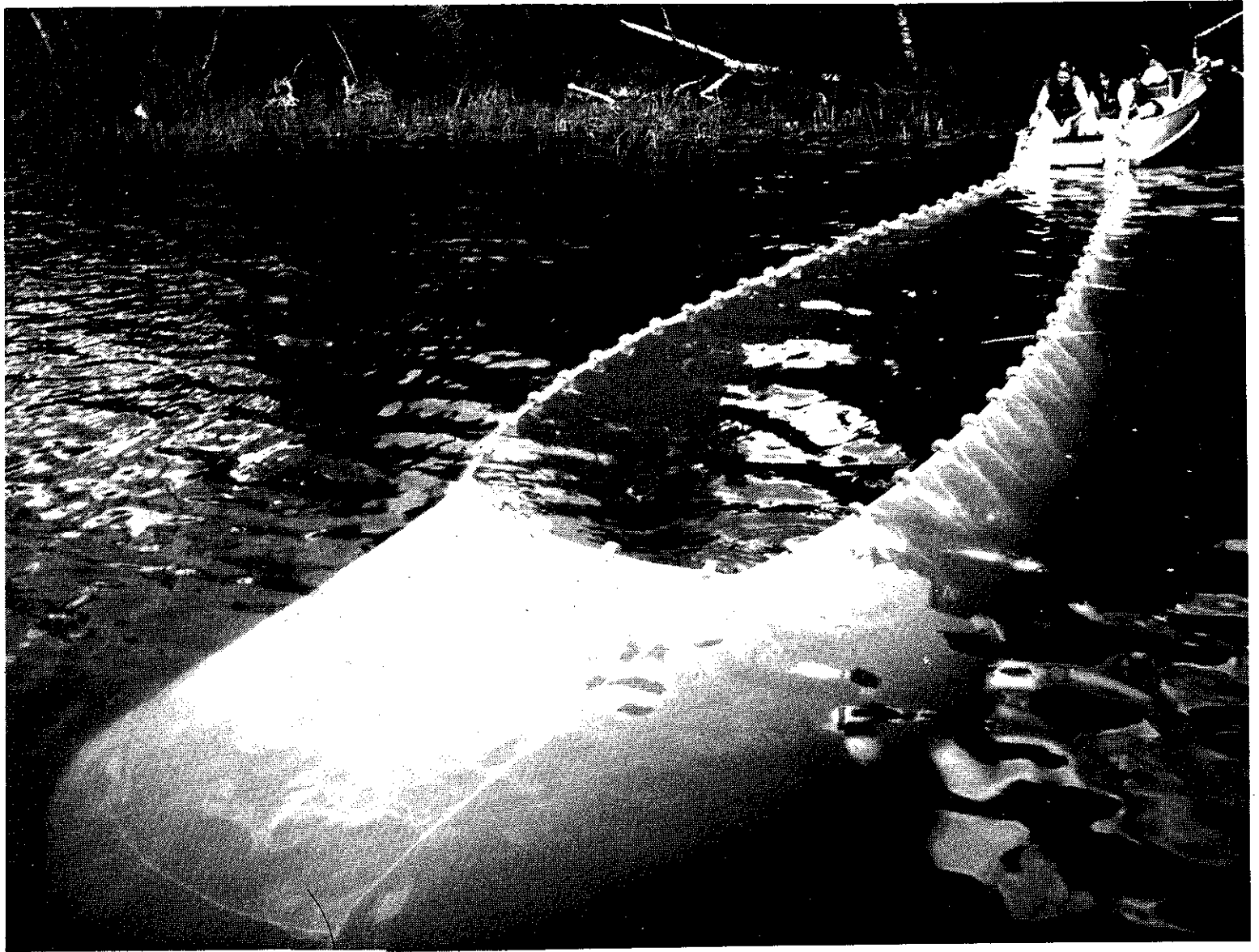


ANEE NEWS-JOURNAL



Fisheries Education

Volume 17, Number 1

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The Council Of Outdoor Educators Of Ontario

The Council Of Outdoor Educators Of Ontario

The Advisory Board

President

Cathy Beach
Peterborough County
Board of Education.
P.O.Box 719
Peterborough, Ont
K9J 7A1

Vice President

Dennis Wendland
516 B Rosemeadow Cr.
Waterloo, Ontario,
N2J 3Z5
(B) 519 885-2033

Past President

John H. Aikman
47 Rama Court,
Hamilton, Ont.,
L8W2B3
(H) 416 383-5696
(B) 416 527-5092
ext 374

Treasurer

Grant Linney
Box 473
Bolton, Ontario,
L0P 1A0
(H) 416 857-6268
(B) 416 453-3552

Corresponding Secretary

Barbara Fogle
1669 Southview Dr.
Sudbury, Ont.,
P3E 2L9
(H) 705 522-2536
(B) 705 858-3501

Task Force

Mike Townsend
Box 4245 Stn D,
Hamilton, Ont.,
L8V 4L6
(H) 416 388-8737
(B) 416 525-2930
ext 220

Task Force

Bruce Hood
R.R. #1
Orangeville, Ontario,
L9W2Y8
(H) 519 941-0678

Regional Representatives

Western

Kevin Ferguson
R.R.#1
Union, Ont., N0L 2L0
(H) 519 782-4091
(B) 519 773-5196

Northern

Susan Devaux
C/O N.B.M.C.A.
Box 1215
North Bay, Ont. P1B 8K4
(H) 705 474-5420
(B) 705 892-2252

Far Northern

Lori Jarvis
R.R.#3
Thunder Bay, Ont.,
P7C 4V2
(H) 807 939-6053
(B) 807345-0122

Rick Battison
722 Princess Ave.,
London, Ont., N5W 3M3
(H) 519 439-7105
(B) 519 7739037

Central

Mark Whitcombe
34 Blind Line
Orangeville, Ont.,
L9W 3A5
(H) 519 941-9966
(B) 705 892-2252

Eastern

Carmel Hunt
6 Mowat St.,
Gloucester, Ont.,
K1J 6R2
(H) 613 745-6947
(B) 613 746-0091

Grant Vipond
#1-78 Wembley Dr.,
Sudbury, Ont.,
P3E 1M8
(H) 705 673-6165
(B) 705 674-5249

Ad Hoc Members

Membership Co-ordinator

John H. Aikman
47 Rama Court,
Hamilton, Ont., L8W2B3
(H) 416 383-5696
(B) 416 527-5092
ext 374

Ance

Dennis Hitchmough
23 Cudham Dr.,
Scarborough, Ont.,
M1S 3J5
(H) 416 297-6024
(B) 416 755-5791

Professional Development

Lloyd Fraser
156 Shaughnessy Blvd.,
Willowdale, Ont.
M2J 1J8
(H) 416 493-2944
(B) 416 225-4661

Fisheries Education

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Editor: Dennis Hitchmough

Cover: Ministry of Natural Resources

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Message from the President

COEO Trivia Quiz:

