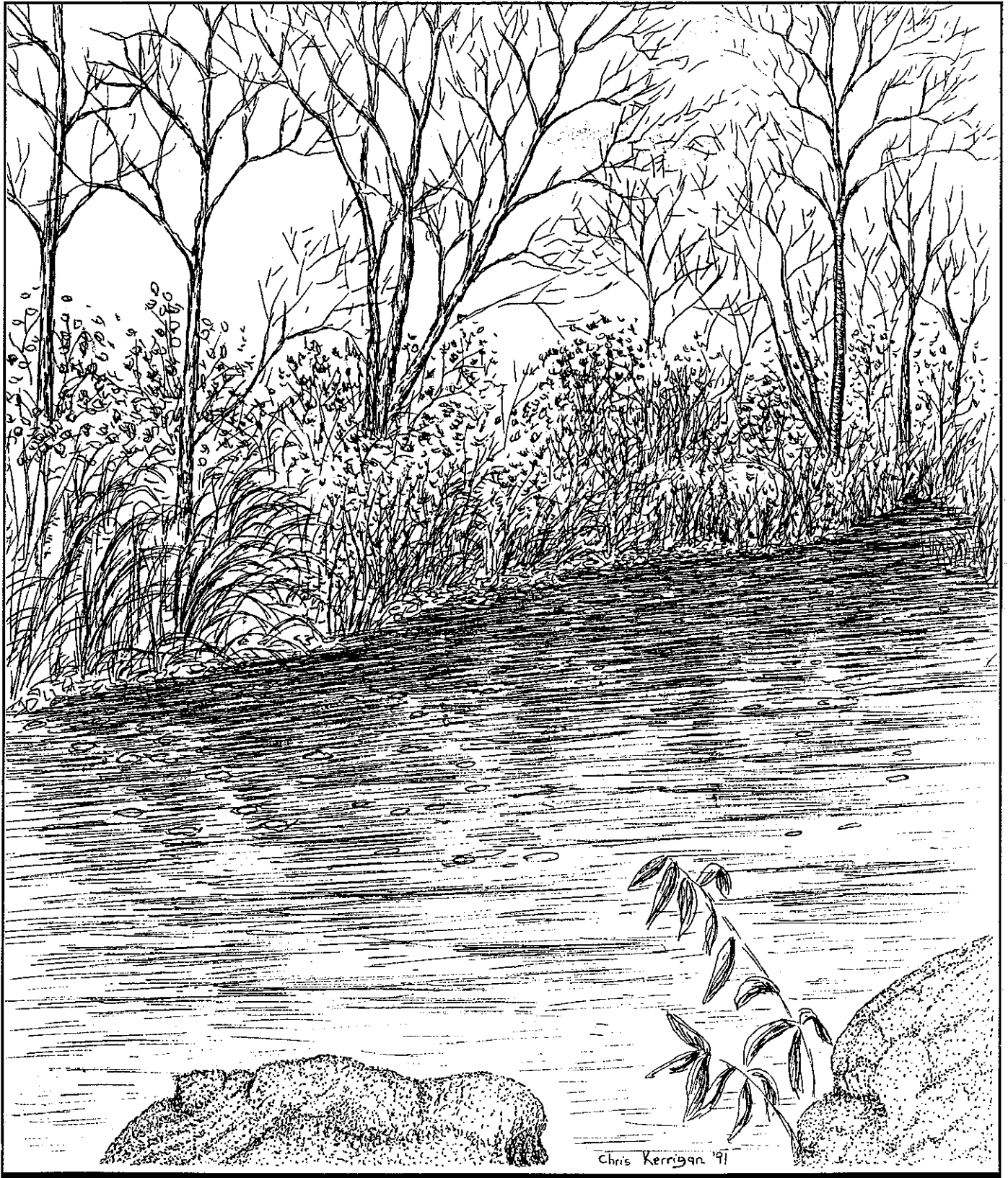


Pathways

Volume 4, No. 4
June, 1992

THE ONTARIO JOURNAL OF OUTDOOR EDUCATION



Chris Kerrigan '91

Pathways

Advertising in Pathways

This publication is now looking for advertisements which will be of interest to the readership as well as provide a method of defraying publication costs. If you have a product or service which might be of interest to our readership, please contact the Editorial Board Advertising Representative for an Advertising Information Package.

We ask that the product or service be:

1. valuable and useful to COEO members;
2. quality people, equipment, resources or programs.

Advertising Rates

Size	Insertions			
	1	2	3	4
full page	\$300	\$500	\$700	\$800
1/2 page	200	300	400	500
1/3 page	150	250	350	400
1/4 page	125	200	275	350
Covers				
Front (inside)	400	700	900	1000
Back (inside)	500	900	1200	1400

Publishing Schedule

Issue	Closing Date	Publication Date
Sept./Oct.	Aug. 1	Sept. 30
Nov./Dec.	Oct. 1	Nov. 30
Jan./Feb.	Dec. 1	Jan. 30
Mar./Apr.	Feb. 1	Mar. 30
May/June	Apr. 1	May 30
July/Aug.	Jun. 1	July 30

Advertising Representative:

Mark Whitcombe
34 Blind Line
Orangeville, Ontario
L9W 3A5

The Council of Outdoor Educators of Ontario Board of Directors

- President:** Kathy Reid
RR#1, Norwood K0L 2V0
(B) 705-745-5791 (H) 705-639-5392
(Fax) 705-745-7488
- Past President:** Clarke Birchard
Box 190, Chelsey N0G 1L0
(B) 519-363-2014 (H) 519-363-2719
(Fax) 519-363-3448
- Vice President:** Glen Hester
20 Linn Cres., RR#3, Caledon East L0N 1E0
(B) 416-791-2221 (H) 416-880-0862
- Treasurer:** Barrett Greenhow
112 Kingsview Drive, Bolton L7E 3V4
(B) 416-221-1988 (H) 416-857-3734
- Secretary:** Judy Halpern
19 Gloucester Gr., Toronto M6C 1Z8
(B) 416-294-2910 (H) 416-783-2225
- Director at Large:** Joan Thompson
60 Pavane Linkway, Apt. 1801
Don Mills M3C 2Y6
(B) 416-396-2200 (H) 416-423-7391
(Fax) 416-461-7356
- Director at Large:** Jim Gear
68 Main Street, Komoka N0L 1R0
(B) 519-649-4602 (H) 519-471-6693
(Fax) 519-455-7648
- Director at Large:** Barb Weeden
90 Temperence St., Apt. 215, Aurora L4G 2P9
(B) 416-833-3333 (H) 416-841-0373
(Fax) 416-833-2085
- Central:** Margit McNaughton
1 Charles St., Georgetown L7G 2Z2
(B) 416-453-3552 (H) 416-873-9195
(Fax) 416-873-6048
- Western:** Liesel Knaack
203-401 Erb St. W., Waterloo N2L 1W7
(B) 519-669-5417 (H) 519-725-5668
(Fax) 519-746-8017
- Northern:** Linda McKenzie
Box 324, South River P0A 1X0
(B) 705-386-2376 (H) 705-386-0503
(Fax) 705-386-2345
- Far North:** Paul Higgins
126 South Algonquin Ave.
Thunder Bay P7B 4S6
(B) 807-345-6471 (H) 807-767-8418
- Eastern:** Ian Hendry
145 Liberty St., Apt. 403, Bowmanville L1C 4K5
(B) 416-983-9312 (H) 416-623-8303
- Membership:** John Aikman
47 Rama Court, Hamilton L8W 2B3
(B) 416-385-5337 (H) 416-383-5696
- Prof. Dev. Chair:** Lloyd Fraser
156 Shaughnessy Blvd., Willowdale M2J 1J8
(B) 416-225-4661 (H) 416-493-2944
(Fax) 416-229-5515
- Government Liaison:** John Thorsen
Ministry of Tourism and Recreation
Recreation Division
77 Bloor Street W., Toronto M7A 2R9
(B) 416-965-4591 (Fax) 416-965-0994

Pathways

Volume 4, No. 3
June, 1992

THE ONTARIO JOURNAL OF OUTDOOR EDUCATION

Pathways Editorial Board

Co-Chair: Bob Henderson
Dept. of Phys. Ed., McMaster University
Hamilton, Ont. L8S 4K1
(B) 416-525-9140 ext.3573
(H) 416) 627-9772 (Fax) 416-527-0100

Co-Chair: Mark Whitcombe
34 Blind Line, Orangeville L9W 3A5
(B) 705-435-4266 (H) 519-941-9966
(Fax) 519-941-9966 (6p.m.-11p.m.)

Mary Jeanne Barrett
RR#1 Orangeville L9W 2Y8
(B) 416-846-6060 (H) 519-942-0075

Clare Magee
c/o Seneca College, King Campus
RR#3, King City L0G 1K0
(B) 416-833-3333
(Fax) 416 833-2085

Barrie Martin
c/o L.M. Frost Natural Resources Centre
Dorset P0A 1E0
(B) 705-766-2451

Bruce Murphy
RR#1 Cobalt P0I 1P0
(B) 705-672-3544

Arnis Pukitis
60 Wellington St., Box 40, Aurora L4G 3H2
(B) 416-969-8131 (H) 416-883-5199
(Fax) 416-773-1932

Merrily Walker
52 Highland Ave., St. Catharines L2R 4J1
(B) 416-682-7239 (H) 416-682-6539

Pathways is published six times each year for the Council of Outdoor Educators of Ontario and mailed to COEO members. Membership fees include *Pathways*, as well as workshops, courses, and other benefits of membership. Complete membership information and application form are found on the inside back cover. Opinions expressed by contributors to *Pathways* are theirs solely and not necessarily those of the Editorial Board of *Pathways* or of COEO. Advertising included in *Pathways* should not be interpreted as endorsement of the product(s) by COEO. All rights reserved. Articles may be freely copied or reproduced, but requests must be made in writing to Mark Whitcombe, Co-Chair, *Pathways* Editorial Board.

ISSN: 0840-8114

Features

- Changes in School Boards' Support of Outdoor Education**
by Bob Henderson and Mark Whitcombe 6
- Who Cares How Deep the Pond Is?**
by Dave Moore 8
- Connecting the Natural World To Your Own**
by Gail Fatkhoulina-Reddick 10
- Schoolyard Map of Canada**
by Joan Thompson 12
- Studying the Environment By Bicycle**
by Jen Lynch 14
- The Leader Pack: Outdoor Travel Insurance**
by Karne Kozolanka 17
- What Can We Learn? — The Algonquin Bear Attack**
by Dan Strickland 22
- The Choice is Yours — A Guide to Environmental Science Additional Qualification Courses**
by Barrie Martin 27

Columns

- Editor's Log Book**
by Mark Whitcombe 2
- Opening the Door**
Nature's Reaction Beyond my Scense's
by Hitesh Chopra 4
- Sketch Pad**
Christine Kerrigan 5
- Backpocket**
The Leopold Education Project
..... 18
- The Gathering**
ECO-ED Update
by Joan Thompson 26
- Tracking**
Upcoming Events 32
- Prospect Point**
Water: How Is It Taken For Granted?
by Bob Henderson 36

State of the Art

Cover art and selections within from Christine Kerrigan (see Sketch Pad, page 5).

Pathways is printed on recycled paper.



"You could learn about nature in a text book, but a better way is to go outdoors—not your backyard, but out where there's a tiny piece of what our earth used to be like! Nature is everything we learn about at school—math, science and language, arts—and more!"

Gillian Whitcombe, age 9, in letter to Dufferin Board in support of our local outdoor education programme.

Our Medium is their Massage and our Message.

In essence, outdoor education experiences are creators of affect. There are at least three areas in which these affects are significant: in creating the initial awe and love for nature that Rachel Carson calls "the sense of wonder"; secondly, the importance of being involved and learning directly; and thirdly, establishing the importance of living, learning, working and playing together through the direct and personal experience of powerful group feelings.

In outdoor education, we are primarily in the business of providing and mediating experience—experiences between the student and the environment, and at least as important, experiences between student and peer. We specialize in creating and

manipulating experience. We focus on connections and relationships—relationships to the environment and to each other. Our medium of experiential learning massages our students, modifying them in significant ways and conveying some powerful meta-messages. Our Medium is their *Massage and* our *Message*.

The common thread or theme connecting the articles in this issue is this idea of learning in the outdoors and the resultant value for the children and for the environment. The varied voices of COEO members presented here represent different views of this role of outdoor education.

Mark Whitcombe

Letters to the Editors

Dear Editor,

Congratulations to MJ Barrett and Merrily Walker for a super job on the recent issue of *Pathways*. It was splendid mix of good quality stuff with an innovative slant emphasizing student writing. I especially liked the fact that you included Jake Fallis among the students: that sends an important message that we ought never to stop wondering.

I also liked the way you displayed the excerpts from the TAMARACK journals—very nicely done!

Bert Horwood, Kingston

Dear Editor,

Just a note to say how much I enjoyed the April issue of *Pathways*, especially the children's responses. Too often this journal is filled with 'heady navel-gazing' and dissertations on some aspect of education which has little to do with actually teaching outdoors appreciation.

