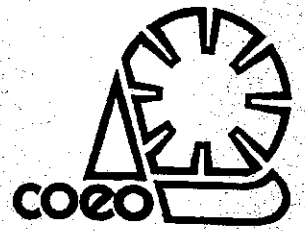


Pathways

THE ONTARIO JOURNAL OF OUTDOOR EDUCATION

Winter 2001, 13 (5)



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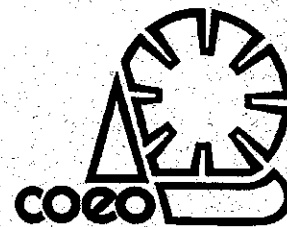
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Pathways

THE ONTARIO JOURNAL OF OUTDOOR EDUCATION

Winter 2001, 13 (5)



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Pathways is published five times a year for the Council of Outdoor Educators of Ontario (COEO) and distributed to COEO members. Membership fees include a subscription to *Pathways*, as well as admittance to workshops, courses and conferences. A membership application form is included on the inside back cover of this issue of *Pathways*.

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CONTRIBUTIONS WELCOME

Pathways is always looking for contributions. If you are interested in making a submission, of either a written or illustrative nature, we would be happy to hear from you. For a copy of our submission guidelines, please contact Randee Holmes, Managing Editor.

If you are interested in being a guest editor of an issue of *Pathways*, please request a copy of our guidelines for guest editors from Randee Holmes, Managing Editor.

If you have any questions regarding *Pathways*, please direct them to either of the *Pathways* Editorial Board Co-Chairs, Bob Henderson or Connie Russell. If you'd like more information about COEO and joining the organization, please refer to the inside back cover of this issue or contact a Board of Directors' member.

Submission deadlines:

January 15
April 15
June 15
August 15
October 15

Our advertising policy:

Pathways accepts advertisements for products and services that may be of interest to our readers. To receive an advertising information package, please contact Bob Henderson, Co-Chair of the *Pathways* Editorial Board. We maintain the right to refuse any advertisement we feel is not in keeping with our mandate and our readers' interests.

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- Northern Region:** vacant at this time

Editor's Log Book

Wow — this fall marked the occasion of COEO's 30th Annual Conference! Conferences should elicit mixed feelings of celebration, promise, and purpose. It is our hope that the conference materials compiled for this Conference 2001 theme issue of *Pathways* are an adequate reflection of these sentiments.

The *Pathways* board, in addition to presenting various theme issues over the years, is very pleased to have maintained regular coverage of Integrated Curricular Programs (ICP) through various feature articles and regular inclusion of the *Intersections* column. In this issue, we feature Janet Ungrin's synopsis of her research concerning high school Physical Education and ICP. Janet completed her research as a senior student in Physical Education at the University of Toronto. Janet is now enrolled in the Queen's University Outdoor Experimental Education Teacher's College Program. It is always exciting for us to receive quality work from Ontario's students who are in transition to becoming professional colleagues.

The next issue of *Pathways* (to be published mid-February 2002) will focus on Advocacy for Outdoor Education. Guest editor for this issue, Grant Linney, would be happy to hear from individuals with ideas and experience in this area. Grant is hoping to promote the cause of outdoor and environmental education in these tough budgetary times. He writes, "I am looking for articulate, passionate and relatively high profile voices from outside our profession, people who fondly and vividly remember their own experiences at outdoor education centres, people who can speak to how such experiences were (and perhaps continue to be) a formative part of their education, their values and attitudes. I am thinking of parents, scientists and other professionals." If you or someone you know has something to say on this issue, please contact Grant so we can keep this theme alive in *Pathways* beyond the next issue. Grant can be reached by e-mail at linney@castle.on.ca.

The spring issue of *Pathways* (to be published mid-May 2002) will be focused loosely around the theme of virtual vs. actual experiences in outdoor education.

Contributions to this issue are also welcome and should be directed to a member of the *Pathways* editorial board.

We are always keen to print activities and program ideas from the field. Practical activities based on curricular themes serve to balance and complement the research and theory submissions we present. Letters to the editors are similarly welcomed, as the comments we receive help us to serve the COEO readership — both within and beyond our Ontario borders — from a more informed and enlightened position.

Finally, we are very pleased to announce the addition of two new columnists to our *Pathways* team:

Emily Root will be contributing a regular *In the Field* column, reporting on Ontario outdoor education programs. Emily is a graduate of the Queen's University Outdoor Experiential Education Programme and is currently teaching at Camp Tawingo School.

Simon Beames is a former McMaster University student. Simon completed a Master of Outdoor Education degree at Mankato State. He spent much of the 1990s teaching Outdoor Adventure Education in Asia, primarily in Hong Kong. Simon is currently pursuing a Ph.D. in Outdoor Education at Chichester University in West Sussex, England. Simon will contribute to our *Prospect Point* column.

Congratulations to COEO on its 30th successful conference, and a warm welcome to new COEO members and readers of *Pathways*.

Bob Henderson
Co-Chair, Editorial Board

Letters to the Editors

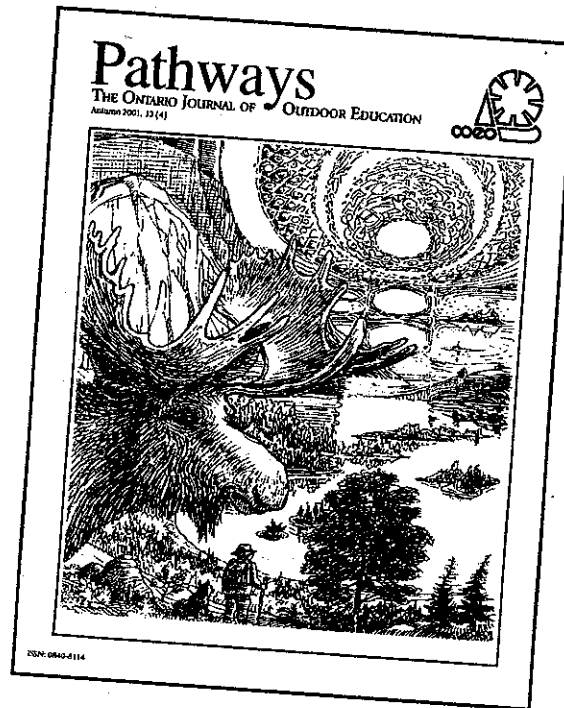
September 19, 2001

Dear Bob:

Thanks for sending the copies of the Summer 2001 (Friluftsliv) issue of Pathways along. I found the essays very thought provoking and interesting. It is always good to shake up one's thinking with other perspectives, particularly approaches that may not be fuelled by the perceptions of one's own culture. It allows freshness to stand out.

What is really exciting to me is finding out that many of the things that inform my approach, either intuitively or through being so close and obvious that they are overlooked, is that other practitioners have a focus and vocabulary already in place.

Sincerely,
Garrett Conover
North Woods Way
Willimantic Guilford
Main, USA



Sketch Pad

Art for this issue was provided by Erin MacNaughton (pages 7, 11, 14, 15, 31 and 36), Gopika Naguleswaran (pages 12, 18 and 25), Dale D'Allaire (cover), Joanne Hum (page 20) and Gene Parker (pages 33 and 34).

Erin is currently a student within the Fine Arts Program at the University of Guelph. Her specialty is drawing and oil painting. She is an experienced canoe tripper with a particular interest in native art. Erin attributes her love of the outdoors to her years spent at Camp Wapomeo, where she has worked for many years. This last summer Erin was the artist-in-residence for Camps Ahmek and Wapomeo.

Gopika Naguleswaran is currently a Kinesiology student at McMaster University.

Conference 2001 was a great success. Both the sun and the moon graced us with their full energy and the fall colours were beautiful across the lake. Special thanks go out to the members of the organizing committee: Patti Huber (registrar), Judy Ignatowitz and Liz Turner (donations, vendors, and fundraising), and Glen Hester and Mary Gyemi-Schulze (co-chairs, speakers, brochure, advertising and mailings).

The constitution was accepted with the changes as written in the copies that were mailed to the membership prior to the AGM. The financial report and executive reports were presented and accepted. And, of course, the new board of directors was elected — you will find their names listed on the inside front cover of this issue.

Our first meeting as a new executive was held at the conference on Sunday, September

30, after lunch. We set our tentative meeting dates and locations for the 2001/2002 year (listed below and to be updated from time to time). Please note that, while all members are most welcome to attend meetings, you may find it easier to direct any requests through your regional representative. We currently have a vacancy for a representative in the Northern region. If you are willing to put your name forward, we would very much welcome your participation. Until someone is found to fill the position, Lori Briscoe has kindly agreed to represent both the North and the Far North regions.

Welcome to a new year of COEO. I look forward to seeing you at one of our future events.

*Respectfully,
Mary Gyemi-Schulze*

Board of Directors Meetings and Locations for 2001/2002

Date	Location	Time	Host	Focus
Sunday, November 4	Casselman Home	9:30 am	Alice	Agenda
Thursday, January 17	Conference Call	7:30 pm	Mary	Agenda
March 1, 2 and 3	Northern Edge	9:00 pm	Todd	Agenda/Retreat
Thursday, May 2	Conference Call	7:30 pm	Mary	Agenda
Thursday, September 12	Adventureworks	6:30 pm	Brian	Budget
Sunday, September 28	AGM	TBA		Agenda

Meetings will be potluck, unless otherwise stated. Please inform the host of your contribution ahead of time. Bring your own mug, planner and ideas.

Meetings are open to all members, so please encourage others to participate. It may be necessary on some occasions to hold a session "in camera" in the interest of privacy.

Membership Report — August 31, 2001

The following chart summarizes the membership numbers by region and category as of the end of the fiscal year.

COEO Membership Summary

	Regular	Student	Subscription	Compliment.	Family	Total
Central	61	15	4	9	4	93
Eastern	37	6	7	5	2	57
Western	30	2	5	3	3	43
Out of Province	8	2	12	4	1	27
Northern	11	4	3	0	1	19
Far North	6	1	0	0	0	8
Total	153	31	31	21	11	247

*Glen Hester
Membership Co-ordinator*

Today for Tomorrow Conference 2001
September 28-30, 2001 Bark Lake Leadership Centre
Conference Abstract

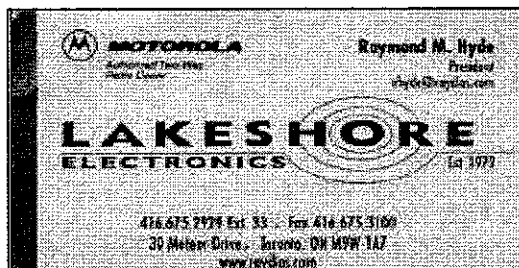
Throughout its history the Council of Outdoor Educators of Ontario (COEO) has promoted the practice of outdoor and environmental education in schools, outdoor education centres, and conservation programs. During recent years educators have been responding to a curriculum that is focused primarily within the classroom. As a result, students are being given fewer opportunities to get outside to experience the natural environment and to get practical lessons that can be applied to the curriculum. Part of the

problem is that educators do not have the time to prepare lessons focusing on the out of doors. A primary goal of this conference is to provide educators from all levels with materials that they can learn TODAY and use TOMORROW with their students, and that will allow for the expansion of personal growth goals. Please join us in the great outdoors this September to share new ideas and challenges and to kindle friendships with other educators concerned about outdoor and environmental education.

Conference Committee

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Liz Turner	905-833-5917	zilrenrut@home.com

We would like to extend our sincere thanks to our many conference supporters, including:



Many thanks also go out to the following generous sponsors of our photography contest:

- | | |
|------------------------------------|--|
| Adventureworks! | Halton Camera Exchange, Georgetown |
| Camper's Place, Newmarket | Ian Tamblyn |
| The Canadian Canoe Museum | Imagine, York Region's Arts and Culture Magazine |
| Canadian Wilderness Trips | Janet Bailey, Artist |
| Canoe Country Outdoor Shop, Norval | Loblaws Photo Lab, Georgetown |
| Chrismar Mapping Services | Sarah Warburton, Photographer |
| COEO | |

COEO Photo Contest Winners 2001

Judge: Francis Boyes, Smoothwater Outfitters

People in the Outdoors — First: Mark Whitcombe; Second: J. D. Heffern; Third: Clare Magee

Landscapes — First: Patti Huber; Second: D. Jensen; Third: Mary Garvin

Abstracts — First: Mary Garvin; Second: Mark Whitcombe; Third: Linda McKenzie

Plants and Animals — First: Patti Huber; Second: Linda McKenzie; Third: Mary Garvin

Humour — First: Linda McKenzie; Second: Shirley Dawson; Third: Dave Jensen

Special thanks to Judy Ignatowitz for her work in hosting this event.