- 1) What is COEO's main purpose or goal?
 - a) humour the Ministry into establishing branch offices in wilderness outposts throughout Ontario.
 - b) around-the-world tours by canoe, dogsled, riksha and hot-air balloon.
 - c) preservation of the rare postmeridian slumeren.
 - d) the promotion and development of Outdoor Education programmes throughout Ontario.
- 2) What do COEO members ALL have in common?
 - a) COEO T-shirts, catalogues and mugs.
 - b) Patagonia, Varnets, Lycra shorts and Danner Boot Goop.
 - c) an interest in Outdoor Education activities and programmes.
- 3) What kind of organization is COEO?
 - a) volunteer
 - b) non-profit
 - c) educational
 - d) charitable
 - e) all of the above
- 4) How would you characterize COEO these days?
 - a) "Crying in the rain..."
 - b) "Yesterday, all my Troubles seemed so far away..."
 - c) "Any day now, any day now..."
 - d) "I can see clearly now, the pain is gone..."
 - e) "To dream the impossible dream..."
 - f) your choice.
- 5) Which of the following has COEO not done to achieve its goals for you this year?
 - a) ANEE - 6 issues of news and journal items
 - b) High quality & successful Annual conferences
 - c) Workshops open to all members
 - d) Stronger regional organizations - especially Northern, Far Northern, Eastern, Western and Central
 - e) Graduate level courses offered - NIU Brock
 - f) Catalogue of Program, Personnel...updated and published
 - g) Computerization of Services - ANEE, Membership, Communications
 - h) Reinstatement of official Charitable Status
 - i) Fund-raising: Bateman Lottery
 - j) Volunteer Management Seminar for leaders within COEO
 - k) Merchandising Committee and Mail Order system established
 - l) COEO representation on Ministry of Education Committees (Science Curriculum and Safety Guidelines)
 - m) Organization of Correspondence and Archival Materials
 - n) Continued pursuit of Ontario Outdoor Education Graduate level Program
 - o) Communications work - membership package, slide show, display
 - p) On-going Advisory Board work
 - q) miscellaneous

THE ANSWERS: Need you ask?

The past year is already another in COEO's history. But what will make it stand unique against all the rest?

This is the year we computerized, the year Grant Linney put us firmly back on the Charitable Status and Corporation track, the year the CPPSS Catalogue was revised and republished, the year of the Volunteer Management Workshop, the year John Aikman helped COEO finally make it to 2 committee tables of the Ministry of Education...

But it was also the year that we had to seriously review and revise our annual/financial plan, where we had some hard decisions to make and we had to swallow some dreams and put plans on hold. This was the year we had to look at our growth, and our limited resources... Change and growth and progress have their price to pay!

If you want COEO to continue to grow, to increase its service to members and the Outdoor Education community at large, COEO needs your involvement and your support.

"A Volunteer Organization is only as Strong as its Volunteers."

Please Volunteer!

There are a number of people within COEO who have provided outstanding leadership over the past few years, and who are officially retiring their posts this year:

Bruce Hood	Task Force, Advisory Board
Carmel Hunt	Eastern Rep., Advisory Board, Conference Chair '88
Grant Linney	COEO Treasurer, Advisory Board
Grant Vipond	Far Northern Rep., Advisory Board
Mark Whitcombe	Central Region Rep., Advisory Board
Rick Battson	Western Co-Rep., Advisory Board
Sue Brown	Central Region Chairperson

To these people, on behalf of the entire organization may I express our most sincere Thanks, and Congratulations on a job well done. The hours and hours of hard work, the snowstorm drives the late-night calls, the letters, the strain of the hard times and the laughter of the good - none of these have gone unnoticed. You are the spirit of COEO and you have helped make it what it is today. Thank-you.

To those people still continuing their involvement in the many aspects of COEO's life, and to those about to begin, thank-you. Your efforts on behalf of COEO and Outdoor Education through-out Ontario bring many benefits to children and adults, and the outdoors we value so much. We wish you the best in the coming year.

To the members at large, may all your outdoor education dreams come true, and if you get the chance,

**Ask not, what is COEO doing for YOU?
but, what could YOU be doing for COEO??**

What's Happening in Far Northern Region?

What's Project Adventure?

Project Adventure began in 1971 as a federally funded program to integrate the goals and techniques of Outward Bound into a public school setting. The basic premise of adventure education is that learning involves risk. This risk may be physical, social, emotional, intellectual, or spiritual in nature. Adventure education, which includes initiatives tasks, trust activities and cooperative/competitive games, helps participants build group trust and cooperation while dealing with the process of risk. Project Adventure is a nationally validated program of the National Diffusion Network.

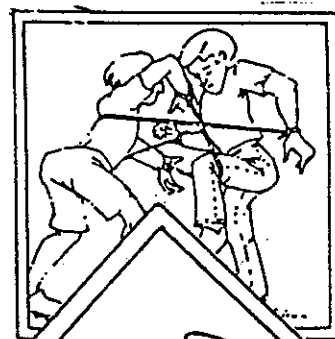


Who's Karl Rohnke?

Karl Rohnke, Executive Director of Project Adventure, inc. is a pioneer and leader of adventure education philosophy. A former elementary classroom teacher and Outward Bound Chief Instructor, Rohnke has been with Project Adventure for 13 years, creating teaching and compiling Project Adventure activities. Silver Bullets is the title of his fourth book on the subject.

Why a Silver Bullets Workshop?

Due to the popularity of Silver Bullets, Rohnke developed an outrageously fun and productive one-day workshop based on the activities of the book. If you need a rationale to attend the workshop, presenting the games and initiatives of Silver Bullets is much easier and more effective after one has experienced them in person. So if you need new activities to rejuvenate your program and yourself, Silver Bullets is for you!



When where how?

In Timmins-->

Thursday, October 22, 1987 9-4:30 Sacre Couer School

In Sudbury-->

Friday, October 23, 1987 9-4:30 Location to be determined.

In Thunder Bay-->

Saturday, October 24, 1987 9-4:30 Location to be determined.

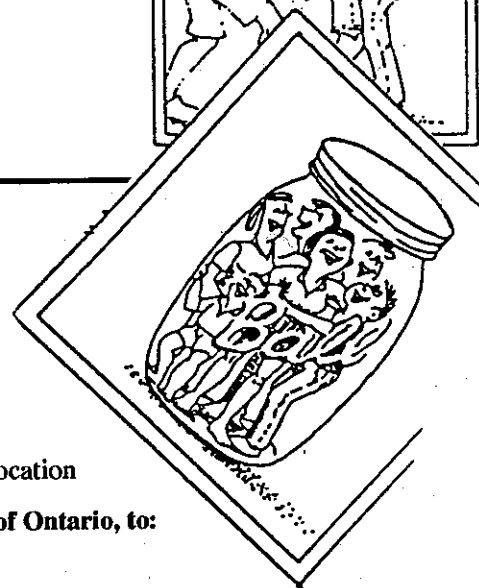
\$30 per person (lunch included) Register by mail, space limited to 25 people at each location

Send cheque or money order for \$30, payable to The Council of Outdoor Educators of Ontario, to:

