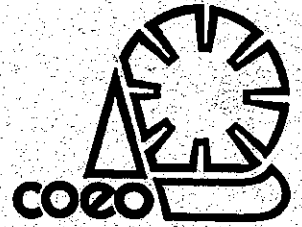







# Pathways

THE ONTARIO JOURNAL OF  
Volume 9, No. 3, June 1997

OUTDOOR EDUCATION



	<i>Tributaries</i>	
<i>Where the</i>		<i>Waters Meet</i>
	<i>COEO 1997</i>	

## COEO Annual Conference

*October 3-5, 1997*  
*Glen House, Gananoque*

# Pathways

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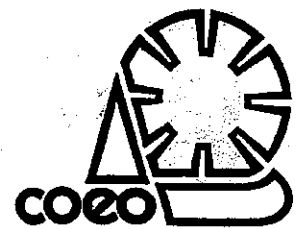
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# Pathways

THE ONTARIO JOURNAL OF  
Volume 9, No. 3, June 1997

OUTDOOR EDUCATION



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## Editor's Log Book

*We should challenge any other curriculum unit to come up with a 92% worthwhile data point of satisfaction*

This issue has two more Retrospectives in our continuing series of reviewing the history of COEO and outdoor education in Ontario. Barrie Martin has a review of outdoor education and the Ministry of Natural Resources, dealing mainly with the Frost Centre and the central role which that institution and those people have had on outdoor education in Ontario. Paul Eagles then surveys the role of Ontario universities in outdoor education. Our thanks to Clarke Birchard for his considerable efforts in pulling this series of articles together. Would anyone like to help put these together into book form? Would anyone be able to contribute further articles on our history, particularly focussing on the development of outdoor education within specific Boards? John Aikman has contributed one about the Hamilton Board that will be in an upcoming issue. But there are many other histories that deserve to be chronicled, many people whose contributions should be recognized, many stories that we benefit from knowing. Who will gather and record them for all to read?

Regarding children raised on video images, John Alexandra has this to say in *Mephistopheles' Anvil* (Spring Valley, NY: Rose Harmony, 1996):

"If [children] have been brought up expecting to be provided with stimulating sensations, they tend to find books boring. Their classroom experience is then similar: having been taught to be inwardly passive, and expecting the stimulus to come from the outside, they get bored when the teacher does not fulfil their unconscious expectation and make everything as stimulating as television. In reality, the teacher's job is not to provide a lot of exciting outer stimuli, but to stimulate the children's inner activity, their well of inner resources, so they can bring interest and enthusiasm to meet even the "simplest" outer phenomena."

As the very timely research piece by Paul Eagles and some of his students at the University of Waterloo illustrates, the direct experiences out-of-doors we provide do have significant positive effects in achieving our desired curricular effects. Through the achievement of those learning outcomes, we are having a significant impact on the lives of our students and our society. This is not news to us — but it is very heartening to see what we know in our hearts being backed up by research. We should challenge any other curriculum unit to come up with a 92% worthwhile data point of satisfaction — a very high accomplishment in the business world if we were selling automobiles or some other commodity! Perhaps even more important is that this positive research has had a real impact in the all-important budgetary decisions being made by the elected officials who have such an important and fundamental role in determining the future of our ability to provide direct experiences for students in the out-of-doors.

Another exciting connection with this research is the on-going evaluation of the data looking at male-female knowledge and opinions and carrying things through to action. The same data is being used to help answer another question: Do females move further from learning towards saying that they carry out positive environmental action? More reports to follow!

In the spirit of the best of COEO, please turn immediately to the centre-fold of this issue, fill out the Conference registration package, and mail it to Susan Overvelde. May we all be in Gananoque in early October to re-connect ourselves and to be watered by the Tributaries!

*Mark Whitcombe, Pathways Editorial Board*

## Sketch Pad

Marta Scythes has contributed the wonderful nature artwork for this issue. She has previously been published in *Pathways* Vol 6, No. 3. Marta has a solid reputation from work in various print media. She has been featured in *Harrowsmith*, and in other works from Camden House Publishing, Telemedia Publishing, and Reed Books Canada. She has taught courses for Sir Sandford Fleming College, St. Lawrence College,

and the Haliburton School of Fine Arts. Marta is also a qualified outdoor recreation specialist. Marta Scythes, Box 147, Newburgh, Ontario, K0K 2S0

The Conference logo on the cover and elsewhere in the Tributaries Conference ad is by Susan Hemstreet, who is part of the Conference Committee. Susan also contributed some artwork to the Bark Lake Retrospective in a recent issue of *Pathways*.

I'm basking in one of those glorious warm sunny pre-bug days — a real bonus at the end of May! I feel very fortunate to be living and working on the edge of Algonquin Park with a job and a lifestyle that gets me into the bush often. (Check back with me at the height of black-fly season!)

Our last COEO Board meeting, held May 24th, was graced with the ever-enthusiastic presence of Alice Casselman, who shared with us the results of a brainstorming session with some of our respected elders. Many creative ideas were put forth regarding COEO's future. Look for further details in upcoming issues.

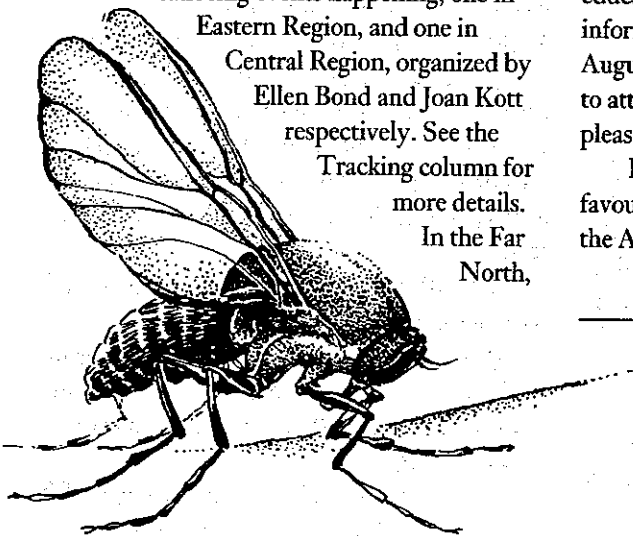
Congratulations to Joan Kott, our Central Region Representative. She was one of only 30 educators across Canada selected to attend the annual SEEDS Conference in Regina this summer, put on by the KEY Foundation (Knowledge of the Environment for Youth).

Hats off to John Etches, our Northern Region Representative, and to our Treasurer, Ian Hendry, for planning and running the very successful Killarney Congregation, a long weekend of canoeing and hiking and field studies in the crown jewel of Ontario's Provincial Parks. Regional events are happening!

John Etches is now looking into organizing an intro kayaking day/weekend on Georgian Bay sometime in July. Call him if you're interested.

On June 21st, there are two separate canoeing events happening, one in Eastern Region, and one in Central Region, organized by Ellen Bond and Joan Kott respectively. See the

Tracking column for more details. In the Far North,



Lisa Primavesi is trying to set up a Project Wet workshop similar to Project WILD, but focussing on wetlands.

What else would you folks like to see offered? Share your ideas and enthusiasm with your regional rep and help make the ideas happen.

Don't forget to plan now for the Annual Conference at Glen House in Gananoque from October 3-5, 1997. Take advantage of the early-bird savings. Full conference details are in the center insert pages of this issue. The Conference Committee, led by Jim Raffan, Gina Bernabei, Jeff Hemstreet, and Susan Overvelde, are doing a great job of putting together a COEO event to remember — fellowship, fun, body-work, brain-work, and soul-work. Be sure to be there! Send off your registration now, so that the Conference Committee can complete their planning.

Thanks to the many folks who have contributed articles, the *Pathways* Editorial staff now have material for future issues. But what is needed are hands-on, Monday-morning, do-able activities. Please send your favourite outdoor activity and see your name in print.

We are also need high-energy, creative, active people to join our COEO Board of Directors next fall. Whatever your expertise or interest, please consider volunteering some time. Benefits include personal growth, fun, and the satisfaction of contributing to a very worthwhile common goal — the promotion of outdoor education. Contact any Board member for more information. Our next meeting is scheduled for August 27-28 up north somewhere. If you'd like to attend or if you have items for our agenda, please let me know.

Have a great summer enjoying your favourite outdoor pursuits. See you in the fall at the Annual Conference!

*Yours in the out-of-doors,  
Linda McKenzie, COEO President*

*Benefits include personal growth, fun, and the satisfaction of contributing to a very worthwhile common goal — the promotion of outdoor education*

## WHERE LEARNING COMES NATURALLY — A Review of MNR's Contribution to Outdoor and Public Education

Barrie Martin

*Education within  
MNR has been and  
continues to be,  
to a large extent,  
a grassroots  
movement.*

The Council of Outdoor Educators of Ontario deserves an anniversary celebration; it has touched us all in very significant ways during the past 25 years. In particular we should celebrate COEO's diversity. The Ministry of Natural Resources (MNR) and the Leslie M. Frost Natural Resources Centre have been part of the mosaic of people, places and programmes we call outdoor education. This article will highlight aspects of MNR's and, specifically, the Frost Centre's contribution to outdoor and public education.

### Planting the Seeds

Education within MNR has been and continues to be, to a large extent, a grassroots movement. Field staff have been educating (albeit informally) in the out-of-doors for a very long time. Consider the game wardens who have worked with anglers, hunters and recreationists for the last hundred years to foster wise use of fish and wildlife resources, and the fire rangers who patrolled the lake country by canoe during the 1930's and 1940's sharing their knowledge and experiences with wilderness travellers. The Junior Ranger programme established in 1944 provided memorable work and educational experiences for youth in camps across Ontario. Outdoor interpretation in a more formal sense started in Algonquin Park in the early 50's with Al Helmsley and Grant Taylor. Both worked as instructors at the Ontario Forest Ranger School, now the Frost Centre, during the winter months. Those employees of the Ontario Forestry Department and later the Department of Lands and Forests loved the outdoors and no doubt helped nurture society's blooming interest in the outdoors.

In the late sixties and the early seventies

more people were active in the outdoors and there was a growing public concern for the environment. Enter the age of public participation — of green papers, white papers, discussion papers, master planning processes, and of special interest groups challenging the government. The public wanted meaningful input into decisions being made by government. These factors prompted the now Ministry of Natural Resources to take a closer look at public education. There was much debate and report writing. Some felt that educating should be left to the school system. Others argued that if there was a need for people to better understand the hows and whys of resource management MNR should be in the business of public education. Several events and developments influenced the evolution of MNR education activities.

The Hall-Dennis report, *Living and Learning*, 1969, recommended that the Department of Tourism, the Department of Lands and Forests, and the Conservation Authorities support out-of-classroom learning.

In 1968, the province shifted the technical forestry training from the Ontario Forest Technical School (formerly the Ontario Forest Ranger School) in Dorset to the community colleges. This set the wheels in motion for the establishment of the Leslie M. Frost Natural Resources Centre. The Centre officially opened its doors on April 1, 1974 with George Hamilton as its director.

The MNR initiated a study of educational activities within the organization. A variety of reports by other agencies shaped the thinking of the Ministry as it prepared its own *To Gain A Public Understanding: Report of the Task Force on Outdoor Education*. {1}

MNR participated on an Interministerial Environmental Education Committee with the

## Frost Centre Takes Root

After the forestry training was transferred from the Ontario Forest Technical School in Dorset to the community colleges, a programme committee was set up in 1970 to assess what should be done with the facility. It was felt that it would be too costly to maintain it as an in-service training centre. The Deputy Minister then transferred the facility complete with some funding to the Ministry of Education. At this point, George Hamilton, then Director of Operations Branch and a few colleagues convinced the Deputy Minister not to sell it; the decision was then rescinded. A proposal to turn the facility into a demonstration centre was presented to senior management but to no avail as it was considered too expensive. The facility was then transferred to the Ministry of Government Services who offered it up to other agencies including the Ministries of Health, Education, Correctional Services, Natural Resources and the Ontario Provincial Police. {1}

In 1971 the Advisory Committee on Algonquin Park, chaired by former premier, Leslie M. (Miscampbell) Frost, presented a report to the legislature recommending that the Ranger School be used "for the demonstration of resource management, recreation and public education". The Leslie M. Frost Natural Resources Centre opened April 1, 1974 with George Hamilton as its director.

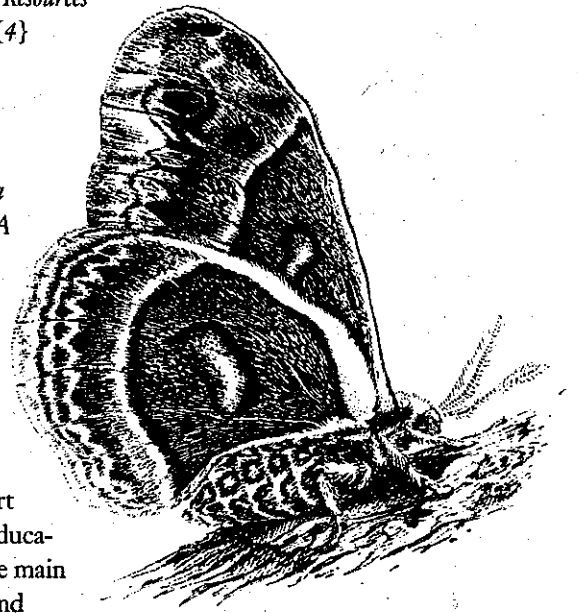
While George Hamilton laboured to deliver his vision the facility was being utilized by a variety of groups. Lloyd Fraser was bringing North York schools to Dorset as early as 1968. In 1971, Interpretation Canada held their inaugural conference. In 1972, the international conference, *Outdoor Education — Without Boundaries*, was co-hosted with Camp Kandalore. In 1974, the First Seminar for Full-time Outdoor Educators was sponsored by COEO.

likes of Jack Davis and Jack Bell. The document *Environmental Education Resource Materials Available from the Ontario Government* {2} was released in February 1975. In 1976 COEO, Energy Probe, Ontario Teachers Federation and several ministries including MNR worked together to produce a *Code of Ethics for Educational and Recreational Use of the Environment*. {3} Later, MNR produced *Land Resources for Outdoor Education* {4}

## Early Growth

MNR's *To Gain a Public Understanding: A Report on Outdoor Education* (1977) went beyond the scope of outdoor education and addressed a need for a broader public education policy, co-ordination and support for staff involved in educational activities. While main office contemplated and pondered over the recommendations many field staff were busy educating.