The feedback from students gives us rich rewards as to what they have experienced, learned and remembered. Often what they get out of a programme is not exactly what we, the educators, had originally intended. Sometimes the pictures and paragraphs go

way beyond what we may have thought possible from 'mere students.'

Please keep space open in future issues so that we may continue to share these little triumphs that make our careers worthwhile.

David Hawke, Coldwater

Dear Editor,

After Earth Day 1992 has passed, it is scary to think how quickly things change. Two years ago, during all the hype to Earth Day 1990, we in outdoor education could not do enough to satisfy the demand for information and programmes. Environment was King. It seems now that is was only for the Day.

Now in 1992 there is a "new reality." Recession. Fiscal responsibility. Budgets are tight. The environment is now a frill, a luxury to be trimmed. The Blue Box programme is being delayed or scaled back in many areas. And now boards of education are cutting back if not eliminating outdoor education.

Unfortunately, the "old reality" that made Earth Day 1990 is still there. The greenhouse effect, the ozone hole, endangered species and spaces, polluted lakes and all the rest are still around, as big and bad, if not worse than ever.

What can we in outdoor education do besides grin and bear it and wait for the economy to turn around and bring a new "new reality?"

One answer is that we need to give outdoor education a higher profile with those that can influence the decision-making process: Board administrators, trustees and parents. We must convince them that outdoor education is not just some fun, frivolous field trip but rather a valuable chance to experience first hand the natural environment on which we all depend and a chance to apply curriculum based skills and knowledge learned in the

classroom in a relevant and meaningful way.

This is something that COEO tries to do through *Pathways*, PD opportunities like ECO-ED and through our dealings with various government ministries. It is also something that COEO members must do if outdoor education is not to lose the ground it has gained in the last twenty years.

Ian Hendry, Bowmanville

*It is scary to
think how
quickly things
change.*



Chris Kerrigan '92

Nature's Reaction Beyond my Scense's

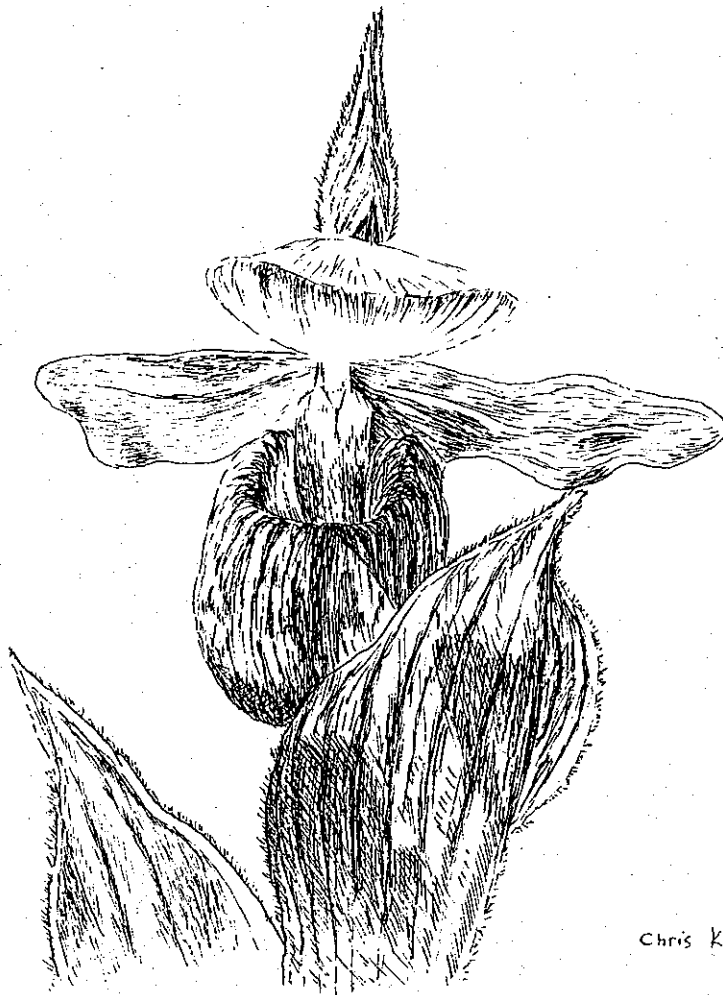
by Hitesh Chopra, Grade 5, Peel Board

The reflecting light of green trees,
shone upon my head,
The sound's of bird's chirping,
were beyond my ears.
The distance between both,
were beyond my reach.

The glittering light of the forest,
were far beyond the preaching me.
The soothing sound's of harmony,
was beyond a glitter in the tree.
The distance between both,
were beyond my reach.

The shallow sound of the streams,
was swirling through my hair.
& The rarer greenish beams,
were nature's tree.

The distance between all,
were beyond my reach.



Chris Kerrigan '91

Christine Kerrigan

Christine Kerrigan's career as a wildlife artist is beginning to gain momentum. Her images of wildlife and the natural environment are starting to be seen more frequently in local art exhibits in the Muskoka area. She has produced magnificent hand-painted sweatshirts with detailed wildlife illustrations that many COEO members have seen at conferences held at the Frost Centre. More recently, her drawings are appearing in outdoor and environmental publications.

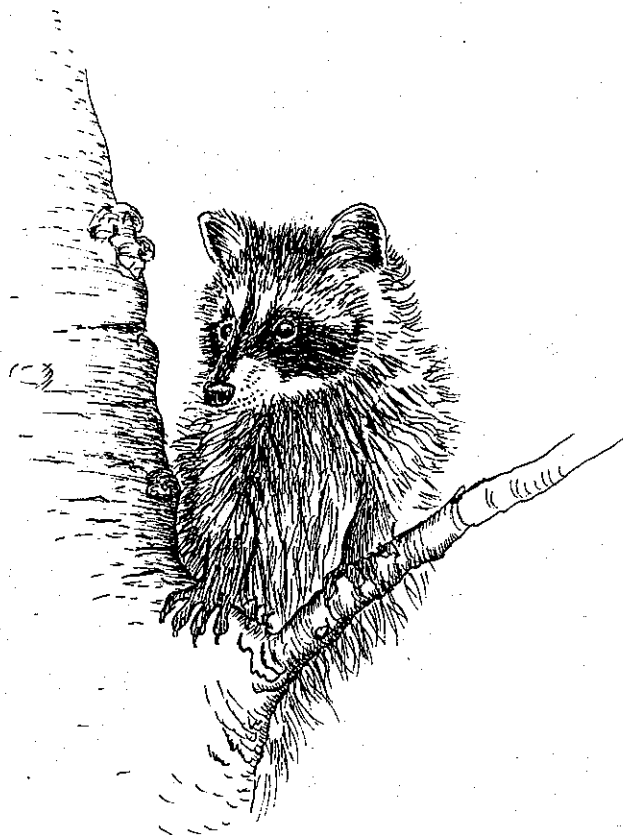
Christine attempts to catch wildlife in action by telling a story about the animal in its habitat. Her aim is to show the interaction and connection between the two. The enticing images invite the viewer to look carefully and learn more about wildlife in its natural surroundings. The relationships portray both the beauty and the intricate balances of wildlife in the environment, but also the stresses caused by human impacts. Through her art, Christine is an active environmental advocate.

Christine's detailed knowledge of wildlife and habitat stems from personal lifelong interest and exploration. Through studies in Fish and Wildlife at Sir Sandford Fleming College, she has enhanced first-hand knowledge of her subjects and the natural environment. Since graduating, Christine has worked 'in the field' at the Frost Centre and other locations on contract in fish and wildlife management. Continued exposure to animals adds to the tremendous detail she can include in the scenes she draws and paints.

Christine grew up in the Toronto area. She currently lives and works in the Huntsville and Haliburton area, trying to

combine her life as a part-time artist with work in the wildlife realm. So far it is working out well, and as soon as possible, Christine hopes to devote all her time and effort to art. As we can see from the sampling of images she has created for this *Pathways* issue, her talents are impressive. We hope to see more of Christine Kerrigan's work.

Christine Kerrigan
RR#2, Huntsville, Ontario, P0A 1K0
(705) 789-0076



Chris Kerrigan '92

Changes in School Boards' Support of Outdoor Education

by Bob Henderson and Mark Whitcombe, with reports from many others

Most of those in favour had been to centre as parent volunteer with their own children.

Many readers of *Pathways* are aware of recent school board budget cuts that concern the closure of outdoor education centres and/or the loss of outdoor education positions throughout Ontario. Perhaps the extent of the changes within Ontario will surprise. The following is not a comprehensive listing of a detailed itemized description of the seemingly Ontario policy. Rather, presented below is the result of a few quick phone calls to get some facts to you before our submission deadline. We hope the current state of affairs will be addressed in future issues of *Pathways*.

London Board of Education

- from three full-time teachers to one full-time and one para-professional, with one teacher retiring, and one teacher returning to the classroom
- centre remains, though some transportation funds cut out
- programme will run at reduced capacity
- some budgetary saving scenarios were tendered by outdoor education staff, but none were followed

Wentworth Board of Education

- one full-time teacher to return to classroom
- centre apparently will remain open for individual teacher bookings, programming and transport funding. However the centre is contracted as a leased arrangement with one full-time teacher, so the programme is effectively cut
- salvaging measures remain ongoing

Hamilton Separate School Board of Education

- day use programme using the Hamilton Conservation Authority property is canceled

Peel Board of Education

- best described as "constantly shifting ground"
- Board cut budget to \$250,000 (less than half) for September to December period to operate two field centres, one historical school house and a newly started school farm, likely resulting in reduction to one centre, with loss of eight staff
- no monies presently allocated for the 1993 budget year (therefore all staff positions are until December only.)
- in November of 1992, the Board will assess the *demonstrated* potential for fundraising from non-Board sources for the support of the four centres

Dufferin Peel Separate School Board

- Board proposed cuts from two centres with eight teaching and non-teaching staff to one centre with five staff, cutting the day centre that has been operating on a cost-recovery basis
- outdoor education staff made creative alternate proposal, using same reduced dollar figure, that would save the operation of both centres; Board accepted outdoor education staff proposal!

Dufferin County Board of Education

- Dave Lyon proposed self-imposed funding cut of 11%

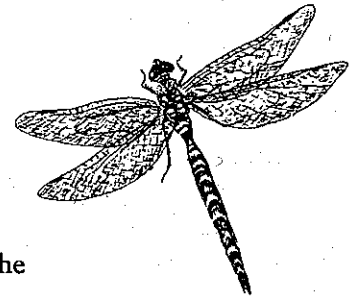
- trustees voted 8 to 6 in favour of keeping programme (in initial public meeting, no trustee would even second the motion!)
- of the six trustees voting against, four had never been to centre, while most of those in favour had been to centre as parent volunteer with their own children
- teachers are now strongly encouraged to bring as many parents as possible; parent volunteers are welcomed and given tasks to do, and urged to do the activities with the children, learning along with them—they need to learn, just as much as the kids do!; guest book, with signed parent comments, now being used to capture tax-payer feedback

Frontenac Board of Education

- closure of one centre and one outdoor education Consultant will be heading back to the classroom

Temiskaming Board of Education

- after one year of operation, the Temagami Earth Awareness Centre programme is canceled. This, despite the fact that the board's cost amounted to one quarter of one teachers salary. The area Lions Club had donated the building and the students paid to participate.



ADMINISTRATIVE ASSISTANT

The Council of Outdoor Educators of Ontario requires a highly motivated person to act as an Administrative Assistant to the Board of Directors.

The primary responsibilities of this person will include attending and reporting to all meetings of the Board of Directors, acting as recording and correspondence secretary, maintaining the financial records of the organization, publishing and mailing regional newsletters, mailing *Pathways*, processing all memberships and maintaining up-to-date membership records, and assisting with grant management and fundraising.

This position would be for a period of one year beginning in September 1992 and consist of a time allotment of a maximum of 800 hours. Salary or wages will be negotiated and based upon qualifications or services provided.

Applicants must have good skills in oral and written communication, be able to work independently and have experience in working for a volunteer non-profit organization. Knowledge of computer word processing and spreadsheets would be helpful. Meetings of the Board of Directors are held in the Metropolitan Toronto area.

Qualified individuals should submit a letter of application and a resume by June 26, 1992 to:

Mr. Glen K. Hester
Council of Outdoor Educators of Ontario
20 Linn Cres., R.R. #3
Caledon East, Ontario
L0N 1E0

All applications will be held in confidence. Further details will be provided upon request.

Regional
newsletter

Who Cares How Deep the Pond Is?

by Dave Moore

Outdoor education is probably the closest we will ever get to an equal playing field in public education.

Well, it's 1992, and it's time all Outdoor Educators re-evaluated their curricula, tossed all that is irrelevant in the 90's and instituted a curriculum that will make Canada a better place for all of us! What a lofty expectation! 'Who is this guy?'

We, as outdoor educators are probably the only teachers in any system in Canada where that intangible, that desired state of being, that Utopia "the equal playing field" actually exists. Let me give you an example. I am a physical educator and as soon as I drag a set of objects into a gym (be they basketballs, hockey sticks or tennis racquets) at least 40% of the class says, "Oh, groan!", the other 60% says, "Great! I love this activity." This phenomenon occurs in every classroom across Canada regardless of whether it is an English teacher walking in with a copy of Macbeth, a Mathematics teacher with an algebra book or an Auto teacher with a shop manual.

