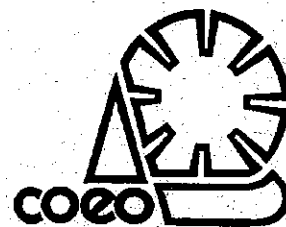


Pathways

THE ONTARIO JOURNAL OF OUTDOOR EDUCATION

Autumn 2001, 13 (4)



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2 Tanglewood Terrace, Etobicoke M8Y 3P1
(H) 416-253-4998 (B) 416-394-7952 (F) 416-394-6298
e-mail: mary.gyemi-szulze@tdsb.on.ca

Past President: Linda McKenzie
Box 324, South River P0A 1X0
(B) 705-386-2376 (H) 705-386-0503 (F) 705-386-1714

Secretary/Membership: Glen Hester
20 Linn Cres., R.R. 3, Caledon East L0N 1E0
(H) 905-880-0862 (B) 416-394-6342 (F) 416-394-6344
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Vice President: Todd Lucier
17 Isabella St., Box 329, South River P0A 1X0
(H) 705-386-1595 (B) 800-953-3343 (F) 705-386-1597
e-mail: todd@algonquinacanada.com

Treasurer: Brian Lisson
34 Plaza Dr., Box 63012, Dundas L9H 4H0
(H) 905-628-2527 (B) 905-304-5683 (F) 905-304-0386
e-mail: brian@adventureworks.org

Director At Large: Tammy Hand
252 Collings Ave., Bradford L3Z 1W3
(H) 905-778-9209 (B/F) 905-877-7771
e-mail: raven2@auracom.com

Director At Large: Bonnie Anderson
309-467 Chamberlain St., Peterborough K9J 4L3
(H) 705-876-1243 (B) 1-877-741-4577 ext. 2930
e-mail: bonniea@idirect.com

Director At Large: Carmen Schlamb
Box 211, Richmond Hill L4E 1A3
(H) 905-773-7335 (B) 905-833-3333 (F) 905-833-8379
e-mail: cshlamb@aci.on.ca

Director At Large: J.D. Heffern
P.O. Box 700, 14 Atik St., Moose Factory P0L 1W0
(H) 705-658-6426 (B) 705-658-5610
e-mail: heffern@onlink.net

Central Region: Bond Strand
207-135 Keewatin Ave., Toronto M4P 2A2
(H) 416-481-5871 (B) 519-942-0330 (F) 519-942-8712
e-mail: bond.strand@ntel.tdsb.on.ca

Eastern Region: Jessica Sherman
e-mail: shermj1@hotmail.com

Far North: Zabe MacEachren
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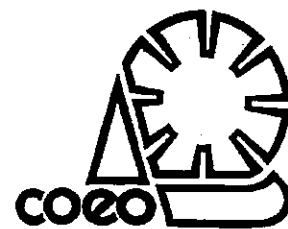
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(H) 519-797-5564 e-mail: doug.pedwell@bwdsb.on.ca

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Pathways Editorial Board

Co-Chair: Bob Henderson
Dept. of Kinesiology,
McMaster University, Hamilton L8S 4K1
(B) 905-525-9140 ext. 23573 (F) 905-523-6011
e-mail: bhender@mcmaster.ca

Co-Chair: Connie Russell
Faculty of Education,
Lakehead University
955 Oliver Rd., Thunder Bay P7B 5E1
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e-mail: constance.russell@lakeheadu.ca

M.J. Barrett
242-90 Atkinson Rd., Toronto M3J 1P6
(H) 416-663-7867
e-mail: mjb@yorku.ca

Adam Guzkowski
33 Charleston Rd., Toronto M9B 4M8
(H) 416-576-6039
e-mail: hero@backpacker.com

Jillian Henderson
21-94 Beck St., Cambridge N3H 2Y2
(H) 519-650-1183
e-mail: jillianhenderson@yahoo.com

Mike Morris
Boyne River OEC
R.R. 3, Shelburne L0N 1S7
(H) 519-925-9424 (B) 519-925-3913
e-mail: mike.morris@ntel.tdsb.on.ca

Tom Potter
School of Outdoor Recreation, Parks and
Tourism, Lakehead University P7B 5E1
(B) 807-343-8843 (F) 807-346-7836
e-mail: tpotter@sky.lakeheadu.ca

Friends of Pathways
Carolyn Finlayson, Clare Magee, Barrie
Martin, Barb McKean and Mark Whitcombe

Managing Editor: Randee Holmes
402-173 Stephen Dr., Toronto M8Y 3N5
(B) 416-207-8864 (F) 416-207-0467
e-mail: rholmes@yorku.ca

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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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Editor's Log Book

I am writing this column not long after the terrorist attacks on the United States. The implications of these attacks will be felt by all of us for some time to come in all of our capacities, whether as educators, learners, parents, children, friends and/or citizens. Even the production of this issue of Pathways was effected, as we were unable to get the proofs up from Toronto to me in Thunder Bay as quickly as we originally planned. Such a minor inconvenience is negligible, of course, when compared to what is faced by the survivors of the attacks. My heartfelt condolences go out to the victims' families and friends.

To turn now to the issue in your hands, I am hopeful that you will find it to be a useful mix of news items, classroom resources, and reflection pieces. Mike Morris leads off with what hopefully will become an annual event — an update on the Outdoor Education scene in the TDSB. I found Mike's article to be useful and I would like to ask those of you involved with other boards to consider sending in a similar update so that we all can get a better picture of the state of OE in Ontario schools. M.J. Barrett also provides us with an update, in this instance on breaking news in the Integrated Programs field. On the topic of integrated programs, Grey Highlands' teacher John Burton and I share results from our research on his Environmental Studies Program, focusing mostly on student perspectives.

We have a number of practical pieces in this issue from Zabe MacEachren's popular Crafting Around column to two Backpockets —

one by Laura Frost reporting on an exciting initiative, Plantwatch, that encourages students of all ages to participate in environmental monitoring, and another by Brad Tucker in which he shares his tips for leading successful walks. Another useful piece is Adam Guzkowski's review of excellent resources for storytelling in the classroom.

Other contributions that fill out this jam-packed issue include Jillian Henderson's continuation of her "Keepers of the Trail" series; this time out, she shines the spotlight on both Judy Halpern and Dave Lyon. Bryan Poirer provides us with an overview of programs at the Canoe Museum in Peterborough, Allison Carrier shares her thoughtful reflections on crafting, particularly paddle making, in outdoor education. And, last but certainly not least, is Dave Hawke's inspirational piece on the continued importance of outdoor education not only for children but also adults.

To close, I wish to point out to Pathways readers that four other members of the Editorial Board (M.J., Adam, Jillian, and Mike) contributed pieces to this issue and Bob Henderson solicited much of the remaining material. I feel very fortunate to be working with such a wonderfully active and supportive team. Thank you.

In peace,

Connie Russell
Co-Chair, Editorial Board

Art for this issue was provided by Sigmund Kvaloy Saetereng (cover), Gene Parker (pages 3, 7, 10, 14 and 17), Al Marquez (pages 23, 33 and 34), Martha Scythes (pages 22 and 35), Dale D'Allaire (page 24), Heather Edwards (page 11) and unknown (pages 5, 9 and 20).

School is back in session and even though the weather doesn't yet seem to indicate fall in the air, we know that September means many things to COEO members — the coming of the cold, the colours and, of course, Conference 2001. Please keep in mind that at the AGM 2000 it was agreed to change the timing of a yearly membership. This means that as of August 31st all memberships have expired and need to be renewed — especially if you wish to take advantage of a lower rate at the conference.

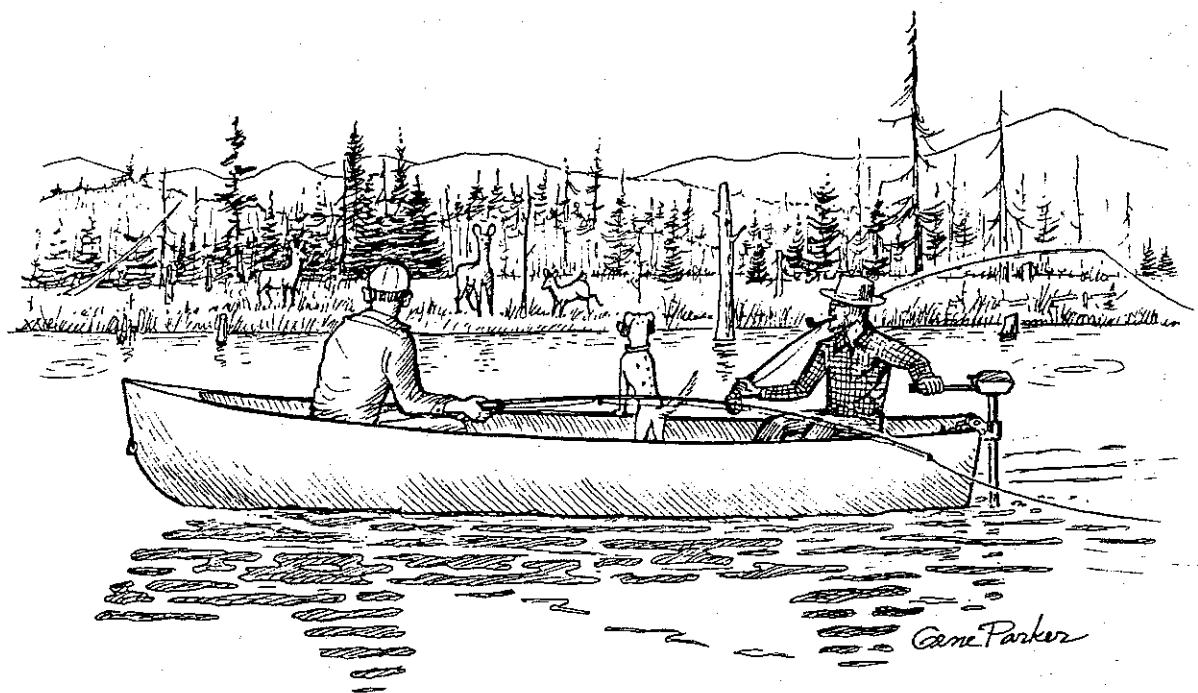
At this year's conference, we will again be holding a contest to show off our talented photographers. The auction (the extremely loud auction) has a canoe and handmade Cree snowshoes up for bidding. This event has

always been a rip roaring good time for everyone involved. All donations for the silent auction are willingly accepted. The Annual General Meeting will be held around the lunch hour this year and the Awards will be presented during dinner. The conference committee has brought in a variety of speakers from both within and outside of the organization.

So, come a see a familiar face, come and meet someone new, come and RE-ENERGIZE YOURSELF!

Yours in the out of doors . . .

Mary Gyemi-Schulze
COEO President



Even Outdoor Educators Sometimes Get the Blues

by Mike Morris

Outdoor education. The name itself conjures up something wonderful: fresh air, wild and rural settings, interesting lessons, comfortable accommodation, and students keen to learn what we have to teach. Anyone who has ever taught in this extraordinary field can easily wax poetic about their experiences.

However, the current reality is somewhat different. In an earlier *Pathways* article (Morris, 2000), I described some of the developments in outdoor education that were taking place at the Toronto District School Board (TDSB). Since then much has happened. My purpose here, then, is to bring readers up to date on what has happened since that earlier article and up until July 31, 2001.

Numbers? We've got numbers: The TDSB has about 560 schools, 300,000 students, 18,000 teachers and 13,000 support workers, making it by far the largest school board in Canada. Toronto Outdoor Education Schools (TOES) includes five day centres and eight residential centres. More than 140 outdoor education staff (both instructional and support) provide learning experiences to more than 85,000 students each year and involve about 6,500 classroom teachers.

May 2000: A report on delivery models for outdoor education in the TDSB is submitted to the Chair and Members of the Budget Committee. It includes a brief description of each outdoor education centre and the aspects that make it unique.

June 2000: Shadow Lake Outdoor Education Centre near Stouffville is closed. The TDSB had leased space at this location after the closing of the Bolton Outdoor Education Centre in 1999. Shadow Lake staff and materials are dispersed to other TDSB outdoor education centres.

February and March 2001: Trustees of the TDSB debate the future format of outdoor education, including equity of opportunity for all TDSB students, differences in staffing

models between centres, and the possibility of students paying a nominal user fee to attend outdoor centres.

March 2001: The TDSB trustees accept a staffing model that would require a substantially reduced number of teachers and an expanded use of paraprofessional outdoor specialists and interns (university students on work terms). A number of outdoor education teachers, including all secondary teachers, are informed that they will be returned to classroom assignments effective September 2001. On a more positive note, all day and residential centres are expected to remain open for the 2001/2002 academic year.