In Timmins and area mail to: Michelle Guilmotte, 156 Carlin, Timmins, P4N 4K9

In Sudbury and area mail to: Shel Lowe, 400 Howey Dr., Sudbury, P3B 4V2

In Thunder Bay and area mail to: Lori Jarvis, R.R.#3, Thunder Bay, P7C 4V2

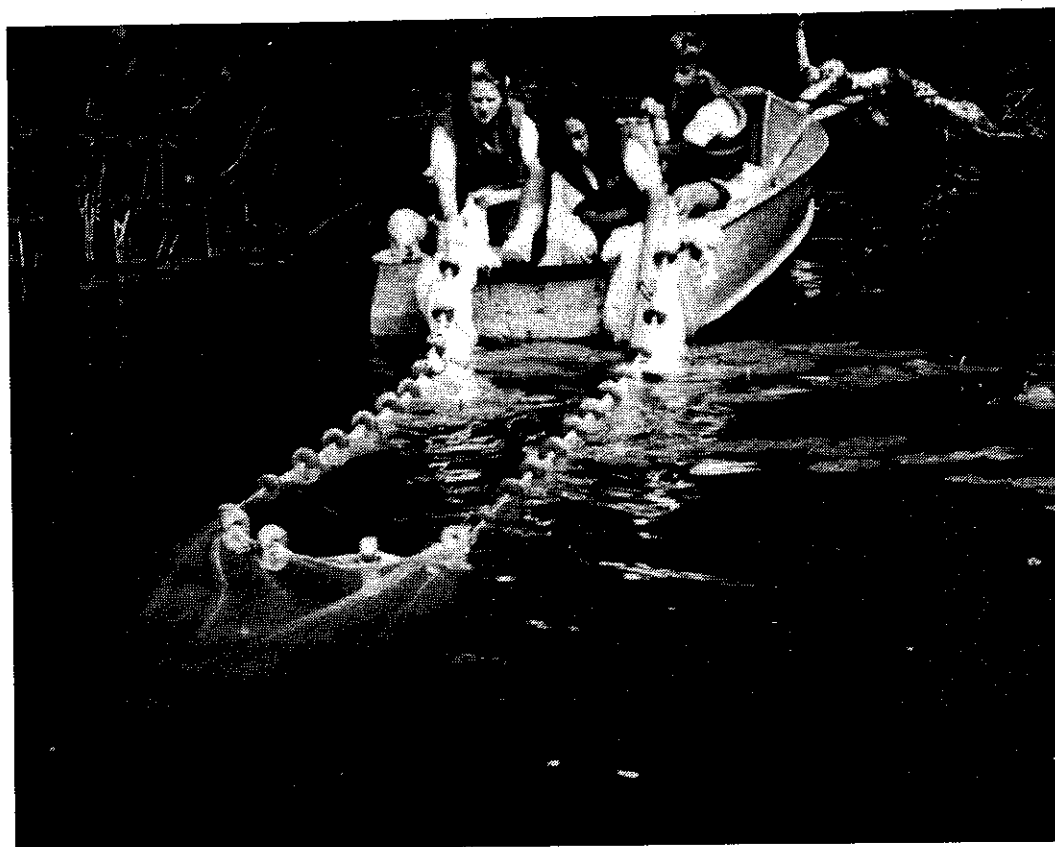


FISHERIES EDUCATION - IT'S CATCHING ON
Ministry of Natural Resources - Fisheries Education Questionnaire Results

The questionnaire was distributed at the Science Teachers Association of Ontario Conference in November, 1986, several Project WILD workshops and was printed in the Winter 1987 ANEE newsletter.

This analysis is based on 723 responses from teachers at all grade levels. If there was a significant difference between responses from primary and high school teachers, it is noted.

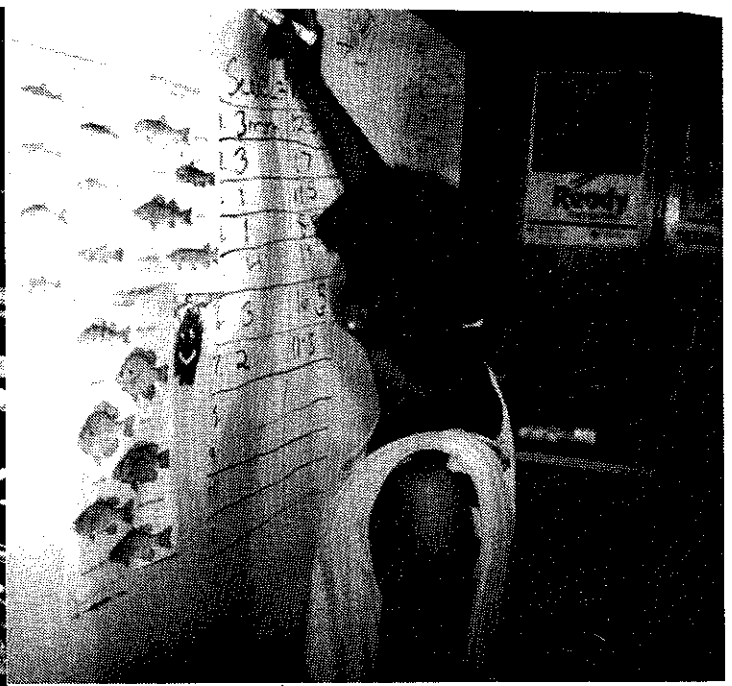
- | | |
|--|--|
| 1. Do you think there is a need for fisheries education in Ontario's school system? | YES 96% NO 2% |
| 2. Do you teach fisheries education concepts in your class? | YES 27% NO 71% |
| 3. Do you have access to instructional or resource materials on fisheries education? | YES 22% NO 70% |
| 4. What kind of resources do you require to get involved in fisheries education? The top 3 responses were: | |
| I. audio-visual materials | II. teaching aids |
| 61% rated as definitely required | 53% rated as definitely required |
| 87% rated as either definitely required and/or somewhat useful | 85% rated as either definitely required and/or somewhat useful |
| III. curriculum assistance | |
| 50% rated as definitely required | |
| 85% rated as either definitely required and/or somewhat useful | |



It sure doesn't feel like we caught anything!



There awfully big aren't they??



Decorating the data.

5. What area(s) in fisheries education would you like to see emphasis placed?

Topics are listed in order of preference from all questionnaire respondents. Over 50% of these respondents thought emphasis should be on the first four subjects (marked*).

- | | |
|--|--|
| 1) fish behaviour, ecology and habitat requirements* | 6) Ontario's commercial fishery |
| 2) fish farming* | 7) fisheries regulations |
| 3) fish identification* | 8) fish folklore |
| 4) fisheries management concepts* | 9) the role of fisheries in the lives of aboriginal people |
| 5) "hands on learning", Community Fisheries Involvement Program (CFIP) | 10) how to become a better angler |

Fifty percent or more of the primary school teachers thought that emphasis should be placed on the following topics: (listed in order of preference)

- | | |
|---|------------------------|
| 1) fish behaviour, ecology and habitat requirements | 3) fish identification |
| 2) "hands on learning", CFIP | 4) fish farming |

Fifty percent or more of high school teachers thought emphasis should be placed on these topics: (listed in order of preference).