Park naturalists such as Shan Walsh in Quetico, Dan Strickland and Ron Tozer in Algonquin, and many others continued to interpret the wonders of Ontario's natural heritage to park visitors. As the provincial park system expanded so did the interpretive programmes with an increased emphasis on outdoor education opportunities for schools, in some parks at least. The school programme at Pinery Provincial Park established by Terry Crabe in the 1960's served as a model. Tree nurseries, fish hatcheries and wildlife management areas such as Tiny Marsh offered programming to a variety of groups. MNR funding supported the development of outdoor education programmes offered by Conservation Authorities. Staff in MNR district offices throughout the province responded to requests for presentations to organized groups, classroom visits and assistance with field trips. This was done out of personal



*Staff who taught the growing number of groups coming to the Centre were seen as biologists, foresters, geologists and field technicians — not teachers.*

*MNR appreciated  
the value of  
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knowledgeable  
public  
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the land use  
planning processes  
and issue  
resolution activities  
of the day.*

interest and often on their own time where there was a lack of support by their supervisors.

Under the guidance of George Hamilton an identity for the Frost Centre programme emerged. A 24,000 hectare parcel of Crown land and water was designated as a demonstration area to serve as an outdoor classroom for students, educators, adult special interest groups, and MNR staff. In addition to and in support of the Centre's goal "to foster a public understanding of natural resources, their management and use", there was a mandate to develop and implement resource planning and management and provide opportunities for experimental management and research. This included an obligation to manage the land base to help achieve regional targets for recreational opportunities, fishing and hunting opportunities, fur production, wood production, and protection of sensitive areas and special features.

A team of resource specialists led by Bill Hardy co-ordinated the resource management activities on the land base and provided direction to the development of the education programme. The original team included Mike Buss, fish and wildlife; Doug Henson, forestry; Joe Stocking, land and minerals; Barry Rogers, outdoor recreation, and Steve Williams, education. (Craig McDonald, Paul Berges, Al Corlett, Wayne Wilson, Mike Turner, Bob McGurrian and the author are others who have worked as Frost Centre specialists in more recent years.) A team of educators was recruited (including the author in November 1976) to develop and deliver the education programming. It was a dynamic mix of staff with field expertise and communication skills. Staff who taught the growing number of groups coming to the Centre were seen as biologists, foresters, geologists and field technicians — not teachers. The resource professionals and technicians developed their skills as educators and the educators had opportunities to do field work. It was not unusual to spend one day pulling up a trap net set to examine a sample of fish as part of a lake assessment project and the next day helping a group of grade 6's explore the workings of a sawmill or the ecology of furbearing animals. A

very enriching work environment!

Education programming at the Frost Centre was focussed on interpreting the principles and practises of resource management and use — the mandate of MNR. This programme orientation, while narrow in scope relative to other outdoor education programmes, proved to be critical to the Centre's success. It resulted in unique learning opportunities not available through other programmes and centres such as students helping to stock a lake with speckled trout, determining the location of a body of iron ore using geophysical equipment, visiting a logging operation, or exploring the whys and hows of trapping and sport hunting. Developing and delivering these learning opportunities was as complex as the Ministry's role which was to promote resource development for economic benefit as well as a mandate to protect the natural environment and heritage features and to insure public safety. This complexity fuelled a dynamic tension and creativity among staff members who possessed a diverse views and experiences. The ongoing effort to interpret the messages and issues important to MNR, to stay relevant to the organization, is one reason for the Centre's longevity.

Frost Centre programming was structured, science-based, and creative in many ways. The creature comforts were well provided for with well-maintained dormitories and good food. It was not the destination of choice for those looking for adventure, recreational or leadership programming. However, by the late 70's it became a destination for many and demand soon exceeded capacity. It was not unusual to have 50 groups on a waiting list.

## **The Tree Blossoms**

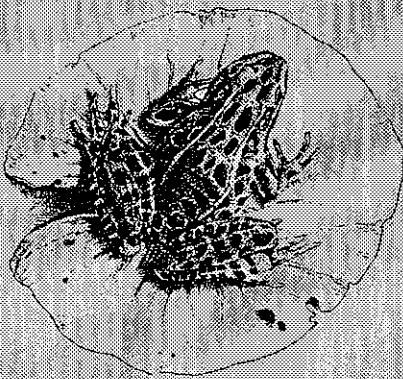
Support for a greater role in education increased by the mid 80's as more people within MNR appreciated the value of an aware and knowledgeable public participating in the land use planning processes and issue resolution activities of the day. The ongoing initiatives of field staff, the advocacy efforts of individuals



## Dispersal of Seeds

During the past 15 years the Frost Centre has focussed on providing professional development activities for educators including the Nipissing University Environmental Science courses, customized P.D. days for school boards, and student teacher placements from Queen's, Toronto, Brock and Nipissing. A significant portion of the Centre's resources have been dedicated to the organization and delivery of workshops and conferences. Some were Frost Centre originals; others were in partnership with other organizations. In addition to the numerous COEO events here are a few more that might bring back memories for those who attended:

- OAGEE's (Ontario Association of Geography and Environmental Education) spring conference;
- several user, leader and integrated workshops for Project WILD, Fish Ways, and Focus on Forests;
- three WILD Moves workshops;
- Project WILD Partner Event for ECO-ED;
- three environmental summits with the Durham Board of Education
- Connecting With Schools (with Interpretation Canada);
- two Environmental Education in the Common Curriculum workshops; and
- two Aboriginal Awareness workshops.



throughout MNR and the profile of the Frost Centre made a difference. At main office it was time for another report. The report of the Educational Programme Task Force {5} noted that in 1984/85, in absence of a stated MNR objective for education, staff had devoted 16,000 person days to public education and 1.1 million dollars were expended on production of materials to support educational activities. The report went on to recommend that an education coordinator be hired, policy be developed and that education be recognized as a critical part of the Ministry's business thus providing the impetus for a remarkable level of educational activity during the 1980's and early 1990's.

During this time the Frost Centre originated and organized its first workshop (1980) for educators. The Centre allocated more resources to providing professional development opportunities for educators and went on to organize or help organize numerous workshops. Frost Centre achievements were recognized when it received the Ontario Forestry Association award in 1982 for excellence in forestry education and COEO's Robin Dennis Award for outstanding contributions to outdoor education in 1985. During the same year Nipissing University in conjunction with the MNR started offering additional qualification courses in Environmental Science for teachers at the Frost Centre. Instructors Brian Richardson, Kelly Killorn (née Ballantyne) and later Penny Obee, Kathy Roi, Tom Purdy and Clarke Birchard teamed up with Frost Centre staff to certify dozens of teachers.

Laurel Whistance-Smith with MNR's Wildlife Branch worked with the Canadian Wildlife Federation to bring Project WILD to Ontario; the first leaders' workshop was held at Pinery Provincial Park in 1985 and led by Tom Purdy and Owen Williams.

Several school boards developed agreements with MNR to access land and use facilities for outdoor programmes. Nonquon Wildlife Management Area and Ganaraska Forest (Durham Board), Copeland Forest (Simcoe Board) and the Thunder Bay Demonstration Forest (Lakehead Board) are examples.

*It is estimated that 35,000 educators have participated in introductory workshops.*

... "develop an ecologically aware and knowledgeable public, who accept their responsibility as stewards of our natural resources and support, through their actions, sustainable development."

Susan Gesner was hired as provincial education co-ordinator providing leadership to a provincial education committee and resurrecting the Interministerial Committee for Environmental Education. She also co-ordinated the development of forestry education materials.

MNR initiated and supported several curriculum development projects. Bruce Hood at the Kortright Centre for Conservation put the finishing touches in 1989 on the Resource Kit with funding and support from MNR Focus on Forests was launched in 1989; Fish Ways followed in 1992. Educators and resource staff from MNR and teachers formed curriculum writing teams to develop these materials. The Frost Centre hosted additional writing workshops for Project WILD and Focus on Forests supplements and fire education material. Few government ministries or agencies have been as prolific as MNR in the development of environmental education curriculum. The interest and demand for these materials were high; it is estimated that 35,000 educators have participated in introductory workshops. MNR staff teamed up with other educators to deliver these workshops. Outdoor educators, teachers and youth group leaders have used these materials to support outdoor learning.

Yet another report in 1991, the *Education Task Force Report*, {6} reaffirmed that education was integral to MNR and a key strategy for achieving the organization's goals. A 1992 report {7} further described the work necessary to integrate the diverse education efforts of the Ministry. During re-organization in 1992 many branches and field offices identified positions or parts of positions that were dedicated to public education. Several workshops were held for MNR staff to train them to be more effective educators. All of the provincial education programmes including the Frost Centre were consolidated into one section — initially called Integrated Resource Education and Training, later External Transfer and Education (love those names!).

In 1992, Ontario Rangers (formerly called Junior Rangers) received a Grade 11 credit in environmental science and two co-op credits as

part of a pilot programme to determine the feasibility of integrating formal learning with their summer work experience.

In addition to providing learning opportunities for youth and adult groups the Frost Centre had, over the years, hosted numerous MNR courses, workshops and conferences. In 1992 the Centre was designated as the MNR's principle training facility. MNR use increased to 30% of the Centre's business. This was a positive development for all visitors — renovations were undertaken including the installation of a computer training room, a GIS (Geographic Information Systems) training room and additional recreational facilities; customer and food services were also improved. Another significant change included the transfer of the land management responsibilities described earlier to the Minden office. The resource specialists then assumed responsibilities for provincially significant education programmes and initiatives including hunter and trapper education and organizing the Ministry's presence at major shows and expositions. The Frost Centre continued to provide innovative programming to visitors such as the ACCESS workshop where educators discovered ways to use computer technologies to explore ecosystems. In 1995 the Frost Centre/Ontario Forest Ranger School celebrated 50 years of education and training.

One factor that influenced educational activity during the late 80's and early 90's was the "greening" of MNR, due in part to the recommendations of Brundtland Commission(1987). While the Ministry's mandate of resource development was still important, a greater emphasis was placed on protecting and maintaining healthy ecosystems and sustainability. And with that came a stronger commitment to work *with* the public to promote ecological awareness.

The Ministry partnered with several agencies to organize and celebrate the environmental advocacy weeks: National Wildlife Week, Earth Day, Arbor Week, National Forest Week, Pitch-in Week, and Environment Week.

There were many other partnership

initiatives. A few examples: Silvilog '93, a national forestry exposition at Copeland Forest (Forestry Canada); Watershed Report Card (FISH - Fishermen Involved in Saving Habitat); Great Lakes Alive (TVO); Family Fishing Weekend (Ontario Federation of Anglers and Hunters); Hudson Bay Lowlands Environmental Education Curriculum and the Kenora Project (First Nations partners) and the Ontario Learning for Sustainability Partnership (multi-agency).

A strategic plan for education was completed in 1994 with a stated mission to "develop an ecologically aware and knowledgeable public, who accept their responsibility as stewards of our natural resources and support, through their actions, sustainable development." Strategies included:

- the cultivation and nurturing of sound, co-operative relationships with provincial, national, and international organizations, agencies, partners and clients who have an interest in environmental education;
- the development of a dynamic portfolio of education initiatives that maximize public outreach and financial leverage (entrepreneurship);
- the establishment and maintenance of MNR's ability to provide leadership in the innovative research and development of education programmes and products; and
- the establishment of appropriate policies, structures, processes and culture to foster economical, efficient and effective management of public education initiatives and programmes. {8}

The Ministry had come a long way in its thinking and commitment to environmental and outdoor education, more so it seemed than other ministries. Why? The answer appears to be the staff, the grassroots of the organization. MNR was a decentralized organization with offices in many locations with staff who were connected to the community and the land. Creative, committed staff throughout the organization — Mark Stabb, Kathy Dodge, Allison Neilson, Kathy McDonald, Dave Hawke, Dave Gibson, Barb Elliot, Toni Frisby, Jeff Bond, John

Etches, Anne Collins, Bob Stewart, Allison Kelly, Mike Turner, Alan Crook, Gary Martin, Wilma Bodner, Scott Reed, Ron Pittaway, Arne Mikkelson, and Chris Lemieux — to mention a few more, had a significant influence on the direction and quality of education.

MNR has enjoyed a special relationship with COEO during the past twenty five years. COEO was frequently consulted as MNR defined its role in education. MNR staff were active in COEO as members of the Board of Directors, regional representatives, planning committee participants, award winners, and workshop organizers and presenters. The Frost Centre has hosted 4 annual conferences and numerous workshops including Make Peace with Winter, which started in 1987 and continued for 14 years, and Spring Celebration for ten years. The Frost Centre also co-sponsored several Environmental Youth Corps projects and assisted in the development of the directory of outdoor education programmes and people and the *Pathways* index.