March to May 2001: The Toronto Region Conservation Authority (TRCA) decides not to operate the Boyd Field Centre as an outdoor education centre and to operate the Lake St. George Field Centre at reduced capacity. Boyd has been operating as an outdoor education centre since 1974. The TDSB and at least some of its legacy boards had contracts to place students in some TRCA field centres when no room was available at TDSB centres. When that contract lapsed, the TRCA lost a significant client.

March and April 2001: Unionized support workers in the TDSB, including outdoor education specialists, participate in a legal four-week strike for a new contract, shutting down all outdoor education centres. This follows a two-week strike in March 1999. The TDSB closes all schools on April 23 because of health and safety concerns. To end the strike, both sides agree to binding arbitration as a means of resolving outstanding issues.

April 2001: An ad hoc group of TDSB outdoor educators meets for the first time to discuss ways to efficiently advocate for outdoor education.

May and June 2001: A letter from David Suzuki supporting environmental and outdoor education was published in both *Interactions*:

The Ontario Journal of Environmental Education and *Pathways: The Ontario Journal of Outdoor Education*.

April and May 2001: The Toronto Star publishes two columns by Cameron Smith on the current uncertain situation in TDSB outdoor education. Another of the themes in these columns is how the replacement of outdoor education teachers with paraprofessionals will be detrimental to students.

May 2001: A story breaks in the Toronto media that TDSB trustees had voted in favour of cutting the jobs of 700 support workers to help pay for the wage raises won during the four-week strike.

A memo sent to all TDSB school principals outlines some of the changes coming to outdoor education, including a user fee of \$10 per student per day to help defray the costs of food and other services. The memo also says that no student is to miss an outdoor education opportunity because of an inability to pay that fee.

June 2001: Outdoor education staff visit local universities to interview prospective interns for temporary positions to assist outdoor education teachers and specialists. A number of outdoor education specialists are redeployed to other centres to take up instructional roles. Redeployment is accomplished approximately on site-based seniority. Additional specialists are to be hired in accordance with the staffing model approved by the TDSB Trustees.

What is the future of outdoor education for the students and staff of the TDSB? A scientist in Michael Crichton's 1999 novel, *Timeline*, offered a unique perspective on the future when he said, "I'm not interested in the future. I'm interested in the future of the future." We are told that change is now a large and constant part of the future in the world of outdoor education. Change can have speed, direction, magnitude, and duration. When staff profess little understanding of the changes, or when any of the components of change are unpredictable, it means considerable uncertainty for programs and staff. Sadly, many of the changes made in outdoor education have had adverse effects on the lives of staff.

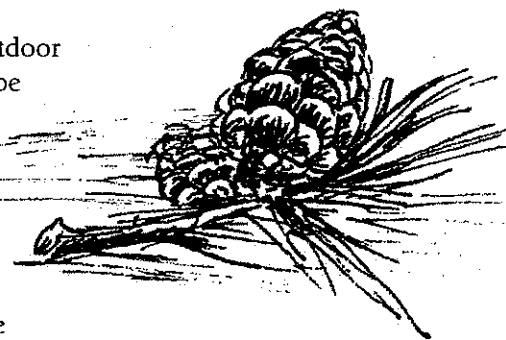
The TDSB isn't the first outdoor education group to have to cope with change and it probably won't be the last. A number of organizations have reorganized or eliminated their outdoor education programs. Other programs have been saved by last minute interventions. However, for an organization the size of the TDSB, managing that ongoing change and uncertainty will be a most daunting task for the future of outdoor education. Much of the uncertainty will revolve around financial constraints (Morris, 2001). As an example, after an uncertain spring, the Northern Lights program (Myers, 2001) will operate during the next academic year. The effects of the student fees on some schools remain to be seen.

Where can we find positive spin at this time? For one, outdoor educators are realizing that we must be more proactive in telling our stories and in advocating for our cause. Another thing in which TDSB outdoor educators can take considerable solace is that Toronto students will continue to enjoy visits to outdoor centres and learn firsthand about the environment. This is a significant accomplishment and one that should be recognized and celebrated. At this time, outdoor educators need to celebrate as often as they can.

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Mike Morris has been an outdoor educator for fifteen years. He has one of outdoor education's finest collections of stale jokes.



Paddle Making: A Craft for Outdoor Education

by Allison Carrier

Last September my roommate came home from a weeklong canoe trip in Temagami, proudly displaying her belongings: dirty pants, a bag of wet socks, and a surprisingly clean and cared for wooden spoon. The trip she had returned from was led by Zabe MacEachren, a contemporary pioneer/advocate for the crafting experience. I quickly discovered that, as part of their trip experience, participants were taught how to whittle their very own spoon from a tree branch.

This tripping memento was an interesting idea, and seemed to me a wonderful way to take home the memories of a week spent in the bush; little did I know I would barely hear the end of it. After that trip I was left to deal with days of incessant 'spoon talk.' Indeed, that spoon had become a focal highlight of her trip. After carrying it around with her for a few days, it took up permanent residence on her desk. It still sits, like a trophy, at the front of her daily workplace as a constant reminder of the good times she experienced and the challenges she faced on that trip.

The power of craft is that it lends itself to the aforementioned types of experiences. Not only does it have the power to elevate a spoon to trophy status, but it also achieves essential goals of experiential learning. Through the "doing" of craft, students are given the chance to experience the natural world in a meaningful and fulfilling way. Not only does craft satisfy the need to do, but also, upon its completion, the crafting experience results in a tangible reminder of what was done. It is a reminder that can be taken home, returned to, and remembered.

It might first be useful to try to define craft and the way that crafting experiences, such as paddle making, fit in with the ideals, goals, and objectives of outdoor and experiential learning. This will serve to help create a place for craft making among other classroom approaches and provide insight into the

reasons why outdoor educators need to pay more attention to its valuable uses within their classrooms.

Linking craft to environmental education begins with creating an environmental consciousness, involving the broadening of truth and the expansion of knowing through doing. The conventional educational consciousness offers students an unrealistic perspective from which to view the world outside of the classroom. Within the conventional classroom setting, attempts to enter the foreign world of craft and to get outside of the classroom are often undermined by culturally prescribed boundaries, which work to discourage new approaches to education. As a result, teachers end up trading in the possibility to provide complete experiences, through craft and other means, for the sake of what is convenient in education. The choice, be it conscious or unconscious, to cut out valuable and meaningful pieces of the pedagogical puzzle is a loss of holistic learning.

The word "process" itself implies a series of successive and related steps leading to a final product. In education that product is learning and, more importantly, the retention of what was learned. But the process of education, including outdoor education, cannot exist as a process when steps (such as craft) are being systematically torn out.

Paddle making as crafting is able to foster connections by teaching about the natural world, using its components as a direct teaching tool. Going out into the environment to find wood, be it the wood yard or a natural setting, and bringing it back to be metamorphosed into something students can use is a powerful experience. It forces students to realize the impact of their consumption; it takes them outside of their usual experience of the instant, made-to-order economic reality in which they participate on a daily basis. It questions the status quo through a direct

abandonment of everyday methods of consumption and satisfaction of needs/wants. Craft works to dispel culturally generated consumer attitudes by seeking to connect consumptive behaviours with environmental impact. When students take from the land in order to make something for themselves they feel this impact and necessarily make connections as result of that experience.

According to MacEachren (2000), learning where to look for material and how to harvest it sustainably is often the most significant part of the crafting process. It directly engages students with the land. She later goes on to mention that finding and acquiring materials from the land is the first part of the crafting experience; this is a step typically ignored or eliminated in environmental education programs. Consequently, students are not encouraged to "feel the impact of taking and leaving on our extended body — the earth" (MacEachren, 2000). Working with raw materials for paddle and spoon making can serve to help students shed some of their consumptive nature and regain an intimacy with the world outside of the classroom.

According to MacEachren (2000), "Every child should have the experience of walking out onto the land, gathering supplies, shaping them into some functional item and then using that item." The experience of paddle making donates the opportunity for creative production — beauty, function and utility. The concept of creation is very important to the goals of craft. The driving desire to feel productive and to take part in productivity is an essential part of being human.

However, what is important is that this productivity be creative. To ignore the essentiality of creative production in schools alienates students, making it hard for them to see "self" or "individual effort" as a part of their learning process. Crafting experiences, like paddle making, reduce educational alienation through generating personal, creative, fulfilling and holistic learning experiences, bending conventional approaches and returning to tradition.

Paddle making is a multi-purposed experience. It includes teaching students a physical skill, making connections between consumption and environmental impact, generating an environmental consciousness, and providing the opportunity for creative learning. Through the process of paddle making, the art of doing bleeds into the essence of learning and knowing. Making their very own paddle gives students the chance to become active participants in learning. It keeps them talking and thinking about their experiences days after it is over. Since what they have made is functional and useful, students are able to return to the knowledge they have gained through the experience each time they choose to show it off to friends (as in the case of my roommate) while waiting for spring waters to flow again or their next bulgur and rice trip meal. The educational values, environmental values, and individual empowerment that are born through craft should not be underestimated or ignored.

The invaluable experience of paddle making has been described by a number of individuals who, after having made their



own paddles as an element of a fourth-year university outdoor education course, wrote short papers on the overall experience. As I read through these essays I began to notice familiar and recurring themes. What I discovered was that students didn't just learn how to make a canoe paddle; instead, through the medium of craft, they began a journey of introspection, creativity, connection to the earth and, for some, a critical examination of their own consumptive habits. Using paddle making as a pedagogical prop enticed students to take on a challenge, to create, and forced them to connect with the natural world. These three words — challenge, creation and connection — are what I refer to as the three C's of craft.

On the first night of their paddle making experience many of these students took the city's intuitive appetite for consumption with them. Many were apprehensive of the "do it yourself" approach, which carries with it notions of poor quality and imperfection. At the onset of their experience many were unsure as to how well they could possibly make a hand crafted item. Some students became frustrated as results were slow to materialize. In the words of one student, "The first night was extremely trying and arduous, and my optimism was quickly replaced by frustration." However, with proper guidance and facilitation, this same student referred to the sense of challenge and the pride she experienced in overcoming that challenge. She later said, by "the middle of the second paddle making session I began to see shaving this piece of wood into a paddle, not as a frustration, but as a greater challenge." The first C, challenge, is faced early on and continues throughout the process of paddle making as students discover themselves searching to find "function within non-function." In meeting and rising to those challenges, students physically, emotionally, and mentally feel the effect of creating something out of nothing. It is an unavoidable consequence of the paddle making experience. As frustrations are overcome and students arrive independently at their solutions, learning takes on personal relevance and memorable connections are formed by way of a physical

challenge and individually derived emotional and intellectual responses to that challenge.

The second C, creativity, is met naturally through the art of craftsmanship and the individuality involved in creating something unique. As students work with the wood, the wood works with them, and together they begin a process of transformation. The need for functionality and creativity is met through craft experiences. In the words of one student, "I was impressed with the idea that I'd taken one beautiful part of nature (wood from a tree) and transformed it into another spectacular spectacle (my very own paddle)." The art of making something that is useful is fulfilling for students. There is a personalization involved when their own creative ideas and understandings are born out of craft. One student said, "When I was shaping the paddle with the blade, it was in turn shaping me. We were changing together, neither to be left unmarked, both transformed." For students, as a direct result of the crafting process, the paddle becomes their own. Students are essentially the creators of transformation as they experience and invoke that transformation firsthand.

"Through the 'doing' of craft, students are given the chance to experience the natural world in a meaningful and fulfilling way."

The opportunity for introspection/ reflection, which comes along with the creation process, is another important aspect of paddle making and the crafting experience. As creativity and introspective experiences walk hand in hand, students may discover connections are forming between themselves, themselves and others, and themselves and the natural world. Naomi Smith referred to "learning what it is to be" when speaking of her paddle making experience. This is no small statement. She is referring to the deep connections she began to form throughout the



creative process. Paddle making serves to facilitate individual connections to past learning experiences, and imposes the past

on the present state of learning. Access to an environmental perspective, and the provision of introspective time, are key reasons why activities like paddle making create strong learner connections. Connections, the third C, are made as students let the "continuity of motion allow [them] to attend to things away from the task" or find themselves "absorbed in the physical enjoyment of the art of carving."