Friends of the Environment Project: *That Chickadee Feeling*

by Frank Glew

All COEO people have experienced the magic of feeding a Black-capped Chickadee out of their hand. Outdoor centres are one of the easiest places for many school children to have this unique experience. There is now available a children's picture book that captures this moment and prepares students for the exciting field trip. I have prepared a picture book, entitled *That Chickadee Feeling*. Having taught all grades from kindergarten to university, I have found students' reactions to feeding a friendly Black-capped Chickadee out of their bare hands to be the same, regardless of age.

This story highlights the happy, exciting feeling that is captured on the face of a child when feeding a Chickadee out of their hand for the first time. In ancient times it was believed that divine forces could talk to us through the natural world. I believe that these forces are still at work today. The story follows a single mother and child who bond through a fascinating meeting with the Black-capped Chickadee in a natural setting. The child, who could be taken to be either male or female, is bored with technological gadgets such as television and computer and video games. The child wants something exciting to do. The mother wisely decides to give the child a chickadee experience.

The mother invites her child to a natural area. The child soon has the exciting experience of a close personal encounter with a Chickadee when it lands on his/her hand. The child gets a spine-tingling, overwhelming feeling of surprise — a feeling aptly named "That Chickadee Feeling." The child soon learns that Chickadee Feelings can be obtained by other means as well. The mother and child discuss all the wonderful

happy moments in their lives that could be described as Chickadee Feelings. The mother relates that the very, very best Chickadee Feeling she ever had was on the day her child was born. The child isn't bored any more.

The story demonstrates how the gregarious little Chickadee can be an inviting and spiritual vehicle for connecting with nature, and a high-quality bonding agent between parent and child. It clearly shows that the best gift you can give a child is your time.

The book's realistic illustrations of twenty-four local winter birds teach indirectly about the identification and characteristics of a natural Chickadee community. A list of twenty-three thought-provoking questions is included with the story. The Marna Twins, Marlene and Myrna McBrien of Huntsville Ontario, are the illustrators of the book. Marlene is a naturalist, mother, artist and environmental educator who performs with her identical twin sister, Myrna. Myrna is an accomplished singer, actress, artist and teacher who performs at many environmental school assemblies. The book's illustrations are a mixture of realism and cartoon. Marlene illustrates the realistic portions of the book and Myrna creates the cartoon parts.

I have created this book because I believe that it is our moral obligation to the future to plant and cultivate a positive self concept in our children and grandchildren by encouraging them to find beauty, love and happiness in themselves, others, other species and the world.

Frank Glew is a retired Canadian educator and long-time member of Friends of the Environment.

If you are interested in purchasing a copy of this delightful book, please contact Frank Glew by mail at 46 Winding Way, Kitchener, Ontario, N2N 1M1; by telephone at 519-742-6617; or by e-mail at fsglew@kw.igs.net. Cost is \$8.95 plus \$1.05 postage. A teacher's guide is also available for an additional cost. If you wish to order two copies of the book, one of which will be donated to a school library, the total cost is \$18.00.

Profits from the sale of the book go to support environmental projects in schools, most of which

are in dire need of environmental resources. As an outdoor educator you can apply for funding for all elementary schools in your school board from your local Friends of the Environment Fund through TDCanada Trust. Just fill out an application (available on the Internet at www.fef.ca) and take it to your nearest TDCanada Trust bank. The funds are generated from donations that customers make through their accounts and that are matched by TDCanada Trust.

Storytelling: A Powerful Teaching Strategy

by Allan Foster

Nature storytelling is a great way to engage students in a topic. Young people think in terms of stories, and the nature facts imbedded in stories remain in their memories for years. These tidbits of information can provide a special connection to the natural world. It's a small thing but it is an important connection. Furthermore, storytelling can easily be enriched by adding activities framed by multiple intelligence theory. For example, a story can be a beginning for a skit, a chant, a work of art or a dance.

At this year's Bark Lake Conference, I led a short hike and honoured seven intelligences. By telling a few nature stories, I engaged participants' literary intelligence. By solving a puzzle about a farmer and how he crossed the river with a fox, a goose and a bag of grain, participants had the opportunity to exercise their logical/mathematical intelligence. By incorporating the solution into a skit, they drew on their visual/spatial and interpersonal skills. Because it was a nature hike, with lots of walking and searching, participants were called on to flex their kinaesthetic skills. Following one of the stories, we formed a circle and produced a rhythmic review, shouting a chant that revisited the most important elements of the story. Finally, the participants reflected on the activity and wrote a line or two, which called them to action and further storytelling. In so doing they engaged their intrapersonal intelligence.

Most participants agree that nature storytelling that draws on various intelligences is a powerful teaching strategy. The challenge can be to ensure that you have enough stories to tell. So here's one more to add to your repertoire. It's adapted from Aesop, making it roughly 2600 years old.

One spring, there was a Canada Goose walking around the edge of a pond at the Kortright Centre. Ice had started to form on the water but it wasn't thick enough yet to support the weight of the goose so she had to walk around the edge in the mud. Concerned that her shiny black feet were getting muddy, she was looking down instead of ahead.

She was approaching a shrub at the water's edge behind which a fox was hiding. The fox could not believe her good fortune. A goose was walking right toward her! It would be the easiest meal ever!

The goose kept walking, looking down. The fox crouched down, ready to spring.

Suddenly the fox leapt forward and caught the goose around the neck with her razor sharp teeth. The fox was about to chomp down hard on the goose's neck when the goose said, "I wouldn't do that if I were you!"

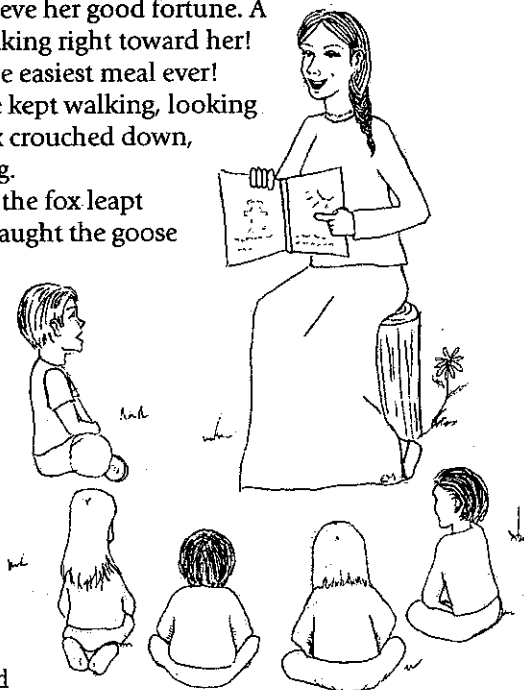
"Oh," said the fox. "What would you do if you were me?"

"I'm polite," said the goose. "I always say a blessing before I eat."

"Quite right," said the fox. And with that, the fox crossed her paws, closed her eyes and said a short blessing.

But when she finished, the goose was gone.

To this day, the Canada Goose has a white scar on her otherwise black neck where the fox grabbed her. The scar reminds geese to always watch where they are going and not to worry about getting their feet muddy.



Allan Foster is a long-time naturalist and storyteller. He works at the Kortright Centre for Conservation and publishes a free newsletter, which often includes his stories. Send an e-mail message to kkc@interlog.com to subscribe.

Thinking Out of the Crate

by Alf Grigg R.D.M.R. — City of Toronto Parks and Recreation

Here is a creative way to use experiential learning exercises with students. Place activities in a box and use when the applicable situation arises.

Activity	Situation	Description
How Many Chicks Equal One Turkey? (card exercise)	The group doesn't realize they need to give each member of the group an opportunity to give their input before making a decision.	Group members are each given various numbers of cards until every member has at least one card. Information is on the cards that will help the group answer the question, "How many chicks equal one turkey?" Group members must share information in order to come to an answer. Debrief with students after the answer is presented.
Dot (large dot drawn on flipchart paper)	The group needs an opportunity to brainstorm new creative ideas.	A large dot is placed in the middle of a piece of flipchart paper. The group is asked, "What does this dot represent to you?" As ideas are generated, they are written down on the flipchart. Words are expanded with more detail. The ideas are then prioritized.
Take-out Lunch Bag (lunch bag filled with five items)	The group needs to focus on the philosophy of what they are about.	Each group participant is given a lunch bag containing five items. The group opens the bag and discusses how each item relates to their philosophy. For example, an elastic band might represent the concept of being flexible, having boundaries, stretching oneself.
Plastic Water Bottle	Group members each need to learn how to keep themselves refreshed and motivated and how to motivate other people.	Each participant receives a water bottle and a blank label. They are instructed to drink the water. On the label they vertically print the word "water." Beside each letter of the word, they write another word beginning with that letter that refreshes them. They place label on the water bottle and share their words with the rest of the group. Alternatively, they write down on a piece of paper a description of what motivates them and share this with the group. They scroll their paper and place in the empty bottle of water. When they need to be refreshed, they open their bottle and pull out the scroll.
Puzzles	The group needs to realize that some issues are easier to deal with than others.	Each participant is assigned to a group. Each group is given a brown envelope containing a puzzle to be solved within a time limit. Some puzzles are hard and some are easy. After a set length of time the puzzles are exchanged until each group has had a chance to solve each one. A debrief follows the process.
Geometric Psychology (shapes drawn on a piece of flipchart paper)	The group needs to have a balance of leadership styles.	The group observes a piece of flipchart paper with five different shapes. They are asked the question "Which shape best identifies your leadership style at the present moment?" Participants break off into groups according to the shape they chose. They discuss why they chose that shape and present back to the whole group. The process is then related to the theory of balanced leadership within the group.
Soda Pop Can	A group member needs to learn how to deal with being upset.	The teacher hands a can of soda pop to an upset group participant. The participant is asked to shake up the pop according to how they feel. The facilitator asks, "How are you going to open that can of pop without the contents flowing all over you and me?" The typical response is "by putting the can of pop down and letting it settle for a few minutes." The facilitator then asks "What are you going to do before we talk?"

50 Great Ice / \ Breakers: Recipe Card Model

by Alf Grigg R.D.M.R. — City of Toronto Parks and Recreation

Many times when working with youth, getting the task done is made to be more important than acknowledging the group dynamics of the youth working together as a team. We mistakenly put youth in situations with other youth with whom they haven't worked before and expect immediate results. A better approach would be to first take time to nurture the youth team, and then to assign a given task. 50 Great Ice / \ Breakers: Recipe Card Model for planning presentations uses a three-circle approach to help develop the youth team before setting them to work on a task.

An Ice / \ Breaker is a tool that can be used to do the following:

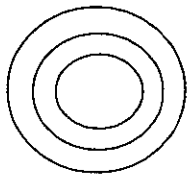
- set a positive learning environment
- get all participants to interact with one another in a safe environment
- serve as a positive lead-in to a topic or issue
- energize a group.

An example of an Ice / \ Breaker: Participants are sitting in a circle. They are given one minute to think of the worst looking and smelling food they have ever found in their refrigerators. After one minute, participants one at a time share their experiences with the rest of the group. This Ice / \ Breaker could lead into a session on organization, wise shopping, communication, new discoveries, attitudes and the environment.

The purpose here is to describe how to use Ice / \ Breakers in a three-circle model approach to make people feel comfortable as a team before working on a work related task.

3-Circle Model

Imagine three circles, the second smaller than the first and the third smaller than the second, nested inside one another.



Large Circle

The Large Circle represents youth first coming together to form a work team. You

want to create a positive getting-to-know-you environment. This can be created using simple, inclusive and non-intimidating Ice / \ Breakers to get everyone involved at the same level. The following are examples of Ice / \ Breakers that meet this criterion.

Oh! Ah!: *The purpose is to get the staff feeling comfortable with one another and to set a friendly environment.* The staff sit in a horseshoe formation. The facilitator divides the group in half. When the facilitator tosses a utility ball in the air one half of the group shouts *Oh!* When the ball hits the floor the other half of the group calls out *Ah!* This continues until the ball stops bouncing on the floor. The second time the facilitator uses the same process. However, when the ball stops, the facilitator picks up the ball and holds it above his/her head. All the participants stand up and give a *Tony the Tiger Cheer: Grrrrreat!*

Wave: *The purpose is to help staff to feel comfortable performing in front of their own peer group.* The staff stands in a horseshoe formation with their hands on their knees. The facilitator asks one participant at the end of the horseshoe to raise his/her arms to their shoulders, make a sound and place their hands back on their knees. The next participant immediately follows suit until everyone has had a turn. The second wave involves the same process, only participants stretch their arms above their heads. The third wave involves starting a wave at each end of the horseshoe. The wave crosses over ending up at both ends. The fourth wave is the reverse wave. The wave starts at one end of the horseshoe. The facilitator calls "Reverse" at random. The wave goes in the other direction.