## Autumn

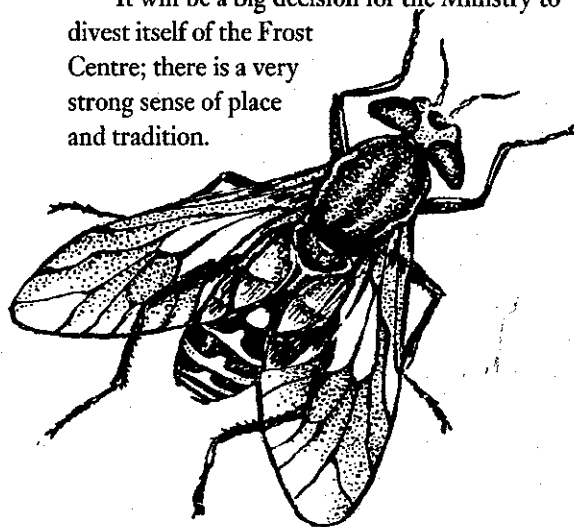
While it is easy to wax poetic about the MNR's contributions, the organization has never been completely comfortable with its role in public and outdoor education. Witness the number of task forces and reports; the ongoing discussions about the definition of education, target audiences, curriculum bias and allocation of financial resources; the organizational changes to find the best "home" for education; and the number of reviews to assess whether the Ministry should continue to operate the Frost Centre. Nonetheless, for all of the right reasons it seemed that education had evolved to become part of the Ministry's core business.

However, the "Common Cense Revolution" has resulted in some major changes for the Ministry of Natural Resources. A 30% reduction in size (with more cuts coming) heralds a new era where MNR will no longer be delivering programmes but rather managing them. MNR will be relying on partnerships with stakeholders — individuals and organizations to achieve its

mandate. MNR will focus its efforts on development of policy, standards and guidelines, compliance and — (one would think) education. However, this period of profound change — staff layoffs, organizational adjustments, reduced funding, new business planning — is not very fertile ground for the growth or even the maintenance of an education programme. MNR's role in education is being questioned again as the organization reacts to major budget reductions and struggles to redefine its business. Withdrawal, cancellation, devolvement seem to be the order of the day. Many of the dedicated staff listed above no longer work for the Ministry. Who and what will survive remains to be seen. Remaining resources for learning are being directed toward training MNR staff to work within the new organization and toward partners who will be doing the work that MNR field staff used to do. Educating the broader public seems to be much less important.

With a new round of cuts threatening, the future of the Frost Centre is in question. Jim Raffan's words "I wonder if it is anything but the unvarnished truth that elite, centre-based outdoor education is history?" {9} and those of Bert Horwood "the days of publicly funded centres are numbered" {10} are unsettling. Yet the demand for the Frost Centre experience remains high and strategies for coping with fewer resources, improving customer services, increasing revenues and enhancing programming are being implemented.

It will be a big decision for the Ministry to divest itself of the Frost Centre; there is a very strong sense of place and tradition.



Staff at all levels of the organization have spent considerable time at the Centre attending courses, meetings or conferences and this has resulted in critical support over the years. If such a decision is made, it is hoped that a lesson can be learned from the closing of the Bark Lake Leadership Centre. Can an arrangement be facilitated that will allow the Frost Centre to continue as a facility dedicated to promoting awareness of ecosystems and sustainability? In the face of uncertainty, a perennial sense of optimism and dedication persists among staff at the Centre.

## Waiting for the Sap to Flow

While it is very easy to be discouraged during this period of change, a renewed commitment to education must emerge if the MNR is to be effective in its mandate. It will take some time and there will be major changes in MNR's role in education. Meanwhile, the champions of education in MNR continue to do their best in affecting change.

## Footnotes

- {1} Ministry of Natural Resources. October 1977. *To Gain a Public Understanding: Report of the Task Force on Outdoor Education*. Several reports that influenced the development of this report included: *A Study of Outdoor Education and Its Relationship to the Use and Management of Natural Resources in Ontario*, Ontario Forestry Association, 1972; *Outdoor Education - Without Boundaries*, C.O.E.O., 1972; *Man and Resources - Guidelines and Recommendations related to Communications, Information, and Education*, Ministry of Natural Resources, 1973; *The Status of Environmental Education in Ontario - A Preliminary Study*, Ministry of Environment, 1973; *Outdoor Education - A Role for the Ministry of Natural Resources*, Conservation Authorities Branch, 1975 and; the *Report of The Task Force on Conservation Education*, Conservation Authorities Branch, 1975. The bureaucrats were busy! ;

- {2} *Environmental Education Resource Materials Available from the Ontario Government ???*
- {3} *Code of Ethics for Educational and Recreational Use of the Environment. ??*
- {4} *Land Resources for Outdoor Education ??*
- {5} Ministry of Natural Resources. June 1986. *The Educational programme Task Force: Final Report.*
- {6} Ministry of Natural Resources. August 1991. *Education Task Force Report*
- {7} Ministry of Natural Resources. May 1992. *Public Education in MNR*
- {8} Ministry of Natural Resources. 1994. *Directions, Strategies and Actions for MNR Public Education and Transfer Activities.*
- {9} Raffan, J. July/August 1996. About Boundaries: A Personal Reflection on 25 years of C.O.E.O and Outdoor Education. *Pathways: The Ontario Journal of Outdoor Education* 8(3)
- {10} Horwood, B. Comments from a speech made at the C.O.E.O's 1994 Annual Conference
- {11} More, D. (1983) "Interview with Mr. George Hamilton, Director, Leslie M. Frost Natural Resources Centre" A paper presented to Dr. M. Wiener course C.I.O.E 410 offered by University of Illinois.

Barrie Martin is the Education Team Leader at the Leslie M. Frost Natural Resources Centre. Amidst the current maelstrom of change, he welcomes the opportunity to reflect upon the last 25 years of MNR, COEO and outdoor education. Researching, documenting and appreciating what has been will help him make a more meaningful contribution to the future of outdoor education. He knows that by highlighting some people, places and programmes he has missed others who should be recognized. He regrets this, of course, but wanted to salute as many as memory and space would allow.

## Comments from Teachers

"It was the fall of 1971 and I had just started in outdoor education when I went for the first time to the Frost Centre. I was by myself and I knew no one there. I have been going ever since. That visit totally changed my life and my career and gave me a brand new perspective on Environmental Education. I became part of a network of friends and professional colleagues across the province and in MNR as well as the educational system. I still keep in touch with many of those original people and the network is now ten times as large."

"Another teacher in my school and I feel that we have really missed something if we do not get to the Frost Centre for a workshop at least once each year. It's the people that you meet there - it's like going home to family. You feel the support of others committed to the same ideals in environmental education. You get revitalized, reaffirmed. Even walking down the halls you feel the history of the place and the importance of all the things that have happened and continue to happen there."

"I have been taking my classes to the Frost Centre for sixteen years. In my school board we have our own Outdoor Education Centres and they are excellent. We use them too but the Frost Centre trips are totally different experiences. The kids are actually living it and are totally immersed in it for three days. It's an amazing thing - I meet kids that I taught years ago and they always want to talk about the Dorset trips."

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*BARRIE MARTIN is the Education Team Supervisor at the Leslie M. Frost Natural Resources Centre. He has filled a number leadership roles in COEO and is currently on the editorial board of this journal.*

## Environmental And Outdoor Education At Ontario Universities: 1970 To 1995

PAUL F. J. EAGLES

*The old and entrenched disciplines, began to recognize the importance of the environment in their activities.*

Ontario's primary and secondary schools, outdoor camps, conservation authorities and provincial parks are national leaders in environmental and outdoor education. Within those institutions, the idea of teaching about and within the natural environment flows naturally from their societal function, especially for the parks and camps who often have decades of programme experience. The school programmes developed from the initiative of a cadre of dedicated teachers, seldom from school boards or parents.

The discussion of environmental and outdoor education at Ontario's universities is dependent upon the definition used for this field. For this paper the concept used is "teaching and research about and within the natural environment". This is a broad definition, but breadth is necessary if the full range of approaches is to be explored and all essential elements captured.

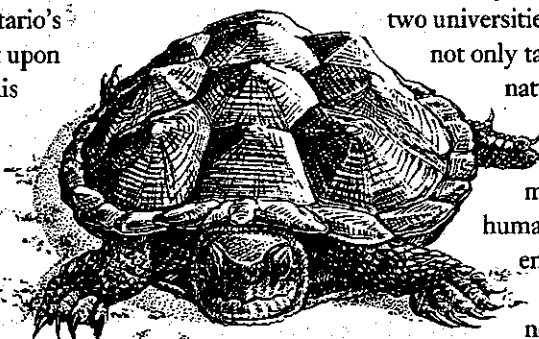
A very large number of traditional disciplines at universities were involved over the last 25 years. Geography, civil engineering, biology, physical education, recreation, architecture, urban planning, resource management and agriculture all played a role in developing society's knowledge base on the environment and in developing professionals to apply this knowledge. However, the majority of the approaches within these disciplines were exploitive — developing methods to change nature to better suit selfish human needs. This utilitarian approach had deep roots in the wise use movement of the 1920's.

In the late 1960s a different approach developed — environmental studies. This concept was more holistic, more integrative and more designing with nature. The ideas of

ecology were accepted as a basis for action, and a limitation to action. In this field two universities stand out — Waterloo and York. Waterloo experimented with undergraduate and graduate environmental studies, and York concentrated on graduate programmes. In both universities immense progress was made in developing methods for integrating ecological concepts, in a sympathetic fashion, into the broad sweep of societal functioning. For example, the entire field of urban and regional planning in Canada was moved towards environmental planning due to the research and graduates coming from these two universities. These programmes not only taught about and in the natural environment, they developed societal institutions to manage the impacts of human societies on natural environments.

In the last 10 years a new and fundamental change started to take place. The old and entrenched disciplines, such as engineering, science and business, began to recognize the importance of the environment in their activities. As a result, they started integrating environmental studies concepts within their programmes. New names such as environmental science, environmental engineering and full-cost accounting became visible recognition of the change. These programmes now produce professionals that integrate environmental concepts into their daily professional activities, a very welcome innovation.

More recently, the greening-the-campus concept started to take hold in universities. This movement takes the ideas of environmental management and applies them to the daily operation of university campuses. At the University of Waterloo, the Watgreen Commit-



tee provides policy advice to the vice-president of operations on everything from landscape management to lighting policy, from campus stream management to waste diversion. It is a visible example of using the concepts underlying environmental education and incorporating them into institutional management.

It is important to recognize that these developments, first environmental studies as a holistic field, and second environmental professionalization in specific disciplines, move towards one ultimate goal of environmental education — the development of people who take environmental principles into account in all their personal decisions, both private and professional.

What connections were there between universities and environmental education as practiced in schools, parks and camps? Those connections that did exist were wide-spread, scattered and multi-faceted. Professors and students in a wide variety of fields were interested in these areas. If one looks at the educational background of the teachers in camp and school programmes, a large number of disciplines occur, with biology, geography, environmental studies, physical education, and recreation prominent. This shows that each of these approaches provided a fertile bed of study for the development of the knowledge base for the future environmental educators.

If one looks at the university professors who maintained an active interest in outdoor education for a decade or more, the number of disciplines is also broad. Outside Colleges of Education, names that come to mind include: John Towler in Psychology and Sociology at the University of Waterloo, George Francis in Environment and Resource Studies at the University of Waterloo, Bob Henderson in Physical Education at McMaster, Claude Cousineau in Recreation at Ottawa, John Livingston in Environmental Studies at York, and Alan Watson at the Arboretum at Guelph. These people individually worked on various aspects of planning, training, administration, and research in outdoor education. Ominously, half of these people have now left the field through retirement.

The university contribution to the field was heavily influenced by the students, many of whom devoted their lives to improving and encouraging the delivery of outdoor education in a variety of settings. Hundreds of co-operative work placements, thesis projects and field placements kept the academic and school connections vibrant, and allowed for innovation and experimentation.

Starting in the 1960s, and through the 1970's and 1980's environmental education experimentation occurred in many varied forms. It started out in some individual disciplines, developed into a specialized, integrative discipline of its own and is now invading the older disciplines with its message of ecological integration and sustainable development. Interestingly, environmental and outdoor education has never become a mainline discipline in Ontario's universities; it has always been an addition or an extra within the curriculum of some other programmes, such as environmental studies or recreation management. And maybe that is how it should be, an ecological virus that infects other disciplines and modifies their internal code so they become permanently environmentally conscious.

The immediate future of environmental education at universities is as clouded as it is in schools and parks. The massive budget cuts of the current right-wing government is resulting in severe downsizing of the faculty numbers, limiting the ability to do outreach, research and innovation. However, when this difficult period passes and a more main-stream approach takes over, the newer professors that will be hired will all be from the generation where environmental education was an inherent part of their schooling. This should bode well for the future development of environmental consciousness in all scholarly pursuits.

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*Paul F. J. Eagles is a Professor in the Department of Recreation and Leisure Studies at the University of Waterloo. He has taught an undergraduate course in environmental education since 1979 at that university. He has undertaken numerous environmental education projects, such as programme evaluations, with his many dedicated and knowledgeable students.*

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*An ecological virus that infects other disciplines and modifies their internal code so they become permanently environmentally conscious.*

## A Rose By Any Other Name — would it be fully understood?

*Jody Mackenzie and Bob Henderson*

**W**e were quite interested in the timely publication of Constance Russell's column concerning the diversity of labels that have in various ways infused new meanings and confusions into O.E.E.<sup>1</sup> Wait, is that outdoor environmental or experiential or expeditionary or ... education?

We are a collection of students at the University of Alberta who were involved in a senior course entitled Outdoor Experiential Education: A Varied Pedagogy. Together we explored the following collection of "e" word labels: experiential education, eco-musée/bioregional education, eco-psychology, ecotourism, expeditionary education, environmental education, eco-political education, earth education, ego/adventure education, and camping education. All these labels exist in our literature, at conference sessions, and are evident in our collective notion of practice.