We as outdoor educators have nearly all of them saying, "Oh, groan!" Do you know why? It's because they are scared. All their teddy bears have been left behind. We make them dress differently, they don't sleep in the security of their own room, they are not surrounded by their type of music that identifies them as a prep or a heavy metal god. In short, they are vulnerable: we have an opportunity to do something with them physically, emotionally and mentally. Yes, folks, outdoor education is probably the closest we will ever get to an equal playing field in public education.

As a result of this wonderful opportunity, from the time the students get off the bus we need to begin to challenge them.

First of all, we must teach them to play

and to have fun. One way to do this is to have them play silly games with rubber chickens and koosh balls and hula hoops—games that allow them to laugh with each other, not at each other. Continue to use games and activities that will allow them to have fun in the outdoors. Who cares how deep the pond is or how many trees there are or how old they are or how fast the stream moves? Teach them to have fun in the outdoors and they will then want to protect and nurture it. You see, as soon as teachers bring out the clipboards, the pencils, the thermometers, they lose students or at least some of them. "Give me that pencil, clipboard and thermometer. I'll do the chart." There it goes, the level playing field is shot!

"Grow up! Act responsibly! Act your age"! Say those seven words again, only say them the way you have heard them thousands of times. The intelligent retort for a kid thus humiliated, in this situation, would be to say, "Give me an opportunity to be responsible." Think of that for a moment. When in education do we give students a chance to be responsible? As outdoor educators all we need is the courage to put them in situations where they can be responsible! Teach them how to build a shelter indoors reminding them that in 30 minutes they are going outdoors to build a shelter that they will spend the night in! Show them how to build a fire in the rain, teach them how to paddle a canoe and pack for a trip then take them on one.

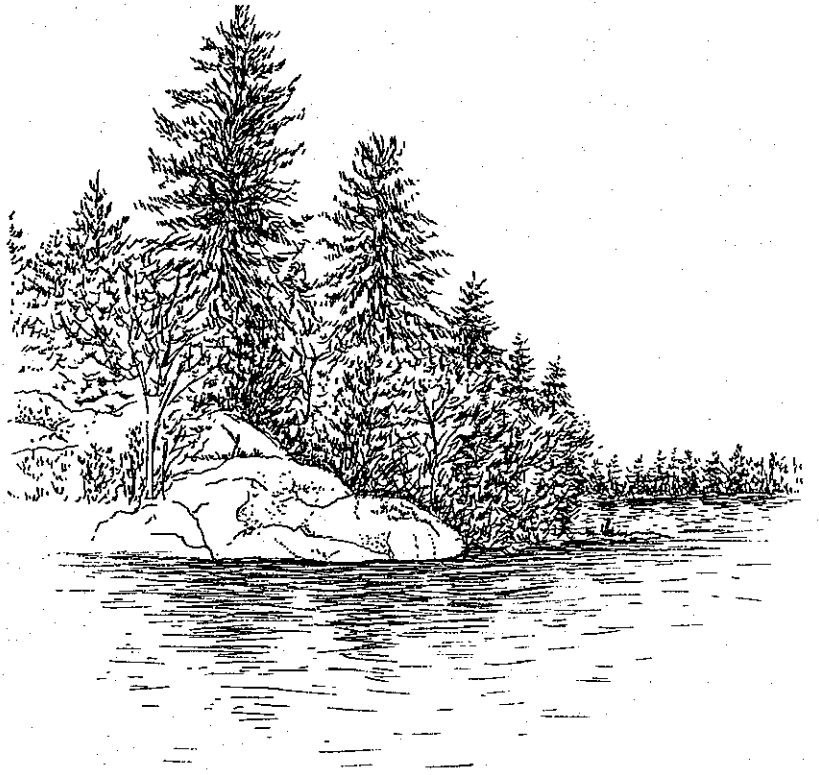
During this time of vulnerability we must begin to challenge their values, their attitudes on violence, their feeling about relationships between men and women and their peers. Place them in situations where

they must co-operate in order to be successful. Start small with a giant skip having each member of the group stand together and have the rope pass under their feet one time and watch the smiles on their faces. Sit down with them and ask them why they are smiling. Turn up the heat, make the tasks progressively more difficult but within reach and feel the warmth when two hands of very different skin colours are locked together at the moment of success. Sit down with them and ask them why they are smiling.

The next element that must be present in any truly equal playing field is the element of risk or at least perceived risk in the eyes of the players. You have taught them to have fun, to work together and trust one another now you must put your trust and cooperation to the test or you will not derive optimum benefit from the equal playing field. If we do not provide risk the students will continue to get their thrills from Game Boy, or, worse, a needle or a bottle. In the Etobicoke system we are building, in three different schools, an indoor climbing wall and a ropes course to provide this peak experience. It is not imperative that climbing or a ropes course be the venue for the peak experience but there must be a peak experience. This is the time when the school bully can't get the courage to climb the ladder but is encouraged and maybe even consoled by a

peer he beat up on just last week. This is the time when one of the quietest young ladies talks the captain of the soccer team through a difficult duo challenge. In short, this is the time when genuine gains are made and when values are changed, is time we as outdoor educators must size the moment!

Dave Moore is an outdoor educator for the Etobicoke Board. He has a backpocket filled with wonderful games and challenges of the sort he describes in this article.



Chris Kemigan '91

Connecting The Natural World To Your Own

by Gail Fatkhoulina-Reddick

...help some grade seven students connect better with the out-of-doors and, more importantly, take those connections with them back to their hamburger-and-french-fry-filled world of North York.

While on an all-day hike one beautiful early fall morning, I started to wonder how I could help some grade seven students connect better with the out-of-doors and, more importantly, take those connections with them back to their hamburger-and-french-fry-filled world of North York.

I had asked each student to pack a pencil, a pad of paper and some coloured pencils of their choice, trusting that something would inspire me while out on the trail. To my delight, it did. This is how the activity went:

When the group arrived at a suitable spot to sit down, I asked them to find their own space on the forest floor where they could see and hear me.

I said a word and for one minute the students wrote everything that jumped into their heads when they heard that word. Spelling and grammar were not an issue — just getting the words down on paper was the objective. For example, I used “forest” (as we were in one), and on a clean sheet of paper, the students wrote silently for one minute, all the words that entered their minds connected with the word “forest.” I did this with ten words in total. I tried to use words that related to our surroundings and the activities they had done or things that we had seen: cave, tree, soil, autumn, human, provincial park, sunshine, energy, woodpecker ... After each word they drew a line to delineate the end of that thought process, cleared their heads and listened to the next word. We hiked on.

Before the next activity — their solo sit, we had a short discussion on what the word and concept “connections” meant to them. “Things being joined together” and “feeling related or close to someone” were

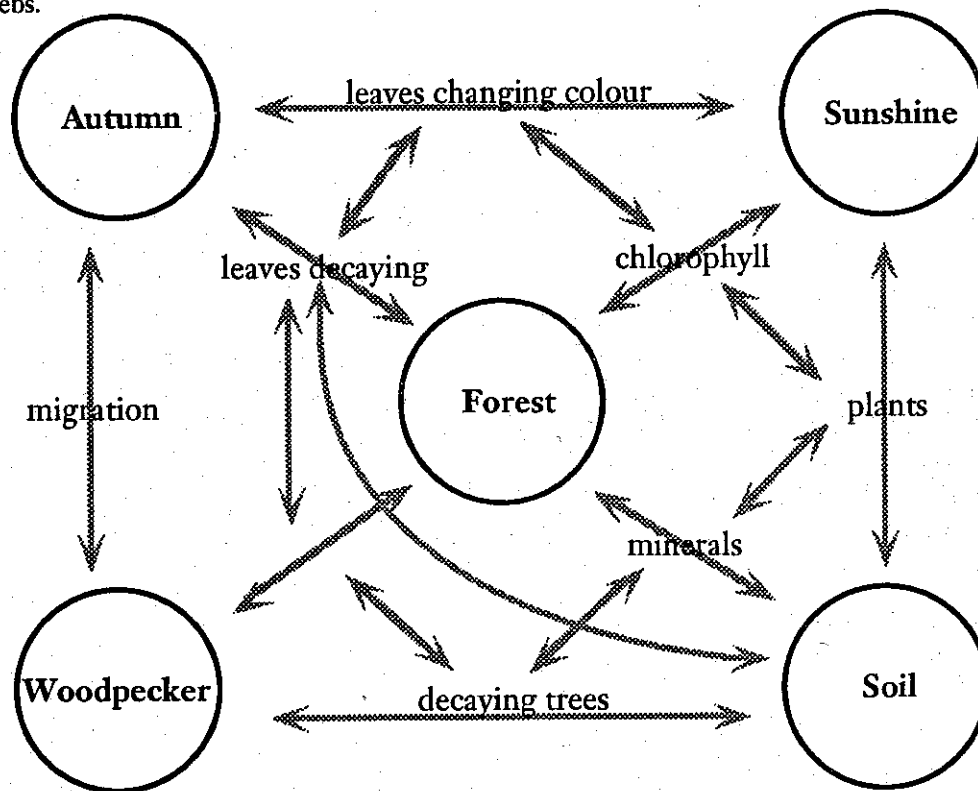
two of the definitions that came up. We then had a look around us and, as a group, tried to come up with examples of how some of the things around us were connected to each other. For example, the red squirrel is connected to the red pine tree as it eats the trees’ cones; the red pine tree is then connected to the soil as it needs the soil to grow, etc... Before assigning them to their solo spot, I said that, while on their twenty minute solo, they needed to observe and write down as many examples as they could of things being connected. They were also to write down how they felt they were connected to that particular place and any other thoughts that came to them.

After the solo sit, we gathered together to share our observations and feelings. Interestingly, the comment I most often heard after the students had spent time in the woods alone is that it wasn’t long enough.

At the next comfortable sitting place, the students formed a circle, sitting beside someone that they could work well with. I read out the ten words that we had used in the word-association activity earlier on. Each student then drew five circles on a piece of paper. One partner then wrote each of the first five words in the circles, i.e., one word in each circle, while the other partner did the same with the second set.

Using either their words they had earlier associated with those five words or any other thoughts that came to them, the students were asked to connect and interconnect those five words — like a word web. Their partner could help them if they were having a hard time. After each partner had their personal word web completed, they then drew ten circles on a

fresh piece of paper and did the same thing using all ten words. The idea was to share connections and combine the two word webs.



We then, of course, shared our connection word webs and discussed how different and/or similar they were. We also talked about how challenging it is to connect humans to other things in a non-consumptive way and how we may go about trying to change that, i.e., how we can assist or at least be a benign influence in the natural world.

By using a combination of words of their own and the solo sit experience, the students were able to come up with connections between things in the natural

world and how they fit into it. The end result of this was a sense of ownership and empowerment as these were their own thoughts and ideas. If the visiting teacher wished to, they could then take the word webs back to the classroom and make a huge group brain connection word web. This could also be done as a follow-up activity back at the centre.

Gail Fatkhoulina-Reddick works at Mono Cliffs Outdoor Education Centre.

Schoolyard Map of Canada

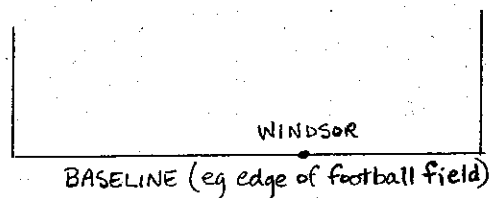
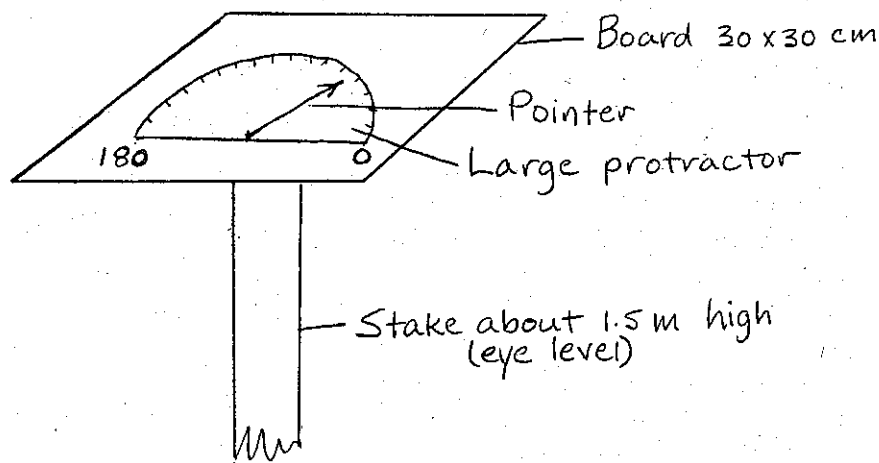
by Joan Thompson

This activity enables a typical 2-D map of Canada to come "alive" in the playground.

Activities involving scale provides opportunities for students to experience relative size or distance. This activity enables a typical 2-D map of Canada to come "alive" in the playground.