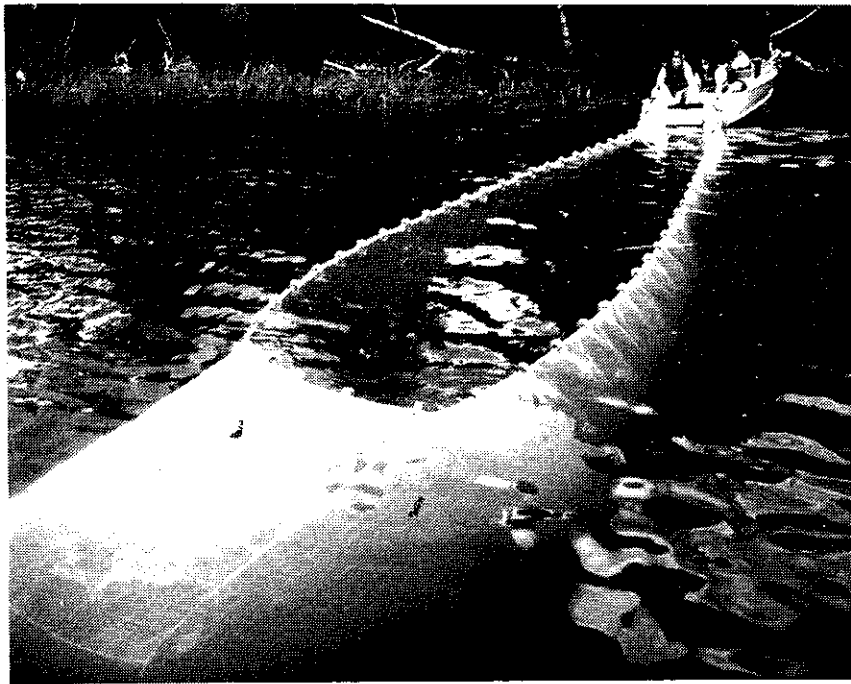
- | | |
|---|----------------------------------|
| 1) fish behaviour, ecology and habitat requirements | |
| 2) fish farming | 3) fisheries management concepts |

6. Would you be interested in participating in a "hands on learning" (CFIP) school project?
- | | |
|-------------------------|---------|
| Primary school teachers | YES 69% |
| High school teachers | YES 51% |

If you would like further information about fisheries education, contact Jan Gray, Rm. 2351, Client Services, Fisheries Branch, Ministry of Natural Resources, 99 Wellesley St. West, Toronto, Ont. M7A 1W3 - telephone (416) 965-7885.

This Is 'In-seine'!!

by Dennis Hitchmough



Setting a 30 metre seine net from a boat can be an exciting experience!

The water begins to 'boil' with close to 100 fish of a variety of species.



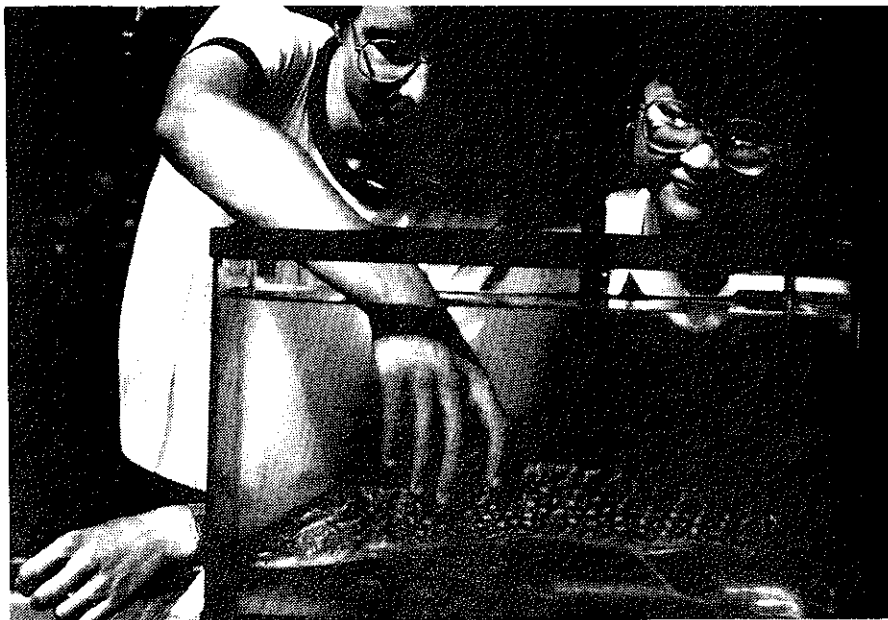
8 Council of Outdoor Educators of Ontario

It's another quiet day, as you sit on the dock watching a Kingfisher search for food. You can just hear the footsteps of your students on the trail to the lake. The soft whisper of their voices gradually grows louder until you can just pick out their hushed words. "He can't make me touch it! There's no way I'm getting all slimy." Yes, it's just another day of Freshwater Ecology!

You quickly divide your group into three, small sub-groups and assign each group a section of the 30 metre seine net you want folded. Most of the talk for the next few minutes centers on correctly folding the net. The rest is a vocabulary lesson, developed spontaneously by the students as they discover that the smell on the net is now on their hands. One group is sent to the dock to fill clean pails with Lake water. Another places the folded net, complete with suitable groans, into the boat. The last group takes up the slack on the net control rope and the boat gets under way.

The rest is a vocabulary lesson, developed spontaneously by the students as they discover that the smell on the net is now on their hands.

At this point most people believe that no matter how carefully they set the net they will not get any fish. Comments about the number the other class caught the first time netting, spurs on a little competition. The boat makes a large circle and goes to the dock. All the time they have been paying out the net and making sure the floats are not caught in the weights. The end of the net is passed to the dock group and the tired sailors move away to tie up amid an active discussion of boating technique. At this point the group with the control rope moves slowly and carefully to the dock to



Taking a close look at a small Pike.



The hardest part is getting their attention to give directions.

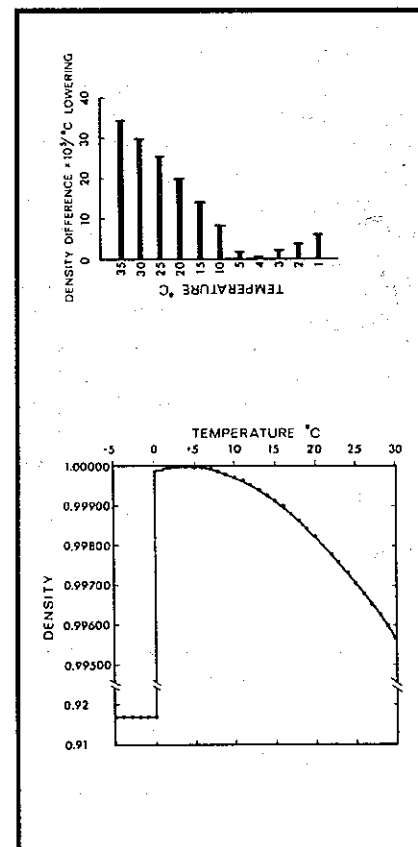


Removing the scales is a delicate procedure.

encircle the fish.

Spirits are not high. They feel they allowed too many to escape and the exercise is worthless. As the net is pulled onto the dock, students make sure that no fish are caught in the side wings of the net. This version of seine net has a large bag that should(!?) have the fish in it. The water begins to 'boil' as the bag approaches the dock. Excited demands are made for the pails and just as they caught the fish, I've caught their attention for the rest of the course.

This activity, just as I explained it, is usually the introduction to fish identification. The students separate the species into different glass jars and begin to sketch the fish. Their field drawings are then used to help them identify the different species found in the lake. All specimens are released back into



Density as a function of temperature for distilled water at 1 atm. The density difference per 0.1°C lowering is shown in the top portion of the figure.

the lake alive and by the end of the lesson most students have touched, studied and made faces at all the fish.

Back in the dormitory that night students research each species and create a food web of the lake.

On another day the seine net can be deployed from the boat at various locations around the lake. Once the students can easily recognize many different species, fish habitat preferences can be explored. This can be marked on the 3-D lake model they made out of cardboard during their lesson on contouring. This data, coupled with research from York University and possibly a talk by one of the professors, helps cement their interest.