Connie's labels of confusion were outdoor education, environmental education and global education. One query which Connie raises to which we concur is; which of these am I?, and is it fair or proper to use one or another of these and even other labels, depending on the setting or circumstances? We also proclaim that this notion of labelling within our field appears to be getting more confusing with time. We agree that the "ideology of the definer" of various labels is key. It is confusing for us, the practitioners and students in the field, and therefore must suggest a quagmire of cross purposes to those who view us from the outside. The assumption we are making throughout this discussion is that it is no longer always appropriate to use foundational labels such as outdoor education or environmental education. Various organizations, i.e., The Institute For Earth Education, The Association of Experiential Education, and The Expeditionary Learning Outward Bound Guidelines, have

all expanded the "envelope". Similarly, the inroads of ideas from the deep/social ecology movement have spin off directives to education with labels such as applied ecopsychology, eco-political education, bioregional education and eco-tourism.

It is the primary objective of each available professional label that is critical given the pervasive overlap of what can be considered secondary objectives. For example, both environmental and eco-political education are concerned with the educational objective of knowledge acquisition with regard to how the environment works and our human role within the environment. However, in the main, it is eco-political education that pursues a pedagogy involving direct social/environmental action on behalf of the environment. Hence, eco-political has a direct objective for environmental social action and community empowerment.<sup>2</sup> Another example would be those educators following the expeditionary learning Outward Bound Guidelines. If an outdoors club, camp or school course follows the Outward Bound design principles as direct objectives, then they might prefer (and it would be more articulate) to employ the label 'outdoor expedition education' over 'outdoor education' or the more 'historical camping education'.<sup>3</sup> Also, certain travel experiences may fall under the eco-tourism label over the more general environmental, adventure or outdoor education labels.

After a semester of exploring the obvious and subtle meanings of "e" word labels within our field, our class developed various opinions on the use and misuse of labels. A few comments were indicative of our discussions.

We think it is important that the use of labels be geared toward expanding and developing a better understanding of the field. However, it is just as important not to limit its



growth by restricting it to a certain number of labels. Labels are good, but our use of them must err on the side of caution.\* (\*All quotes are student responses to pros and cons of labels from University of Alberta, PEDS 497.)

Many of us were skeptical *because the idea of labelling is very structured, leaving little or no room for change or growth of ideas.*\* Where we stood "exactly" was generally uncertain, but most agreed about *the danger of people labelling their ideas as an e-word when it is not portraying the guidelines of that e-word.* However, labels help to group ideas into easily referred sets of related ideas and help bring concept out of the theoretical into the real.\* This clarifies one's focus to practice and directions to inquiry. For example, a nature interpreter or outdoor educator or expeditionary educator may want to have more association with eco-psychology. If they are aware of the label, they will be able to find out more information and implement this focus to their work. Eventually they may choose to use the eco-psychology label directly in describing to others most precisely what it is they do professionally as an "outdoor educator practitioner". Then again, they may not, but the term of inquiry and practice in this case helped solidify understanding while offering likely increased fellowship of liked minds. The following chart explores some of the various students' opinions associated with the use of labels.

## PROS

- allows categories & definitions for specialized research, focused curriculum development.
- justification and adjustable use of label depending on population.
- can distinguish the differences from area to area. Need to have an official, set definition that everyone understands and subscribes to.
- shows diversity, expands your base as an outdoor educator/facilitator.
- helps us define where we are going on our varied highway to co-operative outdoor learning education and facilitation.

- sets a "framework" for programmes as to what "type" they are.

## CONS

- labels label; encourage specialization and fragmentation; discourage interrelationships, interdependencies, interconnectedness.
- some people don't know what the labels' main differences are, and can get confused, frustrated, or on the wrong track.
- can lead to problems when people using the same words but aren't speaking the same language.
- confuses those who are looking in from the outside. Would the faculty head or potential employer understand our labels? Too many words is too complex.
- list can grow too large and therefore cumbersome.

Traditionally, in recent generations, our knowledge has been based upon science and technology. It is a world composed of separate entities such as atoms, individuals, and academic departments. As humans, we have the natural instinct to classify, and it would be awkward not to have any labels. That is, to only use outdoor education as an umbrella term to imply all things without sub-categories would be unfair to the variety of orientations within the field. The key is then to make more people aware of the theory supporting the labels they are using and that are in use. Labels may assist a person to justify, classify or subscribe and can serve a key function in making programmes stronger. Any fool can be complicated with well-crafted terminology, so it will indeed take some effort to clear this environment of mixed understandings.

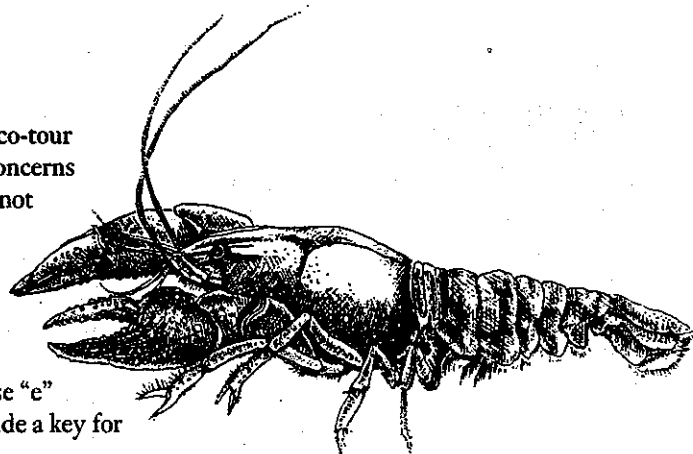
An ironic solution perhaps is to develop an overview label suitable for all labels. We suggest, Outdoor Experiential Education (O.E.E.). However, as one needs to get more specific: they might wish, depending on the setting, to use an Outdoor E\_\_\_\_\_ Education, such as Outdoor *Expeditionary* Education for when they use the Outward Bound principles, or, when community development and local knowledge is key, Outdoor *Eco-musée* or Bioregional Education is a useful term. Certainly *eco/adventure* education implies a different curriculum than environmen-

tal or ecopolitical education and a eco-tour educator denotes distinct specific concerns now generally associated with, but not excluded from, outdoor education.

The starting point becomes key to each individual as they fill in the appropriate "e" word depending on circumstance, population etc.

Perhaps our job is not to group these "e" words into different cells, but provide a key for those with the will.

Once a forest becomes fragmented from activities such as clear-cutting, pest species like the brown-headed cowbird easily invade sensitive species' nests. We need to ensure that as outdoor educators become listed as a threatened species, our niches do not get filled with bigger, hungrier birds which do not protect the diversity and central out-of-door education of outdoor education. A fellow colleague, Mors Kohanski, explains how outdoor education is turning into E.o. not O.E.; where the outdoor component of outdoor education is being reduced and an indoor environmental studies component dominates the time. Let's keep it straight. Labels should be a corridor for the transfer of knowledge and help to reduce isolation, not a bulldozer forever changing the horizon. We need to learn the meaning of labels in use in our field and be able to apply them. Even then, likely most of us will continue to call ourselves most often "outdoor educators".



## References

1. Russell, Constance L. 1997. "What's in a label? — Global, Environmental, and Outdoor Education. *Pathways: The Ontario Journal of Outdoor Education*. February 1997.

2. Breiting, S. 1993. The New Generation of Environmental Education Focus on Democracy as Part of an Alternative Paradigm. *Alternative Paradigms in Environmental Research*. Rick Mrazek (Ed). The North American Association for Environmental Education, Troy, Ohio.

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*Jody and Bob worked together in the winter term of '97 within the PEDS 497/582 course, Physical Education, University of Alberta. Jody has graduated from the Environmental Conservation Sciences Department. She is pursuing a Masters of Environmental Studies in '97-'98 at York or the University of Alberta. Bob was on a research leave at the University of Alberta. He teaches at McMaster University.*

## Tributaries: Where the waters meet COEO Annual Conference October 3 – 5, 1997 Glen House, Gananoque

### Come on in, the water's fine ...

Plans are flowing for the 1997 COEO Annual Conference. This year we'll meet at Glen House, on the St. Lawrence River, October 3 through 5.

Our conference programme brings a range of exciting options. We have the best of what COEO and Eastern Ontario have to offer.

Our feature presenters, **Mike Runtz, engaging naturalist, Henry Lickers, Native elder, and David Archibald, entertainer extraordinaire**, will help you experience Ontario's natural treasures. **Shawn Thompson, local river rat, and Peter Labor, voyageur/raconteur**, will bring the voyageurs and other people of the rivers to life with their tales. Our other presenters will leave you with ideas for the classroom, and for everyday living.

Registration fees include accommodation, meals and the full conference programme. Read the registration options carefully to select the one which best suits you. Pre-register for sessions when you send in your conference registration and avoid the need to sign up at the last minute on Friday night.

Mountain Equipment Co-op has generously donated funds to assist a limited number of full-time students wishing to attend Tributaries. For more information, contact Dave Farley in Ottawa at (613)728-7083 or via e-mail at [michelle\\_richardson@ocebe.edu.on.ca](mailto:michelle_richardson@ocebe.edu.on.ca).



### Trading Post

Do you have something you'd like to share? Contribute to the Trading Post, be it a display about your programme, materials you've developed, or something else you feel other COEO members would benefit from.

It's a place to:

- gather and share
- barter goods and ideas
- relax and breathe

### Voyageur Rendezvous

Saturday night will be unforgettable, with dancing, storytelling and music to bring you back in time. Step into the life of the Voyageurs! Peter Labor and friends will guide us through the living history of the Voyageurs and help us celebrate their historical link to the Tributaries of Canada. Bring along YOUR voyageur costume and roll up your sleeves. We're in for an evening unlike any you've ever experienced!

We're looking forward to seeing you there!

### Contacts for More Information

Jim Raffan, Conference Co-Chair  
Phone: (613) 387-3568  
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Gina Bernabei, Conference Co-Chair  
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Jeff Hemstreet, Programme Chair  
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Susan Overvelde, Registration  
Phone: (613) 544-2587

## Tributaries

## Schedule & Programme Information

### ◆◆ Friday, October 3 ◆◆

- 6:00 pm Registration begins  
Trading Post open
- 9:30 pm **The Gathering...**  
Local historian Shawn Thompson will share stories of the river at this floating campfire.
- 10:30 pm Trading Post open (open stage)

### ◆◆ Saturday, October 4 ◆◆

- 7:30 am Breakfast
- 8:40 am - **All Conference Energizer**
- 9:10 am Get ready for an active day!
- 9:15 am - 10:00 am  
**Feature Presentation:**  
Waters of Life: a look at the flora and fauna of Ontario's Waterways - Mike Runtz  
Ontario's waterways are diverse in many ways. This photographic tour by award-winning photographer and author Mike Runtz will remind us of the extraordinary array of plant and animal life they support.
- 10:30 am - 12:00 noon  
**Concurrent Sessions #1**
- 1.1 Life in the Wet Lane (Mike Runtz) - Each aquatic environment poses unique problems to the plants and animals that inhabit them. This workshop will explore adaptations for life in the wet lane.
- 1.2 Silence in Outdoor Education (Bert Horwood) - This workshop introduces a little-known European process of using collective silence to enhance learning and decision-making. It combines intellectual and spiritual dimensions of reflection on experience. You will practice the method and will be outdoors for a good part of the time.
- 1.3 Celebrate the Earth Through Song (Sharon Gilmour & Tim Glover) - "Where Knowledge meets the desire to effect change, there is Song." Discover the ways and means to add music to any unit dealing with a wide variety of environmental issues from K to OAC. Bring your joy of music, an open mind and writing materials!

- 1.4 Entrepreneurship in Outdoor Education: Open Discussion (Paul Copeland, Shelly Gallagher) - Join the discussion and learn what other people are doing in the fields of outdoor education and private enterprise, what hurdles lie before them and what niches might still exist.
- 1.5 Stories of Cultural Explorations: An intensely value-laden position (Bob Henderson) - Using personal stories and "doozies" from others, playfully explore labels such as eco-political education, eco-musee, critical social science, eco-feminism and deep ecology. Consider their implications for curriculum design.

12:15 pm Lunch

1:15 pm - 2:00 pm

#### **Feature Presentation:**

(Title TBA) - Henry Lickers

Gain wisdom from this Native leader's insights into our natural world.

2:15 pm - 4:00 pm

#### **Concurrent Sessions #2a**

- 2a.1 Lending Your Voice: stories and songs that speak for or of the Earth (Thom Lambert and Jim Blake) - Explore the possibilities of song writing and story telling as a way to "lend a voice" to others that are not being heard: special places, other organizations, political issues...
- 2a.2 Goin' on a Metamorphic Journey (Gail Simmons) - Discover how the outdoor setting provides literary inspiration for students. Bring a journal, writing materials and something to sit on. Be ready for a hands-on session outside!
- 2a.3 An Holistic, Heart Centred Approach to Connecting to our Planet (Lennie & Arlene Prost) - Explore ways to create an environment that speaks to the needs of the whole person. The more we love ourselves, the more we love our planet.
- 2a.4 Experiencing the Islands (Libby Stewart) - Boat cruise out to a national park island and take a lively hike with a Parks Canada naturalist. Discover what makes the Thousand Islands Region so rich in natural and cultural heritage. Bring binoculars and wear hiking shoes. (\$5.00 boat fee)

Schedule & Programme Information

Tributaries

2:15 pm - 3:00 pm

**Concurrent Sessions #2b**

- 2b.1 Grand River: Heritage River (Frank Glew) - In response to the designation of the "The Grand" as a Heritage River, a curriculum package and resource kit were developed. Learn from these items, and take away lots of practical, hands-on ideas to encourage stewardship.
- 2b.2 Steep Creekin': Advanced White Water Canoeing (Paul Mason) - Introduction to advanced skills for playing in white water.
- 2b.3 Canada's Great Rivers (Jim Risk) - Join Jim for some images and stories that will not only bring Canada's greatest rivers to life, but make you long for your next opportunity to get north with a paddle in hand and a twinkle of excited anticipation in your eyes!
- 2b.4 Creative Expressions: "go with the flow" (Sue Shikaze) - Create some unique cards ... no experience necessary. This hands-on, relaxing session will get your creative juices flowing and give you some easy ways to make something you're proud to send. (max. 15)

3:15 pm - 4:00 pm

**Concurrent Sessions #2c**

- 2c.1 Exerting Political Influence (Clare Magee) - One person can make a difference, through astute application of principles of political influence. Hear some outdoor education success stories with a view to continued success in the future.
- 2c.2 Steep Creekin': Advanced White Water Canoeing (Paul Mason) - repeat of 2b.2
- 2c.3 Canada's Great Rivers (Jim Risk) - repeat of 2b.3
- 2c.4 Creative Expressions: "go with the flow" (Sue Shikaze) - repeat of 2b.4

6:15 pm **Regional Meetings and Socials**

7:00 pm **Voyageur Dinner and Awards**

9:00 pm **Voyageur Rendezvous!**  
It's a night of dancing, storytelling and music with Peter Labor and friends, guaranteed to bring you back to the days of the Voyageurs. Don't forget your voyageur costume!