Choose a large flat area about the size of a football field. One of the long sides becomes the "baseline." Choose a point about half way along the baseline to be the reference point which corresponds to Windsor, Ontario. Set up the theodolite (a surveying tool which measures horizontal and vertical angles) if available or make your own as follows:

Set the theodolite at the reference point (Windsor) and measure all angles and distances from this point. Each student represents one city and goes to stand at the appropriate point. Each should have a large sign or symbol to represent the location (e.g., CN Tower for Toronto.) Because of possible waiting times, each student could have a clip board and puzzle or problem to work on while waiting for the map to materialize. Measure distances using a trundle wheel.



SCALE: 1.5m in the schoolyard = 100 km actual
 (All angles and distances measured from Windsor)

City	Angle	Distance
Toronto	40	5.4m
Ottawa	44	11.0m
Montreal	40	13.5m
Quebec City	44	17.0m
Halifax	28	25.5m
Charlottetown	35	26.3m
St. John's	37	38.4m
Sydney	33	30.0m
Monton	35	24.3m
St. John	31	22.7m
Fort Chimo	75	32.0m
Frobisher Bay	87	38.0m
Yellowknife	132	47.5m
Whitehorse	140	62.4m
Thunder Bay	135	13.5m
Winnipeg	148	22.0m
Churchill	120	31.0m
Regina	153	30.0m
Saskatoon	150	33.0m
Calgary	155	43.0m
Edmonton	149	45.0m
Victoria	160	55.0m
Vancouver	161	52.0m
Magnetic North Pole	109	59.4m

Joan Thompson is the Outdoor and Environmental Education Consultant for the East York Board of Education. She is also COEO's representative on the ECO-ED Steering Committee.

Studying the Environment By Bicycle

by Jen Lynch

"Only within the last few years ... we are Earth in the process of understanding itself."

Freeman Patterson

The use of the outdoors provides unique opportunities and resources to motivate students in learning more about themselves and the world in which they live.

Like Freeman Patterson, I believe that an awareness of Earth and the environment is just beginning to emerge, and I want to do my part. With this goal in mind, I joined with five others to form "Cycling for Recycling", a group of cyclists dedicated to promoting environmentally friendly behaviour—by example!

Setting off from Vancouver, B.C. in May 1990, we cycled the 5500 km to Hamilton, Ontario, and along the way we managed to raise awareness of the environment among the school groups and environmental groups we addressed. We did so not only through words, but by demonstrating that cycling, among other activities (walking, jogging, etc.) is a viable alternative to the use of "gas-guzzling" vehicles.

In addition to "communing with nature," we learned to appreciate our earth, and became even more committed to protecting and preserving it.

Outdoor education provides learning experiences for developing an awareness of the environment through exploration of the senses. Our senses were tested in a way never possible in the classroom. We cross-Canada cyclists saw the splendorous views of rivers raging through mountain ranges. We smelled the cedar from nature's skyscrapers. We heard the voices for reduction and recycling in Princeton, Kamloops, Hamilton and those against in the cities of Thunder Bay and Golden. We felt the aching and burning in our muscles from Kicking Horse Pass. However, we also saw the horrific destruction from strip-clearing, smelled the cedar from the mountains of cedar chips and heard the mammoth trucks carrying dismembered

trees. We lived, we learned, we changed, we grew...

Experiential learning relies heavily upon a synthesis of all the senses and emotions to form a complete picture of reality. In this view reality becomes internal to the individual. Teachers must provide opportunities for students to really understand what it is by observing, investigating, discovering and feeling rather than rote memorization and regimentation.

The goal of education about the environment is to enable learners of any age to acquire knowledge, awareness, attitudes, skills, experiences and commitment. So that they move towards a sustainable future, students must be taught to make informed decisions, to behave responsibly, and to act constructively in order to positively affect the environment upon which all life depends both now and in the future.

Ideally, an outdoor education programme will create a learning situation for all ages, in which actual experience leads to self-inquiry and discovery in a variety of disciplines. The out-of-doors should also provide a real life situation for problem solving, such as the wise use of natural resources, waste management etc.

Children should understand the delicate balance which controls all living things, and their own place in this system. These concepts are very difficult to teach children if they are not given opportunities to observe life and growth in the outdoors. A student's understanding of their role within society is further enhanced by the social interactions arising from living in the outdoors.



Daily tasks such as setting up and taking down campsites, cooking, route planning encourages a group to be creative, independent, resourceful and flexible. The team spirit and co-operative atmosphere that usually develops allows individuals to self-evaluate strengths and weaknesses. Over time and with effective communication, all group members can accept an integral leadership role.

While a typical classroom setting has its purpose, the use of the outdoors provides unique opportunities and resources to motivate students in learning more about themselves and the world in which they live.

"Cycling For Recycling" was motivated with the intent to act with care on behalf of our living planet. Presented with a unique challenge and a sense of responsibility, we helped others and ourselves become more aware of the environment. In the process, we achieved a greater understanding of our interdependency on the Earth.

Our summer travels were quality outdoor experiential education in action. Now we've all returned and want to keep this spirit alive. Here are a few ideas.

The "Cycling For Recycling" concept can be adapted to many school settings. The Environmental Club at Havergal College in Toronto for example, has established a student led 'Green Patrol.' Amongst other activities, the 'Green Patrol' presently checks the hallways for garbage and reinforces the proper use and re-use of paper. In the spring, the Environmental Club aims to branch out and patrol an area surrounding the school by bicycle. The garbage that they collect can be stored in pannier bags or in carts towed behind a bike until it can be properly disposed.

An environmental club might investigate the possibilities of receiving donations or reduced rates on cycling helmets, carts, spare bicycle parts, etc. Since the students

are cycling through the community, a bicycle shop (and the school) would receive positive exposure.

To highlight this activity further, t-shirts or jackets, etc., could be purchased and worn by the 'recycling cyclists.' In addition to cycling, environmental awareness is heightened further at Havergal College through theme weeks held during the school term.

During the most recent environmental week, the 'Green Patrol' and other Environmental Club members sold t-shirts and buttons for the James Bay Project and Temagami. During lunch periods cookie-grams were sold and the money raised was donated to the World Wildlife Fund. A great amount of publicity for the Environmental Club and its activities was generated through a school assembly where the following two songs were sung by the entire school population: *Battle Hymn of the Environment*, and *One World*.

Havergal's physical education department has also become more environmentally conscious by promoting cycling in their activity classes as a multi-faceted activity. Students learn that cycling is a life time activity which is an environmentally friendly (and cheap) means of transportation and also an excellent way to enhance one's level of fitness too! The programme encourages students, in groups of four to five, to lead a forty minute cycling tour for their classmates. Prior to the tour, a map of the route (within relatively close proximity to the school) is submitted to the accompanying teacher as well as a list of tour highlights and safety considerations. Another outcome from this practical approach is the student's confidence in their own leadership ability. Hopefully the students will consider integrating cycling into their lifestyle and help to preserve the environment too!

Presented with a unique challenge and a sense of responsibility, we helped others and ourselves become more aware of the environment.

The possibilities for study, exploration and service within ones immediate school area are endless. Thanks to my "Cycling For Recycling" summer travels across Canada, I find myself newly committed and seeking to transfer this experience to others as possible.

Jennifer Lynch, trip co-ordinator of "Cycling For Recycling", is presently teaching at Havergal College in Toronto. She is also a weekend instructor at the Lake St. George Field Centre. For further information about "Cycling For Recycling" she can be contacted c/o Havergal College, 1451 Avenue Road, Toronto, Ontario, MSN 2H9

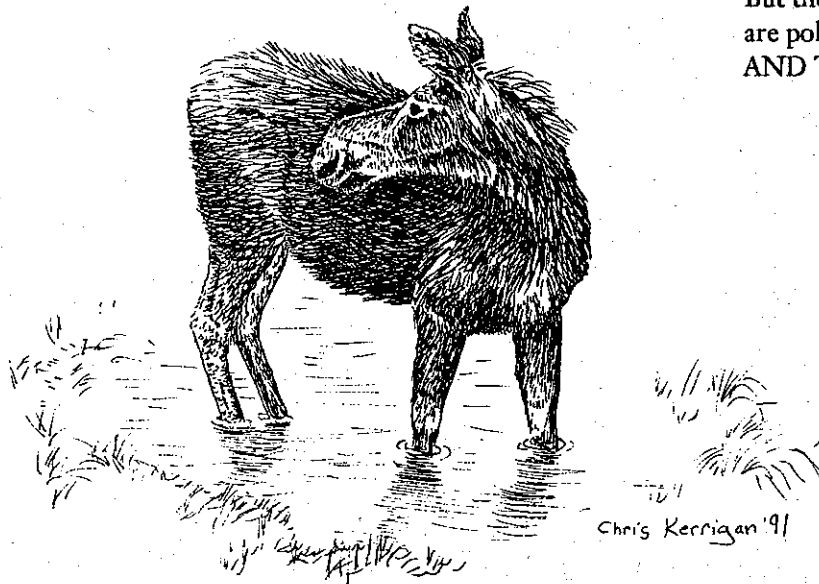
Battle Hymn of the Environment

(tune: *Battle Hymn of the Republic*)
(words by Cathy Purdy)

1. We are drowning in our garbage
All we do is throw things out
Common sense is out the window
Time to think what we're about
Urge your neighbours, friends and family
To join the smart crusade -
'CAUSE TIME IS RUNNING OUT.
2. We can pressure politicians
If they really want our vote -
We can boycott certain products
Then the business men will note -
Do avoid excessive packaging
And buy non-toxic stuff
'CAUSE TIME IS RUNNING OUT.
3. Now, we do not own the PLANET
EARTH
we lease it for a while,
Then we pass it on to others
It's called stewardship, "God-style"
But the land and air and water
are polluted as can be
AND TIME IS RUNNING OUT.

Chorus:

Please reduce, re-use, recycle -
Filthy water, we must stifle,
Please reduce, re-use, recycle
To save our Planet Earth.



The Leader Pack: Outdoor Travel Insurance

by Karne Kozolanka

Regardless of levels of skill and preparation, accidents happen. When they do, outdoor leaders need to be ready. Before taking groups on trips, leaders must have the necessary qualifications to prevent and manage injury. This training is like our insurance: we are able to practice prevention and manage situations that have resulted in accidents. In addition to training, leaders have to have appropriate equipment to assist them in coping with accidents. How current is your insurance? Do you carry a leader pack? What do you bring along to ensure that you have the tools needed in order to manage an outdoor emergency?

Most outdoor leaders do have a leader pack that they take with them on the trail. The makeup of the kit depends of course, on who you are traveling with, for how long and where you are going. But how far do you go with emergency gear? I've found that over the years my emergency gear has grown. I started out with some items tucked into a small tupperware container that were somehow chosen to help me deal with trouble. Although the items inside the kit made sense, they were inadequate when it came to leading groups. I was involved in leading adolescents and adults on day and weekend trips throughout the year. It became apparent that a leader pack containing just a first aid kit was inadequate for me. For example, I remember one student on a weekend hike who was using a cheap backpack that kept breaking—first the straps, then the pins. The student was struggling to keep up with the group as he was stopping often to make repairs and adjustments to his gear. What started out as a simple repair task became a potential

problem over the course of an afternoon. If I had been carrying some simple repair items and parts the problem could have been taken care of quickly. Although there is a limit to what can be taken on a trip, my leader pack has swollen to include a number of items that have made life much easier on the trail. It contains a first aid kit as well as survival and emergency gear. The first aid kit fits in a fanny pack that either attaches to, or fits inside the larger leader pack. This is important as the first aid gear sometimes needs to be separate from the leader—for example, when canoe tripping there should be one kit at each end of the portage. The other items in the pack are dependent on where you are going and who you are doing it with.

What is potentially more dangerous: a day trip or an overnigher? What is likely to cause more problems? In my mind it's apt to be the day trip because of its short length. Less experienced leaders are more likely to rationalize not bringing along extra gear if only out for the day. The experienced leader on the other hand may suffer from an attitude of false security—not having had an accident on a day trip. I tend to carry a full pack on day trips. This includes a sleeping bag and pad, even in the summer. A leader pack should have the materials to deal with shock and hypothermia, all year round. There needs to be enough material to set up a shelter, quickly. In the past I have been comfortable to use a tent fly but find that plastic is more efficient. Four millimetre clear plastic is strong and light enough to be used as a shelter and as a wrap around for a casualty. This works well in situations where the

Continued on page 20

What do you bring along to ensure that you have the tools needed in order to manage an outdoor emergency?

The Leopold Education Project

Introduction by
Cliff Knapp,
Northern Illinois
University

In the Oxford University Press's 1949 edition of *A Sand County Almanac and Sketches Here and There*, Aldo Leopold introduced and attempted to integrate three main concepts: 1) that land as a community is the basic concept of ecology; 2) that land is to be loved and respected is an extension of ethics; and 3) that land yields a cultural (aesthetic) harvest, but that this fact is often forgotten. The book is divided into three parts: 1) "*A Sand County Almanac*", 2) "*Sketches Here and There*", and 3) "*The Upshot*." This book—and Leopold's message—stands as one of the classic foundations of environmental thinking.