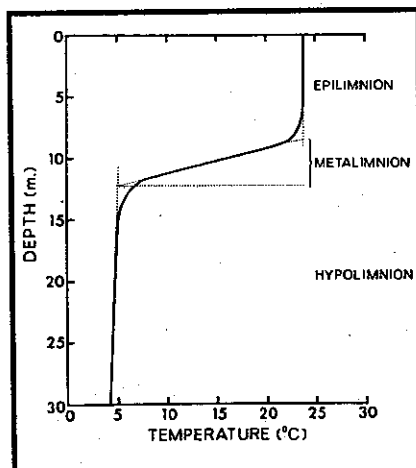
Are the fish growing at a constant pace or has there been a few years of slower growth? Students capture the fish from a variety of locations in the lake. The overall length of the fish is measured from nose to the notch in the tail. This 'fork length' is then plotted against the average diameter of the fish scales recently removed from under the pectoral fin. You see, as a fish grows, rings are laid down on the scales and, just like trees, can be aged using a count of these rings. Unfortunately many scales deteriorate in the middle and the rings become hard to count. Therefore, the diameter of the scale is used. The students are encouraged to note possible experimental errors and work very carefully. The success rate is good and all fish are usually returned to the lake in good shape.

Other areas that can be studied:

- 1) parasites
- 2) zooplankton diurnal movement
- 3) chemical qualities of a lake
- 4) habitat improvement
- 5) biological controls of fish population
- 6) food chains



Measuring 'Fork length' often requires more than two hands.

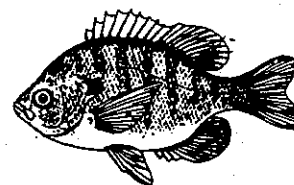


Typical thermal stratification of a lake into the hypolimnetic, metalimnetic, and epilimnetic water strata. Dashed lines indicate the boundaries of the metalimnion.

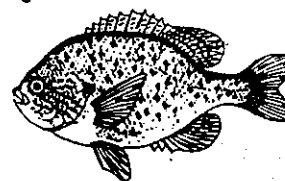
7) community members of an Eutrophic lake

The list is endless especially if you add poetry, stories, sketches and paintings or mathematics (capture-recapture, volume, flow, etc).

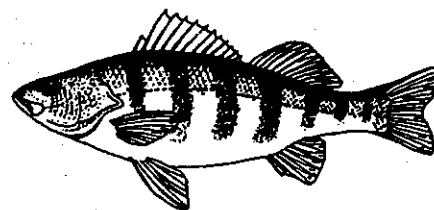
I can truthfully say that I don't have a story about the one that got away. Careful baiting, subtle manoeuvring, and active enthusiasm always leaves me with a big catch!



Bluegill



Pumpkinseed Sunfish



Yellow Perch

Dennis Hitchmough teaches in East York and participates in the Environmental Science course run by the MTRCA.

PARLEZ-VOUS FRANÇAIS?

et...

ENSEIGNEZ-VOUS EN PLEIN AIR?

Nous cherchons des personnes qui s'intéressent à la participation et/ou au développement des programmes français en plein air en Ontario.

Si vous avez quelque chose à partager ---

- des idées ou des suggestions
- des activités en français
- des noms des animateurs d'atelier, et
- des ressources professionnelles ou des ressources utiles pour les élèves en français

" R. S. V. P. "

aux adresses suivantes.
Merci à l'avance,

Cathy Beach
P.O. Box 719
Peterborough
K9J 7A1

Dennis Hitchmough
23 Cudham Drive
Scarborough
M1S 3J5

The Resource Kit; a Review

"The Resource Kit", an education kit produced by the Ontario Ministry of Natural Resources is now available to outdoor educators. The Kit is intended to develop appreciation, understanding and conservation principles relating to forest, fish and wildlife resources.

The following pages are reproduced here with the permission of the Ministry for your personal review.

It includes a lesson binder with

over 400 pages of background and activities, 21 related hands-on artifacts and 23 posters and booklets. Lessons follow closely those objectives outlined in "The Formative Years". They are multidisciplinary and contain a blend of indoor and outdoor activities. Although written for the junior level, lesson can be easily adapted for use with students of other levels.

Topics include living and non-living things, habitat, foodchains, interrelationships of plants and animals, predator/prey relationships, succession and change in the environment, man and the environment, conservation and resource

management, adaptations, characteristics and classification of living things, structure, life and relationship to man of mammals, birds, fish and trees.

Ontario examples, including the beaver, Canada goose, rainbow trout and sugar maple have been used to make the kit particularly relevant to Ontario students.

Further information about the Resource Kit may be obtained by contacting: The Metropolitan Toronto and Region Conservation Authority 5 Shoreham Drive Downsview, Ontario M3N 1S4 Phone: (416)661-6600.

Bird Study Life of the Canada Goose

A Gander at Geese

Concept

The Canada goose is a very well known and admired bird. If a national bird were to be proclaimed, the Canada goose would be a "front-runner". General study of this bird can produce a high level of interest. Our living natural and renewable resources must be understood if they are to be effectively managed and conserved.

Objectives

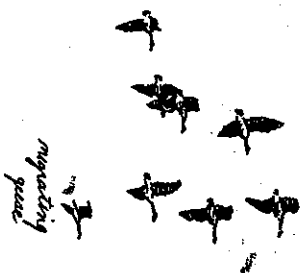
On completion of this study, the student should be able to:

- better appreciate one of our very special Canadian birds;
- describe the general life history of the Canada goose and the difference between 2 races, the southern giant Canada goose, and its northern breeding cousin, the James Bay Canada goose;
- understand some of the problems associated with the management of this important bird.

Background

The James Bay Canada goose: Its Life Story

Most Canada geese we see flying high overhead in their familiar V-formation in spring and fall, are on migration. In spring they are heading for their nesting grounds on the shore of James and Hudson's Bays. In October they are flying southward to the wintering grounds in the mid-western states of the United States and to the shoreline of the Atlantic Ocean, mainly in the States of Maryland, Delaware and Virginia.

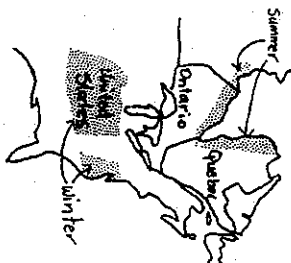


13-1

The 11 Races of Canada Goose (found in various parts of Canada)

They vary in size, shape and colour.

Range of James Bay Race of Canada Goose



These are the James Bay race, one of 11 races of Canada goose found in various parts of Canada.



The familiar resident giant Canada goose, of Southern Ontario, is another race.

The James Bay goose will nest only on the low flat countryside bordering James Bay and Hudson's Bay. Even captive birds of this race refuse to nest in Southern Ontario.

Canada geese usually pair for life, although another mate is often sought if one of the pair dies. Geese pair up on the wintering grounds at about three years of age. After the long migration north, about five eggs are laid in a nest filled with down, which is often surrounded by water. A small island or muskrat house or clump of willow, affords a safe nest site. The female goose incubates the eggs for about 28 days, with the male goose or gander standing guard close by. Both parents look after the tiny yellow, down-covered goslings. The goslings feed mainly on insects which are very rich in



13-2

Things to Do

Life of the Canada Goose

- Familiarize the students with the information in the background section using your preferred method.

- Have the students draw an annual calendar of events in the life of geese.

- Have the students compare the needs of a gosling to that of a human baby. Discuss parental care, feeding and shelter.

