do NOW and in the future to help the ducks?*

Have your students ask these questions of the Ministry of Natural Resources, the Canadian Wildlife Service, the Ontario Federation of Anglers and Hunters, the Canadian Wildlife Federation, Ducks Unlimited and other organizations which care about duck numbers. They could even ask me. I care.

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### **Rain Forest Fires Threaten Global Ecology**

Each year an area of the Amazon rain forest as large as southern Ontario is burned, largely to create agricultural land. However, the resultant soil usually becomes infertile in a few years and new forested areas must be burned to get more farmland. U.S. satellite photographs show that nearly 20 000 000 ha (50 000 000 acres) were burned

in 1987. The smoke is so dense and extensive that clear photographs of the rain forest topography can no longer be taken from space.

Now scientists are beginning to realize that these massive fires cause more than tree loss and soil damage. The carbon dioxide from the burning is likely to make a significant contribution to the global greenhouse effect, thereby changing the world's climate. Further, evidence is beginning to suggest that long-term burning can also disrupt atmospheric layers like the ozone shield which protects life on earth from ultraviolet light.

*Why do peasants burn the trees? What must be done to stop this burning? Is there any connection between OUR lifestyles and the burning of the rain forest? What is meant by the term "the hamburger connection?" Have your students research and comment on these questions.*



W.A. Andrews

Faculty of Education  
University of Toronto

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### **Explorations**

Continued from page 20.

are the niggling questions that won't go away? What research have you done (or read) that you could tell us about? Who are the good people to ask to contribute? How can we make better beer?

*Bert Horwood teaches at Queen's University, Faculty of Education in both undergraduate and graduate programs emphasizing outdoor and experiential education.*



# Reading the Trail

## BOOKREVIEWS

Lopez, B. (1988). **Crossing Open Ground**. New York: Scribners Sons.

These are not books, lumps of lifeless paper but minds alive on the shelves. From each of them goes out its own voice, as inaudible as the streams of sound conveyed day and night by electric waves beyond the range of our physical hearing; and just as the touch of a button on our set will fill the room with music, so, by taking down one of these volumes and opening it, one can call into range the far distant voice in time and space, and hear it speaking to us, mind to mind, heart to heart. (Gilbert Highet, cited by Lopez, 1988:169).

This not only is a great quote to begin this particular book review but it hopefully will set the tone for future entries in this column. Lopez excels in talking to the reader heart to heart. He left me repeating some of his words and thoughts long after putting the book down. Lopez has a real flair for bringing the reader into the action of his narrative, when it came time to close the book I had the feeling of knowing him; this identification with the Author and the subject is bound to have an effect on any reader.

**Crossing Open Ground** is a book that lets one experience several different habitats and landscapes, words Lopez does not use lightly. Lopez explains that studying the landscape is a study of interrelationships, whereas studying the land is an exercise in learning the name of things:

one learns a landscape finally not by knowing the name or identity of everything in it, but by perceiving the relationships in it -- like that between the sparrow and the twig. (Lopez, 1988:64)

This reveals a real theme for

Lopez, who trained as a biologist identifies a need to see the environment not just as discrete taxonomical units but rather as a "landscape" a complex whole that is difficult (and perhaps undesirable) to understand in any other terms. This is something of consequence for outdoor educators to consider when walking with students through forest and field. Lopez sounds like he has grappled with this issue when he writes in a chapter titled "Children in the woods"

"In the beginning years ago I think I said too much. I spoke an encyclopedic knowledge of the names of plants or the names of birds passing through in season. Gradually I came to say less. In speaking with children who might one day take a permanent interest in natural history - as writers, as scientists, as filmmakers as anthropologists - I have sensed that an extrapolation from a single fragment of the whole is the most invigorating experience I can share with them. I think children know that nearly anyone can learn the names of things: the impression made on them at this level is fleeting. What takes a lifetime to learn they comprehend, is the existence and substance of the myriad relationships: it is these relationships, not the things themselves, that ultimately hold the imagination (Lopez, 1988:148).

This book will have appeal to a wide audience because of the wide variety of habitats and interests Lopez shares. He moves the reader easily from the border of Alaska and the Yukon to the Grand Canyon. He relates the frustration and emotion felt by individuals who responded to a massive whale beaching as easily as he brings history to life while writing about his adventures with

anthropologists. Lopez probes the conscience of scientists involved in environmental assessments for oil companies as comfortably as he describes the first moment of seeing a stone horse transformed into rock by the Quechan Indians of southern California. In short, he is a story teller with an ecological message that will sharpen your vision of the world we wish to relate as educators and concerned humans.