"There are some who can live without wild things, and some who cannot. These essays are the delights and dilemmas of one who cannot.

"Like winds and sunsets, wild things were taken for granted until progress began to do away with them. Now we face the question whether a still higher "standard of living" is worth its cost in things natural, wild and free." (excerpt from the Foreword of *A Sand County Almanac*)

The Leopold Education Project (LEP) is a joint project from the northern part of Illinois. Various soil and conservation districts, education groups and governmental bodies cooperated in producing a series of lesson worksheets and a Teacher's Guide, *Lessons in a Land Ethic* (1991.)

The Leopold Education Project deals with Part I of *A Sand County Almanac*, the almanac which records observations and events throughout the seasons. This section chronologically guides the reader through the months of the year by means of 22

essays. They describe Leopold's activities at his Wisconsin farm where he and his family escaped the 1930's and '40's world of Madison. He stayed in their shack on the Wisconsin River during many weekends and holidays from 1935 until his death in 1948. The essays help people "read" the land through outdoor explorations. They learn about tracking animals in the snow, predator/prey relationships, local history correlated with the growth of an oak, returning Canada geese, river floods, spring flowers, bur oak ecology, woodcock mating rituals, upland plover migration, trout fishing, watching daybreak arrive, and many other outdoor explorations.

The Leopold Education Project Teacher's Guide, *Lessons in a Land Ethic*, (1991) is available from: DeKalb County Soil and Water Conservation District, 315 North Sixth Street, DeKalb, Illinois, USA, IL60115. Phone: (815) 756-3237

The Choral Copse

Subjects:

Biology, Language Arts, Social Studies, Industrial Arts

Objectives:

The students will be able to:

1. Recognize behavioural changes in animal species due to seasonal changes.
2. Recognize changes in plant life due to seasonal changes.
3. Relate seasonal changes to personal changes in activities.

Key Quote:

"...the day breaks with little help from birds... The silence is suddenly broken by a dozen contralto voices, no longer able to restrain their praise of the day to come."

Background:

By September in much of the Northern hemisphere, nature is beginning to prepare for winter: trees lose their leaves, squirrels cache acorns and other nuts, birds gather for the southern migration, and humans clean up the remains of their gardens and lawns.

Vocabulary:

copse, light intensity, candle power.

Materials: (Outdoors)

light meter (optional), Field guides, Plant press

Procedures:

1. Locate an outdoor setting where animal activity is obvious so students can observe behaviours.
2. Observe and discuss changes in plant life.
3. Relate seasonal changes to personal changes (i.e., dress, transportation, yardwork, recreation.)

Evaluation:

1. Evaluate responses to worksheet and the level of student participation in the discussion.

Extensions:

1. With light meter and field guides, visit a natural area and experience the dawn.
2. Construct, erect and maintain a bird feeder throughout the winter.
3. Record in your journal the events at a

bird feeder throughout the winter.

4. Experiment with different types of bird feed to determine preference by species.

Related Essays:

"Great Possessions"

Student Worksheet: The Choral Copse

Introduction:

Leopold writes of the musical changes at dawn, of nature's awakening from a night's sleep.

What To Do: (Outdoors)

1. Read "The Choral Copse."
 - a. Explain why July provides more varied "dawn music" than does September.
 - b. In an outdoor setting compare and contrast observed animal behaviour with their behaviour in spring.
 - c. Of what value is the "music of nature" to you?
2. Collect and press leaves of various trees from your area. (Don't take too many from each tree.)
 - a. Did these leaves come from a copse? Explain.
 - b. Mount collected, pressed leaves in your journal and identify by common and scientific name.
3. Relate seasonal changes to personal changes.
 - a. Dress.
 - b. Transportation.
 - c. Yardwork.
 - d. Recreation.
4. Reread "The Choral Copse."
 - a. Why do you think Leopold entitled this essay "The Choral Copse"?
 - b. Does any choral copse have an affect on your life? Explain.



Aldo Leopold — 1887 - 1948

The Leader Pack

Continued from page 17



injured person needs to be sheltered from wind and rain quickly. The first aider can get under the plastic, light can enter and everyone can see what is happening. The plastic is high on my list. A piece three metres by three metres does nicely. Extra provisions for the entire group need to be included. On day and weekenders, at least one extra meal is necessary. Longer trips need food for a day for the whole group. You will need to be able to heat water and keep it hot, so a stove, pot, fuel and/or a thermos are important. In the summer I just bring along a full thermos on day trips. You may have to light a fire so weather-proofed matches in quantity need to be included. It is also important to remember that the extra bits of equipment you carry in your pockets should be considered separate from the leader pack. Even though you may carry matches, compass, maps and a jackknife with you, the person using the leader pack may not have them handy. If they are included in the pack then there is also less chance that they will be forgotten. The pack also needs a small repair kit which includes light wire, waxed thread and a handy stitcher. Duct tape is invaluable too. Extra clothing will need to be considered, especially if traveling with a younger group. It always seems that the one who gets overlooked on the equipment check is the one who gets wet. Socks, underwear, and overclothes need to be included.

Leaders need to assess and reassess their equipment needs on an ongoing basis. An item that helps is the notebook or journal. If things get written down then there is less chance of not remembering details. Jim Raffan, of the Outdoor and Experiential Education Program at Queen's University, tells us that we need to be "analytical about accidents. We must become good at communicating their circumstances."

We can use the journal as a means of documenting our trips: departures, weather, participants' medical information and contact people. Recording accidents, near misses and equipment failure is also part of this. Using our emergency, first aid or survival gear may well mean that we have been operating in an unsafe manner. Getting used to the idea that this gear is, as Horwood describes it "the unsafety equipment" means that their use must be documented. The entries become a means of looking at activities in a critical manner from which we can learn to lead more safely. The National Safety Network is an organization which can help with this. Members send in data on accidents and the network publishes accident reviews yearly.

Your leader pack will reflect the needs of your group and the trips you lead. Sharing the burden of carrying it among participants is sometimes a good way to talk about prevention and the insurance that we continually look for when leading groups. It can also lead to some innovative additions. A colleague on a recent course showed me the bow tie and hacky-sack he carries in his leader pack. He uses the bow tie as a distracter when first-aiding young campers and the hacky-sack is for the rest of the group to use while they wait! Developing your own leader pack is necessary for one to live up to expected standards of care in outdoor education. The items you choose are a reflection of the circumstances you perceive as possibilities. It is part of what Raffan calls "an attitude of prevention awareness." We are practicing this awareness when we travel with preventative as well as remedial equipment. There is also a sense of security that comes from being prepared and ready to cope. My preparedness is my insurance policy, ready to support me when things go wrong.

Leader Pack Equipment List (minimum)

pack / sleeping bag / pad
3m x 3m plastic / stove (full) / thermos / small pot
mug / spoon / waterbottle (full)
extra meal(s) / hot drink fixings / map of area
compass / first aid kit / small repair kit
matches (dry) / extra clothing / note pad & pencil
jackknife / duct tape

- list of participants including medical information and contact people. (including leader)
- emergency phone numbers.
- leader's log of the event.
- leader's sketch of programme activities.

Field Injury/Near Miss Report

Name:

Date:

Time:

Weather:

Activity:

Injury/Near Miss

Treatment/Action

Instructor and First Aid Giver:

Follow Up Actions:

(Use other side to describe evacuation and time lost)



References

- Horwood, R.H., (1983) "Good Luck, Bad Luck: Being Systematic About Safety." *Anee News Journal*, Council of Outdoor Educators of Ontario, 16, (3) p 17
- Raffan, Jim (1983) "Assimilating Safety Information: Problems and Solutions." *ibid.*, p 13.

National Safety Network
Alan Hale, Director
P.O. Box 186
Bellefontaine, Ohio
USA 43311

Karne Kozolanka is a shop teacher and outdoor educator who is currently enrolled in the Masters Program at Queen's University Faculty of Education.

What Can We Learn? — The Algonquin Bear Attack

by Don Strickland

(based on an article appearing in *The Raven*, the Algonquin Park newsletter, Spring 1992)

The bear was a healthy, 8-10 year old male weighing 140kg and was in no way physically exceptional.

Most, if not all, of our readers are aware of the tragic bear attack that took place last October 11, 1991 in Algonquin Park on an island in Lake Opeongo. Such an incident is deeply disturbing and the Park has been flooded with calls from people all across North America, quite understandably seeking an explanation of what went wrong and some indication of what we might do to prevent a recurrence.

In these pages I would like to attempt thinking things through and to find answers to these very important questions.

First, some facts. The attack occurred when Mr. Raymond Jakubauskas, 32 years old, and Carola Frehe, aged 48, were setting up camp not long after arriving on the island. We believe Ms. Frehe was attacked first, and that Mr. Jakubauskas then tried to drive off the bear with an oar. (Long bruises were later discovered on the bear and the oar was found broken at the scene.) Both Ms. Frehe and Mr. Jakubauskas were killed by single, powerful blows to the head, causing instant, fatal brain haemorrhaging.

Over the following five days the bear dragged the bodies away in a series of stages, feeding on them from time to time and covering them with leaves at each stopping place. By the time the campers were reported missing and our search revealed what happened, the remains were 115m away from the campsite in the fourth and last pile of leaves. The bear was destroyed not far away.

In seeking to understand why the attack occurred, most people want to know if the bear was rabid or had anything else wrong with it that might explain its highly abnormal behaviour. The simple answer is

“no.” A detailed examination by Ministry of Natural Resources and University of Guelph wildlife pathologists and veterinarians revealed no disease, no brain abnormality, no injury, nor indeed any other condition that might predispose a bear to attack humans. The bear was a healthy, 8-10 year old male weighing 140kg and was in no way physically exceptional.

A second major question to be asked concerns the behaviour of the people. Could it be that they did something, whether deliberately or inadvertently, that could have attracted the bear or provoked it into attacking? Once again the answer appears to be “no.” It is true that the campers had opened and eaten a small can of beans and they had also gotten out a styrofoam tray of ground beef and removed the covering cellophane. It is possible the bear was attracted by food, but there are problems with this idea. For one thing, the ground beef was still untouched, even five days later when we came on the scene. Besides, each and every day in bear country all over North America, tens of thousands of campers do basically the same thing as these people did (start getting supper ready) but that doesn't get them attacked by bears as a result. Something beyond the presence of food is necessary to account for this bear's behaviour.

Many of our callers, including half a dozen doctors, were aware that menstruation was implicated as a possible factor in two Grizzly Bear attacks out west and they wanted to make sure that this possibility was checked out in the Bates' Island case as well. In fact, menstruation has not played a role in any of the Black Bear attacks known to us. Also, a study about to

be published in the *Journal of Wildlife Management* casts serious doubt on the idea that menstrual odours elicit any kind of reaction at all from Black Bears.

Where does this leave us? If the bear was not diseased and the people did not do anything out of the ordinary to bring on the attack, how then can we explain what happened? It is here that an examination of other Black Bear attacks can be helpful. In his book *Bear Attacks*, Dr. Stephen Herrero of the University of Calgary documented a total of 26 deaths in North America from 1900 to 1983 resulting from Black Bear attacks. These include the three boys who died on May 13, 1978, in Algonquin's only other bear attack, at Lone Creek on the far east side of the Park. No two attacks were the same in all respects but Dr. Herrero was able to detect some general trends. The attacks took place throughout the non-denning season, almost always during the day, and more often involved males. Only one case involved a mother bear possibly trying to protect her cubs. Whenever the offending bear was killed and examined it was found to be free of rabies or any other factor that might predispose it towards aggressive behaviour.

Most important of all, however, is Herrero's conclusion that in the great majority of cases the Black Bear was deliberately preying on its victims. It seems that Black Bears, unlike Grizzlies, rarely ever kill people just because the people have intruded into their space or might be a threat to their cubs. Rather, when a Black Bear kills a person it seems to be because the bear wants to eat that person. Another strong trend revealed by analysis of the extremely rare fatal attacks on people by Black Bears is that very few of the bears were already used to getting human food or garbage. In other words, a bear that kills people is almost never a "campground" or "garbage" bear that has become progressively less and less afraid of people

and then "decided to go one step further", as it were, and kill somebody. On the contrary, almost all of the "killer" Black Bears were truly wild bears living in remote areas and they had little or no prior contact with humans.

The picture of a wild, so-called "predaceous" bear may come the closest to describing the Bates' Island bear that killed Mr. Jakubauskas and Ms. Frehe. Certainly it was a bear that was unknown to us. It had not been handled or relocated before (in which case it would have had ear tags.) Nor had there been any bear trouble on Opeongo in the summer of 1991, and almost none in the Park as a whole, which is quite understandable since last year was very good for a wide variety of bear foods.

Something beyond the presence of food is necessary to account for this bear's behaviour.

Did the Bear Have to be Destroyed?

A number of people have asked us why the bear had to be killed. The concern of these questioners was inspired no doubt, by the assumption (not always expressed) that human victims had somehow intruded on the bear's space, provoked it, or otherwise brought on the attack. This kind of scenario occurs frequently in Grizzly Bear encounters but, so far as we know, almost never applies to fatal Black Bear attacks. As discussed above, Black Bears that kill people are apparently almost always motivated by predation and we believe that is the most likely explanation for what happened in the Bate's Island incident.