- Have the students draw a collage of the Canada

goose. Show it: -

- flying South;
- swimming;
- eating grass;
- with its goslings;
- preening its feathers;
- nesting.

- Have the students draw a food web that the goose is part of.

- Have the students write a short story on the goose. Choose one of the following topics:

- guarding my nest;
- migrating North or South;
- finding a place to live;
- watching for danger;



Migration

- Have the students locate the nesting and wintering grounds of the James Bay geese on a map of North America. nesting: Hudson's and James Bay, wintering: Delaware, Maryland, Virginia, Illinois, Wisconsin, Minnesota, Atlantic Ocean and Mississippi River.

Have the students determine how far is it from the wintering grounds to the breeding grounds?

- Have the students discuss perils and difficulties which may exist along the way. A - weather, hunters and other predators, etc.

Have the students discuss why the geese migrate? A - to escape cold, ice and snow of the northern winter and to find food.

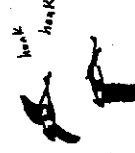
Have the students relate to the class where and when they have seen flocks of Canada geese. How did seeing the geese make them feel?



Goose Behavior

- Designate the students as male and female geese. In the schoolyard or gym have the students arrange themselves into the V-formation of a flock and move, attempting to maintain the flock formation using only goose calls for communication.

Subdivide the flock into smaller flocks and have them compete in "flying" around a course. See



Activity Goose Talk

Canada Goose Communication



Have each student bring in a sock (preferably black).
Have them each slide the sock over their hand and attach a 10 cm. piece of masking tape to it (as shown above).
Students then use their "goose puppets" to act out the body language of geese (as shown below).

lowered head
hiss or silent



extended neck
a honk call



"Keep your distance."

bobbing head
silent



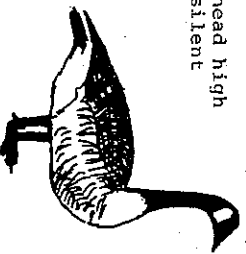
"I'm losing my patience, stay away."

lowered, tucked head
silent



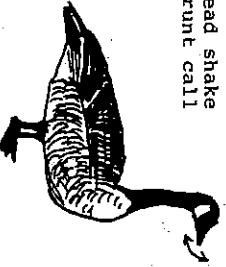
"I'm going to attack you."

head high
silent



"I'm the boss." or
"is there any danger nearby?"

head shake
grunt call



"I said I was the boss."
or "lets get out of here."

vigorous head and neck shaking
honking calls



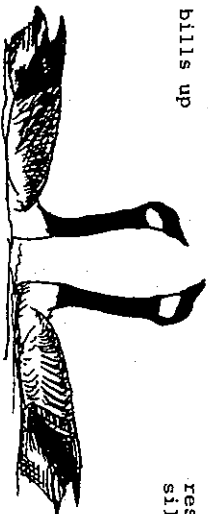
neck pumping



To males: "I'll teach you a lesson."
To females: "Nice to see you again."

"I think I am in love."

bills up



resting position
silent



"we're in love."

"All's well, I'll just snooze."

false sleeping

false feeding



"I'll be gone before he realizes
that I know he is there."

"I'm so upset that I don't
know what to do"

preening
silent



stretching
silent

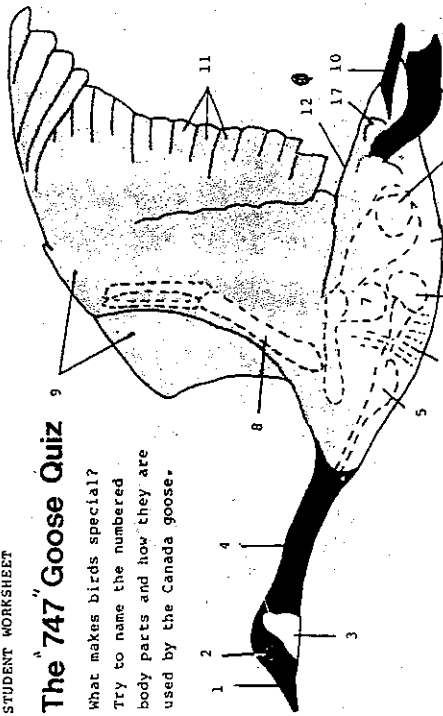


"Got to keep those feathers clean." "I'm relaxed. What a lazy day."

How do people express the same feelings?

The "747" Goose Quiz

What makes birds special?
Try to name the numbered
body parts and how they are
used by the Canada goose.



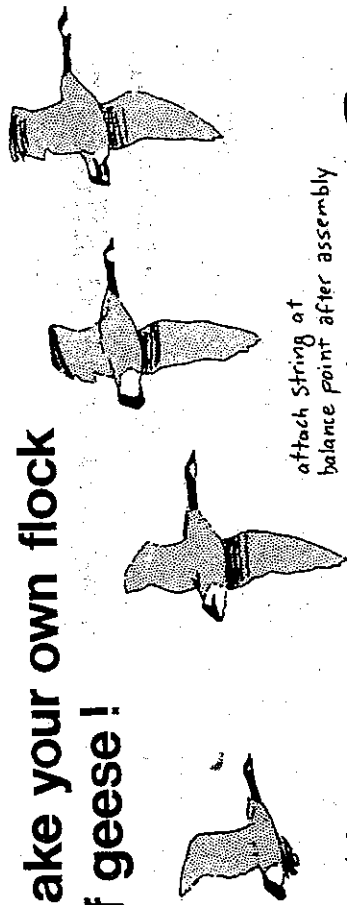
Body Part

Function

1. _____
2. _____
3. _____
4. _____
5. _____
6. _____
7. _____
8. _____
9. _____
10. _____
11. _____
12. _____
13. _____
14. _____
15. _____
16. _____
17. _____

- grass nipper
- navigation equipment
- like airplane logo
- head extender
- "gas tank"
- "food chewer"
- air intake and exhaust
- strong inner framework
- "a little lift"
- rudder
- once used for pens
- outer covering
- powerful engine
- like long underwear
- landing and swimming gear
- assembly plant 12-7
- "oil can"

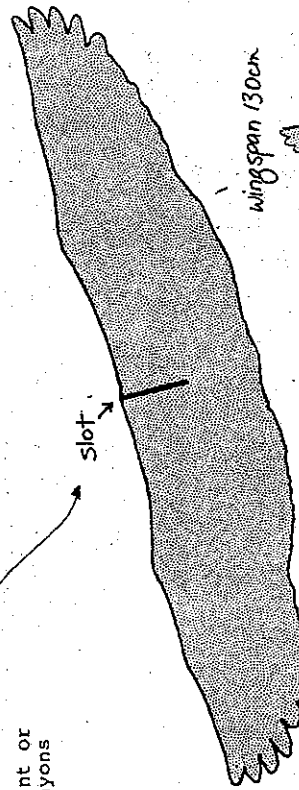
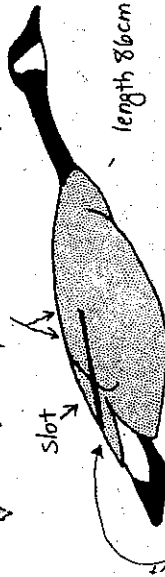
Make your own flock of geese!