The concept of connection becomes most important when connections are made with the natural world through the experience of craft or the art of carving. Students became well aware that the materials they have used to make the paddle are from the earth. As connections to the natural environment are formed, students naturally begin to question their patterns of consumption, and their material nature becomes an issue to be examined critically. With purposeful and guided facilitation students should begin to understand and realize the relationship between human productivity and environmental impact. They should also begin to understand their role in that relationship. Ty Hamilton, after participating in a paddle making project, refers to the contrast between buying "gear" (such as a paddle) and making that gear, by hand, from natural materials. He discovers that, "the concept of making gear from materials collected from the natural world has unique implications for developing a connection to the earth, and understanding the impact of our lifestyles on the environment." Craft works to "remind us of the impact that our lifestyle has on the earth." By having students connect with the wood, the world, and themselves, paddle making achieves an essential goal of outdoor education. It directs the learner to find their place within their education by providing a framework of understanding and a tangible reference for that understanding (the paddle).

Perhaps a fourth C is change. It is likely

that the experience of doing and connecting through hands-on crafting experiences, such as paddle making, will make a difference in the attitudes of participants. By focusing on the essential materials of craft, in this case the wood, and where they came from (the natural world), students are able to reach beyond the classroom. They feel the wood changing/transforming below their carving instruments, they smell the earth as the shavings fall to the floor, and they see themselves as playing a role in that transformational experience. Using paddle making as a pedagogical prop gives students new ideas/ways of thinking about the world as old ideas/conventions are challenged. Resultantly, they are then given the opportunity, through craft, to make individual connections with new forms of old ideas. Changing the way students think about the world helps to change the way they behave within that world. The power of crafting experiences to bring about change is undeniable. It is the power to keep students talking after the actual experience has long since passed, and it is this power that makes crafting experiences, such as paddle making, an essential component of any outdoor education program.

Two floors below me my roommate is now studying for her biochemistry final. Two inches away from her textbook, that spoon still has a home. Almost a year after she made it, her spoon remains a touchstone of her learning and growing from that single trip experience. To add to this she now has her paddle, and it too will have its own stories to tell. And by the way, if you ever find yourself in Hamilton, Ontario, keep an eye out for my roommate . . . she'll be the one with the canoe paddle strapped to her back.

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Allison Carrier is currently at Teachers' College at the University of Toronto. She is a graduate of Kinesiology, McMaster University.

Environmental Science is Back: Locally Developed Course Approved

by M.J. Barrett

Thanks to the work of integrated program teacher Shayne Mann and partners at the University of Waterloo, Grand River Conservation Authority, Brant Resource Stewardship Network and Brant Steelheaders, the Grand Erie District School Board has received approval for a locally developed course entitled "Field Ecology from a Local Perspective." The course is approved for Grade 11 to university/college level students, and a workplace level course is in the development process. Units include the following:

- The Forest Ecosystem and Management
- Freshwater Aquatic Environments
- Fish and Wildlife Management
- Soil Science and Agriculture

- Integrated Ecological Stewardship and Restoration

The Wellington County Separate Board is also working on a course in partnership with the Grand River Conservation Authority.

If you're interested in applying for a Locally Developed Course, visit www.edu.gov.on.ca/eng/document/curricul/secondary/localdev/localdev.html

You can develop a course on your own, use an existing one as a template, or adopt an existing course verbatim. If you would like to receive an electronic copy of "Field Ecology from a Local Perspective," contact Shayne Mann (shayne.mann@sympatico.ca) or MJ Barrett (mjb@yorku.ca).



Interdisciplinary Studies Courses: An Update

by M.J. Barrett

The Ministry of Education is in the process of developing an Interdisciplinary Studies curriculum document. The target date for final ministry approval and document release is January 2002. Similar to a Math, English, or Canada and World Studies document, Interdisciplinary Studies will include overall and specific expectations for courses of study. The difference is that the expectations that are to be evaluated will focus on knowledge, skills and applications related to Interdisciplinary Studies. These expectations will be combined

with expectations from existing ministry course guidelines.

The courses in the Interdisciplinary Studies document provide exciting opportunities for integrated programs and, since they will be using existing ministry courses, should not require extensive paperwork to launch. While they do not have to be included as part of a traditional integrated program, they could strengthen and add depth to a four-credit program.

Student Perspectives of Grey Highlands' Environmental Studies Program

by Connie Russell and John Burton

Grey Highlands, located about 130 km northwest of Toronto, is a rural school of approximately 900 students, 95% of whom are bussed to school, some from as far away as 30 km. As it is the only secondary school in the vicinity it must meet a diverse range of student needs. Students generally live either in towns no larger than 2500 people or on farms, and most come from families long established in the area. Most students in the school are lower to middle class, and white.

Students in the Environmental Studies Program (ESP) earn four Grade 12 credits (in 1999, one environmental science, one outdoor physical education and two co-operative education) during the February to June semester. Based in a portable building behind the school, students spend approximately 75% of the semester outside, on school property (102 acres of naturally regenerating farmland, mature forest, and wetlands), in the adjacent natural and human communities, and in Temagami. Concepts in environmental science, outdoor recreation, and environmental education are learned during such activities as water testing, winter and summer camping, rock-climbing, cross-country skiing, snowshoeing, hiking, and a 16-day wilderness canoe trip in Temagami. Assignments include journal keeping, developing activities and lesson plans for co-op teaching, researching careers, final exams, and researching and presenting reports to the class on environmental science topics and various environmental issues. Students have also participated in many action projects, including running the school-wide recycling program, planting trees, engaging in letter-writing campaigns, maintaining trails, removing litter, conducting waste audits, and impromptu efforts like assisting with a clean-up after a tornado hit the area in 1996. Students also receive First Aid certification, CPR training, and have an opportunity to earn "Level One" canoe

tripping certification from the Ontario Recreational Canoe Association.

Given that students receive two credits in cooperative education, 20-22 days of the semester are spent teaching a total of approximately 1500 elementary students (Junior Kindergarten to Grade 8) from the feeder schools. The elementary students spend the entire day on the property and the ESP students lead cooperative and environmental games, facilitate outdoor recreation activities, conduct pond studies, and give interpretive walks. Given the very low ESP student/elementary student ratio (usually about three to one), the students teach in teams. The ESP students take turns being group leader, usually three to four times over the semester; their responsibilities for the day include developing detailed lesson plans and acting as primary facilitator. Instruction on teaching techniques, what to expect of elementary students and how to handle potential problems is provided by one of the teachers from the neighbouring elementary school or by ESP teacher John Burton.

From 1997 to 1999, enrolment ranged between 22 and 26 students. Reasons for enrolling were diverse. Some students wanted to spend a semester learning outside, experientially, in a non-traditional program. Others looked forward to the various field trips and to learning outdoor recreation skills. Others indicated their desire to learn about nature, environmental issues, and environmental advocacy. Some felt that ESP would help them with their career goals (in fields like teaching or working with children, environmental science, conservation, forestry, policing, and ecotourism) and others felt it would help with their personal goals



(including learning leadership skills, building confidence, and getting fit). The possibility of making new friends and working in a group was also attractive. For many students, the reputation of the course as fun and adventure-filled was a big part of its appeal.

Beyond covering John's salary, the school board has not committed itself financially to the ESP; students are thus responsible for all costs incurred over the semester, mostly associated with field trips. In 1993, the cost per student was CDN\$550 but, due to John's fundraising efforts, has decreased each year so that, in 1999, the cost was CDN\$400. While most students felt that the cost was not prohibitive, occasionally an ESP student has mentioned that a friend had chosen not to enrol because of the course fee. Concerned that the program be accessible, John has made efforts to attract funding from other sources as well as ensure that there are multiple fundraising opportunities for students.

Student Perspectives

Three key themes emerged as important to the students: 1) experiential learning; 2) interpersonal skill development; and, 3) personal growth. Implicit, and occasionally explicit, in their comments is a comparison of the ESP and more traditional schooling.

Experiential Learning

Most students indicated that learning experientially, outdoors, was easier and thus more effective for them than a traditional school setting. In the words of one student, "we actually did the things we were learning about, instead of just learning about them." She provided an example: "It is easier for me to learn about feeding relationships playing the part of the animals in a game than reading it in a textbook." Similarly, other students had the following to say:

In ways it's easier because you're never in a classroom. You're always hiking or something but it was harder because I felt that I learned ten times more stuff than I would in a boring classroom.

I found I dealt with the same amount of difficult questions, the difference being I was not dealing with the questions on paper but actually living them.

For others, that is precisely what made this program more difficult:

People think this is an easy course because we are rarely in class and seem to be always having fun. But as an ESPer, yes, it is really fun, but it is mostly experiential learning and also very physically demanding. But most people don't understand that.

More is expected of you. It is your decision to do the proper thing and if you decide to do something you shouldn't, you feel so guilty about letting everyone down. In regular classes, you tend to just care about yourself and you don't care about what the teacher thinks of you, but this is totally different.

One student found the question of whether the program was easier, the same, or harder than traditional school "ridiculous." She continued on:

This semester cannot be compared with regular class. I learned in a different way — maybe that was easier. But I learned more about me and life skills than any other class has ever taught me.

According to some students, teaching elementary students greatly helped them in their own understanding of course content. As one student wrote, "Teaching the students made it easier for me to learn and it will always be remembered." Others were excited by the responsibility given to them:

[I liked] the trust we were given — with public school kids, the wilderness atmosphere, our own meals. Wow! We were treated like we actually could think for ourselves!

Many students also valued that their learning felt authentic and meaningful:

[What I liked best was] the chance to experience important things, instead of sitting in a class filling your head with information and no understanding.

I liked that everything had a purpose and was needed or used during either the co-op with the kids or the canoe trip.

This feeling of purpose was enhanced by the fact that many students entered the program with personal or career goals. Particularly for those students who expressed interest in teaching or working with children, the co-op sessions with elementary children were invaluable. In some cases, it confirmed a student's hunch that teaching might be an appropriate career, others were surprised to find that they enjoyed teaching and were pondering the implications of that insight, and still others found the thought of ever teaching children again absolutely horrifying!

Interpersonal Skills Development

Students appreciated the opportunity to hone their interpersonal skills. At the outset, a number of students wrote that they were nervous about group work and spending so much time with the same group of students, many of whom they did not know well, if at all. As one related later, "Usually if you throw 25 kids together, they wouldn't all get along, but we did in this situation." Indeed, a number of students indicated that they were surprised by their fellow students. As one said,

There were so many different types of people from different 'groups.' Half of the class I would never have talked to before this course. Now . . . they are my friends.

In a program more akin to the elementary model where students spend the entire day with one teacher and one group of peers, there is greater opportunity for students to get to know one another and more attention is devoted to learning how to work as a team.

Here is what these students had to say:

It surprised me how well the class worked together. In most classes, the people are there to learn, not to work on dynamics. That is probably why [regular] class is not fun.

I think it's great spending so much time with these people and getting to know them for who they are, not just who you thought they were.

Many commented on how important their time together was in building their ability to work as a team, especially during difficult moments, like one unusually cold, mosquito-ridden canoe trip when tempers were fraying. A number believed that learning these skills would help them later in their chosen careers and personal life:

I liked the amount of time you spend with the same group of people. This allows for the realization that each person has faults and that you do too. By seeing other people's faults, you find your own and work on it.

[I learned] how to take care of others. To get along with everyone even if you feel they are wrong. [And] how much trust you really need in order to get through life.

I learned a lot about myself, how I work with others, how to improve myself, how to be patient. How to be an important member of a team. All of those skills a lot of people never learn.

Personal Growth

A third theme raised by the students was personal growth. Many discussed their increased awareness and knowledge about nature, environmental issues, and environmental action. Others discussed opportunities to learn about and test skills needed in various careers. Others brought up more personal issues, particularly growth in self-

awareness, learning patience, trust, and teamwork, building self-confidence, and increasing their physical fitness. Here are some examples:

I learned a lot about who I was and where I want to be in fifteen years. I learned how to deal with things without losing it. Also, I learned better leadership and communication skills.

I'm not as shy any more. Doing the presentations helped me a lot, not just in class but every day.

I learned so much about myself, how to better interact with people, to try new things, and to keep doing things you like, how to look at life in a much simpler way, not to let insignificant things bug me.

Most of these students went on to say that they had not experienced such personal growth in a traditional classroom.

A Caveat

When asked if they would recommend the course to others, all of the students in each year of this study said that they would do so; many concluded their post-course survey with phrases like "ESP Rocks!" or "ESP Rules!" We do not wish to imply, however, that the students had no concerns. Students did become frustrated, at times, with one another and with John. Others complained that the ESP was not completely experiential and outdoors, and disliked that some classroom work and assignments remained. Having had a taste of a more student-centred approach, many students also desired more participation and control over the course. And others expressed concern and indignation that the course had a reputation as a "bird course" in some quarters.