◆ ◆ **Sunday, October 5** ◆ ◆

7:30 am Breakfast

8:15 am - 9:15 am

**COEO Annual General Meeting**

9:30 am - 10:45 am

**Concurrent Sessions #3**

- 3.1 Staying Well as a Teacher (Mac Freeman) - To be "worth learning with" a teacher must learn to take care of one's personal wellness. What is involved? Who can help?
- 3.2 Community in Song (Andy Rush) - Join a dynamic song master and allow him to work his musical magic with voices of COEO.
- 3.3 Coloured waters: Water Colours (Marta Scythes) - Experience the pure joy of letting washes of colour flow together, mix and change, creating natural phenomena personalized by one's own creative energy. No experience in art/painting needed. (max. 10)
- 3.4 Connecting Between the Formal Curriculum and What Your Students Actually Do (Mary Roberts & Mark Whitcombe) - You'll be introduced to a computer database to match your activities with the indicators, then go beyond and learn how to develop the database into a tool for unit planning.
- 3.5 The Future of Outdoor Education and COEO: Open Discussion (Dorothy Walters, James Raffan) - This discussion group relies heavily on the issues raised by the delegates. It's an opportunity to voice your thoughts, concerns, and dreams. Fresh, young perspectives are especially encouraged to join in.

11:00 am

**Feature Presentation:**

Spirit of the Inland Sea - David Archibald  
Drift away with Dave as he presents a sampling of his recent tribute to the Great Lakes and their marine heritage. As always, his programme will be lively, thoughtful, and memorable. Dave promises a special song just for us.

12:00 noon Lunch and Good-bye hugs

(NOTE: The conference committee reserves the right to make changes to this programme.)

**Tributaries: Where the Waters Meet**  
October 3 - 5, 1997

**Conference  
Registration**

Name: \_\_\_\_\_

Mailing Address: \_\_\_\_\_

City: \_\_\_\_\_ Prov.: \_\_\_\_\_ Postal Code: \_\_\_\_\_

Phone: (h) \_\_\_\_\_ (w) \_\_\_\_\_ (fax) \_\_\_\_\_

E-mail: \_\_\_\_\_ COEO Membership #: \_\_\_\_\_

May we give out your name and phone number for car pooling purposes?  Yes  No

Conference Packages (please circle one):				
	<u>Early Bird*</u>	<u>Regular</u>	<u>Non-Member</u>	
Single Occupancy	\$280.00	\$295.00	\$330.00	* Early Bird registrations must be postmarked no later than July 31, 1997.
Double Occupancy	\$235.00	\$250.00	\$285.00	
Triple Occupancy	\$200.00	\$215.00	\$250.00	** Student Helper registration does not include accommodations, but does include all meals and programmes. (limited to 15 students on a first come, first served basis)
Quadruple Occupancy	\$185.00	\$200.00	\$235.00	
Camping	\$170.00	\$185.00	\$220.00	
No Accommodation	\$150.00	\$165.00	\$200.00	
Student Helper**	\$100.00	\$100.00	\$100.00	

Session Pre-Registration:		<u>1st. Choice</u>	<u>2nd. Choice</u>	<u>3rd. Choice</u>
Session 1	(Sat. 10:30 a.m. - 12:00 noon)	_____	_____	_____
Session 2a	(Saturday 2:15 p.m. - 4:00 p.m.)	_____	_____	_____
Session 2b	(Saturday 2:15 p.m. - 3:00 p.m.)	_____	_____	_____
Session 2c	(Saturday 3:15 p.m. - 4:00 p.m.)	_____	_____	_____
Session 3	(Sunday 9:30 a.m. - 10:45 a.m.)	_____	_____	_____

With whom would you like to share a room? (number of people must match requested occupancy): \_\_\_\_\_

or Assign me to a shared room:  M  F

Are you on a special diet? Please explain: \_\_\_\_\_

Would you like to display at the Trading Post?  Yes  No Please describe briefly (including space needs): \_\_\_\_\_

COEO Membership:  New Member  Renewal  
 Student \$30.00  Regular \$40.00  Family \$52.00

**Payment:**

Conference Registration Fee \_\_\_\_\_  
 COEO Membership \_\_\_\_\_  
 Total Owing \_\_\_\_\_  
 Deposit \_\_\_\_\_ (minimum \$50.00 deposit)  
 Balance Owing \_\_\_\_\_ (balance payable by post-dated cheque by September 12, 1997)

**Cancellation Policy:** After September 12, 1997, \$50.00 is forfeit unless a replacement person is found.

Send cheque (payable to COEO Conference '97) and registration form to:  
 Susan Overvelde, 12 Hampstead Heath, Kingston, ON K7M 7K8 (phone: 613-544-2701)

## Children's Groundwater Festival Educates Thousands of Students

Crystal Watson

It's not often children see a diviner, or sit in a real teepee to learn water's role in the ecosystem, but these are some of the activities that grades 4, 5 and 6 students will participate in at the Children's Groundwater Festival. The Children's Groundwater Institute is gearing up for its fourth year of water education. This spring the Children's Groundwater Institute will be holding three large week-long Festivals in Toronto, Kitchener-Waterloo and Peel Region. Already 15,000 students have registered to attend the travelling Ontario Festival. Since 1994 almost 20,000 students, 5000 volunteers and 400 sponsors have participated in Children's Groundwater Festivals.

The Festival brings together the expertise of water specialists and members of industry, government and community to provide students with the opportunity to participate in various hands-on activities that demonstrate water awareness. "The Children's Groundwater Festival is a well-organized and engaging experience for the children and teachers who participate," said Allan Smith, special programmes co-ordinator, Peel Board Of Education. "It effectively focuses attention on water use and provides students with practical strategies for conserving this valuable resource." The Children's Groundwater Festival challenges students to consider the role of water in their lives and surroundings. The messages are focused on five key areas — water conservation, water protection, water science, water technologies and changing environmental attitudes. "I think the students get a great deal out of the day," said Jack Benton, a teacher who attended a past Festival. "The activities are really applicable to the way they live their lives on a day to day basis."

Teachers who attend the Festival are given free workshops, tours of the site and a "bucket of resources". The bucket includes a planning guide, classroom activity book and written



**LATHER UP!** - Students learn water conservation techniques by experiencing how much water can be saved by using a low-flow shower head at the Children's Groundwater Festival.

materials to introduce some of the messages to the students before the Festival. After the Festival, teachers follow-up in their classrooms to ensure a comprehensive process is accomplished. "Teachers particularly appreciate the handbook and seminar which enables them to link the activities of the Festival with classroom programmes both before and after the visits," said Smith.

All activities at the Festival are interactive, and communicate a specific water message. For example, "Lather Up!" is an activity that has one student standing under a low-flow shower head, and the other under a regular shower head. After 60 seconds, students measure how much water a low-flow shower head will save.

The Children's Groundwater Institute was founded four years ago, in response to a chemical spill that threatened groundwater by the former Ciba-Geigy Canada Inc. The firm wanted to clean up the affected area and create a programme that would give back to the community. The Children's Groundwater Institute was formed to develop water educational materials and organize Children's Groundwater Festivals

*The Children's Groundwater Festival challenges students to consider the role of water in their lives and surroundings.*

*Education is the  
cornerstone of  
changing lifestyles  
and attitudes.*

across Ontario. The Children's Groundwater Institute knew they could not support the tremendous cost of the week-long Festival alone. Canadian General Tower co-sponsored the Festival, and now the Festivals have various sponsors, from large corporations to small organizations. "The tremendous success of the Festivals shows that a negative industry situation can have many long term positive results by using staff and resources to rehabilitate the environment," says Tanya Splajt, programme Director. "We hope the Festival will become a nation-wide event."

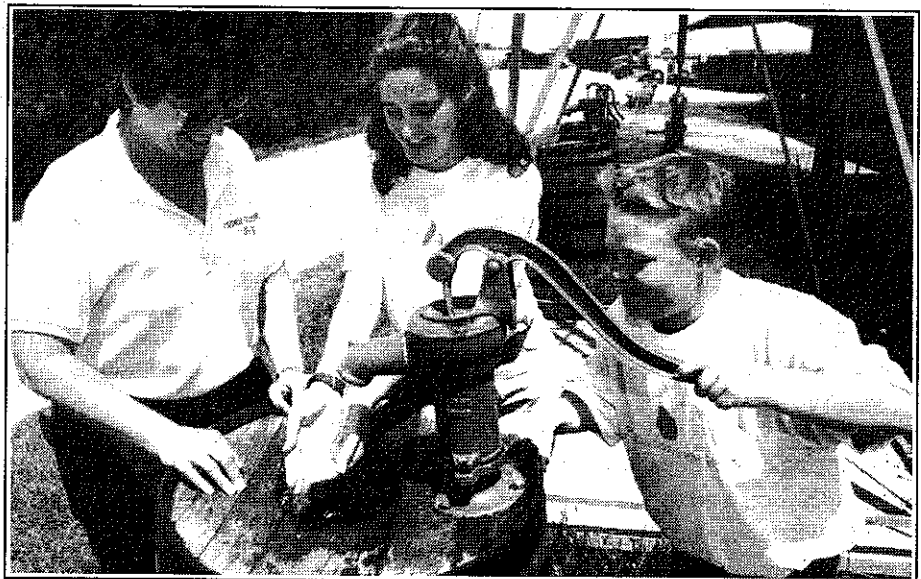
The Children's Groundwater Institute relies on volunteers to make the Festivals a success. For each week-long Festival, over 500 volunteers are needed to educate small groups of students, greet buses, and make the days run smoothly. Volunteers are water experts, industry professionals, students studying related topics, educators and interested community members.

"We appreciate our volunteers," says Splajt. "It's a great way for people to help the community for a day and raise people's awareness about environmental issues."

Education is the cornerstone of changing lifestyles and attitudes. The initiatives of the Children's Groundwater Institute are vital to this environmental education process. Their efforts are paramount to protect and conserve an essential resource — water.

For more information about the Festivals or the Children's Groundwater Institute please call Tanya Splajt at (905) 542-8285.

*Crystal Watson is a Community Relations Assistant at Credit Valley Conservation in Mississauga, Ontario. Credit Valley Conservation works in partnership with the Children's Groundwater Institute.*



*ALL PUMPED UP! - An antique hand pump gives Jonathan a workout at the Children's Groundwater Festival. The antique pump demonstrates how water was extracted in the past.*



## A Rose is a *Rosa*: What's In A Name?

Mike Morris

A minor debate has recently developed over the value that biological nomenclature may have in outdoor education. In the typical scenario, a student asks an outdoor educator "What kind of tree/flower/bird/etc. is this?" We have now seen opinions and suggestions about how to respond to such questions.

One view of this type of inquiry is that a simple answer to this question can stunt any additional knowledge of the organism in question. Both Jordison (1992) and Quinn (1995) expressed serious reservations about the value of students learning names of animals or plants. Jordison cited Tom Brown: "Naming tends to remove the mystery, and when the mystery is gone, there is no further searching". Another of the proponents of this view, Quinn (1995) stated that "... outdoor education should be about far more than sticking labels on things. Naming as an end to itself is worse than useless, it is pernicious in its ability to turn people away from nature study."

I respectfully beg to differ! and I present my view. I crave knowing the names of every organism. When I see a colourful bird, a curious insect, or a secretive wildflower, I head immediately to my field guides, where I can hopefully discover it's name and a little about it's natural history. Perhaps not surprisingly, I can trace my interest in names to my own background is in the biological sciences, a discipline in which scientific nomenclature is one of the main building blocks. I value a quote attributed to Isodorus, a Greek botanist: "If you do not know the names, the knowledge of things is wasted." Even Bert Horwood (1996), in describing night learning, acknowledged that "everything that can be named in the dark is a friend."

There are other advantages to the formal use of nomenclature. The binomial system of scientific nomenclature is the recognized standard for the widespread discussion of any organism. This system provides scientists with a universal, virtually unchanging name for

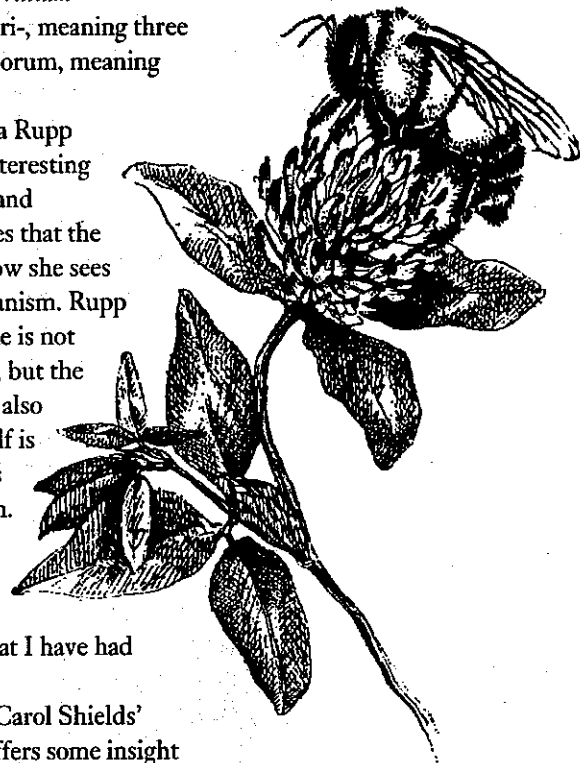
organisms. For plants, that mysterious scientific name can provide valuable information on some of old uses. A whole world of interesting information awaits anyone willing to enter the world of scientific names (Beatty 1995). To be sure, many scientific names are derived from either Latin or Greek. Nevertheless, a little detective work can often help us sort out many of the meanings. For instance, the scientific name of the White Trillium, *Trillium grandiflorum*, has its roots in Tri-, meaning three petals and leaves, and grandiflorum, meaning large flower.