Materials

- cardboard (for large geese)
- construction paper (for small geese)
- scissors
- poster paint or pencil crayons
- string

attach string at balance point after assembly



Method

- project the goose pattern onto cardboard using an overhead projector and trace
- have students draw their own goose freehand at a smaller size on construction paper
- cut out goose parts
- paint using a picture of a Canada Goose for reference
- assemble and hang by string in classroom to create a flock of geese

Q - Why do Canada geese fly in a V formation?

A - To follow an experienced leader and provide lift to each other so they can fly with less effort.

NOTE: The teacher could make a full-sized goose mobile and have the students make their own smaller one.

Ecology Study Food Webs

'The Food Connection'

Concept

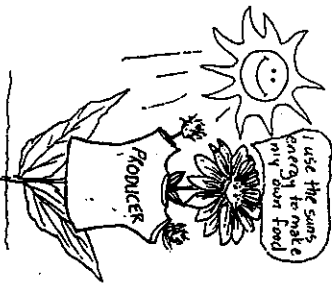
Living things in a habitat depend on one another because of their food habits. This interdependent system is known as a food web. People are part of food webs.

Objectives

- Upon completion of this study the student should be able to:
- explain how plants (producers) and animals (consumers) get their food;
 - explain what a food web is and give an example of one;
 - describe the interdependence of living things, including man, in a food web.

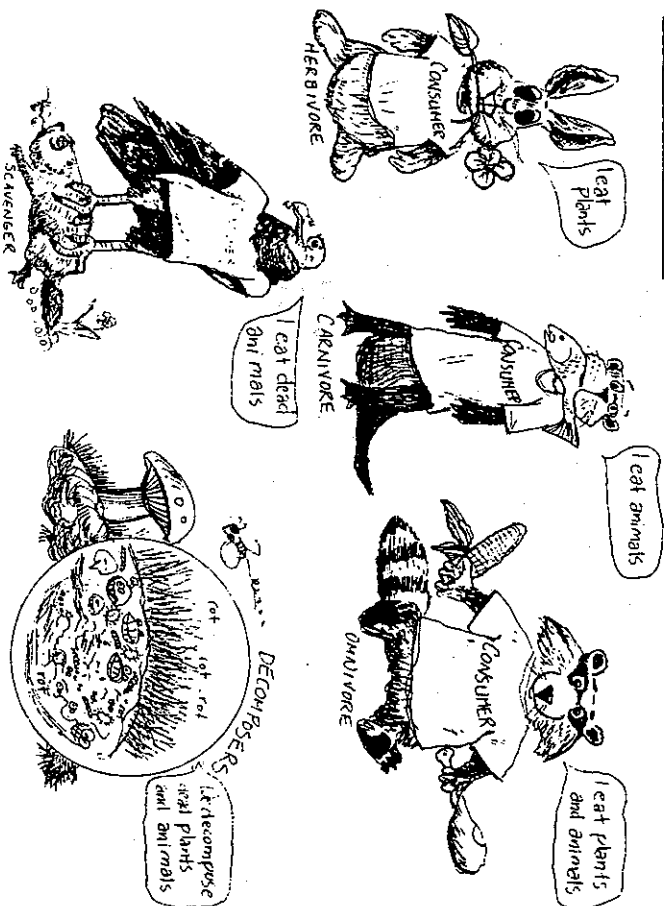
Background

The Food Connection



The sun's energy is the "fuel" for all living things. Plants can use the sun's energy directly but animals cannot. We lie in the sun to get a tan but plants require the sun's energy for making food. In a plant's leaves, water collected by the roots and carbon dioxide gas from the air are combined using the sun's energy to form sugar which plants need to grow. This process is called photosynthesis. Plants are called producers because they produce their own food. Animals cannot. They are called consumers because they must eat or consume plants or other animals to get the energy and materials they need to grow and reproduce.

YOU ARE WHAT YOU EAT!



Animals (consumers) are named to describe their food habits.

Animals which eat plants are called herbivores. Beaver, cows, deer, rabbits, mice and grasshoppers are some of many herbivores which live in Ontario.

Animals which feed on other animals are called carnivores (people also often refer to them as predators). Ontario's many carnivores include wolves, foxes, hawks, owls and trout.

Chickadees, raccoons, people and many other animals eat both plants and animals. They are called omnivores. Think of the foods you ate for dinner last night. Did your food come from both plants and animals?

Beaver Tales

STUDENT WORKSHEET

NAME:

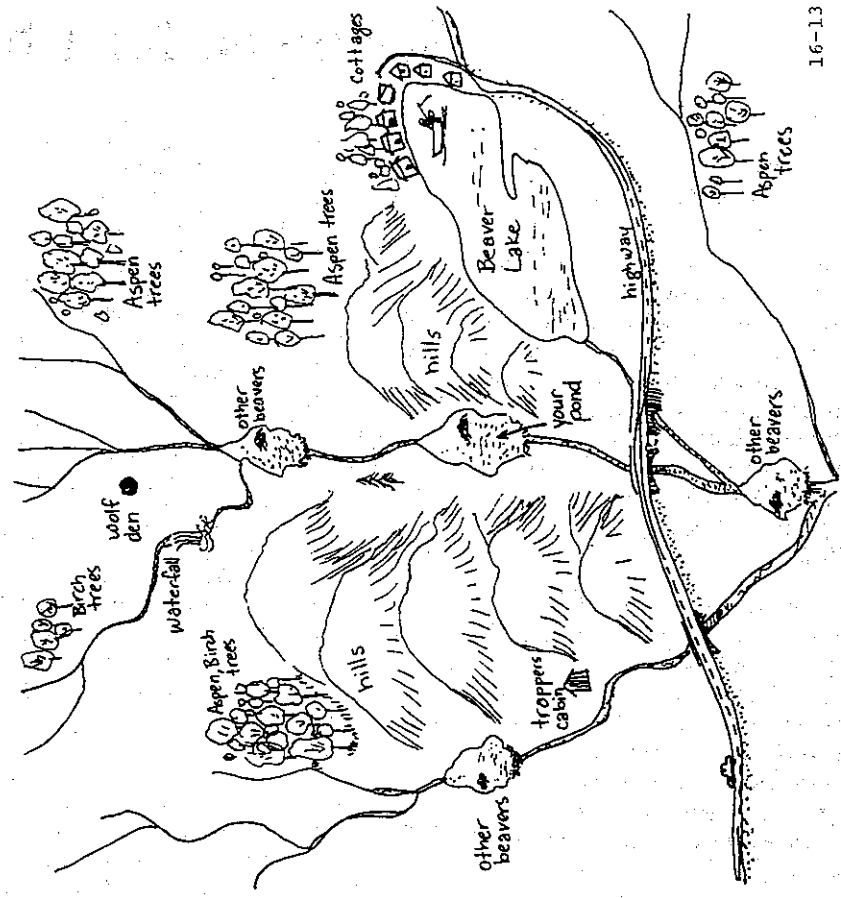
Beaver Bit Match-up

- When beavers eat twigs they nibble the bark off and leave bare sticks known as "beaver bits" on the ground.
- Cut out the "beaver bits" drawn in column a and b and match them up to make correct sentences about beaver. You may want to paste the correct sentences on another sheet of paper.

- a)
- (cut out)
- Beavers cut down trees
 - Beavers can move much better in
 - Beavers oil their fur
 - Beavers comb their fur
 - Beavers slap the water with their
 - Beavers use their webbed hind feet
 - Beavers use their front feet
 - Beavers eat their droppings
 - Beavers nostrils and ears
 - Beavers have castor glands

- b)
- with a split toenail on their hind feet.
 - to make it waterproof.
 - to mark their territory.
 - for holding wood and patting mud.
 - water than they can on land.
 - to get more nutrients.
 - with their sharp incisors.
 - for swimming.
 - tails to warn other beaver of danger.
 - can be closed to keep out water.