Promises, Limitations, and Constraints

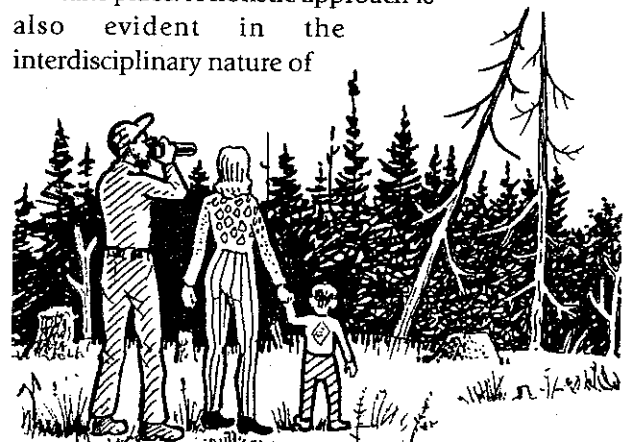
Building on the insights of the students in the ESP, there are four interrelated characteristics of this program, and integrated programs in general, that the two of us find particularly appealing: experiential learning, authenticity, connections to human and natural

communities, and holism. First, the emphasis on experiential learning in a variety of settings has a better chance, we believe, to meet the diverse range of learning styles of students. As so many of these students indicated, sitting in a classroom taking notes off a blackboard about seemingly abstract concepts was either too challenging or too boring for them. Repeatedly, in the post-course questionnaires, students expressed their surprise at how much they had learned, as well as how much of that learning they had retained.

Second, students were engaged in "real life" environmental and social projects lending a feeling of authenticity and purpose to their learning. Being involved in specific local issues gave students a sense of ownership and pride in their efforts, allowed them to feel that they were making a difference, and helped them make connections between what they learned in school and the world around them.

This participation in authentic projects relates to the third important characteristic: the attention to relationships both among humans and between humans and other life. Through intense interactions with one group of peers, teaching elementary students, and participating in community projects, students felt that they enhanced their interpersonal skills. Further, much of their learning was about, in, and with the natural communities of which these students are part, and many of their action projects were in service to these communities.

Fourth, this program takes a holistic approach. Cognitive learning is not the sole focus. Kinaesthetic, affective, and sensory learning certainly occurs and we venture that moral and spiritual exploration and growth also can take place. A holistic approach is also evident in the interdisciplinary nature of



this program, which is particularly important given that environmental concepts and issues are often complex and messy.

We do not want to paint an entirely rosy picture, however. Programs such as this one are not perfect nor are they without constraints. One limitation of many of the Ontario programs, including this case study, is that they are still heavily based in sciences or geography and less focused on the arts. Part of the problem is that most of these programs are not team-taught so are limited by the individual teacher's expertise and comfort level with various subjects.

Another difficulty associated with being a single-teacher program is the immense amount of work that falls on the shoulders of one individual. There is a substantial amount of preparation required in getting the program initially off the ground, continually adapting it to comply with new Ministry of Education curriculum guidelines, changing school board priorities, internal school politics, and teacher contract issues concerning teaching and supervision time. Moreover, the amount of time required to organize it on a yearly basis is substantial.

Fundraising represents a significant amount of that work since funding is a perpetual problem. While students contribute financially to the program, they do not bear the full cost. Yet asking the board for more funding may not be wise. Given the cutbacks to education in Ontario, financial independence may be essential to the survival of these programs, but this requires substantial effort on the teacher's part.

The numerous field trips, many of which are overnight (approximately 21 nights over the semester, including a 16-day canoe trip), also require a commitment beyond what many teachers can offer, particularly those with family responsibilities. Given the intense nature of these programs, opportunities for teacher renewal and support are vital for program sustainability. Having two teachers full-time in one program to provide support, enhance interdisciplinarity, while still ensuring such continuity would be ideal and has occurred in Ontario with success, but is uncommon and increasingly unlikely given the funding cutbacks.

Another challenge facing these programs is their non-traditional nature. While concerns that the ESP is a "bird course" certainly have lessened with time, there remains some resistance to the program among a few teachers and administrators who scoff at students' ability to learn content while outside, apparently only having fun. This scepticism is obviously being passed on to some students since some of them did worry about the reputation of the course. Documentation of significant gains in student performance obviously offers one antidote to such concerns; research of this kind, based on Canadian programs, is much needed.

A Conclusion

Much research still needs to be done. Nevertheless, we are comfortable in asserting our belief that integrated programs such as the one featured here show promise. The students in this case study had opportunities to learn experientially about and with their natural and social communities, which, by their own reckoning, led them to hone interpersonal skills and grow personally. Interestingly, while the students did mention their increased knowledge about and commitment to environmental issues, what they most wanted to relate to us at the end of the program was their excitement at learning by doing, their interpersonal skills development, and their personal growth. As environmental educators, this does not trouble us. Such learning may be an important step in students developing the capacity for democratic, environmental citizenship.

Connie Russell teaches in the Faculty of Education, Lakehead University, Thunder Bay and John Burton now teaches ESP in both semesters at Grey Highlands Secondary School, Flesherton. Their research on ESP continues. This article is based on data collected between 1997 and 1999 and is an abridged version of C. Russell & J. Burton. (2000). "A report on an Ontario integrated environmental studies program." Canadian Journal of Environmental Education, 5, 287-304. Copies of the original article, which contains many references to other literature in the field, can be obtained from Connie (contact information on page 1).

An Interview with Judy Halpern

by Jillian Henderson

COEO member, Judy Halpern, may be small in stature but she's big in heart and ideas. She can contribute quietly behind the scenes and she can just as easily gather plenty of attention with her outgoing personality and interesting stories. I was pleased when Judy agreed to answer some questions for me back in July. This is one more way Judy shares herself with the rest of the COEO membership.

Jillian: When did you become involved with COEO?

Judy: I became involved with COEO in 1988.

Jillian: What prompted you to join?

Judy: I was told about *Make Peace with Winter*, a conference offered in the doldrums of winter. I decided that I needed to spend a weekend with like-minded people while feeling like I wasn't neglecting my schoolwork. I loved the weekend so I joined the organization seeking other opportunities to spend professional time outdoors.

Jillian: What part did outdoor education play in your life beforehand?

Judy: My earliest memories of taking pleasure from the outdoors come from walks with my dad. As a child in elementary school I was assigned a "leaf project" every fall. My dad and I would spend a full day in High Park every October collecting leaves. We could not identify the trees the leaves came from but that didn't seem to matter. We organized them by their appearance. The days were often quite cool and my dad would buy me two roasted chestnuts, one for each pocket, to keep my hands warm. We always had a squirrel or two following us in the park but it wasn't until recently that I realized why!

In university I took a course that allowed me a placement at Forest Valley Outdoor Education Centre. I had an "awakening moment" during a lunch break one day as we sat together around a table in the staff room eating our lunch. The conversation centred around taking great pleasure from the visitors we could see at the birdfeeder as opposed to the frustrations we were feeling in our daily program. I liked the energy that these people had and that being outdoors gave me. When I attended the Faculty of Education I was sure to secure a placement at a field centre.

Jillian: What roles have you played in COEO?

Judy: I worked as a committee member on the *Make Peace with Winter* conferences. Then in 1993 I joined the Board of Directors. I served on the board for one year, then returned for another four years in 1996.

Jillian: How has your involvement in COEO added to your life?

Judy: The people I met at COEO became my closest friends. I took the opportunity to participate in many regional workshops and conferences that allowed me to try new things. I ascertained how important environmental education should be in the regular school program and I learned how to infuse it into the curriculum. My dream eventually materialized and I got a job at a field centre. I was encouraged to take initiatives in environmental education and become a workshop presenter. Finally I decided to leave the classroom and start my own business — a mobile environmental education program for young children.

Jillian: What's the best part of COEO?

Judy: The best things about COEO are the people, the energy, the commitment and

passion for promoting education outdoors as part of the regular school curriculum.

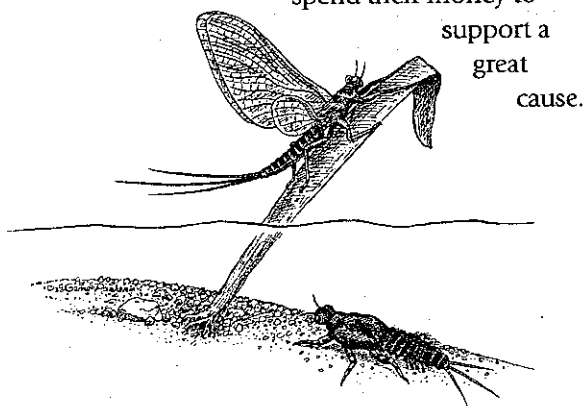
Jillian: How does COEO need to improve?

Judy: COEO needs to recognize itself as a dynamic professional organization. It caters to educators at all levels and should promote itself not only as comprised of outdoor educators, but also environmental educators. It should continue to recruit members new to the profession, and also provide contacts and services to more experienced members as well. *Pathways* is an excellent tool for communication — perhaps it can hit the professional newsstands?

COEO needs to be represented and take a leadership role in provincial environmental education issues. Its involvement with EEON is an exciting initiative!

Jillian: What's your favourite memory of a COEO moment?

Judy: It is difficult to pinpoint a favourite moment as I have so many fond memories of COEO, but if I had to pick one it would be a COEO auction! Each auction I have attended has become more exciting than the one before. I don't know if you can put it down to the auctioneers (Dave and Bonnie being my personal favourites) or to the zeal and enthusiasm of the buyers or to the items that one can buy (having to buy my own pyjamas back at *Make Peace*), but it is at these sales that we not only have great laughs but relish the generosity of our members as they willingly spend their money to support a great cause.



Jillian: What developments in COEO do you see coming up?

Judy: I am excited about COEO's involvement with EEON. It's essential to be a part of the coming together of many environmental organizations across Ontario to use our collective strength and expertise to advocate environmental education issues to this government.

Jillian: What do you do in outdoor education outside COEO?

Judy: In 1996 I left the classroom and created *The Magic Suitcase* — a literature-based environmental education program. The program is designed for primary teachers and students, to bring environmental education together with quality literature to teach about the natural world. *The Magic Suitcase* travels to the schools offering children's programs and teacher workshops on how to address local environmental issues while meeting the needs of the Ontario curriculum.

In our program we use picture books to introduce and reinforce the concepts. We then travel outdoors, into the schoolyard, and use the stories and their characters to enhance the experience. The program focuses on literature, drama and science to teach an understanding of the complex balances of the natural world and, in turn, to develop an appreciation of the wonders within it.

We also produce teaching materials, *The Magic Suitcase* teaching kits, based on a variety of themes. These kits contain published storybooks, a teacher's guide and props necessary to teach the unit. They are available for grades 1–5, special versions have been created for the Kindergarten curriculum and one theme has been translated into French! As well we promote and sell quality children's books. More information is available on our website at www.magicsuitcase.on.ca.

Jillian Henderson sits on the editorial board of Pathways.

INDOOR KITES

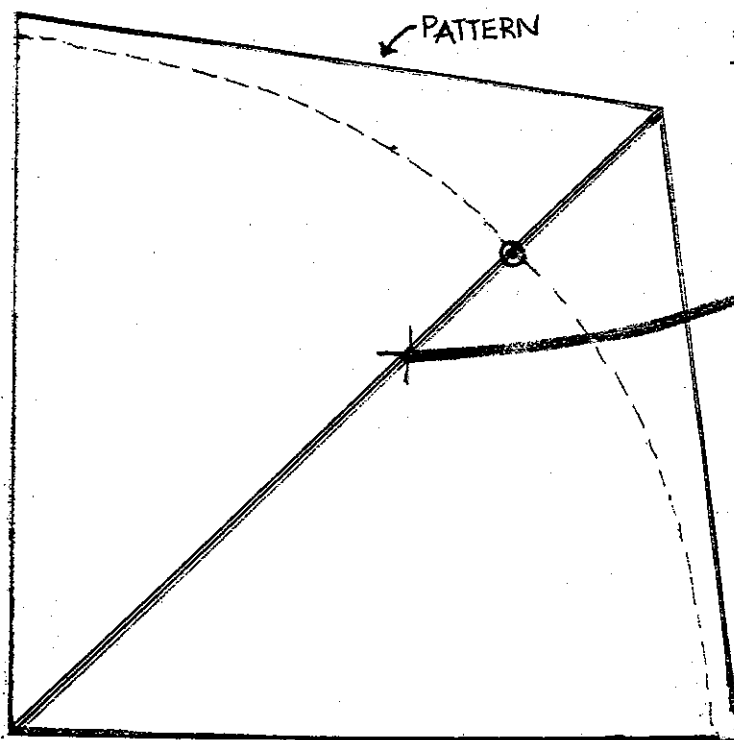
It took less than a second to fall in love with my first indoor kite. As soon as I moved my arm and watched it float just in front of my face I knew I was going to have troubles putting it down. Now, I store it by my computer so that when ever I am feeling a bit of repetitive stress pains or waiting for something to download, I can readily go fly a kite for a while and ease my pains, forget my worries. I think indoor kites should come with all computers. See how many times you can spin around in a computer chair while flying your kite at the same time. If you don't have a pet dog to walk then develop a commitment to take your kite for a walk instead. Anytime and any place will do as all you need is a walking pace to set it adrift. I find watching a kite soar also helps to make something in me soar and feel akin with the birds. Some undergraduates have even been known to fly these indoor kites in lecture halls to relieve themselves of mental overloading.