A brief article by Rebecca Rupp (1994) provided some other interesting insights into knowing proper and scientific names. Rupp believes that the very act of naming clarifies how she sees many of the details of the organism. Rupp recognised that the name alone is not what increases our awareness, but the other aspects of the discovery also pay dividends. The name itself is the culmination of the process of investigation and inspection. Rupp (1994) experienced an "illuminating focus" whenever she learned a proper name. I must admit that I have had similar experiences.

One of the characters in Carol Shields' *The Stone Dairies*, a botanist, offers some insight into why scientists appreciate taxonomy (pp. 142-143): "... he remembers how the exactitude of nomenclature lulled him into comfort. ... Each time he was able to match a specimen with the illustration ... he experienced a spasm of strength."

I also recognise the importance of more classical nature appreciation. I would never suggest that names of organisms could be the only way or the best way to begin the appreciation of science or nature. However, I also

*The name itself is the culmination of the process of investigation and inspection.*



*I prefer a model of natural science in outdoor education that includes an appreciation of both the rigorous methodology and its aesthetics*

suggest that it would be difficult to learn much of value in nature without knowing and using the names of the organisms involved. For example, learning the names of wildflowers has been the first step in the development of my appreciation for those organisms.

I also enjoy learning the colourful nature of many species' common names. Can we imagine the intrepid naturalists who discovered and named the Blackburnian Warbler, Townsend's Solitaire, Henslow's Sparrow, or Wilson's Warbler. Jack-in-the-Pulpit, Viper's Bugloss, Blue Cohosh, and British Soldier are all local names that conjure up colourful stories. For that matter, our vocabulary can be enhanced while learning nomenclature. For example, how many of us know what the "bane" in Fleabane or the "wort" in Toothwort means?

Outdoor educators have a pocketful of games to help students and educators learn each other's names, so we must recognise the importance of names in developing a relationship between people. Perhaps we need to develop similar strategies to help students learn some of the names of our other neighbours as well as appreciate their role in their environment.

I also have no problem with nature study per se. Rather, I fear that it is a catch-all rubric

for something that may be presumed to be science, but, at its least effective, can be little more than an informative walk in the woods. I prefer a model of natural science in outdoor education that includes an appreciation of

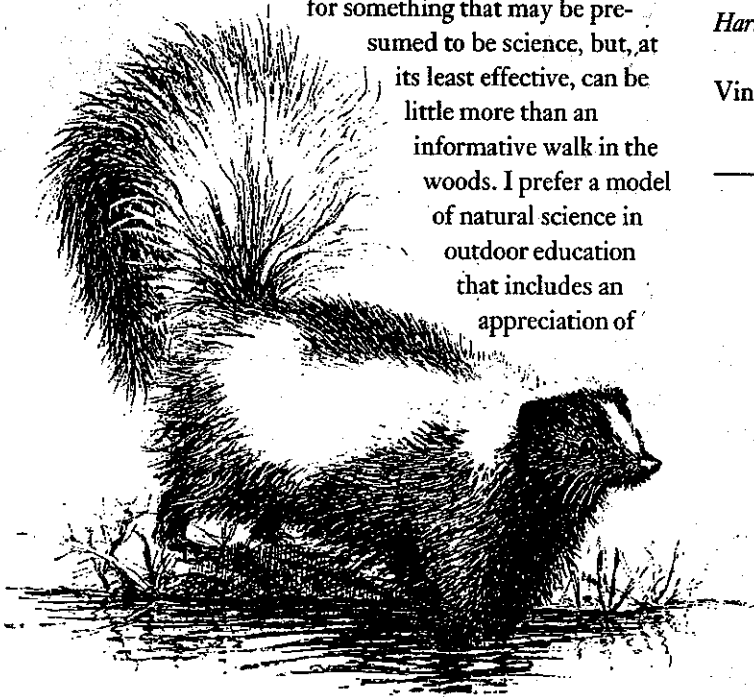
both the rigorous methodology and its aesthetics (Morris 1993). I also appreciate that Ontario's curriculum developers have also recognized the importance of the skill of "Classification" (Science Is Happening Here, 1988).

I would like to acknowledge my discussions with members of the TAXACOM listserv group who helped me formulate some of these ideas.

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## Submission to the Expert Panels, Ministry of Education and Training

From The Council of Outdoor Educators of Ontario, 1997 April 07

The Council of Outdoor Educators of Ontario is a non-profit volunteer organization that promotes the concept and practice of education in the out-of-doors and acts as a professional body for outdoor educators in the province. We believe that because of its interdisciplinary and authentic nature, opportunities for outdoor education as a teaching strategy must be written into not only science curriculum, but all other subject areas too.

Outdoor education is essential and often, unique because of its ability to:

- provide an interdisciplinary approach
- provide inherently authentic learning opportunities
- provide hands-on learning experiences
- draw students into stimulating, multi-sensory experiences, (especially effectively with special-needs students and youth at risk)
- teach to many intelligences other than just linguistic and mathematical ones
- promote and support students natural curiosity towards learning, often described as a "sense of wonder"

### Outdoor Education must be written into the curriculum because of:

#### 1. The interdisciplinary approach.

Outdoor education is inherently interdisciplinary in its approach to education. Traditionally, students learn in classrooms moving from room to room focusing on specific subjects for specific periods of time. When students leave school, they find themselves in a work place where 'subjects' are not defined in the manner they are in school. Workers who are able to multi-task, who can concentrate on on different 'subjects' in one time period are among the most successful persons in the working world. Our school system must provide opportunities for students which are interdisciplinary in their approach to learning.

Outdoor education is interdisciplinary by its very nature. A canoe trip combines ecology,

geography, history, physical education, and leadership skills in one extremely authentic, rich learning experience. Students remember what they experience much longer than what they are told or what they read.

#### 2. The authenticity of outdoor experiences.

When we are out-of-doors doing activities, we are not fabricating life, we are in it, our experiences are real, our learning does not need to be transferred to the 'real world', we are in the world.

Orienteering teaches students map reading, land forms, and mathematical skill authentically. We don't learn to read a map until map reading is REAL to us.

#### 3. The affective component.

Research shows that when we feel, we learn. Outdoor education involves the affective component. Rich learning experiences must cover the three essential components of learning: psychomotor, cognitive, and affective. Educators often struggle with the affective component in the sterility of the classroom. Outside the school, outdoor education fulfils the affective component of education.

Educators agree that interdisciplinary and authentic approaches to education are of utmost importance in the future of our education system. Outdoor education reflects both of these approaches. We must go outside the classroom to the school grounds and beyond.

Contributors to this submission:

COEO Directors

*MJ Barrett*, secondary school teacher, integrated programme

*Ian Hendry*, private sector outdoor educator

*Judy Halpern*, private sector outdoor educator

*Jennifer Jupp*, director of private outdoor education centre

*Linda McKenzie*, secondary school educator at wilderness camp for youth at risk

*Lisa Primavesi*, outdoor educator, B. Ed. student

*Mark Whitcombe*, school board outdoor education centre supervisor

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*Students remember  
what they  
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## Expert Panel on Science: Questionnaire

1. Relative to science education, what are your needs or expectations of all graduates of secondary school with regards to the following:

a) Skills:

- problem-solving: organization of logical thought ability to isolate variables, understand relationships, and interpret data
- critical thinking skills
- the ability to pursue a topic beyond the facts; i.e., see patterns and relationships
- decision-making: be able to make environmentally responsible decisions and take responsible actions
- the ability to identify biases
- communication skills: discussing, clarifying, reflecting, articulating ideas
- the ability to work co-operatively
- sensory awareness

b) Knowledge:

- that which is required to make responsible decisions regarding the environment
- learning for sustainability
- a strong understanding of planetary systems
- a basic understanding of living versus non-living things
- aquatic and terrestrial ecosystems and their inter-connectedness; the impact of human-initiated change upon these systems and the subsequent impact on humans
- how the planet works so that all decisions made have the health of the planet in mind: energy flow, matter cycling, food chains and the human link, generation and disposal of waste
- human health and its connections to food production and level of physical activity
- a more heightened understanding of the benefits and the risks involved with technology

c) Attitudes:

- appreciation and respect for the natural world: the complexity and inter-

connectedness of ecosystems and our dependence on them

- a strong desire to live on a healthy planet and to make personal lifestyle choices and changes to ensure this happens
- a strong desire for personal good health
- an appreciation for the positive and negative implications of the way science and technology shape our society
- a feeling of empowerment: individuals can and do make a difference
- a sense of community and responsibility
- a sense of wonder and awe about the world around us

2. We did not distinguish between our needs and expectations for graduates based on where they went/ what they did after high school.

3. How would you describe the strengths and weaknesses of present secondary school graduates with respect to science education?

a) Strengths

- Specific programmes (see #6)
- OAC Course: Science and Society which highlights issues and encourages students to examine and challenge the role of science
- integrated curriculum programmes
- Outers Clubs are developing positive attitudes and importing environmental knowledge

b) Weaknesses

- reductionist versus holistic approach: concepts are taught in isolation. We often don't make connections between subject areas or even between different science disciplines
- humans viewed as all-powerful rather than as part of the system
- more theory than practice: not enough outdoor experience at the secondary level
- insufficient critical understanding of the role science plays in our lives
- we often teach more about global issues and leave students ignorant of the problems in their own backyards - the problems they can directly and personally have an influence in solving

#### 4. Future Directions

- first-hand experience with real issues: authentic involvement
- actual work on community projects
- co-op placements
- environmental partners
- more integrated studies / curricula using the outdoor element to link other subjects together

#### 5 & 6) Successful and Alternative Models /

##### Outstanding Innovative Science Programmes

- Integrated Curriculum Programme: Mayfield Secondary School, Brampton; teacher: MJ Barrett (905) 846-6060; integrated interdisciplinary experiential opportunities. (The COEO publication Inventory of Integrated Curriculum Programmes -Employing Outdoor and Experiential Education at Ontario Secondary Schools outlines the many excellent science programmes presently integrated into semester offerings (available from COEO Secretary, (905) 793-4885))
- Ecoscope for Sustaining Wetlands: - students investigate and monitor local wetlands, participate in decision-making required for sustaining wetlands and implement practical wetland conserva-

tion projects; Gord Harrison (613) 256-1487

- River Awareness Programme: county-wide programme of the Wellington County Board of Education; contact teacher: John Little (519) 766-9582 ext 312, Centre Wellington District High School; promotes a large number of scientific skills in a relevant context from appreciating nature to collecting, analyzing, and interpreting data, drawing conclusions, and taking positive action
- Niagara Escarpment Biosphere Reserve Network: -students in partnership with researchers and local residents involved in long-term environmental monitoring at selected sites along the Niagara Escarpment. They use recognized monitoring techniques and share their data electronically. Alice Casselman (905) 275-7685
- Ontario Learning for Sustainability Partnership: presently working on a curriculum tool that will outline essential curriculum experiences that students in various division should have; Stan Kozak (519) 821-1760

*Outdoor education experiences are essential components of a learner's education that help build solid foundations for future learning.*

## **The Value of Out-of-doors Experience Response to the Expert Panels from the Supervisors of Residential Outdoor Education Centres**

1997 April 11

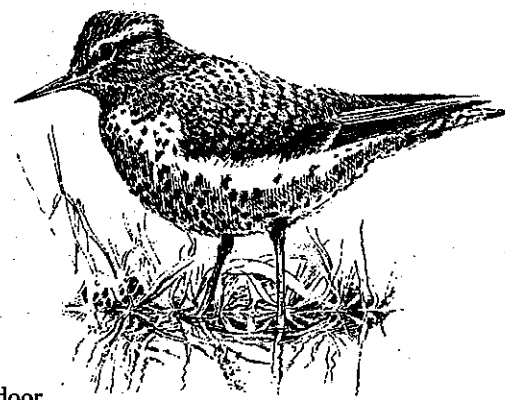
Outdoor Education is "about" learning. Teachers and students involved in outdoor education programmes are engaged in a learning experience that is unique and cannot be duplicated within the walls of a classroom, no matter what the grade.

As teachers and administrators responsible for the organization and delivery of programmes at residential outdoor education centres serving the Metro Toronto area Boards of Education we believe that:

Opportunities at residential outdoor education centres should be available to every learner in every discipline at the secondary level.

Every learner from a senior elementary grade (5-8) must have the opportunity to participate in an outdoor education learning experience at a residential outdoor education centre as an integral part of school curriculum.

Outdoor education experiences are essential components of a learner's education that help build solid foundations for future learning.



*The residential outdoor education centre is unique in that it provides the setting for the development of the 'whole' person.*

While we speak specifically for the curricular value of the residential outdoor education experiences at centres in the Toronto area, these qualities are also achieved at other centres around Ontario. This includes many of the same outcomes being met at day-use centres and at camps and other related facilities. The commonality is the direct experience in the out-of-doors, which leads to a depth of understanding that goes beyond what is achievable within four walls.