Middle Circle

The Middle Circle represents staff warming up to one another and feeling comfortable working together in groups. There is an appreciation for one another's comfort zone. The following are examples of Ice / \ Breakers that meet this criterion.

Line Up: *The purpose is to give staff the opportunity to learn more about one another.* The staff are divided into groups. Each group is set up in a relay formation. The facilitator asks the groups to line up in alphabetical order according to their first names. A is at the front to Z at the end of the line. They cannot talk. The first group finished with hands on their heads gets to go first in saying their names in the correct order. Using the same process the facilitator asks the participants to line up according to months they were born, January to December. Using the same process the facilitator asks the participants to line up with the number of pets in their families, the smallest number to the largest number. Depending on the number of participants, this Ice / \ Breaker can be done as a whole group.

Name Train: *The purpose is to help staff remember one another's names.* The staff stands in a circle. Two or three staff volunteer to be train engines. The engines chug up to any participant in the circle and ask, "What is your name?" The participant tells the engine their name. The engine does three-stride jumps repeating the participant's name three times. The participant then becomes the engine. The former engine becomes part of the train by holding onto the engine's waist. The two chug off to another participant. When the participant says his/her name, each member of the train repeats it in turn down the line before doing the stride jumps. The train chugs around the circle picking up new participants until everyone has had a turn.

Inner Circle

The Inner Circle represents staff working closer together. The staff feel comfortable working together and are ready to expand their comfort zone. The following are examples of Ice / \ Breakers that meet this criterion.

Evolution: *The purpose is to mix staff up in a large group.* All participants start as eggs in a crouched position. Each participant plays rock, paper and scissors with another participant. Whoever wins becomes a chicken running around clucking. The loser stays an egg and looks for another egg to repeat the process. The chicken looks for another chicken and plays

rock, paper and scissors. The winner becomes an eagle walking around moving his/her arms in a large sweeping motion looking for another eagle. The loser becomes an egg looking for another egg to go through the process. Once the eagle finds another eagle they go through the process. The winner remains an eagle, the loser a chicken.

Group Puzzles: *The purpose is to help staff realize that in working together in a group, some tasks are easier than others.* The staff divide into groups. Each group is given a different puzzle in an envelope. (The puzzles have been pre-made by the facilitator using pictures from magazines and cut into 10 pieces with some puzzles harder than others). The groups are given 45 seconds to have all the puzzles solved. Once solved, the participants put their puzzle pieces back in the envelope and pass the envelope to the next group, counter-clockwise. Each time the puzzles are passed the groups are given 5 seconds less time to finish the puzzles. This process continues until each group has had each puzzle to solve. A discussion follows on which puzzles were easy to solve, which were hard and the reasons why.

Summary

Progression through the 3-circle model from the outer circle to the inner circle depends on the individual youth in the initial group make-up. Some groups will progress faster than others. The teacher observing the process may identify some youth that feel uncomfortable moving from one circle to another and they may decide to slow the process down. The staff stays at one circle until they are comfortable to move on. Once the youth feel comfortable working with one another, they can achieve any work task assigned to them.

Alf Grigg is a training co-ordinator for the City of Toronto Department of Parks and Recreation. He is a part-time teaching professor at the University of Toronto in the Physical and Health Education Program and Seneca College in the Recreation and Leisure Services Program. President of his own company, My Latest Scoop, he has spent the past twenty-three years dealing with the use of creativity in training and learning for all ages.

Connecting with Plants According to Confucius

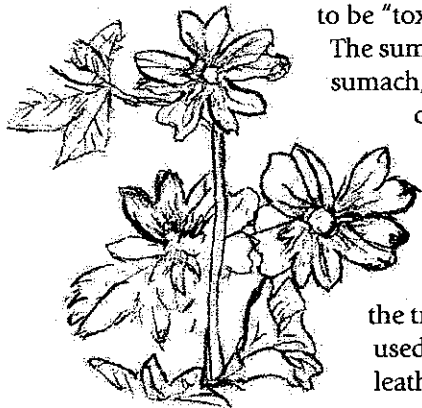
by Martha Webber

"When you hear you forget, when you see, you remember some, but when you touch and do, it becomes part of you."

First we take a close look at how leaves differ in structure. Each of us collects one leaf from ten different types of plants. Seated in a circle I ask how the leaves differ from one another. I suggest that those who are familiar with the criteria of differentiation let those who aren't figure them out on their own. Are there lines in the middle? Okay, there are three basic arrangements. I ask each person to hold up a leaf with a feather pattern, then one where several lines diverge from the base "like those in the palm of your hand," then one where the lines are equal but parallel. Next we move on to the margins — entire, toothed, lobed, or compound. Using magnifiers we compare both shapes and textures. I then ask each person to select one leaf and describe it out loud in detail so that another person could draw it, sight unseen, based on their description. This exercise establishes a base for field discoveries and can easily be done in a schoolyard.

I introduce plants using stories about "aliens" that traveled with early migrants as foods or medicines. (Herbals list multiple uses for many of our worst "weeds.") As I explain, native and pioneer uses for plants tell us a lot about the lifestyles of those groups. For example, black berries on the buckthorn were such powerful laxatives as to be "toxic" today.

The sumac, or sumach, derives its common name from "shoemakers' tree," so named for the acids in the tree that were used to soften leather.



There are a lot of fun things to do with plants. Here are just a few suggestions:

- figure out why the poplar leaf is always in motion
- discover which side of a tree trunk faces south by looking for the "sun screen" powder
- try exploding "touch-me-not" capsules
- fold cattail leaves into boats and race them down a stream
- play a game of "survivor" by making burdock leaves into shade hats or try using the Velcro-like burrs to model animals
- conduct a taste test of the original aspirin (willow) and wintergreen (yellow birch)
- rub the furry "Quaker Blush" (mullein) and examine the storied hairs with a lens.

Names of plants vary from place to place and throughout history. It is more important to know that the science of classifying plants groups natural families by shared characteristics of reproductive structures. It is easy to recognize a member of the rose, lily, legume or mustard family. Concentrate on classifying plants into their appropriate families, rather than trying to identify specific plants based on colour of flower or other identifying characteristics. Most of the plants you find will belong to one of relatively few families. No teacher should hesitate to lead a field discovery walk on plants . . . after first learning to identify poison ivy.

Martha Webber is a plant taxonomist well into her second childhood. Her idea of fun is connecting kids of all ages to nature, and to plants in particular. She runs summer camps for kids called "Look 'n Listen" and is available all year to run field trips on foot or snowshoe.

Pole to Pole with Students on Ice

by Geoff Green

This session dealt specifically with the unique and exciting Students on Ice education initiative, which takes Canadian high school students, teachers and scientists on educational journeys to the ends of the Earth. I highlighted experiences from the Students on Ice expeditions to both the Arctic and the Antarctic in 2000-2001, and told some other tales from various expeditions over the years. The overall goal of the presentation was to inspire the audience about the wonders and mysteries of our planet, and to reinforce the need for global perspectives and conservation education. I discussed ways that teachers and students can get involved in the future Students on Ice expeditions to both the Arctic and the Antarctic in 2001 and 2002. I touched on such things as educational goals, curriculum tie-ins, the application process, and fundraising opportunities. To find out more about this program, visit www.studentsonice.com

Tips on the Icebergs: Regarding Students on Ice

by Susan Welstead

McMaster University Commerce grad Todd Ford ('89) realized a lifelong dream earlier this year when he accompanied 50 Canadian high school students on a unique expedition to Antarctica. The Students on Ice expedition was the first group of its kind ever to set foot on the world's southernmost continent.

A business studies and computer science teacher at Burlington Central High School in Halton, Todd was selected as one of only 15 educators from across the country to join the group of students, environmental scientists, polar researchers, historians and oceanographers who undertook the two-week tour.

The expedition was the brainchild of Geoff Green, a former school teacher



who has made more than 48 trips to the Antarctic during 10 years of adventuring from pole to pole. His company, Students on Ice, was launched to organize learning expeditions to the Antarctic and the Arctic, with the mandate of providing students "with unique and inspiring educational opportunities at the ends of our Earth, to help them gain new understanding and respect for our planet."

Travelling via the *Lyubov Orlova*, the crew, with Todd on hand, departed from Toronto on December 27th, 2000 and arrived in the Antarctic on New Year's Eve.

"...it was so far removed from any other human life it seemed like Antarctica was the only place that mattered."

Antarctica is an island continent almost completely covered by ice, and separated from the rest of the world by the immense and stormy Southern Ocean. As the Earth's fifth-largest continent, it boasts almost 90% of the world's freshwater ice and therefore 70% of the world's freshwater supply. The remote and pristine wilderness is the only part of the planet not "owned" by any one — it is governed by the Antarctic Treaty, an international system of governance designed to benefit all humankind.

"During the voyage, experienced lecturers on board the expedition vessel offered seminars and lectures on the history, geography, flora and fauna of the Antarctic," explains Todd. "Our expedition staff also included several scientists conducting ongoing research projects, in which we were all able to participate."

Daily field excursions and landings on the White Continent brought these studies to life. According to one student participant, "It was a full high-school year in social studies and natural history, with teachers just as excited and curious as we were. And for once, most of them weren't ahead of us in reading the textbook."

Satellite Internet links allowed students to post personal journal entries about their experiences, as well as photos and video clips, so that all back home in Canada could share the experience.

A Web site at www1.sympatico.ca/contents/travel/soi archives the expeditioners' thoughts as, for the first time, they saw penguins, seals and whales, licked glacial ice (after a few years, glacier ice and pack ice condense, pushing the salt out and making it safe to drink), slid down glaciers, swam in the Antarctic waters off Desperation Island (with hasty retreats to spots of geothermal activity on shore, where the surface temperature was 56 °C), and listened to stories about the intrepid explorers who first began to chart Antarctica in the mid 19th century.

"If you stopped, and just listened, you could hear glaciers cracking like thunder, penguins chirping and calling, and water breaking on the beach and rocky cliffs," wrote one student of her first impressions of Antarctica. "It wasn't the quietest place on Earth, but it was so far removed from any other human life it seemed like Antarctica was the only place that mattered."

The success of the first expedition was followed up by a student tour of the Arctic this past August 2001. There will be another Antarctic voyage at the end of this year.

This article was reprinted with permission from McMaster Times, Fall '01.

Geoff Green is the Director of Students on Ice and has spent the last decade adventuring from pole to pole, leading expeditions to some of the most spectacular and remote regions on earth. He has led 54 expeditions to Antarctica, 20 expeditions throughout the circumpolar Arctic, and dozens of other journeys all over the planet. Geoff has led and planned expeditions for Discovery Channel, World Wildlife Fund, the American Museum of Natural History, as well as many other organizations, scientific groups, film crews and adventure travel companies around the world.

Susan Welstead is the Editor of the McMaster Times, Office of Public Relations.

Physical Education and the Integrated Curriculum

by Janet Ungrin, BPHE

Physical activity in the school setting reaches only a certain number of individuals. The structure of most traditional physical education courses in high school caters to those individuals already involved in sports outside of school, focusing on organized sports and mainstream activities. This lack of breadth and variety alienates those who do not enjoy the traditional sports, either because of limited interest or ability. In contrast, Physical Education credits that are embedded in integrated curriculum programs offer a unique experience to students.

"I don't think that this will change my opinion about school, I think that it will change my opinion about everyday life."

Integrated curricula are designed to develop the student's ability to perceive the links between subject areas, and to understand how what they learn in school is meaningful in the context of the external world (Ontario Ministry of Education and Training, 1993). They teach students how to transfer knowledge and skills from one area to another. Many are based on the concept of experiential education, defined by the Association for Experiential Education as "a process through which the learner constructs knowledge, skill, and value from direct experiences" (Luckmann, 1996). Another important feature in most programs is outdoor education, viewed as a "method of learning in which all curricular areas can be related" (Ingleton, 1991), and making use of the outdoors as a classroom. They are unique and real experiences involving personal meaning and ownership (Brown, 1993; Potter

& Duenkel, 1996), and they allow students to develop transformational and meaningful connections with their environment, with others, and with themselves (Linney, 1995).