So how does one make one of these indoor kites? Well, it is relatively easy, but does require some careful tactile skills and the collection of some specific materials. As I usually prefer to make items using as many natural materials as possible, I want to stress that these kites can be easily made out of remnants and disposable items. This makes them very inexpensive and best suited to promoting the 'reduce and reuse' concepts.

First, collect some paper napkins /serviettes. Don't go buy any just use one of the ones people are always stuffing in donut bags or under coffee cups. Instead of throwing them out or putting them in your pocket to later use as T.P., just recognize them now as great flying machines.

Now, every time you paddle or walk around a lakeshore, start to keep your eye open for discarded fishing line. In cottage country, maybe post a sign at the bait store requesting used fishing line. Ten and twenty pound test line is ideal.

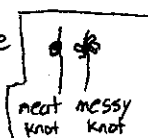
Some coloured ribbon from a wrapped present, thread, a little stick, scotch tape, scissors and white glue is everything else required. (Little rolls of thread can be bought at a dollar store quite cheaply if you don't have time to wrap some thread around a stick.)



— thick fishing line
— thinner " "

⊙ small drop of glue

X tape thread here



— dollar store spool thread or a stick with thread wrapped around it will work well



Try flying your kite having to type up reports justifying your

Try spinning twice around your chair while flying

Some lofty pondering to question and sprinkle into your craft

- If flying a kite helps a person to attend to the air (remember one of the most basic natural elements of existence), does it a bit of outdoor or environmental education?
- The expression "Go fly a kite" originated when ticker tape was used in stock exchange buildings after the stock market crash of 1929.
- Gods of the air and sky have been so important to cultures; a lot of many supreme gods simply mean sky. An example of this is the Greek god Zeus.
- In the Maori culture, priests foretold the future by watching the stars. The great Polynesian hero was considered the god of thunder and the sky world as a kite.

Step One - Separate out the layers in your napkin so you have only one layer. Trace the given pattern on the thin sheet, mark the axis with a dot and cut it out. This could easily be made into a math class by incorporating measurements and angles. The critical angle is the 90 degrees at the kite bottom.

Step Two - Measure and cut some 20lb test line so it will form the center axis of the kite. Dip the entire length of the fishing line in the glue. As neatly as possible place it down the center of the kite without adding needless glue anywhere else.

At some point while working with the fishing line, I tell students about the time I tried to rescue a pigeon whose feet were entangled in so much fishing line it could not fly well. I ask them about and share with them information on why fishing line should always be cut up into small pieces before it is disposed of in the garbage.

Step Three - Take some 10lb test line and dip its length in the glue. Place it exactly across the axis as marked and slightly below the side corners. It should form a nice even arch. The reason the line length is dipped in the glue is to create a complete seal between the kites paper and the line axis. Very small additional drops of glue can be added in the marked locations for additional support. Let the kite dry.

Step Four - Tie on three to four feet of thread onto a stick and wrap the thread around the small stick. At the end of the thread make a messy knot. (A messy knot will allow the thread to have more surface area to stick to the tape.)

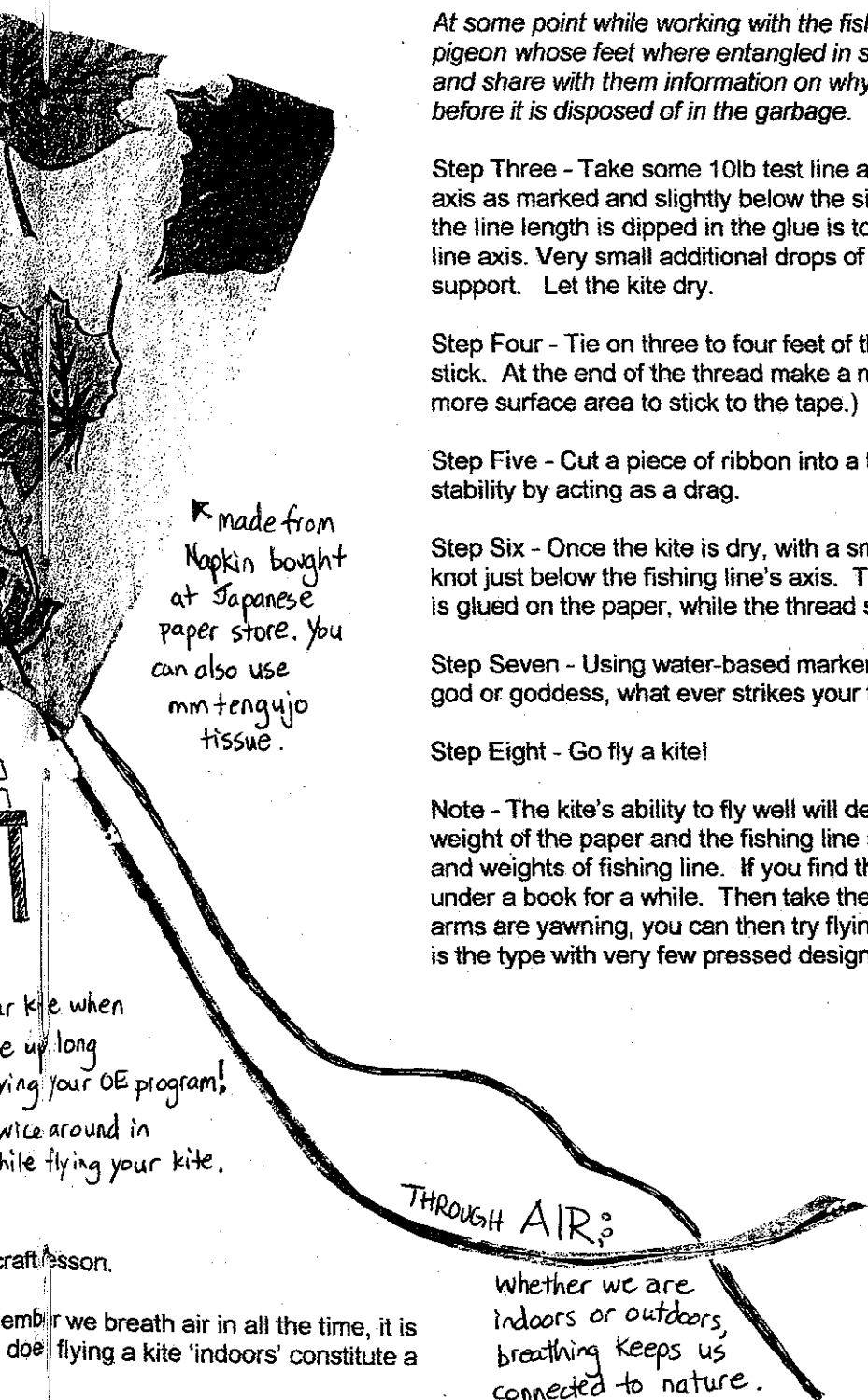
Step Five - Cut a piece of ribbon into a thin strip in order to create the kites tail and create flying stability by acting as a drag.

Step Six - Once the kite is dry, with a small piece of tape, attach the kite's tail and the messy knot just below the fishing line's axis. The tail can be taped onto the same side the fishing line is glued on the paper, while the thread should be attached to the opposite side.

Step Seven - Using water-based markers, draw a design: bird, clouds or a computer gargoyle, god or goddess, what ever strikes your fancy.

Step Eight - Go fly a kite!

Note - The kite's ability to fly well will depend upon a few factors like the match between the weight of the paper and the fishing line strength. If needed, just experiment with napkin types and weights of fishing line. If you find the fishing line curls a lot, then flatten the kite by placing it under a book for a while. Then take the flattened kite out and gently arch its side as if its side arms are yawning, you can then try flying it again. The best napkin paper to use for these kites is the type with very few pressed designs on it. It looks like a very thin layer of felt.



made from
Napkin bought
at Japanese
paper store. You
can also use
mm tengujo
tissue.

THROUGH AIR?

Whether we are
indoors or outdoors,
breathing keeps us
connected to nature.



An Interview with Dave Lyon

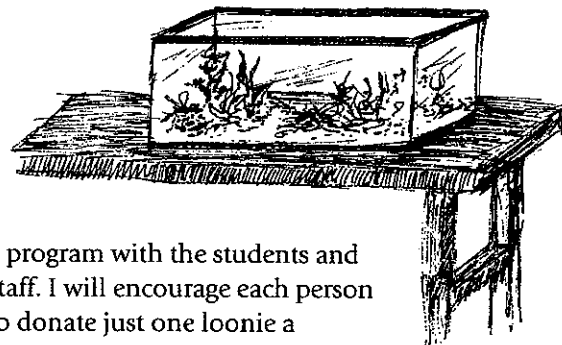
by Jillian Henderson

Dave Lyon has presence. He is the kind of person whom, when he enters a room, other people notice. Dave has been a treasured member of COEO since 1977.

I interviewed Dave in early June and found him to be not only candid and thoughtful, but also fun, which will come as no surprise to anyone who has known him for any time at all. Yes, "fun" is a word that fits well when describing Dave. COEO auctions, outdoor art workshops, composting sessions and comedy skits are just a few of the many activities Dave has lead over the years.

During his year in the Faculty of Education at the University of Western Ontario, Dave was introduced to COEO by his professor, Rod Bain. Dave already had shown a keen interest in outdoor education through his work as an ecology instructor, canoe trip leader, and managing director at summer camps. So to meet up with so many like-minded people at COEO made for an easy fit. COEO became an automatic link to what he already did. As a teacher, Dave moved through several situations, including residential, on-site OE Director at Hockley Valley contracted to the Etobicoke Board of Education, OE teacher and developer of the Dufferin County Board of Education day centre near Orangeville, and, more recently, classroom teacher at a K-8 school. While at the day centre, Dave initiated and built the Earthkeeper program. He explained, "My goal was to get the kids to understand the Earth using this comprehensive program."

In the early 1990s many school boards were slashing their budgets. As we all know, OE centres and staff were among the first to go. In 1994 Dave was returned to the classroom, but the centre he developed carries on. As much as possible, Dave integrates a love and understanding of the outdoors into his day-to-day activities. He says, "I fit OE into the curriculum whenever I can. I'm hoping to start



a program with the students and staff. I will encourage each person to donate just one loonie a month. With the money, we will buy large trees and plant them in our schoolyard. Eventually, if it's kept up, we'll have a small forest with lots of shade." Dave points out that he teaches the message of environmental responsibility, but to make it really count, he lives the message too.

I asked Dave how his involvement in COEO has added to his life. He answered, "In two ways . . . I get to learn more skills, and share them. And I get to be around the COEO people. There's something about people who are passionate about the environment. It's the idea of sharing our enjoyment of the earth and that it's not acceptable to destroy it. I've met many exciting, open people . . . [and] made some wonderful friendships."

Dave has many joyful memories of COEO events gone by. Some reflections that came to mind were "Camp Tawingo in the late 1970s, Bark Lake, guitar playing in candle lit canoes, Saturday night costume dances, Ian Tamblyn's music, many long talks, bonds with people, sleepless nights, and Monday mornings that come way too early."

Dave Lyon has given much since 1977. He continues to give workshops and to contribute through conference planning committees. The best part is he shares his sense of humour and generous attitude with us all. We are lucky to have him around.

Jillian Henderson sits on the editorial board of Pathways.

Plantwatch: Tracking Climate Change on the Internet

by Laura Frost

Spring is an exciting time for many people, as life reappears in all its glory. Birds return and sing their joyous tunes, insects come out to fly through the warm air, and young mammals are exploring the new and exciting world around them. And then there are the flowers. Oh, the glorious flowers! Many people await the blooming of the first white trillium and anticipate the beautiful scent of the lilac flowers. In gardens and natural areas, the plants bloom in a predictable sequence. As one plant species comes to the end of its blooming period, we can enjoy the beginning of another flower, ready to open its petals. We all notice the vivid colours and fragrant scents of flowers, but how many of us have noticed a trend towards their earlier flowering?