A story that I found intriguing and optimistic is that of a refuge manager at Tule Lake National Wildlife Refuge in northern California. The refuge itself has been diminished due to various pressures to fifty-six square miles (2 per cent of its original area) despite this Lopez describes the refuge as the site of "one of the most imposing and dependable wildlife spectacles in the world" (pg. 21). The spectacle is provided by the arrival of white geese and other waterfowl on their migration. The ecological tone is provided by a visit to the refuge by some Inuit from Alaska. The effect on the Inuit was that someone was fooling them by bringing so many geese in one place. The effect on the manager was brought home when he took a visit to Alaska to gain a sense of what the geese really mean to the Inuit. This knowledge only gained through an understanding of the "landscape" of the geese and the Inuit gave the manager the sense that if he failed as a refuge manager his failure would effect an

Continued on page 24.

# In the Field

## "DO YOU WORK AT A CENTRE"

"Do you work at a centre"? This is often heard at COEO gatherings as an introductory question. Implicit in the question is the suggestion that, "most people here do, so we can assume you do as well". If this proves to be true, that is, that the questioned individual is employed by one of Ontario's many Outdoor Education centres, then the conversation has a fixed starting point and progresses with ease. Continued dialogue might include the description of the physical setting, its buildings, the landscape; the strengths and weakness of the site; the curriculum focus of the centre, whether historical-adventure-field studies or a focused general approach; the troubles facing the centre, whether that be encroaching urban development - need for in-service teacher training - lack of board of education commitment, i.e. funding; the exciting new developments at the site, new staff - new curriculum ideas; or a favourite lesson plan and something truly unique about "our" centre.

Whether the initiator of the conversation with that most appropriate COEO opener "Do you work at a centre" happens to work at one themselves hardly matters in terms of the keenness factor. For those who work at centres, the dialogue is a sharing session - it may be joyous ideas sharing or a gripe session or a burnt out sympathetic ear. Whatever it might be (usually a bit of all of this) it is always interesting and valued. This is largely what conference gatherings are all about. But if the questioner is not a centre employee, it doesn't matter.

Non-centre Outdoor Educationists are fascinated by the variety and apparent multitude of Outdoor Education centres in Ontario. There are day-use and residential centres, urban-rural and bush centres, conservation authority-school board and privately owned centres. The amount of learning to sort all this out seems endless.

The number of quality ideas coming out of these centres is also endless and the number of questions and general interest in the above is synergistic. How do they use the grand estate setting at Boyd? How is encroaching urban growth built into Lake St. George Centre's curriculum? What do they do with a quality winter at Kingfisher? How is Sunship Earth at Wanakita received? Will they introduce Earth Keepers? Does Ganaraska use their incredible woodlot for Orienteering? What is Halton Board's latest thoughts regarding seeking a centre location? Could centres on the Bruce Trail co-ordinate a massive clean-up day? Have they done this already? How did the long established centres like Toronto Island Centre or Macskimming start up?

Conferences are not the only vehicle for this sort of inquiry. The **In the Field** column of **Pathways** is meant to be a valuable resource for Outdoor Educators concerned about a day in the life of "YOUR" centre.

This column has great potential as a communication link, for new ideas, clearing up confusion, voicing concerns, calling for feedback. YOU name it. There are enough

topic ideas in this first entry alone to cover three years of columns. So ... "do you work at a centre?"



### Reading the Trail

Continued from page 23.

entire continent. This sentiment echoes the motto "think globally, act locally" and is at the heart of this book.

I would like to leave the reader the way Lopez does with a great deal of optimism for the future:

At dinner he said he wanted to tell me of the Dostavarderplssen in Holland. It has become a major stop over for waterfowl in northern Europe, a marsh that didn't even exist ten years ago. Birds hardly anyone had seen in Holland since the time of Napoleon are there now, peregrine falcons, snowy egrets and European sea eagles have returned.

I drive away from the escarpment holding tenaciously to this image of reparation. (Lopez, 1988:39)

Any book that makes our jobs easier as outdoor educators either by providing program ideas or by providing inspiration should be given as much exposure as possible. It is hoped that this column will generate interest and be a forum for the exchange of ideas. Let's have your books!!!

Bruce Murphy



# Destination

## ENVIRONMENTAL LEADERSHIP PROGRAM

Another priority is development of the Environmental Leadership Program. It is comprised of both continuing education programs for individual professional groups, and workshops, seminars, and problem-solving forums designed to bring together representatives from business, labour, government, science, education, and the public, to co-operatively address environmental issues, problems, policies, and concerns.