One area in which the research appears to be lacking is the effectiveness of integrated curricula in encouraging students to live active healthy lifestyles. Dyson (1996) examined the use of Project Adventure curriculum in physical education, and Peck (1991) describes how outdoor experiential education can benefit any physical education program. Yet there is very little literature on the specific subject of physical education imbedded in integrated programs. This is an area of interest because physical education plays an important role in the development of positive self-concept and self-esteem (Salokun, 1994), and it has been suggested that some of the traditional methods of teaching used by physical educators in schools are counterproductive to positive development (Goodwin, 1992). Alternative forms of physical education become more and more important in light of the revelations of Hardman and Marshall (2000a, 2000b), that physical education worldwide is in a precarious position, with many discrepancies between official policies on required amounts of physical education and actual practices.

Research was conducted using interviews with students and teachers of several integrated programs. Teachers from the Bronte Creek Project, the Roots of Courage, Routes of Change (ROC) program, and the TAMARACK program were interviewed individually; the interviews were recorded and indexed. Topics covered in these interviews included the basic structure of



the program, the type of physical activities involved, their impact on the students, and stories of successes and failures. Students from the Bronte Creek Project and the TAMARACK program were interviewed in groups ranging in size from 6 to 14. Again, the interviews were recorded and indexed. Topics covered included reasons for taking the course, expectations of the course, and attitudes towards physical activity prior, during, and, for those who had graduated from the programs, after taking the course.

The Bronte Creek program is a five-month, four-credit, senior level course focussing on environmental education and leadership. The credits earned in the spring 2001 term included Environmental Geography, Advanced Guidance, Personal Life Management, and Outdoor Education/Physical Education, all at the Grade Eleven level. The major focus of the program is Earthkeepers, where the Bronte Creek students teach a program to elementary school students. The ROC program runs out of Mayfield Secondary School in Brampton, and is also a four-credit, full semester, senior level course. The credits currently earned in the spring 2001 term included Physical Education, English Journalism, Environmental Geography, and Environmental Science. The TAMARACK program is a four-credit, one-semester program running out of Mackenzie High School in Deep River. The credits offered in the spring 2001 semester were Environmental Science (Grade 12), English Journalism (Grade 11), Outdoor Physical Education (Grade 11), and Peer Helping/Human Relations (Grade 11). The program involves several camping trips, experience at National Laboratories, and publication of a magazine on Ottawa Valley history.

Teachers in each of the programs found that students were able to increase their self-confidence by mastering the skills presented, and that most students increased their activity levels and took more interest in their health. Each program offers a wide variety of physical activities, most of which are outdoors, require little organization, and emphasize participation and co-operation over competition. All three programs have major canoe trips at the end of the year, hiking outings, and instruction in lifestyle activities such as food preparation and

menu planning. The ROC program also includes a winter retreat or winter camping experience incorporating snowshoeing, cross country skiing, rock climbing and swimming; canoe training is included as part of the canoe trip preparation. In the ROC program they try to do some sort of physical activity, usually outdoors, every day of the semester, whether it's a low organizational game or playing soccer.

TAMARACK also includes activities like winter camping, snowshoeing, rock climbing, mountain biking, backpacking, and other physical activities in preparation for wilderness trips. Bronte Creek has a program they call active living. In the words of one Bronte Creek teacher, "We have a games approach. We occasionally do some sort of running or fitness activity, but we concentrate mostly on hiking or getting ready for a canoe trip, a winter snowshoe trip, and outdoor skills, and we do look at topics like self esteem and identity."

Many teachers mentioned that there were always one or two participants who "just didn't get it," didn't seem to understand what the program was about, and didn't seem to get anything out of it. Most students, however, benefited significantly. Students that were involved in integrated curriculum programs gained an increased awareness of issues surrounding physical activity and health. Students were exposed to a different kind of physical activity than that usually taught within Physical Education courses in school. New activities included games of low organization, a lack of competition combined with an emphasis on participation and cooperation, more 'lifestyle' activities such as hiking, camping, cooking, and nutrition, and activities involving challenge. These activities provided a new and different way for students to be active.

"I like the idea of working with a purpose."

"[I took it] because it was something different, and I'm not really good with math and science and all that kind of stuff and so I thought maybe it'd be something that I was good at."



"It's different and it's kind of about self-exploration and I don't have to sit in a classroom and be told what to think."

Many students appreciated these new activities because of a previous dislike of Physical Education in school. Traditional Physical Education was described as exclusive, unwelcoming, and aimed at students who were already involved in physical activity and already physically fit. Students who didn't fall into these categories found that they felt inadequate and did not enjoy Physical Education in school. As a result they ended up dropping it as a subject as soon as they had finished the mandatory courses.

"If you want to start now, it's too late. Either you've been in the gym the entire year, you're on every team, you do it on the weekend, and you have like 500 other sports you do after school, or you're just not in it at all."

"We have a cult and I don't want to be a part of their cult — it just doesn't interest me. I never liked it. I always hated Phys Ed. I was always the slow kid, the kid who never got picked. I always hated it."

"I found that in my gym classes there were favourites. If you were one of the people who were on all the teams the teacher would be like 'oh good job, go for it' and if you weren't they're like 'why are you slacking off' and they'd like put you down."

"They wouldn't encourage you if you were doing bad. If you were doing good they'd encourage you. So how are you supposed to get better if they're not going to encourage you in the first place?"

"It seems like some kids just seem to be made for gym — the kind of gym they do — and some aren't, because if you can't run the mile, and you can't do this and can't do that there's no real chance to build up to it. It's either you do or you don't."

The Physical Education components within the integrated curricula allowed these students the opportunity to experience new challenges and have successes, thus increasing their self-confidence in physical activity. This increase in self-confidence, combined with the authenticity of the activities that they were doing, increased students' appreciation of physical fitness and health.

"Volleyball — you don't go to practice, you don't get good. Hiking — if you don't carry on with the group and keep up the pace, then you're screwed. You'll end up in the middle of the lake."

"If you get in trouble you don't just have opportunity of sitting out; you have to keep going and that's what makes it harder than regular school sports."

"You end up getting a lot more out of it for the fact that you are doing something intense for such an extended period of time that you just have to keep going and you keep pushing yourself more and more beyond your supposed limits, and it really helps you out a lot. You don't realize it and you end up getting to that point past which you don't realize that you're pushing yourself anymore."

"You don't get cut. You don't have to be the best of the best to participate."

The students, overall, had altered in a positive manner their attitudes toward physical activity, and increased their participation levels for at least the duration of the course.

"I don't think that this will change my opinion about school, I think that it will change my opinion about everyday life."

"I have two more years left and I'm not going to waste them on physical activity in school because I know that half the time it's just going to be stupid sports that I don't care about."

Many students became involved in activities in which they would not normally have participated.

"[I was encouraged to] try new things, and not be afraid of them. It's basically the attitude that changes more than anything."

"It's not just the willingness to try things, but also the belief that you might just be able to do all these weird and wild things that you didn't think that you were going to be able to do. There are a lot of things that I have started doing on my own since TAMARACK was over that I wouldn't have had the confidence to do before."

While several of the students were already involved in camping or other outdoor activities, for many of them this was a novel type of

activity. For those students, most said that they continue on with this type of activity, and all said that they enjoyed at least one aspect of this type of activity. Most mentioned the authenticity of the activity, and how it would continue to affect their attitude.

"It's physical activity with a purpose and an experience."

"It convinces you that you can do things that you didn't think you were capable of before."

"Running on a treadmill inside a hot sweaty gym is nothing compared to walking somewhere and the feeling you get."

The challenge aspect seemed to be an integral part of the success of the physical activity for some people.

"I think that it's through the hard things, like the things that you don't picture yourself doing or getting through, that you really experience the whole essence of TAMARACK because I never thought that going on a 4.2 km portage would be fun, but yet that was one of the highlights of the trips just because you know you have something to strive for and you make it through so you come out of there with memories that last forever."

To increase students' participation in physical activity, schools need to provide a more welcoming and inclusive Physical Education environment. This could include offering more integrated types of physical activities, and allowing students the chance to experience a wider variety of activities. A broader vision of what is considered Physical Education would allow more students to be encouraged to live active, healthy lifestyles.

"I really like the emphasis here on play."

"I was so happy when I came here and I could run around in the snow and play games, and just be a kid — the kid that I am. I mean, I'm only 16; I'm not an adult yet, and I don't want to pretend I am. I really like that. That's what they need to put back in the gym system is people playing, not people competing, just people having fun for the sake of being fit and having fun."

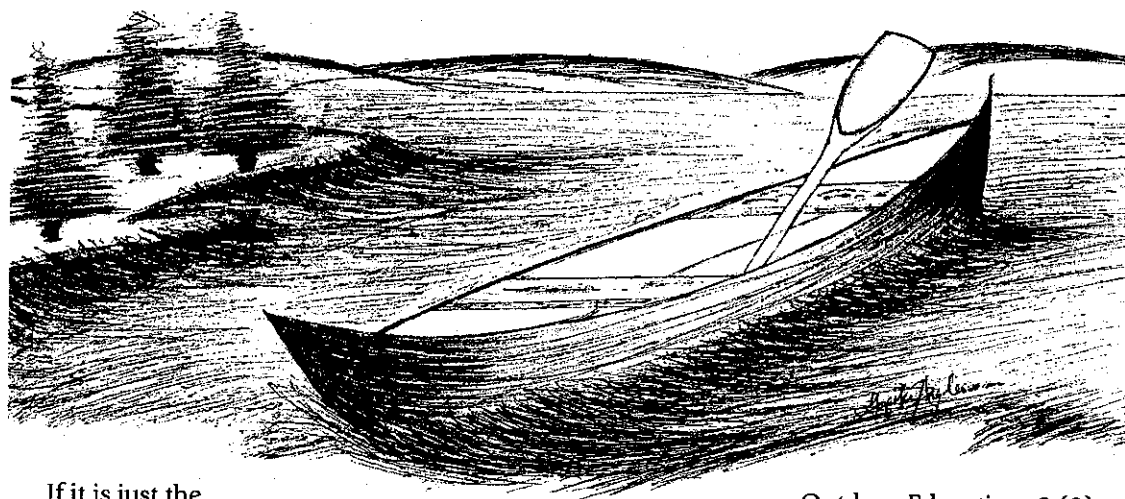
"A broader vision...would allow more students to be encouraged to live active, healthy lifestyles."

However, these programs will not affect all people equally. As mentioned earlier, there will always be some students who just don't get it. And students did not enjoy all aspects of the physical activities taught within the courses. It also remains to be seen whether the activities involved in integrated curricula affect behaviour as well as attitude. Many of the students noted that while their attitudes had definitely changed, after the course was over, their activity levels dropped back down.

"...if I had a challenge to look forward to and to work towards then I would keep stuff like that up, but it's just not a priority anymore."

More research is needed to discover whether the Physical Education components in integrated curricula are effective in promoting an increase in healthy active lifestyles in the long run. Also, more research is needed to discover if the same effects found in this study are applicable to all types of integrated packages. And finally, research needs to be done to discover if it is the integrated nature of the Physical Education that is important, or if it is simply the style of activity.

"...for that type of activity, like hiking and canoeing, biking and all that, I felt you had to be in better shape than you would if you just played volleyball in Phys Ed. or something, because in Phys Ed. you don't have to do any practicing or anything outside of that class, but in this if you don't break in your new boots, or if you don't get used to your pack, or if you don't practice your canoe skills, then you're just going to be going in circles and not enjoying the trip. And that applies to everything. If you're fit in any activity you do, academic or sports, then it's a lot more fun."



If it is just the type of activity, then these activities could be incorporated into regular school.

This study shows that Physical Education components in Integrated Curricula have been effective in promoting healthy active lifestyles and attitudes in students, where regular curriculum has been found lacking somehow. This points to the importance of preserving integrated curricula in the face of the restrictions of the new Ontario curriculum.

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Janet Ungrin graduated from the University of Toronto in June of this year with a BPHE, High Honours standing, and is currently enrolled in Queen's Faculty of Education, Outdoor and Experiential Education Program, to be completed in April 2002. Janet is originally from Deep River, was a student in the TAMARACK program under the leadership of Bill Patterson in 1995, and has been heavily involved in outdoor activities pretty much since birth.

An Interview with Bob Henderson

by Jillian Herfurth

Author's note: I've written a number of "Keepers of the Trail" columns in Pathways and I thought it was time I wrote a profile on one of our own Pathways contributors, Bob Henderson. Bob agreed, although reluctantly. People who know Bob will attest that he's not one to blow his own horn.