"Getting involved in the Plantwatch program is easy and fun! A person of any age can observe bloom times."

Springs are arriving sooner and flowers are blooming earlier. In Alberta, our wildflower survey has gathered bloom dates since 1987, and much previous data is available. In Edmonton, aspen poplar is blooming almost a month earlier than it did at the beginning of the century! This seems largely due to climate change, since winter and spring temperatures have risen over that period.

Who is tracking this change in bloom time? Volunteers and school classes across the globe! Thousands of people across Canada, the United States, and internationally are recording the dates that certain flowers bloom for different surveys and agencies. By August 14, 2001, 219 people had already reported 2001 dates to Plantwatch, our flowering survey that tracks bloom times for selected plant species.

These observers are from Canada, the United States, Japan and four European countries.

Plantwatch is a phenology program (phenology is the study of the seasonal timing of life cycle events), in which observers are the "eyes of science," tracking the green wave of spring moving north. Based at the University of Alberta's Devonian Botanic Garden, the program began in 1995. Registration, reporting and viewing of data is done on the Internet (www.devonian.ualberta.ca/pwatch).

The plants useful for spring phenology studies are perennial, spring-flowering, easy to identify and broadly distributed. They have a short bloom period and do not have confusing "look-alike" species or subspecies. The following are key indicator plants currently observed in Plantwatch:

1. common purple lilac – *Syringa vulgaris* (shrub; worldwide)
2. dandelion – *Taraxacum officinale* (herb; worldwide)
3. aspen poplar – *Populus tremuloides* (tree; across Canada)
4. prairie crocus – *Anemone patens* (herb; western prairies and north)
5. saskatoon, serviceberry – *Amelanchier* species (tall shrub; Canada-wide, but most common in west)
6. western trillium – *Trillium ovatum* (herb; western forest) (this species will be dropped from the list spring 2002)
7. white trillium – *Trillium grandiflorum* (herb; eastern deciduous forest – Ontario/Quebec)
8. purple saxifrage – *Saxifraga oppositifolia* (herb; arctic, alpine)
9. white dryad – *Dryas octopetala*/D. *integrifolia* (mat-forming low shrub; arctic and alpine tundra)
10. bearberry – *Arctostaphylos uva-ursi* (low shrub; across Canada)
11. bunchberry, crackerberry – *Cornus canadensis* (herb; boreal)

12. larch, tamarack – *Larix laricina* (tree; across Canada)
13. Labrador tea – *Rhododendron groenlandicum* (shrub; boreal)

Three other species will be added to the list for spring 2002:

1. red maple – *Acer rubrum* (tree; eastern Canada)
2. blue-bead lily, Clintonia – *Clintonia borealis* (herb; eastern deciduous forest)
3. wild strawberry – *Fragaria virginiana* / *F. vesca* (herb; across Canada)

Observers can report on just one species or many. Two of the plants are non-native. (A native plant is one that was present well before European settlement.) Lilac was selected because it is so widely distributed in urban and rural areas, and has a long history of use in phenology studies in North America and Europe. Dandelion is very common, easily recognized, and easy to observe.

Plantwatch was developed by Elisabeth Beaubien, who saw the potential of a wider-reaching program than the Alberta Wildflower Survey, which she also coordinates. She started the Alberta Wildflower Survey in 1987 as part of a Master's thesis in Botany, asking observers to report flowering dates for up to 15 native plants, by mail. This survey has attracted about 200 observers annually, and continues today. Beaubien came upon the idea for an additional program, Plantwatch, and selected plants that are useful across much of Canada. Plantwatch takes advantage of "real-time" reporting on the Internet.

Data collected from Plantwatch is used in many walks of life. The valuable seasonality information helps farmers and foresters to correctly time operations such as planting, fertilizing, crop protection and harvest. It is also useful in wildlife management (for example, in early springs more deer fawns are successful), human health (pollen warnings for allergy-sufferers) and tourism (best times to photograph flowers or animals, or to go fly-fishing).

Getting involved in the Plantwatch program is easy and fun! A person of any age can observe bloom times, and you do not have to know your plants to get involved.

You just need to learn to recognize the plant(s) you plan to observe. To register yourself or your class for Plantwatch, visit the Web site (www.devonian.ualberta.ca/pwatch) and click on the registration form. After filling out and submitting your form, you automatically receive a registration number. This

number is used when sending your location and

bloom dates. There is also a page, "Finding Your Location," to help you determine your latitude and longitude. The Web page has plant descriptions with full-colour photos and helpful hints on observing the plants. All data that comes in is posted weekly on tables and maps, and with each bloom date you submit you will have your name or class name posted on our Web site!

The federal government now considers plant phenology as a "core monitoring variable" for tracking climate change. The program is expanding, with Environment



Canada's Ecological Monitoring and Assessment Network (EMAN) playing a role in the development of the program. A coordinator for each province and territory in Canada has recently been added, and Elisabeth is now Canada's national coordinator. EMAN will host the new Plantwatch Web site starting spring 2002. At this new Web site, you will be able to click on your province or territory to connect you to a list of provincial or territorial surveys and plant species suitable to that area. Bloom dates submitted will be put into tables and on maps within minutes, for the observer to view. EMAN wishes to launch this expanded program in the Canadian Nature Federation magazine, *Nature Canada*, in spring 2002. It will be in a similar format to Frogwatch (www.cciw.ca/emanops/), which they launched in the spring of 1999.

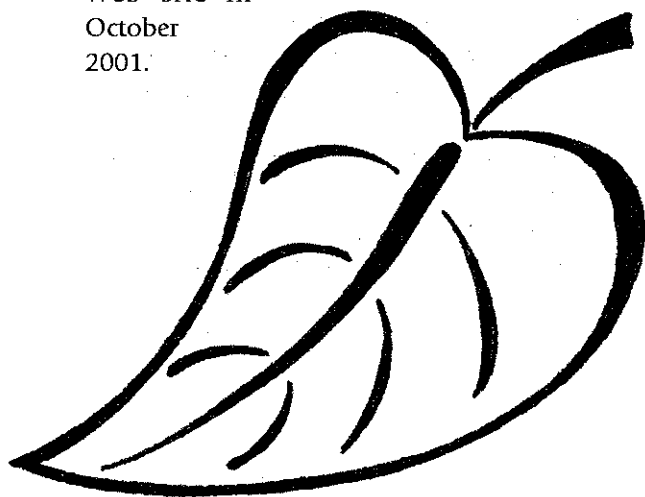
If you enjoy watching spring unfold, why not contribute to science by tracking a local plant? Get ready for next year's reporting by finding a Plantwatch species in your area and tagging the tree, shrub, or patch of plants for observation next spring. Check out our Web page and register for Plantwatch. If you prefer to report observations by mail, you may contact Laura or Elisabeth (contact information below).

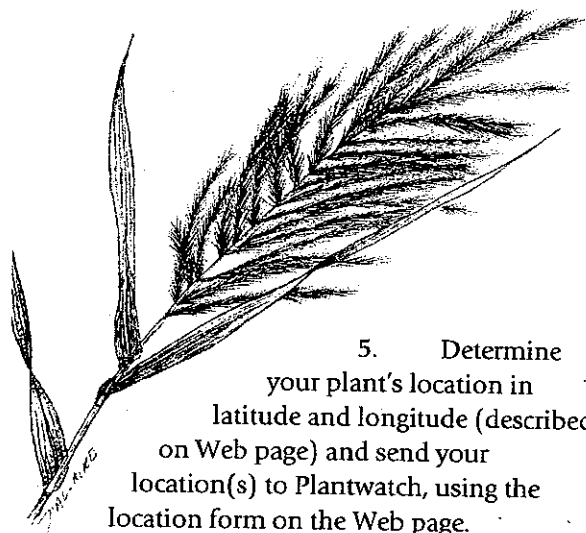
If you are a teacher interested in using Plantwatch in your classroom, see below for ideas on how to bring this program to your students. A Plantwatch Teacher Guide will be available on the Plantwatch Web site in October 2001.

"Observers are the 'eyes of science,' tracking the green wave of spring moving north."

How to Plantwatch with your School www.devonian.ualberta.ca/pwatch

1. In your first year of observation, it is recommended that schools select one species, and up to five individual plants per class (e.g., five poplars), and that the teacher guides the students and reports for the class. In following years, as the teacher gets more familiar with Plantwatch, more species can be selected for each class.
2. Select the plant(s) you are going to observe. (See the Web page for plant descriptions.) Ideally, your plant will be located in the schoolyard, or somewhere nearby. You may decide to purchase a lilac or saskatoon bush to plant in the school yard (more than 5 metres from a wall), or put a few species in a naturalized area of the school grounds. Note: If you are planning to observe poplar, make sure you have a male plant (see page 26 for ideas on how to determine the sex of your tree).
3. Once you know what plant(s) you are going to observe, tag them! Use plastic tags, flagging tape, metal tags, or anything else you can think of. For small herbaceous plants, such as prairie crocus, put a stake in the ground or mark the area with small rocks or sticks. Assign a number to each plant (e.g., saskatoon #1, poplar #3).
4. Register your class for Plantwatch by using the registration form on the Plantwatch Web page. Please register as a class, even if you are observing multiple plants.





5. Determine your plant's location in latitude and longitude (described on Web page) and send your location(s) to Plantwatch, using the location form on the Web page.

6. Check the "Archives" section of the Plantwatch Web page to see the approximate date that your species blooms in your area. Keep an eye on your plants a few weeks before this day approaches (keep in mind that this may be an early year, so start checking early!). Once buds swell and it looks like your plant may be doing something soon, check your plant every second or third day. Make quick notes on the weather each time you visit, whether or not the plant is blooming.

7. Record the date when your plant reaches first bloom, and send your date as soon as possible to Plantwatch using the data form on the Web page. Report to Plantwatch again when your plant reaches full bloom (for poplar, also record and send the date that the leaves on your tree are the size of a dime and the size of a quarter).

8. Check the Web page to see your school name and bloom dates, as well as a map including your observations! The new 2002 Web site will have instantaneous mapping!

How to Use Plantwatch in Your Classroom

Plantwatch is a great program to use for any grade because it is so flexible. All classes are asked to label their plant(s), find the

location of each plant, record the bloom dates, and send in the plant location(s) and bloom dates. Beyond this, your imagination is the limit. You may select specific activities from the Plantwatch Teacher's guide to use in your classroom, or create your own ways to teach your class about phenology (the timing of life cycle events; i.e., spring changes in plants). Whether you are a grade three teacher or a high school teacher, Plantwatch can be used in your classroom. Below are some ideas of how you can bring Plantwatch into your classroom every day.

Earlier grades

- Plant identification and observation can be simplified as much as possible:
 - the teacher selects the plant and describes it to the class
 - the students learn to recognize when a plant is not blooming vs. when it is in bloom, and to tell the difference between first bloom and full bloom
 - actual bloom dates can be recorded and reported by the teacher
- Clip a few poplar branches from different trees (make sure you know what branch came from what tree) and put them in water in the classroom, to see the tree and to see it bloom (see page 26 for more information on how to do this).
- Class work can range from reading the crocus story of Wapee (on Plantwatch Web page, under "prairie crocus") to doing simple math equations to determine an average bloom date within a specific month.
- A good phenology homework assignment can be to have students list five ways they know spring is on the way (e.g., snow melts, start wearing spring coat, birds and insects return, etc.)
- Give a lesson on ecology (the interaction of the plants with animals, water, sun, soil,

- etc.) and build a food chain, using saskatoon.
- See the Teacher's Guide (on Web page) for more ideas.

Older students

- Students learn to recognize the various Plantwatch species, as well as other native plants in the area. If you are up for a challenge, you can expand on the topic of ecology by having students learn to identify birds, frogs, etc. that live in the area. You can also give an ecology lecture and discuss ways that plants and animals all relate. Have the students build food webs and ecology webs.
- Clip a few poplar branches from different trees (make sure you know what branch came from what tree) and put them in water in the classroom, to see the tree and to see it bloom (see page 26 for more information on how to do this).
- Use scientific instruments to record environmental details for the observed plants: a clinometer to measure slope, a compass to measure aspect, etc. Have the students record these details in a logbook.
- Have the students do observations themselves, either during class-time or as homework. Have them record the day and time they observed, and report daily weather conditions. They can also draw sketches of the buds as they swell. The students can keep a logbook and later write up a report, complete with graphs and tables.
- Explore the effects of microclimates: Using a local park or ravine, tag saskatoons in different microclimates (e.g., on north-facing hill, south-facing hill, valley bottom, top of slope, etc.) or lilacs (next to south-facing wall, north-facing side of house, out in open, etc.). What sites have earlier blooming?
- Make a large chart to put up in the classroom with the calendar date on the bottom (x-axis) and the plant number along the side (y-axis). Each time a plant blooms, mark it on the chart. You can record bloom times on a map as well, and see what areas bloom earlier and what areas bloom later. Study the environmental details of these different areas and determine why some plants of the same species bloom earlier or later than other plants.