In a way, however, it doesn't really matter. Whatever the exact sequence of events leading up to this attack, the bear ended up feeding on its victims. Everything we know about bears indicates that they have excellent memories for a wide range of foods and their sources. We know that this bear was "rewarded" for his innovative behaviour and there is no reason to think he would forget what he had just learned — that humans are edible and easy to kill. If the bear had been allowed to live, it is highly probable that he would have killed and eaten other humans in the future. That is why there was no question about our having to destroy this animal.

The picture of a wild, so-called "predaceous" bear may come the closest to describing the Bates' Island bear.

We don't need to tell anybody how frightening it is to think that occasionally there are Black Bears that prey on human beings, but we probably do need to point out some important implications. Many people want to know what they should do to avoid an attack like the ones on Bates' Island. In asking such questions, they are unconsciously assuming that there is some "right way" of camping or handling food that, if followed, would eliminate or significantly reduce the possibility of an attack. The problem is that, faced with a predaceous bear, you probably can't do anything to prevent an attack. After all, if the bear is after you, how is better handling of your food going to help? Or, to take the particular case of the Bates' Island animal, if it truly was one of those mercifully rare "predaceous" Black Bears, there is probably nothing Mr. Jakubauskas and Ms. Frehe could have done. They may simply have been in the wrong place, at the wrong time, with the wrong bear.

Of course, whether or not this view is entirely correct, the question it all boils

down to in most people's minds is "Should we be afraid to go camping in Algonquin Park or anywhere else there are Black Bears?"

In considering this question we think it may help to compare the Bates' Island tragedy with an even greater one that occurred just three days later. On October 14, 1991 a man walked into a restaurant in Killeen, Texas and started shooting customers who were guilty of nothing other than being in the wrong restaurant on the wrong day. Ten minutes later 22 of them were dead. As terrible as this incident was—and we don't mean to be facetious—does it really mean we should now be afraid of going into restaurants in Texas? Of course not. Not only do we have a vanishingly remote chance of encountering another deranged "killer human" but also we know that the man who did the Texas restaurant massacre is dead. Similarly, we know that the bear that killed the couple on Bates' Island is dead and our chance of encountering another exceptional killer bear, there or anywhere else, is next to zero. This is not to say that someday, somewhere, there won't be another restaurant killer or another predaceous bear. Indeed, eventually there will almost certainly be more of both. We cannot, however, let our lives be dominated by fears of the remotely improbable. Or, if we really do decide to stay out of restaurants for the rest of our lives and never go camping again, then we should also stay indoors on cloudy days. After all, we are far more likely to get hit by lightning (or killed by a bee sting for that matter) than we are to be attacked by a bear. And needless to say, we should never cross the street or get into a car.

To be deeply troubled by news of a bear attack is entirely normal but it is only inspired by emotion rather than a rational analysis of the real danger to ourselves. We



Chris Kerrigan '92

all owe it to ourselves to remember that the chance of being attacked by a Black Bear is virtually nonexistent. Even here in Algonquin Park, for example, where we have now had two fatal bear attacks, the fact still remains that there were over 8,000,000 non fatal visits to the Park between the 1989 bear attack and the one last fall.

There is one more thing that you should know about. There is a spray whose active ingredient, capsaicin, is derived from cayenne pepper. Although it is nonlethal and causes no lasting ill effects, when delivered to an animal's eyes it causes severe and almost instantaneous pain. High strength versions with a powerful spray propellant have stopped charging Grizzly Bears, literally in their tracks, and have been credited with saving four lives in Canada, Japan and the U.S. Because of wind conditions and other circumstances of an attack, of course, capsaicin spray could never be considered a guarantee of safety. More to the point, your chances of ever

having to use it against a predaceous Black Bear are next to zero because your chances of meeting such an animal are next to zero. Nevertheless, the product does exist, is legal, and you have the right to know about it—for peace of mind if nothing else.

We hope the above has been of some help to you in sorting out how you should view the Bates' Island bear attack and its implications for your own safety. None of it, of course, will do anything for Carola Frehe and Raymond Jakubauskas. They died in the saddest and most unfortunate of circumstances. We did not know them and for this we are sorry. We only hope that their deaths will help us to understand a little better the beautiful but sometimes cruel world in which we live.

This report is respectfully dedicated to their memory.

Dan Strickland is the Chief Naturalist for Algonquin Park.

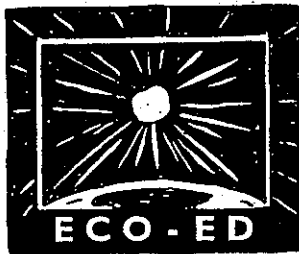
We all owe it to ourselves to remember that the chance of being attacked by a Black Bear is virtually nonexistent.

Exceptions in Nature

It may be useful for readers trying to come to grips with the Bates' Island attack to recognize that in animals, just as in humans, there exists a tremendous range of physical and mental attributes. When we see an Albert Einstein or a Wayne Gretzky among humans, for example, we don't ask what is "wrong" with them; we just accept the existence of the occasional truly exceptional individual. Similarly, it may be more useful to suppose that the Bates' Island Black Bear was a truly unusual, off-the-end-of-the-scale individual bear rather than trying to figure out exactly what was "wrong" with it. As a matter of fact, one can make a fairly good argument that this bear was exceptionally intelligent. Black Bears routinely kill deer fawns and moose calves but almost none of them realize that they could do the same with humans. Instead, they slavishly restrict themselves to the foods shown to them by their mothers when they were cubs. The Bates' Island bear, unfortunately for us, was innovative. He tried something new and, in a way, he made a significant breakthrough. It is true that he soon paid with his life but he could not be expected to have understood beforehand, if ever, that we humans have sophisticated communications and powerful weapons that would lead to his downfall.

by Joan Thompson

Our COEO elections take place during the AGM—be sure to exercise your vote!



By now you will have received your registration package for the ECO-ED Conference for October. I'm sure you will agree that the programme looks very exciting. The problem will be how to choose from all that is being offered in such a short time!

In addition to the various symposia, workshops, interact sessions, field trips, festival events and exposition, just mingling with such an international array of visitors will make this a memorable event. Many of the Central Region COEO members will accept the unique opportunity of hosting an international delegate in their homes. Hopefully bonds will be forged at ECO-ED that will expand the horizons of all COEO members.

Despite the large, stimulating character of this year's conference, the COEO Board recognizes that we still need opportunities to meet with fellow COEO members and to participate in some of the traditional COEO happenings. With this in mind, the following arrangements have been planned.

Hospitality Suite

The Jasper Room at the Royal York Hotel has been reserved as a place for COEO members to meet informally at posted times on October 17 and 18. Coffee and juice will be available and other refreshments can be ordered from room service and served to you there. This will be a place to arrange to meet fellow COEO members, or to bring and introduce visitors. Volunteers will be needed to staff the hospitality suite when it is open. If you could commit an hour or two during the weekend, contact Margit McNaughton.

Annual General Meeting and Awards Presentations

These events will take place on Saturday evening in the Ontario and Quebec Rooms of the Royal York Hotel just before dinner. The Annual Meeting is open to all COEO members regardless of whether they are attending the dinner afterwards. Our COEO elections take place during the AGM—be sure to exercise your vote!

COEO Dinner and Dance

Following the annual meeting and awards, there will be a reception, dinner and dance for all members of COEO. The atmosphere of the rooms chosen is rustic and 'outdoorsy' even in the heart of Toronto! Cost of the dinner and dance will be approximately \$40.00 Those wishing to attend just the dance will be able to do that too. More details and ticket information will be available in the next edition of *Pathways*.

Please note that the registration fee for ECO-ED increases after July 15. See your registration book for details. You should register for ECO-ED (Conference, Field Trips, Concert, etc.) now. You may register for special COEO events later.

Joan Thompson represents COEO on the ECO-ED Advisory Committee.

The Choice is Yours — A Guide to Environmental Science Additional Qualification Courses

by Barrie Martin

As outdoor educators and teachers we must continue to learn, to expand our capacity to create and produce results, so that we may be leaders in environmental education. There are numerous opportunities for professional and personal growth including workshops and conferences sponsored by C.O.E.O. and other organizations; summer institutes (featured in a recent issue of *Green Teacher*); and a variety university courses — readers of *Pathways* are familiar with the graduate courses offered by Northern Illinois University. Of particular interest to certified teachers are the Additional Qualification (AQ) Courses offered through the Faculties of Education in Ontario. In this article I have summarized the AQ courses — Parts 1, 2, and 3 (Specialist level) — being offered in 1992/1993.

The information I gathered from the principals/directors of each course is organized in the tables that follow. While the courses have much in common, each is distinctive in its own way. There is something for everyone. I kept the editing to a minimum to maintain the integrity of the individual personalities and qualities associated with each course. All of the courses are called Environmental Science but most are broad enough in scope that they could be considered as Environmental Studies courses. All courses involve education in the out-of-doors.

AQ courses, in general, better prepare educators to teach subjects they are presently teaching; wish to teach; or are required to teach by their board. They also increase teachers chances of being hired in a new job and may result in an increase in pay depending on the number and type of AQ courses taken.

There are two other universities that offer AQ courses in Environmental Science that are not included in the tables. They are as follows:

Brock University

Brock University has offered excellent courses in the past and hopes to offer more in the future but not during 92/93. For more information call Wally Poole at 416-688-5550; and

Queen's University

Queen's University intends to offer Parts 1 and 2 in the near future. For more information call Bill Mitchell at 613-473-4251(W) or 613-473-4820.

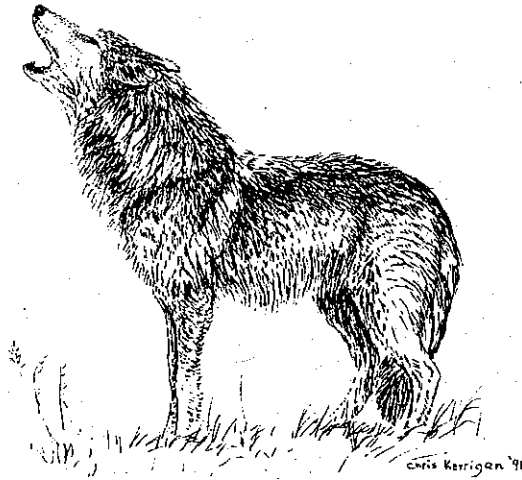
Courses

PART 1	LAKEHEAD UNIVERSITY	NIPISSING COLLEGE
OBJECTIVES	This is a course to enable teachers to develop courses of study in Environmental Science, and the implementation of such courses in one of the four Ontario school divisions they teach. Practical activities form an integral part of this course.	The teaching team for all three Environmental Science courses offered through Nipissing have built the objectives set out by the Ministry of Education into a learning continuum. Part 1 focuses on awareness of systems, teaching topics, concepts, resources and networks.
TOPICS COVERED	levels of program implementation for Environmental Science; comprehensive curriculum instruction package; Ministry documents; all Environmental Science topics; planning, implementation and evaluation of field trips; and brain growth periodization and learning styles	environmental literacy; an examination of the philosophy and essential concepts of environmental education; links to Ministry of Education curriculum; teaching strategies for integrated studies in environmental education; and hands-on exploration of aquatic and terrestrial ecosystems.
SPECIAL FEATURES	field trips to outdoor area and facilities ; variety of guest lectures with curriculum specific interest; flexibility; input by students into planning course content, structure and evaluation; and multifaceted approach.	successful unique partnership with the Ministry of Natural Resources; residential course held at the Leslie Frost Natural Resources Centre; and part of course instruction is offered during a two day canoe trip. Residential aspect of course facilitates sharing and the development of strong networks that last beyond the duration of the course and provides additional opportunities for outdoor recreation.
WHEN	Fall 1992, Winter 1993 and the occasional weekend	July 6 - 10, July 20-24, 1992 in residence at Frost Centre. July 13 - 17, July 27 - 31, 1992 home study Approx. same dates for 1993
LOCATION	Everywhere! Hillcrest High School in Thunderbay, natural areas, field centres and school yards	Leslie Frost Natural Resources Centre, Dorset
COST	\$ 396.44 (91/92 tuition)	Tuition - Approx. \$390 , Residence - \$66 per day
INSTRUCTOR	Suzanne Burns Karen Walker Lakehead Board of Education	Kathy Roi, Scarborough Board of Education Frost Centre Staff Guest instructors
ADDITIONAL COMMENTS	Assignments include multi-unit curriculum package; review and analysis of one current environmental studies article; field trip report, environmental crafts; and oral presentation. Numerous materials received. For bibliography please contact K. Walker at Hillcrest High School in Thunder Bay.	Several small assignments and one major written assignment for home study portion of course, e.g a report on planning and organizing a field trip. Numerous materials received by participants during course including readings, sample activities and support material. Participants will also receive Project WILD, Focus on Forests and Fish Ways.
FOR MORE INFO	Bob Welsh, Coordinator of Continuing Teacher Education, School of Education, Lakehead University, Thunder Bay, Ont. P7B 5E2. Phone (807) 343-8706. Fax (807) 344-6807	Penny Obee, Course Director, Box 584, Minden, Ont. KOM 2K0. (705) 286-1242 or Barrie Martin, Leslie Frost Natural Resources Centre, Dorset, Ont. POA 1E0. (705) 766-2451.