Bob Henderson has been an active member of COEO since 1981. He joined just after having returned to Ontario after completing two years of graduate work at the University of Alberta in Edmonton. As Bob explains it, "I met Clarke Birchard and was so impressed with him that I followed his advice to join COEO. That was when I went to my first OE professional gathering."

Before joining COEO, Bob had several experiences related to travel and the outdoors. He says, "I had worked as a travel guide both for Ontario camps and while at the University of Alberta. I also provided programming in a commercial setting."

Bob has played many roles in COEO including Fall Conference organizer and, currently, Co-chair of the Pathways Editorial Board. Bob can also frequently be found around the campfire at our conferences providing evening serenades with his acoustic guitar. Further, he can often be relied upon to offer up an innovative and interactive workshop session at fall or winter conferences. Bob sees himself as someone who is keen to meet others. He can create new avenues and directions for people and take on new OE issues.

Bob's involvement with COEO enables him to stay connected. He maintains that it's very important to know the local people and to work in the area in which one lives. He adds, "I value being informed and helping in my immediate setting. A colleague here at McMaster, Sylvia Bowerbank, once said to me that if you are a *green professor* you are knowledge and influence within a, say, 50-mile radius. I've always liked that."

Bob feels there are three aspects of COEO that make us great. First, he sees the significance of the annual conferences: "They are helpful and important to connect with people and new ideas in theory and practice. We must strike this balance at our conferences." The second aspect that is a great part of COEO is "the follow-up from conferences to connect as needed for support, advice, help — whatever — so we can exist as a network." And finally, Bob says he perceives our magazine, *Pathways*, "as an excellent vehicle for conveying ideas of theory and practice. *Pathways* tries to be a bridge between a newsletter and a journal. We need to hear from more COEO members through *our own publication*."

"...it's very important to know the local people and to work in the area in which one lives."

Bob feels COEO is even better when our members take on special projects with a working group format. As well, he enjoys and appreciates the conferences when they are held at different locations so that he and others can become more familiar with the various OE centres around the province.

Outside of COEO activities, Bob is very busy as a professor at McMaster University in Hamilton in Outdoor Experiential Education. As well, he recently landed a contract to write a book about wilderness travel and our Canadian heritage and columns on travel for *Kanawa: The Journal of the Canadian Recreational Canoe Association*. Plus, Bob felt he didn't have quite enough to do so he is also serving on the board of directors for Outward Bound Canada.

Bob shared with me one of his funniest and favourite COEO moments. It took place at the Fall Conference at Camp Arowhon in

Algonquin Park. He described an occasion when, after the meal, another COEO member, Zabe MacEachren, delighted participants with her expressive storytelling. She had instructed the audience to repeat the last line of anything that she said three times. At one particular moment, the audience's line was "Get back to work!" Just as our cue to speak came up, a Camp Arowhon kitchen worker walked out of the kitchen and into the dining hall. "Get back to work!" the crowd yelled, as loudly as possible. Well, his face filled with shock and horror and he turned right around and scooted back into the kitchen. Of course, none of this was planned. Every one in attendance was in stitches with laughter. Only divine intervention could have produced such a hilarious yet perfect moment of double entendre. The only two not

laughing were the kitchen worker and Zabe, since she had not seen the young man come out of the kitchen.

Bob added that colleagues, such as Zabe, Bert Horwood, Linda Leckie, Mark Whitcombe and Clare Magee have inspired him by providing wonderful interactive workshops over the years that have fostered and enlivened the spirit of COEO.

Bob Henderson is truly a major contributor to our organization and one we hope to see for many years to come. Thanks Bob!

Jillian Herfurth joined COEO in 1994. Currently, she teaches high school students for the Waterloo Region District School Board. Jillian sits on the Editorial Board of Pathways.



A Place to Shine: A review of Eric Walters' Stars (Stoddart Kids, 1996)

by Adam S. Guzkowski

The outdoors can be a place of wonder and growth, as well as a place of challenge and danger, particularly for a fourteen-year-old boy who has never been outside of the city of Toronto. In his book, *Stars*, Eric Walters manages to capture the complex sense of possibility and difficulty to be found in the heart of the Canadian wilderness.

The story does not begin in the embrace of the Canadian wild, however. The first moments of the novel depict the teenaged Joseph stealing a car in the midst of downtown Toronto, an attempted theft that ends in both physical injury and capture. This ultimately results in Joseph's placement in Striving Through Adventure to develop Responsibility and Success (STARS), an outdoor adventure program for youth who have been challenged by their interactions with the criminal justice system.

One of the strongest elements of Walters' story is the exploration of the way in which peak experiences are at the core of such a program, and the manner in which a true philosophy of challenge by choice, combined with a facilitation approach that creates safe and nurturing spaces for participants, is essential to the program's ability to have lasting impact upon the youth.

As the tale is structured for purposes of dramatic impact, unfortunately short shrift is given to solo experiences, which can be incredibly powerful components of any kind of outdoor personal development. Neither are issues of drug and alcohol use substantively addressed, often important issues in the target population of programs comparable to STARS, nor is there any attempt to address the potential for homophobic violence, threat of violence or comments in an all-male adolescent group of youth at risk. The absence is most noticeable when Joseph stands up for one of the males who is being picked on by the

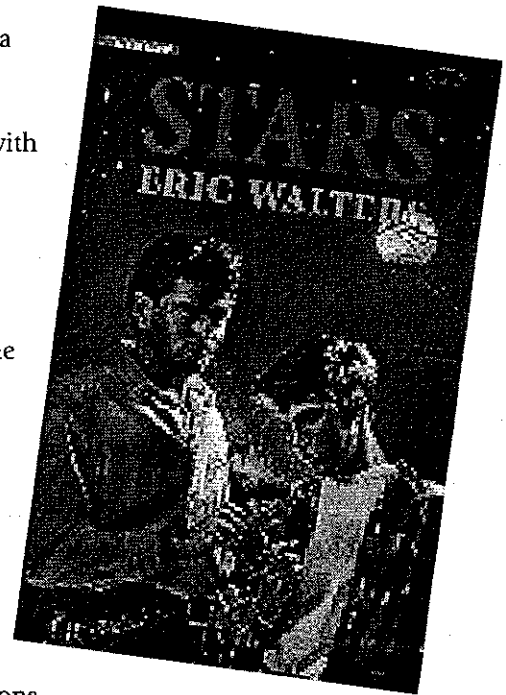
bully of the group, a situation in which language and behaviour loaded with homophobic resonances is common.

The book does manage to weave into the narrative the reality of consistent under-funding and cutbacks to such programs, and the challenges these create for carrying out any kind of transformative work with vulnerable populations.

Despite such financial difficulties, the structuring of the fictional STARS program creates a place for Joseph to be a leader, while the dramatic story gives Joseph the chance to be a true hero.

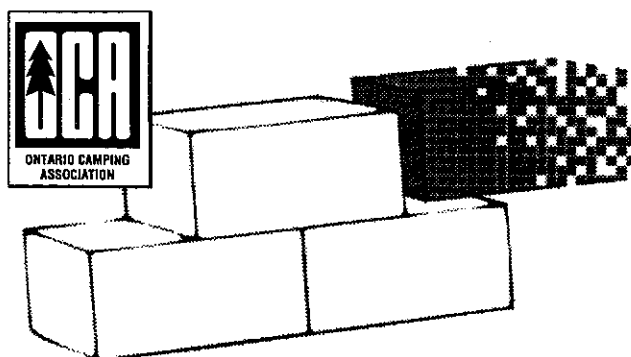
Walters' work is perhaps so inspirational because it is deliberately designed to inspire. Each year Walters, who is an elementary school teacher in Mississauga, as well as a social worker and family therapist, writes a novel for his students to encourage their writing. In the end, perhaps the true message of this novel is best gleaned from the dedication at the beginning of *Stars*: "This novel is dedicated to all the Josephs in the world, who have everything against them, but still learn to believe in themselves."

Adam S. Guzkowski is a Master's student in the Curriculum, Teaching and Learning department at OISE/UT, a self-employed consultant and a member of the Pathways' editorial board.



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February 14th-16th, 2002

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Camping - The Best Character Development Activity for Kids

Michael Brandwein
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Dr. Mickey Lester
on Camp Health

Lori Prospero
on Accessibility at Camp

Joey Rich
on Talking to Kids

and many more!

**For further program information, or to register,
call the Ontario Camping Association office at 416-485-0425
or visit the Conference website at www.ontcamp.on.ca/conference2002.html.**

Watershed Report Card

by Bonnie Anderson

Watershed Report Card is a non-profit, environmental organization (formally known as Fisherman Interested in Saving Habitat or F.I.S.H. — Southern Ontario Chapter). The membership consists of people from diverse backgrounds such as conservation organizations, teachers, stewardship coordinators, students, naturalists, scientists and others who have an interest in restoring and maintaining the health of their local environment.

A watershed is a natural boundary of land defined by water flow from the highest points running down to a common drainage point. The state of this area not only affects the health of living things within it, it also affects the health of the water body into which its water flows.

The state of a watershed is impacted by the natural and human uses of the land. By understanding the impact of these uses, and finding the causes of the problems in the watershed we can take steps to maintain or restore the health of the watersheds we live in.

The Watershed Report Card is a set of manuals that guide you to assess the impact of human and natural uses on your watershed. You can use them to find the root cause of specific problems such as degraded habitat for endangered species, poor water quality erosion of stream banks and more.

The Watershed Report Card is a set of three manuals: the bronze (inventory of what is in your watershed), the silver (assessing the potential assets and problems within the watershed) and the gold (designing an action plan for improving the health of your watershed). In Ontario there are several communities and schools who are integrating the report card into their community (including Waring's Creek, Bonnechere River, Niagara Peninsula, Stoney Lake, and Rainy River in Ontario as well as sites in other provinces and parts of the United States).

Here is a basic thumbnail outline of what each manual has to offer. Any group interested can have a personalized workshop and the opportunity to get the other details of the manuals by contacting Ray Gilbert, the Executive Director at 519-832-6397 or by e-mail at watershed@bmts.com.

Bronze Level of the Watershed Report Card

Step One — Group Vision

Vision Building: Goals of Watershed —
Crafting the statement

Step Two — Resource Gathering

Physical materials: Maps; Supplies; and, Storage
People Groups: Expertise; Permission; Funding

Step Three — Mapping Physical Boundaries of Watershed

Overlays for the Base Map: Land Use;
Landscape; Water Pathways; Ground Water;
Plant Communities; Animal Communities

Step Four — Potential Impact Flags

- Flags in corner of map if issue relates to entire map — regional flag
- Flags in specific spots to show area of concern — site flag

Step Five — Examine Plans

Find Land Use Schedule or Official Plan:

- Land use designation
- Bylaws that are permitted
- Red flags — areas where site needs more protection

Step Six — Vision Revisited

- Regroup
- Review
- Real issues
- Reactivate partners

Reminder: Keep in mind the size of the project vs. the time, people, and level of interest.

Silver Level of the Watershed Report Card

Overall Goal of Silver: to evaluate if flags or hot spots indeed cause a problem; and to show where remediation and restoration will achieve greatest results.

Tool Boxes

Big Picture

Close Up

- Upland
- Wetland
- Lakes
- Streams

Tools

Snapshot: quick few seasonal restrictions; potential for bias

Zoom-in

- builds on snapshot
- helps to calibrate data
- more convincing data
- needs more time, resources and skills

Principles Behind the Silver

1. Field surveys — used by volunteers with minimum training
2. Individual field assessment — not more than 4 hours for 2 people
3. Scoring system — each linked to functional and structural component
4. Materials — need to be readily available and inexpensive
5. Similar procedures — used for more than one habitat where possible
6. Tools — created to also be used for monitoring over time

Silver Steps

1. Prepare for field surveys — get ready to collect data
2. Big picture toolbox — use for regional flags
3. Identify hot spots — use for site level flags
4. Determine which closeup boxes to apply — stream, wetland, upland, lake
5. Closeup boxes — how sample, look for clues, snapshot, zoom-in
6. Interpret results — find problems controlling watershed, identify priorities, problems and solutions
7. Fill out report card — combine all silver results and bronze findings

This will guide you to priority action items in the Gold level. Remember the difference between causes and symptoms.