The first of these forums occurred at Trent University, August 18-21, 1988. Poor environmental decisions create costly economic, social, environmental, and health problems, which diminish public confidence in the effectiveness and reliability of our existing institutions and decision-making process. These programs are intended to provide greater opportunities for our professionals and decision-makers to achieve and maintain a high standard of environmental competence, thus enhancing their evaluation skills relevant to the planning process, and paving the way toward resolution of specific environmental issues and problems. The Summer Institute for Environmental Values Education is also part of the Leadership Program.

### **Summer Institute for Environmental Values Education**

Continuing education for teachers is a focus of the Environmental Leadership Program, and a major program

for the summer of 1989 is now being planned. This will be a 2-week in-residence course on a credit/non-credit basis at Trent University.

Educators face a difficult task in effectively addressing environmental issues and the concerns these raise with young people. Rapidly changing environmental information and attitudes challenge teachers to remain current and factual, while countervailing pressures test their objectivity and knowledge. In turn, poor understanding of the issues or reluctance to attempt to address them denies students, whether in the classroom or elsewhere, the opportunity to achieve their own competence.

The 1990 summer course is expected to attract teachers in varied disciplines from across Canada. The course materials will both increase the participants' environmental understanding and awareness, and assist them in developing environmental themes in their teaching, complementing their required course curriculum. As a result, the participants will be better equipped to address environmental concerns raised by students in their classrooms.

Alan Crook and Miriam Wyman are contributing greatly to the development of this program, and deserve congratulations for their efforts. We look forward to the realization of this important facet of the Environmental Leadership Program.

From: Harmony Foundation of Canada, **Harmony**, August '88



First Announcement

## **Northern Ontario Canoeing Symposium**

### **Featuring**

- 17 speakers on canoeing and the wilderness of northern Ontario

### **Dates**

- **January 27, 1989:**  
7:00 pm - 10:00 pm,  
Friday evening
- **January 28, 1989:**  
9:00 am - 9:00 pm,  
Saturday all day

### **Location**

Curtis Lecture Hall  
York University campus  
Keele St. and Steeles Ave.  
Toronto, ON

### **Sponsor**

Wilderness Canoe Association

### **Cost**

- \$20 registration fee, includes Friday's reception and two coffee breaks on Saturday
- extra for optional Saturday lunch and supper

### **Contact**

For registration information write:  
SYMPOSIUM  
WILDERNESS CANOE ASSOC.  
P. O. Box 496, Station K  
Toronto, ON M4P 2G9

or call:  
George Luste (416) 534-9313  
or  
Bill King (416) 223-4646



# Prospect Point

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Every once and a while, we Outdoor Educators receive a flash of insight; an all-at-once-message as to what we do or what we can do and perhaps what we don't do. Often such insight is gained via the thoughts of others who are totally removed from our circumstance. These insights can effectively alter the way we perceive our work.

In 1983 I enjoyed a canoe trip in the Canadian barrens. I remember a post trip chat with an Inuk hunter/electrician named Paul in Eskimo Point while waiting for a flight homeward. I had first met Paul on the land days earlier, camped with his family. He asked me, in an Inuit round about way; what I did for a living.

I quickly inflated my chest, exhibited every sign of pride and felt an odd link with this fellow countryman. I said with confidence, "I teach Outdoor Education" looking for a smile, support, connection, that I expected from this cohort of sorts. I got a look of bewilderment and my chest sank. He looked skeptical. This was a look I had seen before. Our course, he didn't know what Outdoor Education meant and wanted more, I thought, though his expression said otherwise.

I started to explain that "down South" Outdoor Education works to inspire generic character skills through adventure and experiences that are transferable to all life and learning and that Outdoor Education stimulates awareness, understanding and care/action for our natural world. As I stumbled through

this, it became clear that my estranged friend was now even more bewildered and that my own deep-rooted confusions regarding this work of Outdoor Education were exposed. His response was wonderfully appropriate. "That's different! Do you have to teach that? Things must be really bad down there." Quickly we changed the topic and I had my tail between my legs for the rest of the evening. We were both quite embarrassed.

Later I retraced my emotions and Paul's reaction from my naive sense of connection with this man in his "homeland" to our mutual estrangement by culture and circumstance. I had to re-map feelings and wordings. For it is a well understood tenant in Experiential Education that "experience is not what happens to a person, experience is what a person does with what happens." (Thanks to Aldous Huxely for that gem.)