### **The Residential Outdoor Education Experience**

For over 50 years, firsthand residential out-of-doors learning experiences have taken place in a variety of natural environments including river valleys, glacial moraines, the Canadian Shield, and the Niagara Escarpment. These areas alone represent a precious learning resource where learners experience the natural world in ways not possible in urban surroundings. This is increasingly important with the urbanization of Metro and the resultant population growth and changing demographics.

The residential outdoor education centre is unique in that it provides the setting for the development of the 'whole' person. Daily living is presented in a positive atmosphere of accomplishment. Residential living is designed to foster learning in a variety of circumstances: academic, life skills, social, recreational, personal, and cultural — including the world at night, and in all weather. Learners live with, and appreciate their peers for what each brings to the learning experience. These outcomes are achieved during classroom time, formal hikes and outdoor lessons, shared household responsibilities, social and cultural interchanges, and for a week sharing a living space with members of their class and their teacher and residential outdoor educators. Residential outdoor education centres provide the classroom for active participation and demonstration of sound environmental citizenship.

The learning atmosphere encourages the development of the whole student with programmes as diverse as:

- student leadership
- race relations seminars
- peer counselling
- orchestral and choral training
- art in the out-of-doors
- creative writing and cultural journalism
- native peoples studies
- group dynamics
- field archaeology
- environmental help projects.
- physical geography and geomorphology horticultural landscaping
- agriculture
- French immersion in the out-of-doors
- special activities for the physically and mentally challenged

### **The Curriculum**

Outdoor Education has developed in response to a better understanding of how people learn, particularly relating to the need for our brain to process information by making connections. Direct experience enables the learner to make connections by actively constructing knowledge through direct interaction with the elements. One can read about connections — in the out-of-doors learners live and are part the connections. New research on how the brain processes information indicates that learners make sense of the world by making connections. In the residential outdoor education experience these connections can be seen, felt, smelled, tasted, and heard — morning, noon, and night! It offers a 24 hour learning experience!

Out-of-doors, learners learn how science works, how language is used to convey meaning, how mathematics is more than the manipulation of numbers, how history and geography and biology and drama and art and music — all apparently separate islands of knowledge — can be integrated for increased understanding of the world they live in. This is interdisciplinary learning at its best! Learners are often engaged in high level learning, beyond memorization,

classification, and data collection. They are challenged to build new knowledge, to analyze, to synthesize, and to be creative. They draw on knowledge, skills, and values to meet real challenges and solve real problems. The interplay of their emotional reactions — the affective domain — is central to the success of residential outdoor education.

Residential outdoor education delivers curriculum in a very direct and proven way, through an interdisciplinary approach. It is a vehicle for higher-level thinking that provides for learners being able to apply the skills learned in real-life contexts. The depth and breadth of the relationship between outdoor education and the formal curriculum has been well documented. It means an education that is concerned with what learners know and can do, how they interact with others and finally come to "be" in the world.

Outdoor education seeks 'authentic' understanding, not just in science, but in all aspects of knowledge. That is, in out-of-doors settings, outdoor education is an active approach to understanding and to addressing problems in context. Second, encounters with fields of human knowledge in out-of-doors settings are consistent with the constructivist approach to knowing and learning. Third, there is substantial evidence that learning in these versions of informal education is successful. And fourth, there is increasing recognition that these versions of learning are of strategic importance to the Canadian economy.

Many times learners have demonstrated positive learning outcomes that may not have occurred in a traditional classroom setting. Learning in the reality of nature has a universal effect on all learners. The effect is that the natural world allows pre-determined values to have lessened influence on expected learning outcomes. Often learning outcomes for participants are more positive and of a higher order on the taxonomy of learning skills.

### The Value for the Teacher

Learners and teachers live and learn together. Teachers are enriched by having the opportunity to be part of their learners' total life experience and the students see their adventure into learning as a partnership with their teacher. Teachers benefit from the residential learning setting as much as our younger learners.

Professional development also occurs for a teacher in residence with their students in that the experience gives the educator a unique occasion to observe learning in a non-traditional setting. Residential outdoor education centres can provide sites and expertise in specialized integrated learning, becoming a resource for special needs, modelling interdisciplinary learning, providing models of learning for different styles and approaches and modalities.

### The Value of Out-of-doors Experience

In residential outdoor education, students are given the opportunity to learn and be part of what will be their future, to live and successfully participate in a society which welcomes practical learning and living experiences. Residential outdoor education centres must continue to be valued and recognized as major contributors in bringing our young citizens into the 21st century.

CENTRE	SUPERVISOR/DIRECTOR
Boyne River Natural Science School	Peter Stille
Toronto Island Natural Science School	Olga Shiels
Sheldon Centre for Outdoor Education	Mark Whitcombe
Bolton Outdoor Education Centre	Rod Martin
Etobicoke Field Studies Centre	Dave Moore
Lake St. George Conservation Field Centre	Dave Harrison
Mono Cliffs Outdoor Education Centre	Bev Keith
Pine River Outdoor Education Centre	Gord Kingsmill
Boyd Conservation Field Centre	Terry Carr
Albion Hills Conservation Field Centre	Kip Berry
Scarborough Outdoor Education Centre	Ken Andrews
Kearney Outdoor Education Centre	Paul Goldring

*Residential outdoor education centres can provide sites and expertise in specialized integrated learning, becoming a resource for special needs, modelling interdisciplinary learning, providing models of learning for different styles and approaches and modalities.*

Submitted by Gord Kingsmill &

Mark Whitcombe, mwhitcombe@headwaters.com

# Student Evaluation of the Waterloo County Board of Education Outdoor and Environmental Education Programme

Paul Eagles, Alisha Townsend, Scott Blythe and Heather Gilman, University of Waterloo

## Introduction

The Waterloo County Board of Education has had a large and influential outdoor and environmental education programme for many years. Each year thousands of students, from all grades, visit one of the specialized outdoor education centres located around the county. These visits typically last for one school day, but over a school career students usually participate in the programme several times.

How effective is this programme? What do students remember from the programme? What do the students feel about their participation in the programme?

In the winter months of 1996 researchers from the University of Waterloo studied these questions. The study checked the level of fulfilment of the Board-approved programme goals. The approach was to ask the students for their knowledge and opinions.

## Methods

With the permission and co-operation of head office officials of the Waterloo County Board of Education, a survey was given to grade 8 classes at five schools and grade 12 classes at two schools (Figure 1). With the co-operation of the classroom teachers and the students an excellent response rate was obtained. The students responded enthusiastically to the idea of helping evaluate their educational programme. The large sample size of 571 students from 7 schools makes this survey sufficiently large so that the results can be extrapolated to represent the entire population of students in the Waterloo County Board of Education.

Figure 1: Schools Surveyed

SCHOOL	NUMBER OF STUDENTS SURVEYED
Laurentian Public School	120
St. Andrews Public School	95
Wellesley Public School	25
Park Manor Public School	84
Centennial Public School	83
Bluevale Collegiate Institute	83
Cameron Heights Collegiate Institute	80
Total Number of Students	571

Of the 571 students surveyed, 517 (91%) had attended a programme at an outdoor centre run by the Waterloo County Board at some time during their school career. All findings are based on the 517 students with programme exposure. It is clear that the outdoor and environmental education programme has a high degree of penetration into the student body of the Waterloo County Board. The 9% non-attendance is probably due to students who moved into the Board or within the Board and missed opportunities to visit a centre.

The survey contained 26 statements, to which the students could respond in 5 ways: agree strongly, agree somewhat, do not remember, disagree somewhat and disagree strongly.

## Results

A full report was submitted earlier this year to Dennis Wendland of the Waterloo County Board, and copies can be obtained from him. This full report is summarized here in a much shorter version containing highlights only. This shorter report was specifically prepared to bring

*How effective is this programme? What do students remember from the programme? What do the students feel about their participation in the programme?*



the most important findings to the attention of the full Board of Education during the budget deliberations of 1997.

The study found that the students report that a large majority of the objectives of the programme, 11 out of 15, were fulfilled. A few examples are discussed below.

Objective 1 of the programme is "to develop an understanding of the basic concepts of ecology". Objective 1 was tested by posing two statements to the students:

12. *I came to understand that every animal needs a habitat to live in.*
13. *I learned that everything in nature is inter-related and connected.*

This very important objective was highly fulfilled (Figure 2). It is important to remember that there could be two reasons why a student could say they did not first learn a concept during the centre programme. One is that they did not learn the concept. The other is that they learned the concept in the classroom before they visited the centre.

Objective 2 is to "provide the individual with the opportunities to recognize and understand the uniqueness of the human role and influence on the environment."

This was tested by posing to the students two questions:

15. *I learned that I can make a positive difference to the environment*
16. *People can have many negative impacts on nature.*

Figure 3 shows that objective 2 is highly fulfilled.

Objective 15 of the programme is to teach the student to "act with regard for the dignity and rights of all living things. This was tested by asking the students to respond to two statements:

35. *I gained respect for living things as a result of my trip.*
36. *The centre helped me recognize that living things have rights.*

The important objective 15 was very strongly fulfilled (Figure 5).

Objective 12 aims 'to develop a positive self-concept.' This was tested with one statement

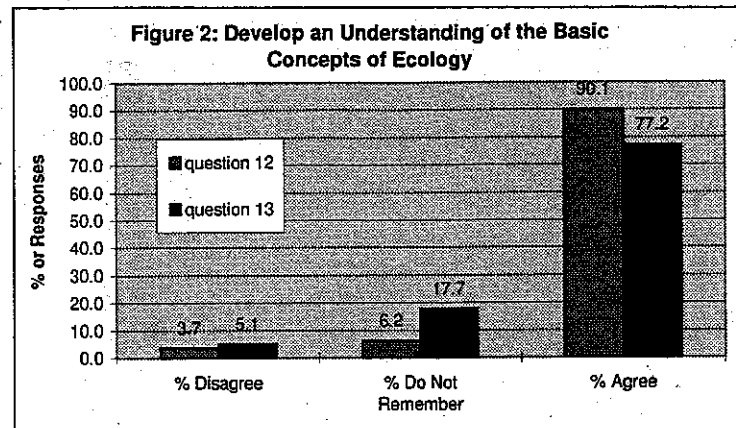


Figure 2

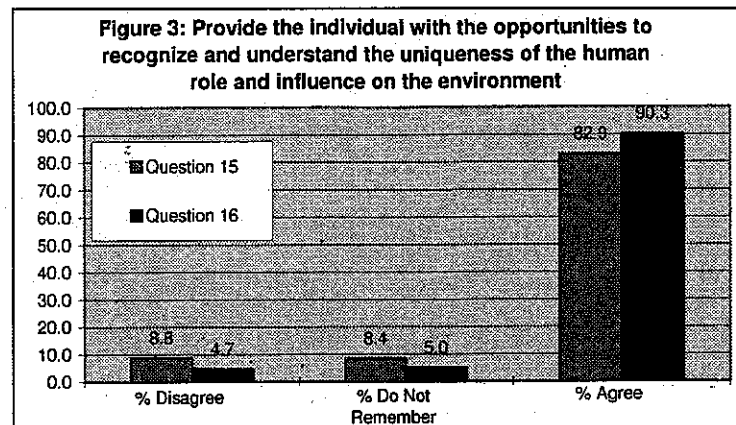


Figure 3

that looked at a student's feelings after the programme.

31. *I felt more confident about myself after my visit.*

Figure 6 shows that most students report no change in their confidence level due to their participation in the programme. However, it is important to recognize that this is a very ambitious psychological goal for a short-term school programme. Another approach would be to consider that it is remarkable that 35% of the boys and girls did report a positive change in their confidence level due to their participation in the programme. Figure 6 also shows that the students had the ability to understand the questions and reply honestly.

The researchers felt it was important to ask the students for their overall impression of the programme. This was done by posing the statement:

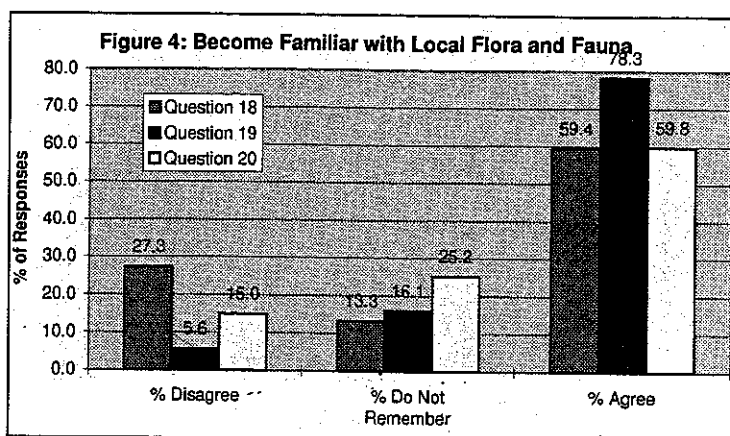


Figure 4

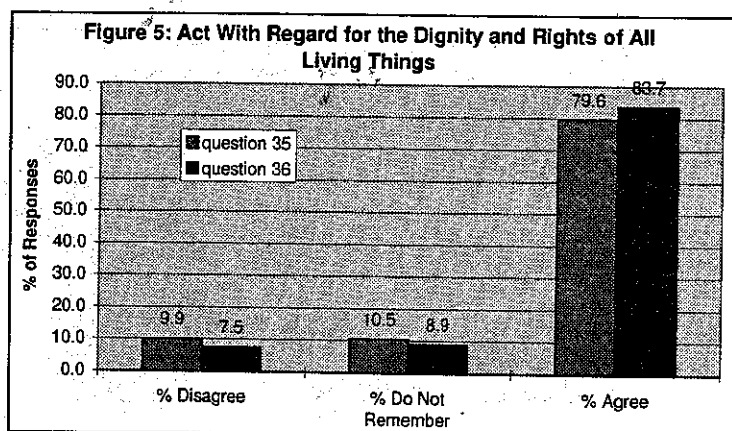


Figure 5

37. *A visit to an outdoor education centre during school time is a worthwhile education experience.*

A very high 92% of the students agreed with this statement (Figure 7). This shows a remarkable level of support for the educational goals of the programme. Such a high level of support for an academic programme is exemplary.