Gold Level of the Watershed Report Card

Step One — Develop an Action Plan

1. Prioritize actions and issues
2. Filter action items through group vision
3. List goals and actions to be assessed and areas to monitor
4. Review your plan so it's compatible with your vision
5. Ensure that plan is affordable and achievable with simple objective focus

Step Two — Develop Your "To Do" List

1. Focus towards the group vision
2. Consider small but vital task list

Monitoring Tool Box

- Action A — Choose appropriate tools
- Action B — Consider planning program
- Action C — Develop monitor program
- Action D — Management data
- Action E — Report

Restoration Tool Box

- Action A — Develop a restoration plan
- Action B — Implement the restoration plan
- Action C — Monitor the project

Advocacy Tool Box

- Action A — Identify key partners
- Action B — Develop an advocacy strategy

Planning Tool Box

- Action A — Identify which plans need to be worked on
- Action B — Develop strategies for influencing plans
- Action C — Prioritize plan
- Action D — Involve the community
- Action E — Advocate for plans/laws

Review for Future

- Specific Tasks
- Goals
- Budget

Hope you find this a challenge and use it to add some creativity to your classes around community issues. If you need help, the Watershed Report Card has mentors in a variety of areas to assist you in reaching your goals. At the conference this year the stream and pond sections were highlighted for tips and tricks to use in assessment. Many participants went away with a better understanding of ways to conduct invertebrate testing without destroying an area, and instructions on how to use "the turkey baster of science" to suck up species for faster biotic indexing. I hope that next year I'll be able to showcase another section of the report card.

Bonnie Anderson is a naturalist at Wilmot Creek O.E.C. for the Kawartha Pineridge D.S.B. She is working towards demystifying science and creating more citizen scientists.

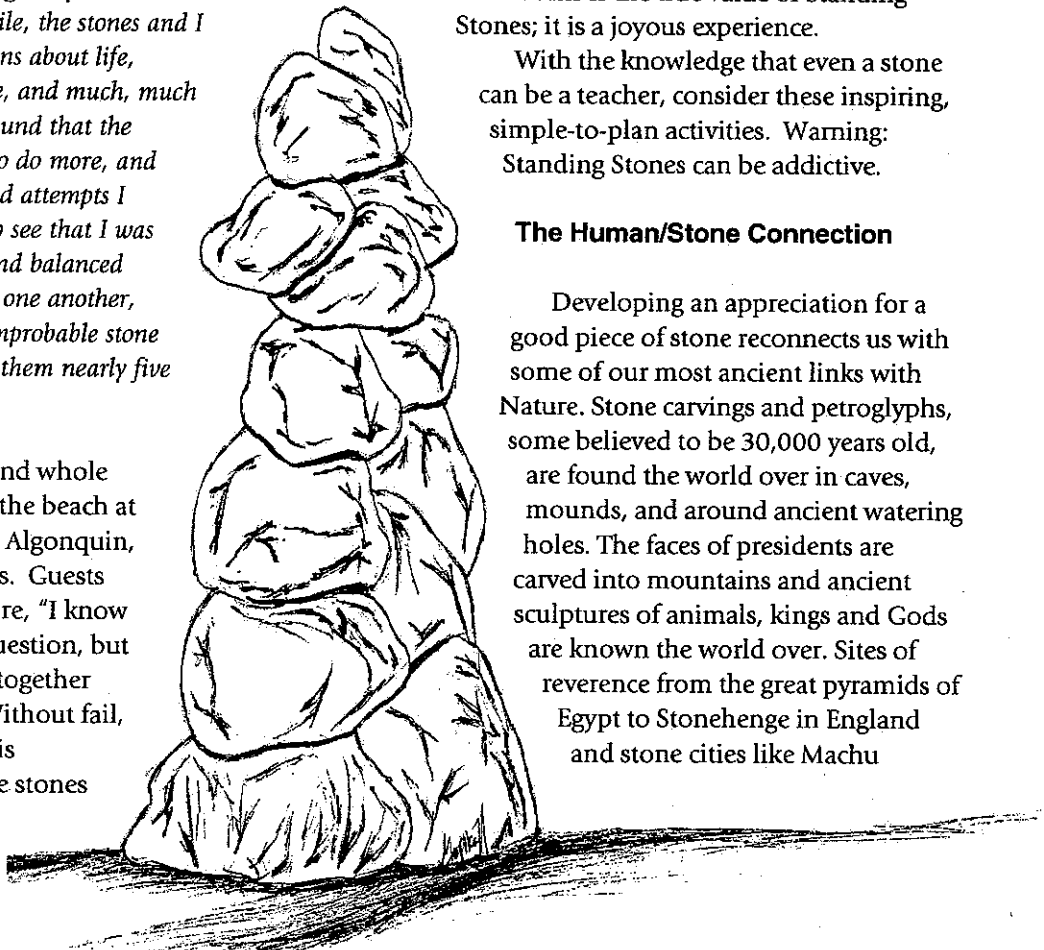
When Stones Teach

by Todd Lucier

... I walked to the beach and picked up a 10 kg boulder and looked it over. The stone wanted to dance. I knelt down and placed the stone on another in the water, with the waves lapping over it. I chose to place the stone on a point, with the heaviest part of the stone up, seeming to defy gravity. I worked hard to steady the stone, balance it and began to turn it slowly on its stone base. As I turned the stone, I thought to myself, "Can I balance this stone in an unnatural position?" A voice in my head, and outside of me (in the stone) said, "I can help. Want to see?" and suddenly the stone seemed to "click" into position. I carefully took my hands away and to my amusement and amazement, the stone stood.

Over the next hour or so, four brother stones took their turns dancing, and then standing, seeming to defy gravity balanced on end. All the while, the stones and I had conversations about life, change, balance, and much, much more. Later I found that the stones wanted to do more, and after a few failed attempts I was delighted to see that I was even able to stand balanced stones on top of one another, creating most improbable stone towers, some of them nearly five feet high

I often spend whole afternoons on the beach at Northern Edge Algonquin, standing stones. Guests haltingly inquire, "I know this is a silly question, but they are glued together aren't they?" Without fail, this statement is followed by the stones crumbling to the ground in a heap.



"Nope, no glue."

Standing stones is a versatile outdoor learning activity that can be experienced in the classroom, school yard, forest or parking lot. It requires widely available natural materials and provides opportunities for students to work concurrently towards expectations in many subject areas.

At its heart, Standing Stones challenges people to do the impossible. Expect students to discover hidden talents, work and communicate clearly with others, and reconnect with the natural world. With an invitation to be creative and talk to the rocks, I have witnessed people connecting with nature in a way that universally brings a smile of bliss, joy and magic to their faces, especially the first time they feel the "click". This is the true value of Standing Stones; it is a joyous experience.

With the knowledge that even a stone can be a teacher, consider these inspiring, simple-to-plan activities. Warning: Standing Stones can be addictive.

The Human/Stone Connection

Developing an appreciation for a good piece of stone reconnects us with some of our most ancient links with Nature. Stone carvings and petroglyphs, some believed to be 30,000 years old, are found the world over in caves, mounds, and around ancient watering holes. The faces of presidents are carved into mountains and ancient sculptures of animals, kings and Gods are known the world over. Sites of reverence from the great pyramids of Egypt to Stonehenge in England and stone cities like Machu

Pichu in Peru demonstrate human's timeless connection to building with stone. The granite rock of the Canadian Shield, a composite of mica (black), feldspar (pink), quartz (white) and numerous trace elements is the oldest known thing on the planet; it has been in its current form for nearly 2 billion years. Imagine the wisdom embedded in this stone.

Principles of Standing Stones

1. Ensure the base is solid.
2. Begin working with stones that can be held in one hand.
3. Heavier larger stones belong on the bottom. As the tower gets taller, use progressively smaller stones.
4. Stones generally require three points of contact, the smaller the tripod, the less stable the structure. As the tower gets taller, it also gets less stable. Less stable structures are usually more rewarding, but they usually remain standing for shorter periods of time.
5. The centre of mass of the balancing stone must be over the tripod of the stone below.
6. Stone surfaces that are not perfectly horizontal provide more balancing opportunities.
7. Stone towers fall down. Ensure that students are spaced in such a way that toppling towers do not injure students. The amount of space required by each tower is proportional to the size of the stones.
8. As art, stone structures are to be touched only by the creator. Encourage students to respect the work of others, and to move about standing stones with awareness.
9. If in doubt about how to place a stone, talk to the rock!

Extending the Activity — Granite Across the Curriculum

Rock Painting: Using water-based paints (tempera) and the natural contours of your stone bring your stone to life. Nature scenes, animals, faces . . . let your creativity flow.

Healing Stone: I once healed a burn by holding a stone in the palm of my hand. Keeping stones inscribed with meaningful symbols, words and images can offer inspiration throughout the day. Carry them in your pocket or place them on your desk.

Talk to a Rock: Close your eyes and ask a question. Open your eyes and observe your stone. Look at the patterns, colors and shapes for answers to your question.

Create Stone Sundials: Put a stick in the ground and place stones at the point of the stick shadow at various times during the day. Repeat over a period of weeks and make predictions over the seasons. Can you tell the time with your sundial?

Create Counting Stones: Use various sized pebbles, stones, and boulders to represent base 10 counters in mathematics.

Stone of the Day: Use student-designed stones to invite classroom participation or create work groups or teams by choosing stones from a central container.

Physical Iography: Help students find balance in their bodies, practicing creative movement exercises inspired by their natural sculpture creations, or head out on treasure hunts collecting stones for a large community / environmental / monumental Art Attack!

Multi-media Nature Sculpture: Combine other nature elements: leaves, sand, plants, moss, personal items, and drawings into your creations.

Curriculum Connections

Standing Stones can be used to meet many learning outcomes including the following:

- producing three-dimensional artworks
- applying the creative process (i.e., perception, exploration, experimentation, production, and evaluation) in their work
- completing exercises and producing artworks in stone to solve open-ended problems (e.g., creating balance)
- testing hypothesis
- understanding balance and centre of gravity, concepts of slope and friction, geometric relationships, and form and patterning
- problem solving (trial and error)
- developing communication skills
- learning sorting and classifying
- practicing constructing models and understanding structures and the forces that act on them
- becoming familiar with structural strength and stability
- exploring rocks, minerals and erosion, and pure substances and mixtures

Quest for Balance: Standing Stones

Like the three points of contact necessary for a successfully balanced stone, three simple things are needed for hours of exploration.

1. Collect the stones. Walking in a natural area invite students to listen and look carefully and be aware of stones that want to express themselves. Reused shopping bags make collecting easy. Invite students to find special stones that they are particularly attracted to. Since stones can be an important part of the ecosystem, collect from a wide area to reduce impact.

2. Prepare a focus for design (or invite students to let their imagination free). Some design ideas include: balance, home, height, family, pattern, defy gravity, self, wall, natural, community. Consider developing a unit of study around the building of standing stones structures to give students opportunities for cross-curricular learning: learn about the properties of different types of stones (science and technology), the characteristics of different shapes and angles (mathematics), and the aesthetics of design (visual art and technology). At the conclusion of the lesson, students could be asked to write a paper (language) assessing the impact of going beyond what they thought

possible and the impact of overcoming perceived limitations. Also look for opportunities to meet learning expectations concurrently like combining the concept of patterning (moving from larger to progressively smaller stones) with understanding balance and finding/estimating center of gravity.

3. Ask questions. As you observe, encourage students to stretch and talk about their creations. Walk around and look at the creations of others. How are they the same? different? What did you feel? Why did you choose these stones? If it had a name, what would it be?

Todd Lucier is an Ontario teacher and co-founder of Northern Edge Algonquin, a unique eco-campus for Experiential Education near South River, Ontario. Since first standing stones on a canoe trip in Algonquin Park, he has shared his passion with stone standers ranging in age from 3 to 73, including presentations at overseas conferences in Cuiaba, Brasil and Findhorn, Scotland. Todd is most at home using the shorelines of Algonquin Park as his canvas and Canadian Shield granite as his medium of expression. Information about the Edge's unique educational experiences can be found at [Experiential Education Canada](http://ExperientialEducationCanada.com). www.experientialeducation.ca 1-800-953-EDGE.



Who and What is the KEY Foundation?

by Bob Killam

Knowledge of Environment and Youth (KEY) is a not-for-profit national foundation registered as a Canadian charitable foundation. Our main focus is developing teacher training and classroom materials about current topics that relate to science, environmental science and social studies.

Just as education is in a time of transition, environmental management and thinking are in a time of renewal. Over the past 20 years environmental issues have been important to people, to industry and to governments. However, there are some basic observations to be made relating to environmental consciousness, its teaching, and the quality of information being used. KEY believes that this is important because of the vital linkages that exist between environmental matters, natural and economic resources, and the manner in which our children are being taught.