It was not the way Outdoor Education was described. It was that it has to exist at all that seemed strange; as if such learning can be a separate subject. This is what bothered Paul and what through Paul hit me like a ton of seal blubber. Generic skills, skills that produce skills, like assessing limits and potentials, compassion, resourcefulness, persistence and an understanding and sensitivity to the natural world are hardly appropriate as low level priorities for any culture. An Inuit hunter would be particularly confused about this one.

They are foundational. If this has to be taught in school as a "fringe subject" at best, then clearly it has lost it's

place as BASIC; as a foundational imperative towards personal competency and ecological consciousness. And if it is not basic and imperative, then my culture has lost its marbles. Similarly, when we need courses in Values Ed (and we do) we have lost values and ethics, I fear.

So I remain embarrassed for my culture, for Outdoor Educators, and obviously for myself personally. For we (culturally) have displaced priorities and confused what is basic, leaving us NOT well-grounded on the Earth. Outdoor Education is about RELATIONSHIPS. This is basic to life and learning. There should really be one "R", not "the 3 R's", when we think of "back to basics". Paul knew all this and told me with a look of dismay.

This embarrassment does not bring despair. It reinforces commitment and a sense of mission. Not meaning to sound ridiculously devoted, commitment and mission here imply intention and integrity, qualities that themselves seem displaced these days.

And another thing, it's difficult to burn out from this prospect point!

That conservation was a landmark. It now inspires direction towards what we do and conversely, what we shouldn't do. I look forward to the day when I meet Paul again and tell him, "I'm just a teacher now Paul".

Bob Henderson





## Contributors' Guidelines

**Pathways** welcomes all submissions of articles, pictures, cartoons, puzzles, upcoming events and materials related to Outdoor Education. Active participation from readership with an organized news/journal format is the best guarantee for a quality journal meeting the broad needs of Outdoor Educators. It is hoped that the journal serves as the voice of Outdoor Education in Ontario and will be a major communication vehicle to **COEO** members and others, furthering knowledge, enthusiasm and vision for Outdoor Education.

These notes are intended to encourage, clarify and aid your pathways to putting ideas on paper so **COEO** can produce a quality journal.

**Participation:** *herein lies the strength and life of a volunteer organization.*

### Subject

Article submissions should be topical appreciating the scope of Outdoor Education, which encompasses both an adventure and an environmental focus. To this end, guard against specialized detail and jargon considering that your audience may not be at your technical level. Both theoretical and practical material is important. Subjective non-scholarly sources as well as quantitative and qualitative research works are important as are specific teaching tips, approaches and general Outdoor Education concerns.

### Style

Readable, natural writing is preferred. Conversational writing styles are easy to read and usually to the point. References as footnotes following the text are important to include in complete fashion where appropriate. Quoting from other sources can strengthen a work but excessive use is best avoided. Better to tell your own tale. There is no formula or mold to fit. The best guide is the Journal itself. Your style is most important.

**Think:** *be creative, have fun, share your ideas.*

### Length

For a feature, the best length is between 1000 and 2000 words. One 8.5" x 11" page is usually between 250-275 words typed and double spaced. Shorter one-page entries appropriate for column format are between 500-800 words. Consult back issues for more specific guidelines.

### Writer Workshops

Consider attending a **Pathways** Writers Workshop to survey issues, strategies and techniques for writing generally with specific concern for contributing to **Pathways**.

Watch for such workshops at an upcoming **COEO** gathering or plan an evening with an Associate Editor and some friends. They are meant as a mutual sharing session with keen and curious "would be" outdoor education writers and other less so "would be" outdoor education ideas sharers.

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**In brief, we need YOUR ideas.  
Get in on the fun and challenge of contributing to PATHWAYS.**

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For further information contact:

*Dennis Hitchmough*  
Chairman, **PATHWAYS** Editorial Board  
23 Cudham Dr., Scarborough, ON M1S 3J5  
(416) 297-6024

# Membership Application Form

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If applying for family membership, list persons who will be using the membership

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I am in the \_\_\_\_\_ Region of COEO



Far North Patricia, Kenora, Thunder Bay, Algoma, Cochrane, Sudbury, Rainy River, Timiskaming

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Out of Province Any area in Canada except Ontario

Outside Canada

COEO membership is from September 1 to August 31. Any membership applications received after May 1 will be applied to the following year.

Please check: NEW \_\_\_\_\_ RENEWAL \_\_\_\_\_ Mem# \_\_\_\_\_

Fees (Circle) regular: \$30 student: \$20 family: \$40  
subscriptions (available to library/resource centres only) \$25

Make your cheque or money order payable to the Council of Outdoor Educators of Ontario and mail, with this form to:

**John Aikman**  
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