UNIVERSITY OF TORONTO	UNIVERSITY OF WESTERN	YORK UNIVERSITY
<p>This course assists teachers in the development of environmentally focused learning experiences for students at all division levels.</p>	<p>This course will introduce teachers to the basic concepts of ecology and environmental concerns; provide instructional strategies for teaching environmental science; and familiarize teachers with Ministry and board curriculum.</p>	<p>Awareness, sensitivity, and commitment to environmental concerns; knowledge of basic ecological concepts; familiarization with MED curriculum guidelines, related pedagogical strategies and learning styles; and capacity to transfer a working familiarity from a model site to the learning potential in the student's community to which the school has access.</p>
<p>basic ecology, nature study, natural ecosystems (forests, streams, ponds, meadows, soils), field trips, environmental ethics, teaching and learning strategies, establishing transdisciplinary links, and the infusion model for environmental education</p>	<p>ecological concepts, goals and objectives of environmental education, activity design, and environmental challenges and problems</p>	<p>Summer: environmental literacy, field and schoolyard studies, integrated units of study, resource management, environmental issues, camping skills, and outdoor recreation. Winter: environmental literacy, ecosystems, agriculture, simulations, energy, endangered species, forestry, issues, and waste management.</p>
<p>practical, exciting, real environmental studies (not outdoor education), and based on sound philosophical, psychological, and ecological principles. - a realistic blend of formal instruction, lab activities and field experiences.</p>	<p>held at an outdoor centre with much of the learning taking place outside; and an emphasis on environmental values education and environmental literacy</p>	<p>Summer: camping trip in Haliburton/ Algonquin area during second week; one day visit to information agencies in Toronto; and a mini-conference This course emphasizes field studies and hands on experiences. Winter : Two Saturdays doing field studies in fall, weekend at Frost Centre in February. This course emphasizes environmental issues. For students taking Parts 1 and 2 it is recommended that one be done in each season.</p>
<p>May - June 1992 , May - June 1993</p>	<p>July 1992 and 1993, half days with occasional full days</p>	<p>Summer : June 29 -July 17, full days - 9-4:00 Winter: October to April, Monday evenings - 6-9:00</p>
<p>Toronto, City Adult Learning Centre</p>	<p>Erbville Outdoor Centre, Waterloo area</p>	<p>Summer: Vivian Outdoor Centre near Aurora and Haliburton Forest Reserve Winter: York University</p>
<p>Tuition - \$385</p>	<p>Tuition - approx. \$ 390</p>	<p>Tuition - \$468, field trips - \$ 50</p>
<p>W. A. Andrews, Course Principal D. K. Moore, Instructor</p>	<p>Frank Glew, Waterloo Board of Education Dennis Wendland, Waterloo Board of Education</p>	<p>Co-directors - Arnis Pukitis, York Region Bd. Jim Schultz, Muskoka Bd. Various guest speakers.</p>
<p>Assignments vary and are adapted to the needs and interests of the teachers. We do not overwhelm teachers with routine assignments which consume time that they don't have. Each participant receives a wide variety of papers (on ethics, teaching strategies, etc), sample field and lab activities, case studies and a wide range of other classroom ready (and tested) material.</p>	<p>Assignments include maintaining a daily journal; planning and initiating an environmental action strategy; producing an environmental values education lesson; researching an environmental issue; and producing and presenting a seminar on Ministry curriculum. Numerous resources and materials are provided.</p>	<p>Assignments include planning and implementing 1/2 day lesson, resource list of available resources and opportunities close to student's teaching location, seminar on an environmental issue, and journal and responses to readings. Numerous materials received including resources lists, worksheets, lesson plans, Project WILD, Focus On Forests, readings, and bibliographies.</p>
<p>Bill Andrews 38 Killdeer Cres. East York, Ont. M4G 2W6 (416) 429 - 2786</p>	<p>Dennis Wendland, Erbville Outdoor Centre, 519-884-0370 Frank Glew, Waterloo Board Education Centre 519-570-0300</p>	<p>A. Pukitis - 416-883-5199 J. Schultz - 705-645-3989</p>

PART 2	NIPISSING	U. OF TORONTO	U. OF WESTERN	YORK U.
OBJECTIVES	The teaching team for all three Environmental Science courses offered have built the objectives set out by the MEd into a learning continuum. Part 2 focus on knowledge of issues, teaching strategies, personal ethics, resources and networks.	Using the ecological and ethical bases established in Part 2, this course further develops teacher competence in the planning and implementation of environmentally focused learning experiences in the K to OAC continuum.	A continuation of Part 1, this course broadens and deepens the conceptions of physical and social dimensions of environmental issues; places a greater emphasis on the affective domain; and focuses on the coordination of in school and out of school experiences.	Continued awareness, sensitivity, and commitment to environmental concerns and issues; greater knowledge of basic ecological concepts
TOPICS COVERED	in-depth examination of env. values and issues and the continued exploration of ecosystems, e.g. old growth forests, endangered species and spaces, water conservation, forest health, wildlife management, etc	air and water quality, global env. issues, noise, wildlife conservation, energy conservation, waste mgt., and strategies for coping with controversial issues.	native perspectives, aquatic and terrestrial ecosystems, agricultural systems, wildlife management, system problems, and resources	similar to and a continuation of Part 1
SPECIAL FEATURES	partnership with Ministry of Natural Resources, two week residential experience with three day canoe trip and two week home study component. See Part 1 description	See description for Part 1	Large number of participants results in extensive network. Some course participants presented on board P.D. days	See description for Part 1.
WHEN	July 6 - 10, July 20 - 24, 1992 in residence at Frost Centre July 13 - 17, July 27 - 31 home study Approx same dates for 1993	September - December 1992	October 92 to March 93 Tuesday evenings with four Saturdays	Held in conjunction with Part 1. See description.
LOCATION	Leslie Frost Natural Resources Centre, Dorset	Toronto, City Adult Learning Centre	Erbville Outdoor Centre, Waterloo area	Summer: Vivian Outdoor Centre near Aurora. Winter: York University
COST	Tuition - Approx. \$390 Residence - \$66/day	Tuition - \$385	Tuition - approx. \$ 390	Tuition - \$468 Field Trips - \$50
INSTRUCTOR	Tom Purdy, London Bd Frost Centre Staff Guest instructors	W. A. Andrews, Course Principal D. K. Moore, Instructor	Frank Glew and Dennis Wendland, Waterloo Bd.	Arnis Pukitis, York Region Bd., Jim Schultz, Muskoka Bd.
ADDITIONAL COMMENTS	See Part 1 description. Examples of assignments include: analysis of a critical values issues, design a simulation activity for students, and selective readings	See description for Part 1	Assignments include development of a personal ethic; write or update a curriculum unit for their division; oral presentation; action strategy, freshwater assignment	Assignments include designing and implementing a unit; planning, organizing a winter weekend at Frost Centre; develop annotated bibliography
FOR MORE INFO	Penny Obee, Course Director, Box 584, Minden, Ont. KOM 2K0. (705) 286-1242 or Barrie Martin, Leslie Frost Natural Resources Centre, Dorset, Ont. POA 1E0. (705) 766-2451.	Bill Andrews 38 Killdeer Cres. East York, Ont. M4G 2W6 (416) 429 - 2786	F. Glew - 519-570-0300 D. Wendland - 519-884-0370	A. Pukitis - 416-883-5199 J. Schultz - 705-645-3989

PART 3	NIPISSING	TORONTO U.	U. OF WESTERN	YORK U.
OBJECTIVES	Part 3 focuses on a commitment to environmental action and leadership, personal growth, well planned programs of education, implementation of programs. See description for Part 1.	This course develops teacher competence in the organization, administration, and supervision of environmental education programs in the K - OAC continuum.	This course will provide opportunities to gain competency in the organization, administration, and supervision of Env. Sci. programs; and to plan, develop, implement and evaluate those programs .	This course will examine strategies used to monitor and remediate detrimental env. concerns; organize research findings and techniques related to a major env. concern into a curriculum plan; and plan, develop, administrate, evaluate the presentation of an inservice program.
TOPICS COVERED	continued exploration of issues and ethics; organization, administration, and supervision of env. science programs and the design, development and implementation of such programs at the school, board and community level	the philosophical and psychological basis for env. education, curriculum design, unit planning; the conceptual base for environmental education; extended field trips, agriculture; forest conservation; population issues; and global education	environmental law and politics, need for wilderness, land use planning, resource use, role of lobbying and boycott, leadership styles, conflict resolution, planning and administration of extended field trips, personal growth	in-depth research project on an environmental theme or topic through original research, literature review, mentorship, interviews, field work, etc
SPECIAL FEATURES	self directed learning experience; student and instructor work together to develop a personal learning contract. Three weekends in residence at the Frost Centre for course work , presentation and field trips	See description for Part 1	choice of an extended field trip to Costa Rica (2 weeks) or Temagami (1 1/2 weeks);	offers an oppotunity for independant work, home study, and some group activities
WHEN	January to June 1993 (possibly a preparatory weekend in November or December)	September - December 1992 May - June 1993	July 1992 - half and full days; some evenings and Saturdays during May and June	begins with 3 evenings in May.
LOCATION	Setting of student's choice and Frost Centre, Dorset	Toronto, City Adult Learning Centre	Erbville Outdoor Centre, Waterloo area and field trip location	York University
COST	Tuition - Approx. \$390 Residence - \$66/day	Tuition \$385	Tuition - \$390 plus costs of travel , food and accommodation	Tuition - \$390
INSTRUCTOR	Clarke Birchard, Bruce County Board of Education	W. A. Andrews, Course Principal D. K. Moore, Instructor	Frank Glew and Dennis Wendland , Waterloo Board	Arnis Pukitis, York Region Bd., Jim Schultz, Muskoka Bd.
ADDITIONAL COMMENTS	Each student's assignments will vary in length depending on the type of contract he or she constructs. Oral presentation to peers is a key component. Numerous resources and handouts are made available.	See description for Part 1	journals, readings and other assignments - contact instructors for more information	presentation to peers at a PD day for example; other assignments vary depending on the intersts and needs of students
FOR MORE INFO	Penny Obee, Course Director, Box 584, Minden, Ont. KOM 2K0. (705) 286-1242 or Barrie Martin, Leslie Frost Natural Resources Centre, Dorset, Ont. POA 1E0. (705) 766-2451.	Bill Andrews 38 Killdeer Cres. York, Ont. M4G 2W6 (416) 429 - 2786	F. Glew - 519-570-0300 D. Wendland - 519-884-0370	A. Pukitis - 416-883-5199 J. Schultz - 705-645-3989



Canterbury Hills Adventure Training Workshops

Canterbury Hills is excited to be offering progressive and exciting Adventure Training Workshops for the 1992 season. Offerings include:

Adventure in the Treetops II: Advanced

Friday, June 12-Monday, June 15

Cost: \$210.79

Workshop Fees include tuition, 3 nights lodging, 9 meals, materials and applicable PST and GST.

There are still limited spaces left for three workshops. For additional information contact: Cathy Clements, Outdoor Programmer at 416-648-6337.

Society for Ecological Restoration Fourth Annual Conference

Waterloo, Ontario

August 9-14, 1992

The Fourth Annual SER Conference will bring together several hundred restorationists from the fields of landscape architecture, biology, urban and regional planning, horticulture, ecology, farming, environmental education, and resource management, among others. Scientists, practicing restorations, and amateur naturalists alike will discuss the full social and ecological implications of restoring the earth.

For further information about SER, write

the Society's headquarters at 1207 Seminole Highway, Madison, Wisconsin, 53711 USA, or call 608-262-9547.

Eco-Justice

The Eco-Justice Project was formed by people concerned over the limits of the earth's natural resources and the earth's ability to maintain a livable environment. The group concluded that a new vision of justice was needed in order to reflect this understanding. The Eco-Justice Project was launched to raise awareness of the danger to earth and people, to lift up the vision of a just and sustainable global community, and to seek practical ways of moving toward its realization. Eco-Justice provides a holistic, long-term ethical/spiritual perspective, which equips concerned people for serious involvement in their own immediate environmental and justice issues. The project, with its national headquarters on the Cornell University campus, has strong ties to both the academic and the religious community, and draws upon the resources they provide for effecting needed changes in social policy and personal practice. Contact Eco-Justice, Anabel Taylor Hall, Cornell University, Ithaca, NY 14853.

International Joint Commission

A five-day in-residence teacher workshop, co-sponsored by the IJC and Brock University, will be held on the campus of Brock U., St. Catharines.

- Ontario, Canada on July 19-24, 1992.

This workshop aims to establish an integrated curriculum model to infuse Great Lakes topics into all subject areas and will provide hands-on experiences through field trips and sessions on lake ecology and management. Contact IJC at P.O. Box 32869, Detroit, MI 48232; 313-226-2170 or 100, avenue Ouellete, Windsor, Ontario N9A 6T3; 519-256-7821.

Central Region Annual Barbecue

June 11, 1992, 4:30 p.m.