For more information on Plantwatch or the Alberta Wildflower Survey, contact:

Elisabeth Beaubien
Devonian Botanic Garden
University of Alberta
Edmonton, Alberta T6G 2E1
Email: e.beaubien@ualberta.ca

Laura Frost
Plantwatch Assistant
Email: plant@ualberta.ca

Phone: 780-987-5455
Fax: 780-987-4141
Web site: www.devonian.ualberta.ca/pwatch

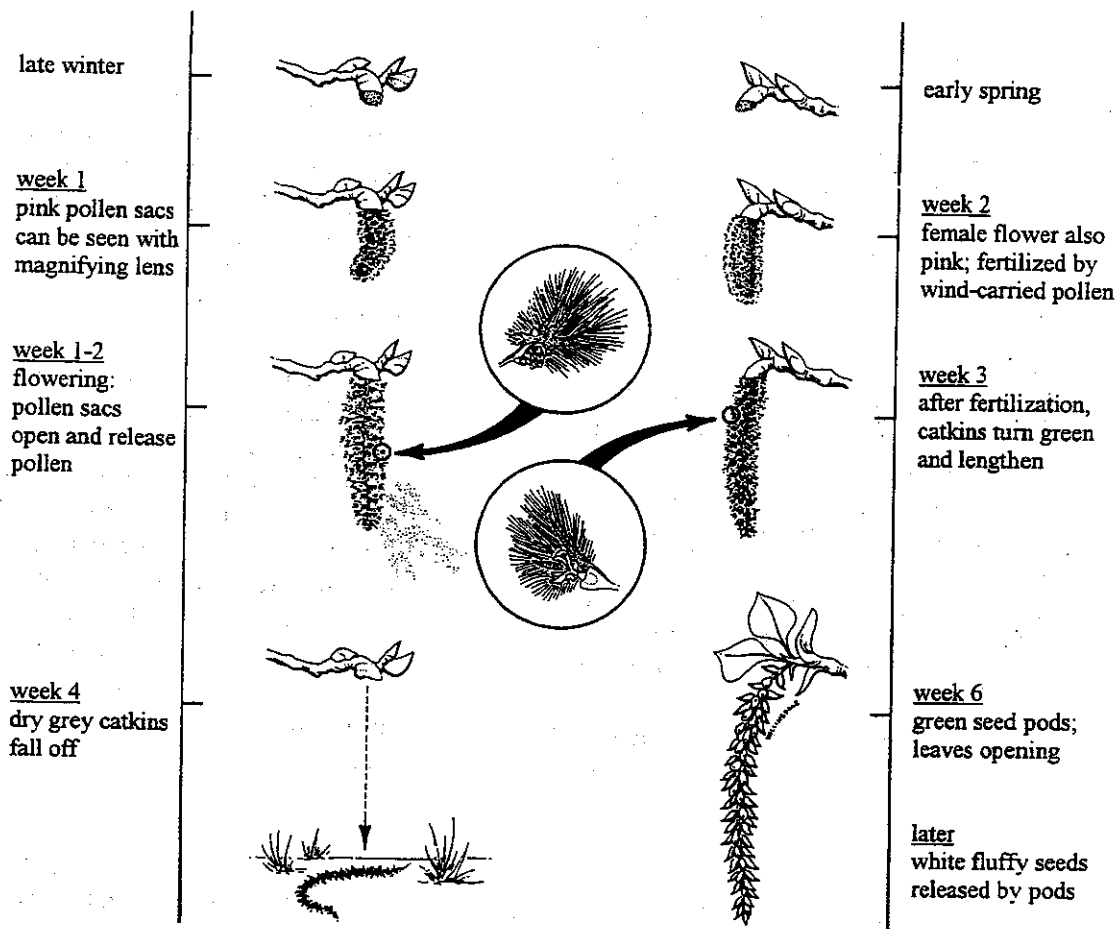
Aspen Poplar — *Populus tremuloides* Catkin development

REPORT ON THESE ONLY!

DO NOT REPORT ON FEMALE TREES

MALE TREE

FEMALE TREE



Poplars are tricky; it is important to know the difference between male and female trees. Only flowering of male trees should be recorded, and these sketches will help identify them.

Here's a great suggestion from the McKinstrys in Oyen, Alberta: in early spring, bring a small branch from your poplar tree (label twigs with tape if from different trees) into the house and set in a jar of water. Soon the gray tufts (catkins) get longer, turning pinkish. If the branch is from a male tree the catkins then turn pale yellow as they shed a yellow powder (pollen) at the slightest touch. (Place a dark paper or cloth under jar.) Female catkins do not have pollen. Outdoors, the wind quickly blows pollen away, so try this to be sure of your tree. Note: if the catkins on your outdoor tree eventually turn green, the tree is female, and the search for male trees continues!

Please record leaf size as well!!

Record the date when the largest unfurled leaf is the size of a dime, and later the size of a quarter.

Well Planned Spontaneity: Some Tips for Conducting Guided Walks

by Brad Tucker

When the guide finished speaking the group looked around at each other hesitantly. Each member of the tour group was now armed with a pencil and a small pad of paper. Slowly they paired up, greeting each other with the awkwardness that inevitably comes with the excitement of meeting new people. As one looks around for a small object — a rock or twig — the other finds a place for them to sit. Back to back, the two strangers lower themselves to the dirt trail. One begins to describe the object as the other translates the words into a simple drawing. As they communicate they find themselves in contact, physically and emotionally. The simple activity has engaged and captivated these two strangers, connecting them to each other and the natural environment in which they find themselves. The guide calls them back together, and after laughter and conversation they move as a group to their next stop.

Simple experiential activities like the one described above are both fun and educational for the participants, and simple for the guide to facilitate. When done well, a guided walk will take on a seamless character; the participants and tour leader will appear to move through the experience like fellow explorers in a new world. Ironically, the spontaneous learning that occurs in a successful guided hike is best achieved through careful program planning.

Some general guidelines can help ensure a successful guided walk. For the purposes of this article we refer to guided walks that are non-strenuous, relatively short in duration (one to three hours) and primarily educational rather than adventure-based.

For these types of guided hikes a central theme is essential. A theme is a statement that includes both the topic and the parameters by



which the topic is narrowed. The theme provides focus and continuity to the program. For example, the topic may be wildflowers, but the program planner must decide if they are going to talk about aboriginal uses of wildflowers, flower identification, or flower pollination. Although all sorts of information can be included in each of these themes, the central theme provides a common point of reference to which all the information will connect. The theme is the backbone of the program.

Once a theme is established the planner will begin to build the story that will become their program. Like a story, the beginning must set the stage, the middle must develop the story, and the end must provide resolution and closure. Introductions, transitions, and conclusions are therefore of the outmost

importance, as they are the fabric that will connect the various program parts.

When planning and conducting a guided hike the following tips may be useful. This is by no means an exhaustive list, and, like any good interpretation, the interpreter's approach will vary according to personal style, the audience and the circumstances.

Pre-hike:

1. Advertise to the public or otherwise make arrangements for the group to meet.
2. Ensure you are properly equipped, keeping in mind your and your group's safety and comfort. As a minimum I would suggest carrying a first-aid kit, water and an emergency plan. You may also want to have guide books, brochures, graphics and props.
3. Walk your trail during the planning process, and, if possible, immediately before the scheduled event. This will allow you to assess hazards and observe current trail conditions.
4. Be at the meeting place well in advance, and allow for a comfortable, safe area for people to congregate.
5. Casually interact with visitors, or provide a loosely structured activity for them in order to break the ice.
6. Ensure people are properly equipped for the walk (e.g., proper footwear and clothing, children are supervised, etc.).

Introduction: This is the most important part of your program. Write out exactly what you will say and memorize it, if necessary. This is your chance to establish a positive tone for the experience, capture your audience's attention, and demonstrate that you are confident and competent.

1. Introduce yourself and your agency.
2. Clearly state your topic and/or introduce your topic and theme in an intriguing way.
3. Give an overview of the hike (describe what to expect).
4. State estimated walking time and distance.

5. Warn visitors of hazards.
6. Establish any rules or expectations.
7. Encourage participation.

Stops: Using a variety of activities and presentation styles is most effective. For a 60- to 90-minute walk, plan no more than five or six stops, not including the introduction and conclusion. The amount of time that you as the guide spend talking should be balanced with activities and exploration.

1. Allow time for the group to assemble.
2. Ensure you can be seen and heard by the entire group. You may need to alter your location or ask the group to stand in a certain place. Ensure there are no barriers to communication (e.g., sunglasses, distractions, etc.).
3. Use local features that relate to your information. Be familiar with the natural features of the trail and expect to be asked about them.
4. Build information up, starting with basics. You may keep things simple while still providing "nuggets" of more advanced information.
5. Use games, activities, challenges, legends, personal anecdotes, demonstrations, or sensory activities.
6. Account for the presence of children (this is a topic for another article).
7. Do not overwhelm visitors with jargon or rhetoric.
8. Encourage questions and discussion.
9. Allow for spontaneous teachable moments.
10. Model proper behaviour (e.g., pick up trash, do not pick plants — use fallen parts instead, etc.).

Transitions: These help to connect your stops and are often related to theme.

1. If possible, use a "hook" that alludes to the next stop. This may be asking a thought-provoking question or setting up what will be seen next.

2. Allow time for casual interaction and observations along the way.
3. Do not allow yourself to be monopolized by any one visitor.
4. Use a group "reversal" technique to re-order your visitors. This puts the "keeners" in the back for a while and gets the stragglers up in front.
5. Ensure visitors are staying with the group and on the trail.

Conclusion: How many of us have heard a fantastic talk end with "Well, that's all I had to say today"? A good conclusion will tie together everything you have talked about. Like the introduction, it should be carefully planned. Do not allow the group to disperse before a proper conclusion has been given.

1. Give a clear ending to the event. This sense of closure is very important.
2. Address visitor questions, if appropriate. Unfortunately, some questions may remain unresolved.
3. Connect the theme back to the lives of the group. This is an opportunity to address the relevance and importance of the topic. You may also address the question, "Where can we go from here?"
4. Facilitate or suggest further learning and promote related events.
5. Provide additional information if requested.

It would seem that the leader of a guided hike has many things to keep in mind. Ultimately the leader is responsible for the safety and enjoyment of the participants. The success of the program is in their hands. If they are well organized and have good communication skills, most of the planning will be invisible to the participant, and a natural unfolding of the experience will be possible. A well planned guided walk will provide the safe context within which spontaneous teachable moments can occur.



As an educational experience, the guided walk has some amazing advantages. It provides a safe exploration of the environment, and firsthand sensory experiences. The casual tone and direct interaction between visitors and the interpreter are also nice features. Most importantly, by their nature, guided walks provide direct contact with the resource, and thus create a real connection between the participant and the heritage resource we wish to share and preserve.

Brad Tucker is a heritage interpreter, certified teacher, environmental educator, and interpretive trainer. Brad is an executive member of Interpretation Canada (www.interpcan.ca) and has instructed a college course in heritage interpretation. Brad can be reached at tuckerb@telusplanet.net.

Exploring Fall

In small groups, look for signs of fall. Use your senses to explore. Don't worry if you don't see everything listed here! Please don't pick any plants.

Exploring Fall is an example of how an interpreter can provide structure to the discovery process. This simple list is meant to be used by families or groups of students, and provides suggestions for observing the signs of fall.

Look for . . .

Frost in shady places

Dry leaves

Dry berries

Buds on trees

Wet leaves on the ground

Cones (check for piles of open spruce cones and also look for closed pine cones)

Insects (you may not see many)

Grass changing from green to brown

Birds flying or feeding

Dry seeds on stalks

Animal tracks

Ice on the pond or puddle

Green needles on evergreen trees

Yellow needles on trees

Fluff balls (like dandelions or clematis)

Moss or lichen

Try to . . .

Feel if it is cold

Crunch them, listen and feel

Count the number on a branch

Feel them gently

Smell them

Guess who opens up spruce cones (squirrels)

Guess where they have all gone (died or in hibernation; some butterflies even migrate south!)