First, although there has been a great leap in public awareness of the environment in recent years, it has often been accomplished at the cost of genuine understanding. People get information on issues from the press and television, which by their nature present a distilled and concise "bite" of information, often identifying an exciting angle and lacking qualifiers and balance. The media have to present a story that is arresting and pointed. This often results in a sensational item of "bad news." Clearly the need exists for public

education that presents an accurate, balanced and current picture of the environment story, rather than panders to the experience of outrage that naturally results from such news capsules.

Second, many Canadians have had a mistrust of government and industry when it comes to environmental information and action. Alternatively, they place a great deal of faith in non-governmental organizations (NGOs) or interest groups. Environmental NGOs provide a beneficial prick in the consciences of government and industry. However, their rationales often present only the negative side of issues to the exclusion of the positive. At KEY our thinking is that claims of any source should be checked against information from other perspectives. This checking and balancing is fundamental to KEY's approach.

Finally, the message to teachers must be carried through people who are seen as supporting the education process rather than being self-serving. Teachers are very sensitive to using classroom resources and/or information sources that they perceive as benefiting the provider. KEY has developed a reputation for resources and teacher education conferences which are "balanced." To achieve our goals the KEY main focus has been a train-the-trainer model in which teachers receive information in return for becoming ambassadors — spreading the word — in their home jurisdictions.



Our conference topics and supporting teaching resources are in a state of evolution responding to the requests of educators. Our telephone network of more than 900 educators keeps us up-to-date concerning what is happening in Canadian classrooms.

KEY recognized that teachers who were recent graduates often had debts from their university days, in a few years they were supporting young families and later helping their children with post-secondary training. The result was to request from industry and government financial support the teachers financially for professional development. KEY programs pay the air fare, hotel costs and other local costs at our conferences. (Participants have to look after their own bar bills ☺)

KEY wants COEO members to consider applying to the programs by first heading to our Web site (www.key.ca) and selecting "Summer Conferences." If you care enough about education to be a member of COEO, you will probably be very comfortable in our programs. We are not 100% perfect but we attempt to have presentations from many perspectives on environmental, science and health issues. Our sponsors include government, industry and other foundations; you will find them listed on our Web site.

The only cost to you will be that, during the conference, you will be asked to develop five lesson plans that will work in your classrooms and your curricula. These plans will then be made available to all KEYners through the Web site.

The 4 KEY programs for summer 2002 are as follows:

Site	ALBERTA Edmonton/Calgary mid July	SASKATCHEWAN Regina mid July	ONTARIO Thunder Bay early July	NEWFOUNDLAND late July/early August
Main Focus	Petrochemicals, Biotechnology, Climate Change	Sustainable Agriculture Practices, Biotechnology	Forestry, Biotechnology	Biotechnology, Forestry
Secondary Focus	Climate Change, Forestry/Paper, Energy Resources, Packaging	Crop Protection, Feeding Crops, Packaging, Water Management, Climate Change	Packaging, Marine Issues, Water Management, Responsible Care	Food Safety, Climate Change, Responsible Care, Water Safety, Waste Management

We continue to evolve the programs through surveys and constant evaluation. Every speaker and site visit is evaluated by each participant. As they include requests for additional information and suggestions, these responses are tabulated and returned to the presenters. In addition, each participant completes a summative evaluation. From these evaluations, in the fourth quarter a comprehensive evaluation is completed for the KEY board of directors and supporters.

Many KEYners stay involved in KEY through the teacher networks of each

conference, the development of teaching resources and the operation of the foundation.

When Bob Killam isn't teaching his wonderful Chemistry students he is probably chasing from gym to gym watching his sons playing volleyball. Beyond the gym he loves working in his garden and walking the forest trails that surround his Midhurst home. Between teaching and the KEY foundation, the canoes, which are resting in the backyard, don't get near the exercise they should.

The Canadian Canoe Museum: A Place of Wonder and Learning

by Bert Horwood

It's almost an hour before dawn on a rainy October day. Jim Raffan picks me up at a commuter park to join him on his weekly drive from Kingston to the Canadian Canoe Museum in Peterborough where he's been helping with the design of a comprehensive new education program. Once there he'll check-in with six new education staff members (in museum-talk they're called "animators"), and I'll prowl around the museum, a privileged guest sneaking in before the doors open and peaking into places not yet quite ready for display.

The day dawns wetly behind us as we drive the back roads, and I divide my attention between telling Jim tales from the 2001 COEO Conference, listening to his accounts of progress and dreams for the museum, and watching autumn leaves glowing against black wet trunks.

It's a perfect introduction to the museum. After greeting a couple of animators, I enter on the second floor through a "Staff Only" door and find myself instantly enchanted. There is an inviting set of carpeted steps on which I sit and look down at the frame of a north canoe, ready for the bark to be placed in it. And over there are the curled rolls of bark; on pegs, neatly suspended, are coils of spruce bark awaiting the boiling kettle. A small television monitor quietly shows images of traditional bark canoe-building. Just now, the wrinkled but agile fingers of a Native man pulls slender cedar splints for the canoe floor boards. I see lengths of cedar leaning against the wall awaiting the same process for the canoe-in-progress before me.

Gradually I become aware of the reason that this all seems so real. It feels as though we are beside a river just waiting for the canoe to be launched. There is the sibilance of moving water, accented with the occasional muted insect sound and a distant call of a familiar waterside bird. There. That was an olive-sided

fly catcher. What was that? A wood peewee. And as I detach a manila rope barrier to walk around the canoe frame, I'm aware of the pungent smell of cedar shavings. I'm moved by these subtle but ample appeals to my senses. They fit together almost unnoticed, and conjure up more powerfully than any poster or instruction the feel of the bush and the feel of bark, cedar and roots being melded into a wonderful craft.

"I enter on the second floor through a 'Staff Only' door and find myself instantly enchanted."

Later Jim tells me that I lucked into the heritage skills conservation gallery where a craftsman daily works on building a traditional canoe. In my visit it was a bark fur-trade vessel, but another time it might be a skin boat, or a dug-out. It goes without saying that various craft skills can be practised and experienced by school groups that visit.

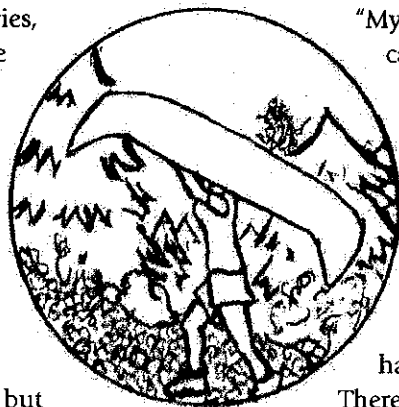
I move on and discover that the museum is artfully housed in an old office building that is little more than an ugly two-storied concrete shoe box. The museum designers have used great cunning and artistry to create magic and evocative spaces. Part of the second floor has been cut away in great curving lines to accommodate a grand central stairway and the frame of an original Hudson Bay Company post from Michipicoten Harbour, which has been assembled in such a way that roof members penetrate the second floor space. Lines of some structures flow in curving arcs, other lines are firmly angled. Here a bark wigwam rests, there the corner of a square log

hut pushes into our space from the wall. And everywhere there are the echoes of appropriate sounds: always the murmur of moving water; at the entrance there is the sound of paddles in the water and loon cries, in the recreation gallery there are the tunes from a canoe club dance.

The overall effect on me is to evoke the essence of "canoe." The sounds and smells, the lines and vistas, and the flights of canoes beautifully suspended overhead make me feel as though I am inside a canoe, not as a paddler, but inside the fabric of the craft. Museum literature refers to the numerous myths and tales about flying canoes. The displays of boats evoke them, les canots volants. As I appreciate these features, I recall that a canoe at rest has the open side down, but a canoe at work has the open side up. Almost all of these canoes are at work. It feels right.

The careful attention to detail which makes such a rich sensory and emotional experience is matched by an equally rich appeal to the mind. Galleries are arranged to trace the origins of hand-propelled water-craft; to give an honoured place to aboriginal arts, crafts and technologies, from which our current canoe and kayak tradition has descended; to illuminate the fur trade as a key phase in Canadian developmental history; and to record the recreational use of canoeing in regattas, clubs, and summer camps across the country. During my visit the finishing touches are just being put on a "reflections" gallery where the place of the canoe in the lives of eminent Canadians will be portrayed.

In exploring all this, I descend the curving central staircase, past the waterfall to the ground floor and exchange words with the affable woman at the information desk. She gives me literature on the museum and its education offerings. The museum is now open, and in keeping with my contrary approach through the "Staff Only" door, I leave by the proper entrance and look at the shabby parking



lot, which I later learn will become a mini lake, with paddling and camping facilities. Just now, paying customers are about to enter. I follow them in, and hear one woman exclaim, "My office was just over there. I can't believe what they've done. It's wonderful!"

Having entered by the proper route, I see the obligatory souvenir shop open and ready for business from its well-stocked shelves. I'm not buying today, but it's an attractive space and I spend a happy time looking at the books.

There are only two significant pieces of canoe literature I don't see on the shelves, so it's a very fine offering.

The museum offers a wide array of experiential education programs suited for day or overnight visits. For teachers who need to justify trips to museums by making curriculum linkages there are several 90-minute "core programs" which are clearly keyed to curriculum expectations and which can be expanded with "optional experiences" — including, for examples, birch bark basketry, soapstone carving, paddling, canoe design, orienteering and water colour painting. These can be custom mixed, cafeteria fashion, to meet any educational ends visitors may desire.

"The overall effect on me is to evoke the essence of 'canoe.'"

The Primary (K-3) core experience is based on Paddle-to-the-Sea and involves, at the end, children locating key events in Paddle's adventures on a huge map of the great lakes drawn on a carpet; a magic carpet, one might call it. Grades 4-8 have available core programs in traditional knowledge and skills and "Trappers and Traders." The planned option to add to this unit is the Fur Trade Game developed by Cathy Beach and adapted for the

museum by her pupils from Chemong Public School in Bridgenorth. "The Evolution of an Idea" is a unit ready for grades 9-12. It has a technological slant, focussing on canoe design and materials and relating them to culture. Secondary teachers also find many opportunities to bring their own curriculum with them. For example, Gail Simmons, an English teacher from Gananoque, is planning to use the museum as the setting for a unit on the literature of canoeing.

Professional development is not neglected. Canoe University, "Canoe U." for short, described in part by Brian Poirier in the Autumn 2001 issue of Pathways, provides unmatched opportunities for teacher refreshment and retooling through workshops during the year and an annual summer institute. College and University students may also organize internships as part of the museum's commitment to the post-secondary level. I cherish a not-so-secret hope that one day graduate students and scholars will find in the museum a gold mine of research opportunities.

Overnight stays include sleeping indoors in a woodlands wigwam, or in a voyageur encampment. In addition, there is a large open space which can be booked for various events and activities. In the near future the museum will complete a camping and canoe trip gallery, called "Summer Strokes," in which students will be able to experience the dilemmas of packing out for a trip and loading their packs into a waiting canoe. There is also a dream of creating an integrated curriculum program, based at the museum, for secondary students

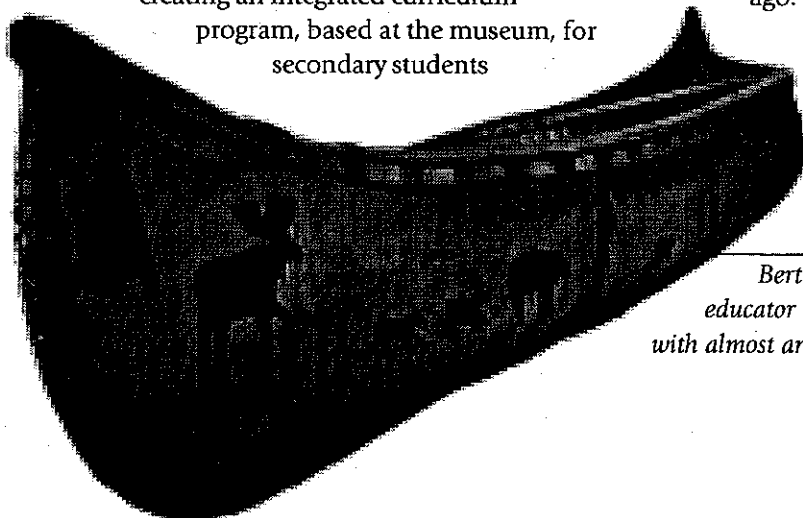
in collaboration with the Kawartha Pineridge Board of Education. Teaching opportunities will also move outdoors when the mini lake and surrounding area emerge from the present parking lot.