Etobicoke Field Studies Centre

Come and enjoy good food, good friends and a ride of a lifetime at the Water Park! ECO-ED reps will be there to answer those 'all you wanted to know but were afraid to ask' questions. Bring plate, cutlery, mug and swimsuit. Etobicoke Field Studies Centre, 8180 Highway 50, Brampton, Ontario. Contact Glen Hester, 416-794-2171.

Earth Day Ontario Educator's Kit

Keep up the momentum for environmental responsibility and change. The Earth Day Ontario Educator's Kit can be used for Earth Day, Arbor Week, National Forest Week, Environment Week, or Earth Day, Every Day, Anytime!

Kits include lesson plans, activities, resources, a guide to environmental books and films—lots of ideas to empower our youth and keep kids involved.

The kit builds on excellent work already done by previous groups. Teacher-usable material can stand alone or can be incorporated into existing curriculum and school programs to follow our international theme of "Sustainable Development."

To order, send a cheque or money order for \$25.00 to: Earth Day Ontario, 1040-1096 Princess Street, Suite 203, Kingston, Ontario K7L 1H2.

Celebration '92: Two Decades of O.E.E. at Queen's

September 26 & 27, 1992

- Experience the newly completed O.E.E. facility ("the new barn")
- Join in honouring Bert Horwood at his time of retirement
- Meet new faculty

- Exchange ideas and issues with friends and colleagues
- Visit old haunts

There will be a special gathering to mark over two decades of Outdoor and Experiential Education at Queen's University. This weekend event will host the many people who have been a part of O.E.E. in some way from its original inception to its present operation. It is an invitation to come celebrate together—to reflect on past successes, to exchange current issues and ideas, and to share visions for the future. The new Open Country Barn just outside Sydenham. For registration details (before June 30 please), call 613-545-6209 or write: O.E.E. Reunion, Faculty of Education, Queen's University, Kingston, Ontario K7L 3N6.

The Original Bug Shirt®

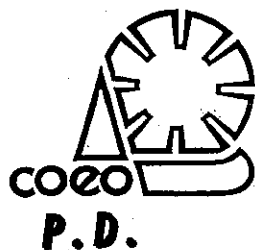
Light, cool, effective protection against black flies, mosquitoes, ticks.
No chemicals



Canadian-made
Tested and proven across Canada.

FREE BROCHURE

Send S.A.S.E. to:
The Original Bug Shirt Company
Box 127,
Trout Creek, ON
POH 2L0
(705) 729-5620



ECO-ED CONFERENCE SEMINAR

CIOE 575

SEMINAR IN OUTDOOR EDUCATION

3 credits, Northern Illinois University
Instructor: Dr. Robert L. Vogl

The Seminar explores the concept of sustainable development from the prospective of environmental education. It will focus on the ECO-ED Conference in Toronto, Canada in October, 1992.

ECO-ED is the first major international gathering to focus on action plans from the Earth Summit in Brazil.

Educators, business leaders, scientists, government officials and others will link together to prompt global environmental awareness and environmental actions.

A Conference Curriculum Fair will feature an international collection of outstanding educational resources, and serve as reference guides for educators around the globe.

This unique, seminal event will be a major influence on environmental education practices for the remainder of the decade.

The seminar is an opportunity to prepare for the conference, reflect on its meaning after participation in it, exchange views with others, and assess its meaning to your personal and professional life.

Seminar Dates:

September 19 & 20
October 3 & 4
October 17 & 18 - ECO-ED Conference
October 31 & November 1

Requirements:

1. Attend all seminar sessions.
2. Register at student rates for the ECO-ED Conference and participate fully in the weekend of Oct. 17 & 18. Participants may substitute sessions of the conference with the consent of the instructor.
3. Participants are encouraged but not required to participate in Partner Events Oct. 15 & 16, and the remainder of the ECO-ED Conference, Oct. 19, 20 & 21.

CIOE 526

TEACHING NATURAL SCIENCE OUTDOORS

MacSkimming Outdoor Science School, Ottawa
3 graduate hours credit
Instructor: Dr. Sonia Vogl,
Lorado Taft Field Campus

What is that tree? How do I observe birds? What kind of animal signs can we look for? How can I teach this to my students?

Learn:

- about natural science
- how to study natural science
- how to teach natural science
- how to use natural science to enhance and enrich all areas of your curriculum
- how natural science can help you meet science literacy goals

This course is designed to help teachers feel comfortable teaching their students about natural communities in any setting: natural, rural, or urban.

Field trips to:

- forests
- prairies
- ponds, streams, and marshes
- roadsides
- school grounds and parks

Course meets Saturdays and Sundays 8:30 a.m.-4 p.m.
September 19 & 20
October 3 & 4
October 17 & 18
October 31 & November 1, 1992

PLEASE COMPLETE REGISTRATION
FORM ON OPPOSITE PAGE

In order to receive graduate credit, students must have been accepted by the Graduate School as either graduate students or students-at-large.

Please enrol me in CIOE 575, Seminar in Outdoor Education (Toronto course) or CIOE 526, Teaching Natural Science Outdoors (Ottawa course). I enclose a deposit of \$50. (made out to 'COEO') to reserve a place.

NAME: _____

ADDRESS: _____

_____ POSTAL CODE: _____

TELEPHONE: (H) _____ (W) _____

Please return to: Mark Whitcombe
34 Blind Line, Orangeville, L9W 3A5
Tel: (H) (519) 941-9966 ; Messages (416) 396-2000 (for Toronto course)

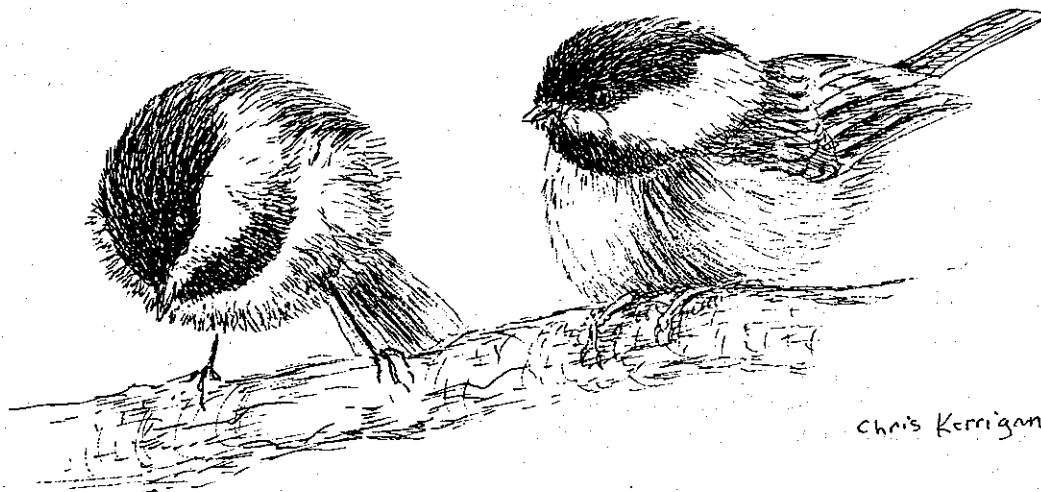
or to: Rod Ferguson
MacSkimming Science School, RR#2, 3625 Highway 17, Cumberland, Ontario, K0A 1S0
Tel: (613) 833-2080 (for Ottawa course)

Plan to attend all sessions. Please be sure the weekend dates are open and that you have no conflicts before you register.

"The Ministry of Colleges and Universities does not endorse this programme of studies or certify that it meets Ontario University standards. The programme of study being offered in Ontario is equivalent to the programme being offered by the institution in its home jurisdiction. In addition, the Ministry of Colleges and Universities cannot guarantee that the degree will be recognized by Ontario Universities and employers."

You are advised that the NIU programme is deemed "an approved Master's Degree in Education" for QECO Evaluation Programmes 3 and 4, and it is evaluated by QECO as "no less favourable but no more favourable than degrees taken from recognized Ontario Universities."

Further you are advised that students from this programme have found Ontario Universities willing to accept equivalency when credits are being transferred to the Ontario University. Some Ontario Universities will only accept credits which they consider appropriate for the programme of studies undertaken at the Ontario University.'



Water: How Is It Taken For Granted?

by Bob Henderson

There is such a need for critical questioning as to who in this world are we and what in this world do we think we are doing!

Bob Henderson teaches Outdoor Education at McMaster University

Last December I went for a paddle in Hamilton harbour. This was memorable enough, but an odd encounter that day has stuck as an annoying motivator.

It was a "hot" sunny calm morning. But it was December! With sweater and mitts, I headed out into an eerie placid water surface with a haze that muted the shoreline of residences on one side of the bay and the Stelco steel plant on the other. These seemed very distant. There was only canoe and water. Setting out was cast in a comic irony. "I shouldn't be able to do this. I really want to be skiing," I thought. But with a few strokes I wanted nothing more than my movement on that beautiful shining surface.

Well into the morning and well dazed by that apparently purposeless canoer's rambling, I pulled up at a deserted stretch of shoreline to rest cramped knees. I had just put into the water again, intending to float with a good book, when my December solitude was invaded. In the back sleeve of that good book, I recorded my encounter. Here it is as I recorded it then.

Dec. 2/90

Kids being kids. Three boys throwing rocks in the water, Hamilton harbour, Burlington side. The oldest boy, about thirteen, shouts, "I dedicate this . . . (missed it) . . . to this shit hole polluted lake." His water supply. He then turned to the others, "You know, this lake is dead, eh." They casually walked off down the shore. I heard one more thing. "I've seen Phantom of the Opera. It was really neat."

I head out from shore. The odd December sun, no wind, is beaming. It's gorgeous on the water. What are we teaching kids? What can we teach them? How can I show kids something else about this lake? The pollution, the fate of the lake was so matter-of-fact to them. It's all so twisted. Is it fate?

To that Dec. 90 entry, I can add a similar encounter. Paddling the Lower Madawaska last spring with a group of university students, I was struck again by a similar appalling complacency and sickly apparent pre-determined reality.

It was just before lunch. We had paddled all morning and people were tired but elated. Crystal clean whitewater, blue sky and rocky shorelines can do that. In another canoe, beside mine, in a calm stretch, someone said, "Boy, am I thirsty, I'd kill for a drink right now." I replied simply, "then drink." Here was the reply to this simple suggestion.

"You mean the river. . . . No, no no, I don't even drink from the tap at home."

"What DO you drink?" I add.

"Well, bottled water."

"Where does that come from?"

The ensuing pause was awkward, and it seemed best to leave it there. A final rapid and our lunch site was approaching.

I do not recover from these moments well. It is not simply a sinking into a depression that takes hold. It is a heavy weight that descends. The complexity of the task of Outdoor Education overwhelms. There is such a need for critical questioning as to who in this world are we and what in this world do we think we are doing! The linking of these questions to the educational machinery with a hidden curriculum that preserves a "common sense" that is ecologically thinking proving itself to be non-sense, the cultural setting so landless and clean water-less, the actual curriculum that too easily avoids the important questions and facts submerged by the "facts": all this is there, spinning, in the aftermath of such chilling meeting of minds. What we are left with is the realization that the avoidance of issues, the urban pervasive land and clean-waterlessness and a hidden curriculum that presents education as a matter of being determined, not self determined, all leave us with the inability to act.

Ultimately we are left with an apathy that leads us to fantasy. A culture of "fantasists" is a Wendell Berry description.

So paddle hearty, drink hearty as appropriate, think hearty: celebrate and be critical when necessary. We must teach all this about water. No, this ain't no beer commercial. But that's another Prospect Point.

Council of Outdoor Educators of Ontario

Regions Served by COEO

- Far North:** Patricia, Kenora, Thunder Bay, Algoma, Cochrane, Sudbury, Rainy River, Timiskaming
- Northern:** Parry Sound, Nipissing, Muskoka, Haliburton, North Bay, Simcoe County
- Western:** Essex, Kent, Elgin, Lambton, Middlesex, Huron, Bruce, Grey, Dufferin, Wellington, Waterloo, Perth, Oxford, Brant, Haldimand-Norfolk
- Central:** Niagara South, Lincoln, Hamilton-Wentworth, Halton, Peel, York, Ontario, Metro Toronto
- Eastern:** Victoria, Durham, Peterborough, Northumberland, Hastings, Prince Edward, Lennox and Addington, Renfrew, Frontenac, Leeds, Grenville, Ottawa-Carleton, Lanark, Prescott, Russell, Stormont, Dundas, Glengarry
- Out-of-Province:** Any area in Canada except Ontario
- Outside Canada**

Membership Application Form

(Please print)

Name: (Mr., Mrs. Ms) _____

Address: (Street or R.R.) _____

City _____ Postal Code _____

Telephone: (H) _____ (B) _____

Position: _____ Employer: _____

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

University/College if full time student: _____

I am in the _____ Region of COEO.

Introduced to COEO by: _____

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 Membership # _____

Fees: (circle)

Regular: \$40.00 Student: \$25.00 Family: \$52.00

Subscription Rate: \$38.00

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

John Aikman
Membership Secretary
47 Rama Court
Hamilton, Ontario
L8W 2B3

Please allow four weeks for processing or change of address.