Guess what will happen to the grass in the spring (it will turn green again)

Guess where are they headed and what they are getting ready for (migration)

Shake them gently and listen

Guess who made it

Determine whether the pond will freeze over this winter

Answer whether they will turn yellow and fall off or stay green all winter

Explain "some needles do die, but not usually all at once"

Blow on them to send the seeds flying

Look — Is it turning brown and dying?

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Games & Initiatives Workshop	Feb. 9	Hamilton
Assistant Ropes Course Instructor	Oct. 12-15	Cambridge
Ropes Course Instructor	Oct. 19-22	Cambridge
Combined Ropes Course Assist/Instructor	Feb 18-24	Guelph
Advanced Ropes Course Rescue Seminar	Nov 9-11	Guelph
Rigging for Rescue™	Nov 18-24	Ancaster
Wilderness First Responder (72hrs)	Dec 1-9	Guelph
Wilderness First Responder (72 hrs)	Feb 16-24	Guelph

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Canoe University: Report of the Inaugural Summer Institute for Teachers at the Canadian Canoe Museum

by Bryan Poirier

"The world would be a better place if everyone would just get in a canoe . . . or, better yet, a class set of them!"

"What's important is that our colleagues not only realize that students need outdoor experiences, but that they do too."

— Summer Institute Participants, 2001

The canoe symbolizes different things to different people. For some, it is little more than a small tippy boat, open on the top and pointed at both ends. For others, it holds a deeper, more personal meaning, perhaps evoking memories of a remote wilderness river, or of a lazy August afternoon at the family cottage. Canoeing literature has gone as far as to identify the canoe as the national symbol of Canada (Jennings, 1999), and the vessel wherein love-struck couples can prove themselves truly Canadian (Burton in Hodgins, 1988). One thing that is clear is that people's interactions with the canoe are widely diverse, whether coming from a lifetime of paddling or a simple glimpse of a billboard advertisement on the Gardiner Expressway (Raffan, 2001).

With an aim to celebrate this diversity, the Canadian Canoe Museum welcomed teachers from various Ontario school boards to come together during the third week of August to share their canoe experiences and stories as part of the first ever Canoe Museum Summer Institute, a five-day professional development opportunity.

The first three days of the week were filled with workshops on topics including the Canoe Museum's new experiential education programs, paddle carving, kayak building with students, storytelling, canoe trip packing, and, of course, paddling theory and technique (resulting in ORCA Lakewater 1 certification). The final two days of the week were spent on an overnight canoe trip on Kawartha's beautiful Wolf and Crab lakes, exploring topics

ranging from watercolour painting, to reflective journaling, to baking with a reflector oven, to solo canoeing technique.

Group members included teachers from Hastings and Prince Edward County District School Board, Trillium Lakeland District School Board, Peterborough Victoria Northumberland and Clarington Catholic District School Board, as well as members of the Canoe Museum's new education staff.

Other than a few aches and pains from bodies learning and re-learning the joys of solo paddling, group morale was very high and enthusiasm infectious. All agreed that spending time with a group of educators who were passionate about taking their students into the outdoors was an energizing way to make the transition back into the classroom.

Congratulations to the first convocating class of Canoe University. We look forward to strengthening the new partnerships forged as we collaboratively explore new ways to integrate canoes into the curriculum. Special thanks to the Ontario Recreational Canoeing Association and Wild Rock Outfitters for their support.

Bryan Poirier is the certified teacher at the Canadian Canoe Museum and an ORCA Canoeing Instructor. For more information on future Summer Institutes or museum education programs, you can reach him by phone at (705) 748-9153 or by e-mail at gone_paddling@hotmail.com.

Tools for Telling Tales: Wonderful Works for Story Seekers

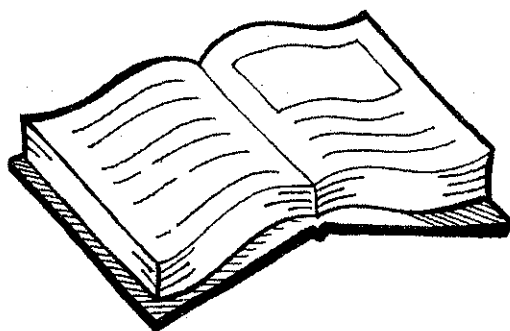
by Adam S. Guzkowski

The thrill of a tantalizing tale can add magic and wonder to any teaching moment. While it can be incredibly satisfying to make up engaging stories for students' delight and learning, at times such spontaneous storytelling can be taxing on the imagination. Below you will find five books of my favourite stories, which keep my head filled with fantastic visions. Just remember, if telling someone else's stories, give credit where credit is due; by doing so, students will always know where they can go to look for more stories!

**The Dreamer Awakes by Alice Kane,
published in 1995 by Broadview Press.**

This is a treasure trove of the oldest and best stories, compiled by one of the true grand dames of storytelling. This splendid work contains classics of the tale-spinning world, including the Chinese legend "The Peach-Blossom Forest," which in its original form was a utopian essay written by the poet Tao Yuanming in the early 400s, and "The Woman of the Sea," a bittersweet Celtic tale of being torn between two worlds.

The stories are framed between a thoughtful and inspiring introduction by Robert Bringhurst and a beautiful epilogue by Alice Kane, which serves to illustrate the role that storytelling plays in making life magical. Also included are notes on the history and cultural context of the stories, written by Sean Kane, nephew of the author and professor of Cultural Studies at Trent University.



**Sanctuary: A Tale of Life in the Woods by Paul Monette,
published in 1997 by Scribner.**

This book is actually a single fable, telling of the events surrounding a spell cast on a tract of forest, and of the romance between Renarda the Fox and Lapine the Rabbit, two female denizens of that forest. It is a tale that cautions about the extremes that oppressive regimes will go to, and revels in the power of love and hope to conquer all evils.

Adorned with hauntingly beautiful illustrations by Vivienne Flesher, this is a book that above all teaches the need to celebrate and protect both other beings and the environment. It is a story that encapsulates my reasons for teaching and working with youth, and for loving and thriving in the outdoors.

This book was actually published posthumously, following Paul Monette's death in 1995. Monette was a novelist, poet, essayist, and AIDS activist. He garnered several awards for his work, particularly for his two non-fiction works, Borrowed Time, an account of his lover's battle with AIDS, and Becoming a Man, a memoir of growing up and coming out.

Folk Tales and Fables of the World by Barbara Hayes, published in 1987 by David Bateman Ltd.

If you are seeking a collection that truly spans the globe, this book of stories is one of the very best. The tales are a seemingly endless delight of fare from around the world, subdivided into selections from Europe, the Middle East, Africa, Asia, Australasia, and the Americas.

With almost seventy stories in total, this tome is also one of the richest compilations available, made even richer by the wondrous illustrations of Robert Ingpen. This enchanting work by Barbara Hayes is incredibly difficult to put down, and is sure to fascinate readers and listeners, young and old.

Old Peter's Russian Tales by Arthur Ransome, republished in 1974 by Puffin Books.

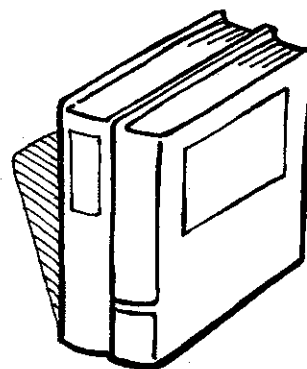
Originally published in 1916, this collection of folktales captures the strength and spirit of Eastern Europe. The work has an interesting history, as Ransome compiled it during a sojourn in Russia, while he was escaping the headlines of a court case in England. His unauthorized biography of Oscar Wilde, published only twelve years after Wilde's death, provoked a libel suit that generated far too much publicity for Arthur Ransome.

Nevertheless, the trip clearly proved to be worthwhile, as this book contains stories that both amuse and delight. Even the simplest of tales, such as "Salt" or "Frost," communicate the incredible physical and cultural fortitude of a people faced with harsh living in a climate similar to our own in its capricious variability.

Next Teller: A Book of Canadian Storytelling by Dan Yashinsky, published in 1994 by Ragweed Press.

Dan Yashinsky's compilation of stories is a veritable cornucopia of the storytelling talent to be found from sea to shining sea. Two of my most favourite tales, "The Curious Girl" and "Boy," can be found in the pages of this book. The former story celebrates the inquisitiveness and enthusiasm of youth, while the latter is a story about a boy whose mischief is only outdone by his cleverness.

A resident of Toronto, Dan Yashinsky edited the collection Tales for an Unknown City, and wrote The Storyteller at Fault. He also founded the Toronto Festival of Storytelling, which annually draws people from around the world to a full week of tales and events. Following a similar path, the diversity of stories in Next Teller manages to capture the essence of the multicultural mosaic of Canada.



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.

A Rallying Cry

by David J. Hawke

Have we trained our armies too late? Battles are being lost, almost weekly it seems, against the advancing enemy. The name of the war is Environmental Protection, and the battles are being fought in council chambers and at Ontario Municipal Board (OMB) hearings.

But who fights for the environment? It seems that the front line consists of octogenarians who love bird watching, retired engineers who think they have a theory about hydro-geology, and the occasional tree hugging, crystal clutching eco-freak. Where are all the students who received that quality outdoor education program that you and I provided them? Are they still in school? Too young to vote? Busy with other things? Probably.

I'm being a bit facetious here (but not by much). Collectively, we outdoor educators have touched hundreds of thousands of students with our messages and stories about ecology and stewardship. But have our energies and messages been aimed at the right target? Grade 4 students are not known for attending and participating in council meetings.

I feel that it is the adults of the world we should be communicating to, expressing our environment concerns and soliciting their understanding and support. Moms and Dads, vote today. Moms and Dads, speak up at meetings today. Parents and grandparents carry a lot more weight than a sweet lil' child reciting pollution statistics as part of a science fair project. But of course, most Moms and Dads don't have a clue about how the natural world works. And, without that appreciation, no action will be forthcoming.

So how does one "educate" an adult? If you invite them they probably won't come. If you push and shove the information on them they will shrug it off and run away. So we have to be cunning, get to them when and where they least expect it — and that's while they are on vacation!

Our secret weapon is called "eco-tourism." That code name can change from time to time, but the intent is always there: educate through entertainment. Make 'em laugh, give 'em a challenge, entertain them — and hit 'em with some good facts about what we have, how important it is, how we're losing it, and what they can do about it. Surprise! Mom and Dad just got a bit of education while being guided on a hike, or being lead on a canoe trip.

Resorts and other vacation destinations are slowly but steadily luring unsuspecting adults into the web of ecology. Not that the establishments are doing this knowingly, but we have to take advantage of the situation.

Okay, so maybe it's not a fool-proof plan. But it's a start. For five years I've been in the resort industry, and with almost 20 years prior to that spent at outdoor education centres, I am finally experiencing feedback from adults that indicates they are listening, that they do care, and that they do want to help. The "lesson plans" I present on a guided hike for 12 adults is exactly the same as the one I used to offer to 25 Grade 6 students.



Jazz up the words a bit to adult lingo (and yes, a sexy innuendo helps at times) and next thing you know, people are nodding and thinking and reflecting . . . and maybe gaining the courage and knowledge to speak out.

But do not, even for a moment, neglect our students, our children. They are the reserves, the ones who will have to pick up and carry the standard forward tomorrow. But today is right now, and right now is when we need to thwart the poorly thought out plans of some powerful developers. In an adult world, adults need to speak.

Our current provincial government claims, "Ontario is open for business." To move forward with this glorious sounding yet stupid idea, they had to eliminate the nay-sayers. And

so environment education has been all but eliminated. If they're going to cut down the trees for profit, the last thing they need is a bunch of environmentally aware kids standing in front of bulldozers and chainsaws.

The adults need to rally back — NOW. The voters need to be made aware — NOW. Parents need to protect their children's future — NOW. And to do that, they need to be educated — NOW.

See ya on the front line!

Dave Hawke has been a COEO member since 1989. He is currently enjoying the challenges as the Parklands Manager at Muskoka Sands Resort where he plans the outdoors program and builds trails on 1200 acres for the resort guests.

T racking

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- Mr. Brian Keating is Head, Conservation Outreach Program at the Calgary Zoo. He has been very active in educational programming worldwide and is committed to conservation and education initiatives. For more information about Brian and programs at the Calgary Zoo, visit www.Calgaryzoo.ab.ca.

For more information and to register, contact Sir Sandford Fleming College, PO Box 839, Haliburton, ON K0M 1S0; Phone: 705-457-1680; Fax: 705-457-2255.