Having few physical limitations, it took me a while to realize that the museum is fully wheel-chair accessible. Accessibility features are designed with the same grace and unobtrusiveness as other features. The elevator is easy to find, but not in your face. Ramps are gentle and for everyone's use. In the camping section there is a battered 17-foot Grumman, not the world's most beautiful canoe, being fitted with seats for people who couldn't normally be able to enter a canoe.

Museum staff have developed a plan for adding new core and optional programs. As I look at the planning chart, I'm impressed by the number of blanks. It strikes me that this is a place where Pathways readers could have an influence. Call the museum (1-866-342-2663), ask for Brian Poirier, and make a request or a suggestion.

Almost too soon it's time to go. Jim and I stop for a soup and bagel lunch at an establishment that seems to know him well, and we drive happily home exchanging thoughts and dreams for the rich place that this museum will have in the educational and cultural fabric of Canada. Jim's route takes us past Kirk Wipper's country home, and we both tip our hats to his genius and persistent energy that started it all with the hand-propelled water craft collection at Kandalore so many years ago. As we enter the muddy parking lot where my car waits, I tell Jim that I'm thinking I should write about my experiences for Pathways. He agrees. And so I have.

Bert Horwood is a retired outdoor educator who loves canoes and will take a ride with almost anyone.



Insects an Ally for Healthy Forests, Researcher Says

by Michael Milstein

Foresters have spent millions of dollars through the decades battling bugs that feast on trees, but a new report by an Oregon State University researcher concludes that it may be better for the forests to simply let the insects be.

Some trees respond to bug infestations by growing faster than they would otherwise, says the report published in the fall issue of *Conservation Biology in Practice*. Insects are also nature's way of weeding out forests. They reduce crowding and competition among trees so the survivors can better withstand fires and bug attacks in the long run.

"There is now evidence that in many cases forests are more healthy after an insect outbreak," said Timothy Schowalter, the report's lead author and interim head of entomology at OSU. "The traditional view still is that forest insects are destructive, but we need a revolution in this way of thinking."

Firefighting and spraying of native forest insects such as tussock moths or pine beetles have left many Western forests so jam-packed with trees that regions such as Eastern Oregon's Blue Mountains are primed for unusually severe fires or infestations, he said.

"The fact is we will never resolve our problems with catastrophic fires or insect epidemics until we restore forest health, and in this battle insects may well be our ally, not our enemy," Schowalter said.

Such thinking is not entirely new. Two U.S. Forest Service scientists wrote in 1975 that caterpillar "grazing" of leaves harmed trees in some years but helped them in others. Caterpillars typically attacked sickly trees first, leaving healthier and more resilient trees to flourish.

But most forest managers have continued an "us against them" approach to pest control, Schowalter said. They

consider insects "unconditionally threatening forces" and show little regard for the long-term good they can do, he said.

Indeed, the world of insect science — entomology — breaks into two camps: those, such as Schowalter, who argue for the longer view that bugs benefit forests over time, and others who think that managers must control bugs to protect forests.

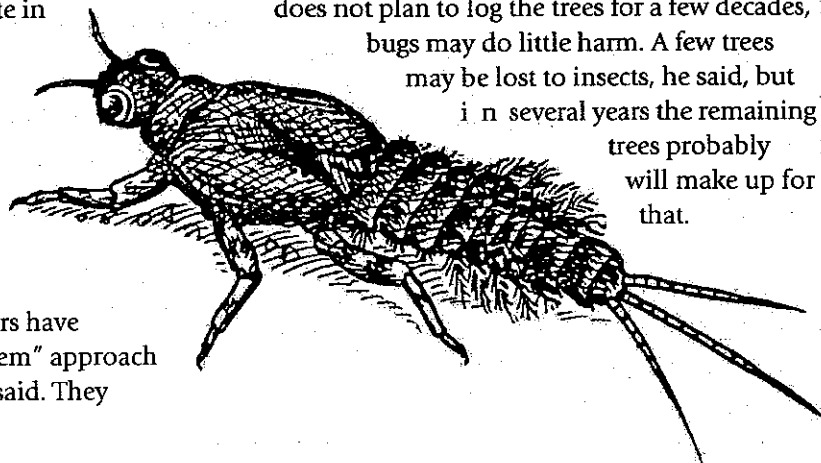
Each camp overlaps slightly with the other. Both see insects as a natural force, but they differ over how freely that force should function.

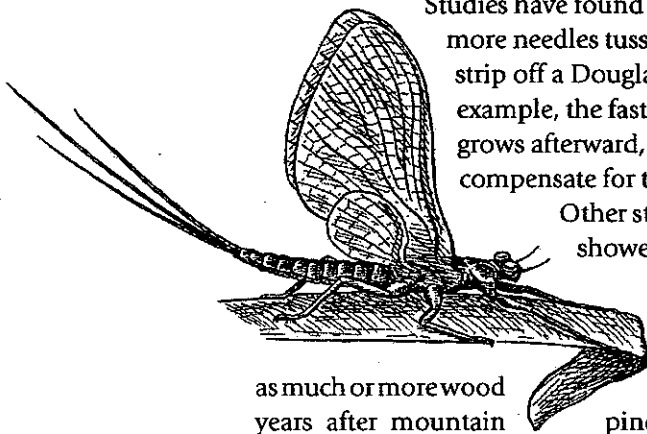
"It's true, they are an integral part of forest ecosystems, but the ecosystems are very different from the way they used to be, in that there are millions of people living here now," said Darrell Ross, a forest entomologist at Oregon State. "The hands-off approach is not so viable in this day and age."

By controlling major insect outbreaks, he said, foresters can prevent huge die-offs of timber that could fuel severe wildfires.

Schowalter agrees that insects cannot always be left to their own devices. In flammable, overgrown forests, prescribed burning and thinning can work — perhaps in concert with insects — to reduce fire hazards near homes.

Likewise, landowners planning to harvest trees in a few years cannot afford to let bugs chew up their profit margin. But if the owner does not plan to log the trees for a few decades, bugs may do little harm. A few trees may be lost to insects, he said, but in several years the remaining trees probably will make up for that.





Studies have found that the more needles tussock moths strip off a Douglas fir, for example, the faster the tree grows afterward, perhaps to compensate for the setback.

Other studies showed that Western forests produced 10 to 15 pine beetle

as much or more wood years after mountain outbreaks than they had before.

Such growth may rise from the complex interplay between insects and forests.

Insects do not simply gnaw on trees. They also drive decomposition that naturally enriches the soil while aerating the earth with their burrows, Schowalter's report says. They also provide food for key wildlife, carry seeds through the forest and pollinate plants in a way that controls where plants and trees grow.

In fact, bugs are often a signature of a healthy forest.

Instead of spraying bugs, Schowalter said, forest managers should try to re-create the diverse and open forests that insects themselves would normally help craft. That means thinning and breaking up dense, uniform forests that otherwise resemble an unending buffet for insects.

The more diverse a forest and the more widely spaced its trees, the less prone it will be to insects and fire. Many insects will not spread as quickly through open stands common to the arid interior West. And if a stand holds a few different species of trees, it's more likely that some of the species will survive an insect outbreak.

"If we get forests back to a healthy state, we'd have to spend less money to control fires," Schowalter said. "We could also expect that insect outbreaks won't be as severe, so we will have less expense to deal with them."

You can reach Michael Milstein at 503-294-7689 or by e-mail at michaelmilstein@news.oregonian.com.

This article was reprinted with permission from The Oregonian, 31 October 2001, p. B02. Thanks to Gareth Thomson, Educational Director of the Canadian Parks and Wilderness Society, for passing it along.

Perhaps They'll Need an Outdoor Educator

Will there be a Survivor in northern Canada's future? Canadian tourism officials sent mark Burnett, the producer of the CBS show Survivor, an info package a few months ago to pitch the idea.

The show, which has already visited the tropical island of Pulau Tiga, the Australian outback, and recently completed shooting in Africa, features contestants competing for "immunity" from being voted off each week.

In previous episodes, since temperatures were hot, contestants tended to wear little clothing, which boosted the entertainment careers of many of them — something hard to do in our buggy north.

They sent a two-page letter to Burnett a couple of months ago, along with a Roots leather bag filled with Canadian goodies (maple syrup, blueberry preserves) to convince him to consider shooting the fourth season of Survivor in Canada and hope for an answer by year's end.

Thanks to Michael Peake CHE-MUN: The Journal of Canadian Wilderness Canoeing, Fall 2001, Outfit 106.

Check out their Web site: www.canoe.ca/CHE-MUN

Editor's Note: While we do not anticipate many of us heading off to these distant conference gatherings, it is intriguing knowing of such related researcher, theorist and practitioner meetings.

Ecological and Environmental Education SIG, AERA

April 1-5, 2002, New Orleans, Louisiana

The American Educational Research Association (AERA) seeks proposals from new and experienced researchers in the areas of environmental education in school education, education for sustainability; sustainability in higher education, sustainability education in the workplace. Topics could include policy studies, research methodology, social justice issues, ecological issues, international issues, theoretical debates, etc. We are particularly interested in proposals for a symposium based around a particular research topic or theoretical debate. www.aera.net for information or contact Kim Walker: kimwalker@aol.com.

Editor's Note: As a follow up to Allison Carrier's feature, "Paddle Making: A Craft for Outdoor Education," published in Pathways, Autumn 2001, 13(4), here are a few paddle making contacts:

Lloyd Stonehouse, Flat Rapids Paddle Works
613-623-5455

Roger Foster, Carlisle Canoe Co.
905-659-0883

Andy Convery, Echo Paddles
Andy_Convery@hotmail.com

Andy writes: "The premise of my company is to make paddles out of reused and reclaimed woods (old hockey sticks, fences, etc.) and lessen the impact upon resources." Check out the Web site: www.echopaddles.com

ISA Research Committee on Sociology of Youth RC34

*XV ISA World Congress of Sociology, Brisbane,
Australia — July 7-13, 2002*

The ISA World Congress 2002 comes at an interesting moment for specialists in youth questions, given the wide-ranging and rapid cultural, economic, technological and social changes that are taking place on a global scale. Interdisciplinary and comparative approaches have always been particularly illuminating for sociologists of youth, where the synchronic and diachronic dimensions of analysis and understanding meet in complex and dynamic ways. The last decade has seen considerable theoretical and empirical progress in the study of youth transitions, youth cultures and intergenerational relations, especially through the strengthening of life-course perspectives and more intensive use of longitudinal, cohort and panel-based inquiry methods.

The RC34 program has been designed to privilege dialogue across world regions and ethno-cultural domains, and all sessions will encourage genuinely inclusive debate with a view to setting the stage for a new round of sociological innovation in youth studies. RC34 would like to invite you to look closely at the description of our program on the Congress website:

<http://www.ucm.es/info/isa/congress2002/rc/rc34.htm>

or on RC34 Internet bulletin:

<http://www.alli.fi/nuorisotutkimus/ibyr/>



**Whose Journeys: Where and Why? The
Outdoors and Adventure as Social and
Cultural Phenomena**

April 8-10, 2002

Buckinghamshire, Chilterns University College

For more information contact:
Conference Administrator Celeste Miles
Faculty of Leisure and Tourism
BCUC
Kingshill Road
High Wycombe HP13 5BB
or Professor Barbara Humberstone at
Barbara.Humberstone@bcuc.ac.uk

**UNEP International Children's Conference
on the Environment**

*May 22-24, 2002, University of Victoria,
Victoria, B.C.*

In May 2002 Victoria will host the International Children's Conference on the Environment in co-operation with the United Nations Environment Programme (UNEP). It is expected to bring together 800 children (10 to 12 years old) from over 115 countries, providing them with an opportunity to learn about, and voice their concerns on, the state of the environment as well as to showcase environmental initiatives by schools and join a worldwide environmental movement to provide positive action. Focus issues at the conference will include resource conservation, climate change, and water. The conference is also expected to produce a statement from children to the world leaders who will meet in the summer of 2002 in Johannesburg for the World Summit on Sustainable Development.

Organizations may submit proposals to present workshops and/or field trips for the 10- to 12-year-old delegates.

Contact Anne L. Mathewson, Chair, ICC
Canada 2002: 905-305-9777;
anne.mathewson@tetrapak.com;
www.unep.org/children_youth/.