### Summary

The Waterloo County Board of Education's Outdoor and Environmental Education programme has long been recognized by professionals in the field as being one of the top programmes in Canada. The data are now available to show that from the point of view of student learning, this reputation is well founded.

This study shows that the students report high levels of learning in key areas of ecology

and environmental studies. In addition, the students report high levels of positive feeling about the programme and their participation in it. The programme is fulfilling most of its objectives at high levels of accomplishment. Those objectives not fulfilled are typically excessively ambitious statements about fundamental psychological change in the students. The Waterloo County Board of Education is to be commended for the high level of success exhibited by this programme.

The Region of Waterloo has been a national leader in Canada in the development of environmental management principles and standards. There appear to be two reasons for this. One is the leadership shown by the faculty and students at the University of Waterloo. The second is the impressive environmental education programme of the Waterloo County Board of Education. The programme has produced an entire younger generation of people who understand and are sympathetic to environmental conservation. The presence of an environmentally literate populace has created a local political environment sympathetic to conservation.

The initial budget for 1997-98 for the Waterloo County Board of Education proposed to cut the outdoor and environmental education programme budget by close to 50%. The proposal was to close and sell the Doon Outdoor Education Centre. In addition the staff complement working at the remaining centres was to be cut in half. During the budget discussions of the Board the high quality of the outdoor and environmental programme was recognized as the evaluation data was made available. The Board voted to retain the most important elements of the programme — the land and facility base at the outdoor education centres, and the expertise in the existing staff. These two elements, the centres and the people, have made the programme as successful as it is.

This research showed the high value and effectiveness of this type of education. The timing of the research during a period of severe budget restraint showed how important it is for outdoor and environmental education to have programme evaluation data. The presence of

such data provided the Board of Education with independent and objective opinions on effectiveness, a valued commodity.

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*Alisha Townsend, Scott Blythe and Heather  
Gilman, Graduates, Department of Recreation and  
Leisure Studies or Department of Environment and  
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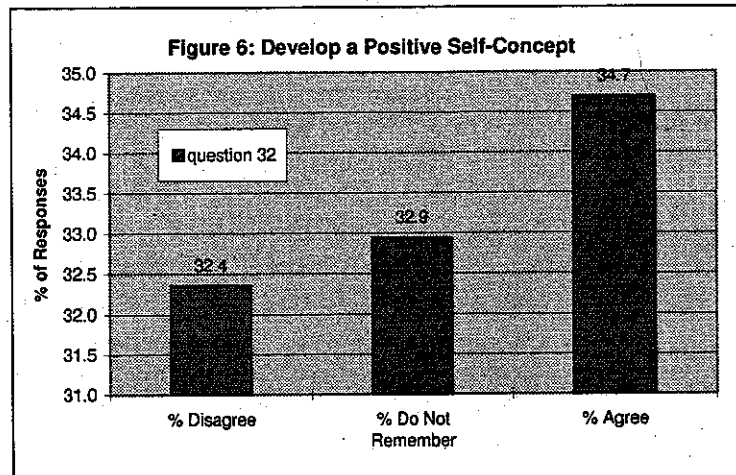


Figure 6

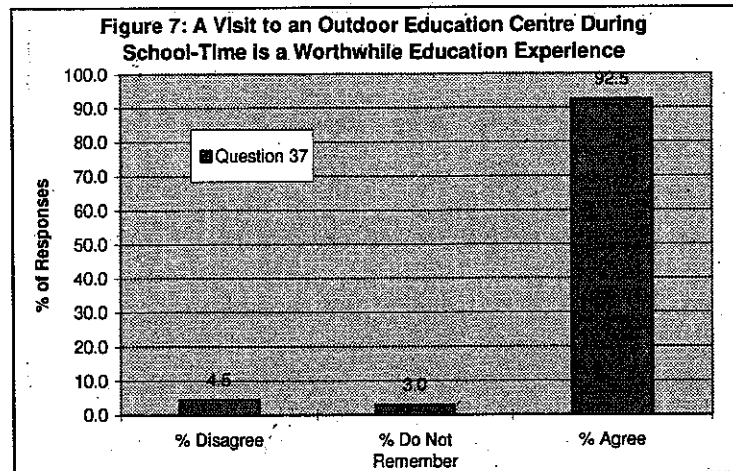
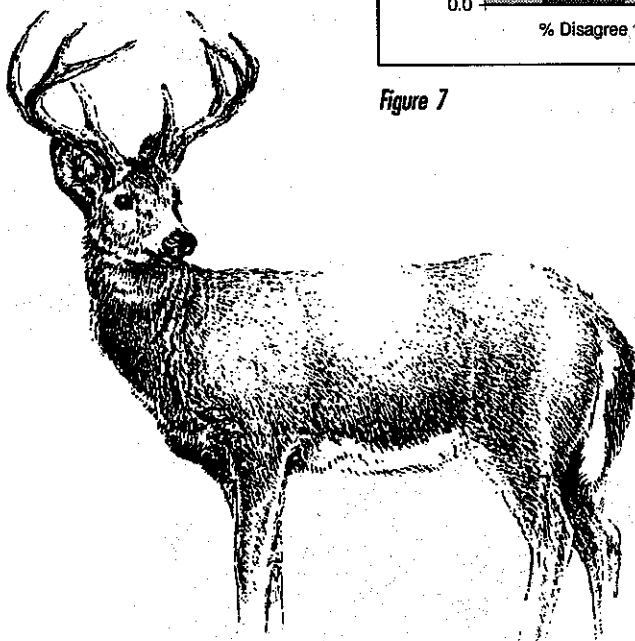


Figure 7



## Eastern Region Outing

Come join us on Saturday, June 21 for a day-paddle down Eel's Creek outside Peterborough. We will visit beautiful High Falls for lunch and the cost will be FREE! BYOC BYOL BYOL (canoe / lunch / lifejacket)

We will meet at the put-out at 9:00 a.m. so we can shuffle cars. Go to Lakefield and take Highway 28 North. Approximately 10 minutes north you will see the signs for Petroglyphs Provincial Park. Turn right off Highway 28 and follow the signs towards the Park. Eel's Creek crosses the road 2 km before the park. There is a small area to park at the side of the road. We'll be back at the put-out before 4:00 p.m.

Please confirm with Ellen Bond, tel (705) 741-1388 or at school (705) 743-2181.

## Mystery Canoe Paddle Down the Grand River — A Central Region event open to all!

Saturday June 21, starting at 12:30 p.m. in Cayuga. Please register by calling Joan Kott at 905/957-3208 in the evening or leave a message after 6 rings on the answering service. Bring your own canoe, lifejackets and paddles. If you need to rent a canoe, let Joan know and she will hopefully be able to arrange this. She will need to arrange a shuttle run for the vehicle pick up. Following this event, a potluck dinner will be held at the Kott's home. There are some GREAT PRIZES for the winners who solve the 'Mystery' on the Grand! If the weather is unsuitable, the raindate will be the next day.

## The Frost Centre

The Frost Centre near Dorset is an active place this summer. Project WILD workshops are being held June 24th and August 25th. These active outdoor workshops are sponsored by the Canadian Wildlife Foundation and focus on wildlife and fisheries ecology and management. Of interest to land and cottage owners is the Stewardship Series of day-long workshops designed to promote a better understanding of ecosystems and the principles and practices of stewardship. Discovery Days are fun, informative day-programmes for families who want to gain a better understanding of the natural world.

## Environmental Science Part 1 and 2, July 7-11 and July 21-25

Additional qualification or credit courses for educators including classroom teachers, environmental, outdoor and natural heritage educators, youth group leaders, teacher aides, and tutors. Offered through Nipissing University and the Ministry of Natural Resources, this course explores the philosophy, principles and strategies for teaching environmental education. Part 3 will be offered in the Fall of 1997.

## GeoCamp, July 31-August 2

A residential camp for youth (age 12+) and adults who wish to explore the world of geology. Participants will study local landforms, learn the principles of rock and mineral identification, go rockhounding, pan for gold, visit the Gemboree in Bancroft and work in the lapidary room to cut and polish rock specimens.

Info on all of these programmes can be obtained by phoning the Frost Centre at (705) 766-2451.



## The Place of Outdoor Education

Keith King

I wonder — if the place of outdoor education is to be a subject in and of itself, or if its place in the educational scheme of things is to offer another way to present happenings to students?

I believe “Outdoor Education is teaching in and of the outdoors” and “If you can teach it best outdoors, take it outdoors. If you can teach it best indoors, stay inside.” Julian Smith said this some time ago. I see these statements as basic to the objectives of Outdoor Education.

I suggest — there are only two factors which dictate what it is the learner takes away from a learning session.

- His/her way of perceiving what ever is going on.
- Whatever they are learning: the fact, skill, or the application must be important to them at that moment in time.

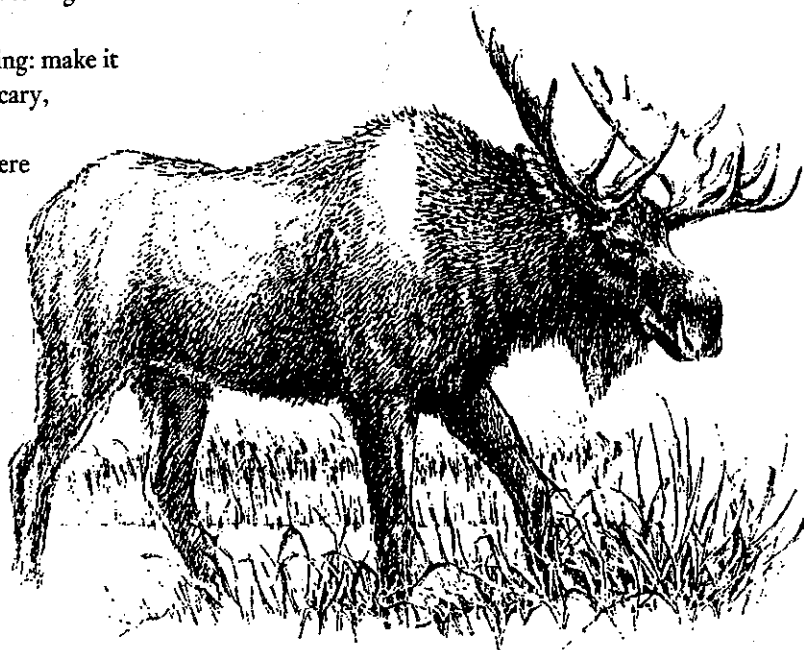
I suggest — some Basic Principles of all teaching, be it in outdoors or indoors. In order to have learning take place, someone (maybe it's the teacher) must:

- Put the learner in a strange place, either indoors or out. Since most kids are indoor people, being outdoors usually is a strange place.
- Put some pizzazz into the happening: make it so the experience is challenging, scary, interesting to the learner.
- Start where the learner is, not where you guess/wish they were.
- Find the learners' passion. No matter how small or insignificant that passion is to you, work from their passion.

- Get as much of the learner as possible into the happening. The more of the five senses they use and the more emotion, the better. To paraphrase Kurt Hahn, “ — children/ adolescents have the vigilance of spirit and alertness of the senses superior to adults” — we need to capitalize on that fact.
- Somehow construct the happening so there are natural consequences of the learners' decisions.
- Somehow construct the happening to be as authentic as possible in minds of the learner.

Keith King  
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*Keith King has his roots in Physical Education and Experiential Education.*



## A Sonata in 5.10 Major

by Christian Bisson

When Jean finally touched the ground, she kept her head low and whispered between her teeth: "Darn, I had it." Sensing that she had caught my attention, she added "I was just above the crux and could not find anything for my right hand. It is a good route but the top has no hand holds." Feeling her frustration, I simply smiled and nodded slowly to express my empathy. I did not want to tell her what I really thought about this climb or vex her by sharing my personal view about climbing. Perhaps someday, the time will come for me to explain that she should try to perceive a rock face as a sheet of music and that her hands and feet are like four musical instruments playing a vertical sonata.

Perceiving a rock climbing route as such, helps me understand why sometimes I do not complete an unfamiliar climb. I tell myself, "This route is perfect, I simply do not know yet how to 'play it.'" When I fall, it is because I am playing the wrong notes or mixing up their sequence. At times, one of my instruments does not play a note as it was meant to be played. Other times, I complete the climb but the music of my movement was not as beautiful as it should have been. After all, there is no secret to rock climbing or music — it is only after hours, and hours of practice that one becomes a good climber or a talented musician.

With practice, one can climb a difficult route after only a few attempts, or flash à vue an easier route. Like master climbers, the most experienced musicians still have to practice a difficult new musical piece many times before playing it with ease, and yet they can play an easy piece instantly. Of course, every musician plays her or his instrument somewhat differently. We usually say that each musician has a unique style. Rock climbers are the same in that respect; all of them move over the rock with a particular style. This is what differentiates very good climbers from master climbers.

This comparison between music and rock climbing originates from my desire to view nature as it is, beautiful in its wildness state. I behold the rock I am about to climb as a perfect piece of art. Like a melodious musical composition, the rock present itself with a flawless arrangement of notes. Not too few or not too many, just perfect.

I hope that someday Jean understands that if she cannot complete a climb it is not because the rock hides some kind of imperfection. But simply that she still has to improve her technique. Like many climbers, Jean judged nature with human standards and by doing so, she transferred our personal frustration upon the natural world. If a rock is scarce in climbing holds, maybe it means that this rock was never meant to be climbed. At least not by us.

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*CHRISTIAN BISSON is a doctoral candidate in pedagogy with an emphasis in adventure education at the University of Northern Colorado. Christian has been teaching rock climbing since 1986. Christian Bisson, Hollins College, P.O. Box 9567, Roanoke, VA 24020, (540) 362-6084, cbisson@concentric.net*