- When beaver are 2 or sometimes only 1 year old they are forced out of the colony and must find vacant suitable habitat in which to live. The journey is filled with danger. One of the greatest is encounters with other beavers. Pretend you are a young beaver who can write! Describe the events of your journey to a new home site and draw your route on the map.
- To be suitable your new home must be on a stream or lake. There must be aspen trees nearby for food and it must not be in another beaver's territory.



Seconded for Life

by Bob Lundy,
North York Board of Education

Organisms of higher intelligence are often categorized by their relative abilities to learn from their experiences. While mice and rats are able to learn the intricacies of a complex maze and attain their goal at the end, humans find themselves, at many times in their lives, lost in a maze of activities without a clear perspective of what their goals actually are.

We, as teachers, being humans as opposed to mice, may find ourselves in the dilemma of the maze and in the midst of confusion, confrontation and 'burn-out'. Perhaps one of the diagnostic tools which will help us to more clearly identify our position in the rat race, pertains to the answers we give to the following 3 questions:

- Are we opening ourselves to new ideas and exploring new methods of communication and stimulation OR are we willing to be 'safe and secure' with methodology which has given some previous success??
- Are we 'happy' OR has the glow of earlier years of the 'rookie teacher' changed to pessimism, insecurity and antagonism toward the system of education in which we operate??
- Are we doing the best we can to teach students how to develop themselves by enriching their exposure to real life situations OR do we tend to function in isolation of the business, industry, politics, and government influences which lie outside the school environment??

An Alternative

If the answers to these questions

raise some doubts in your mind, here's a solution which can renew and revitalize. Several companies and institutions are beginning to establish links with Boards of Education and are creating positions for teachers who might wish to work for a period of time outside the classroom. These companies recognize the wealth of organization and management skills which many teachers have developed over the years and the Boards of Education see the opportunity for teachers to broaden their knowledge and bring new resources back to their students. These positions have come to be known as 'seconded' positions and the benefits which they offer the individual far out-weigh the benefits received by either the company or the Board.

In Metropolitan Toronto, there are three seconded positions which have been in existence for a number of years and these involve the Ontario Hydro, the Ontario Science Centre and the Metropolitan Toronto Conservation Authority. The Hydro position involves working as an education consultant, providing liaison facilities between the Ontario Hydro and the public. The Conservation Authority has several positions available for teachers to work at their Field Centres, providing environmental programs for groups of visiting students from across Metro Toronto. The Ontario Science Centre has been running a Grade 13 enrichment school for the past 5 years and teachers are seconded to teach the grade 13 program in addition to providing school programs for students visiting from throughout Ontario.

As a present seconded teacher to the Ontario Science Centre, there have been tremendous opportunities for personal growth and stimulation. Some of these opportunities include:

- meeting new people with a

great diversity of ideas

- travelling to several communities in Ontario
- seeing how government agencies function and operate
- using a broad spectrum of teaching techniques to communicate with those students who are: blind, hearing impaired, physically handicapped, in wheel chairs, juvenile delinquents, in kindergarten and primary levels.
- sharing techniques with new colleagues
- tapping into new resource networks and having the freedom to explore individual ideas and develop new and innovative programs.

The seconded positions, which have been mentioned above, are for two (2) years and the Boards of Education guarantee that the teacher will maintain the same pay, benefit and seniority levels. Subject to changes due to declining enrollment, the teacher is also guaranteed a position with the Board upon the completion of the secondment.

DON'T WAIT FOR SPRING, DO IT NOW!!

Secondments are very popular and limited in number. If there is an interest in exploring this type of opportunity, make your enquiries early.

Bob Lundy is currently seconded to the Ontario Science Centre and is Program Co-ordinator for the North York Honours Math and Science Program held each summer.

Canexus

Theme: A Conference Celebrating the Canoe in Canadian Culture

Place: Duncan McArthur Hall, Queen's University

Dates: 20-22 November, 1987

Fee: \$120

Perspectives

Contemporary: The Canoe as archetypal symbol or icon of the present-day Canadian psyche.

Retrospective: The Canoe as a significant historical vehicle of Canadian culture.

Opportunities

Meet leading authorities from the world of canoeing, such as Bill Mason, Kirk Wippeg, George Dyson, and others;

Receive a copy of all the Conference papers, consisting of over 20 original articles that make a significant contribution to the literature;

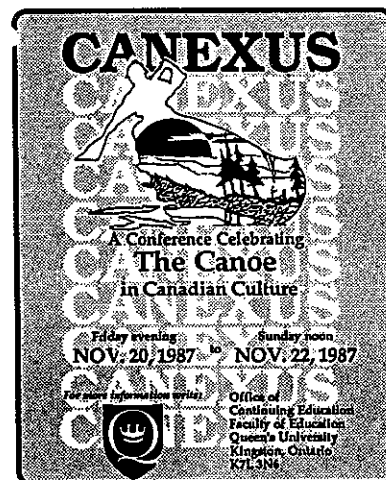
Enjoy the outstanding visual display featuring canoe paintings as well as canoe models;

Engage in dialogue with presenters and other kindred spirits on the presentation topics, which include the following:

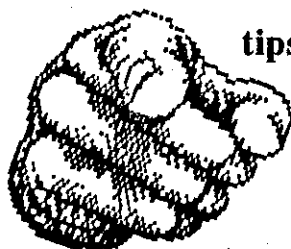
- Shelagh D. Grant: "The Canoe and Myths of the Canadian North"
- Jamie Benidickson: "Canoe Clubs - Important Social Organizers in Canadian History"
- Bert Horwood: "Stone Age Babies and 20th Century Mothers"

Mothers"

- James Raffan: "Will the Real Canoeist Please Stand Up?"
- Eugene Arima: "Culture of the Nootka Canoe"



COEO needs you



tips?? tricks?? contributions?? ideas??

Why?

COEO plans to publish a book of tips and ideas for outdoor educators. This book can only be successful with your help. Become an author. Please Contribute!!

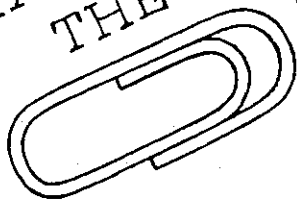
Contribute what?


Songs, games, easy to make equipment, dramatic arts, campcraft, rainy day activity, jokes, pond studies, trees, plants, overnight trips etc. (anything from detailed lessons plans to one line tips)


Send to:


Communications Committee
c/o Jerry Best
186 Crockett Street
Hamilton, Ontario, L8V 1H2

STALKING THE

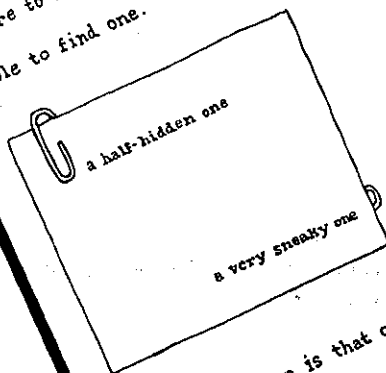




Going on a  hunt is very difficult. It is difficult for many reasons.


A  is small and lives only in certain places.

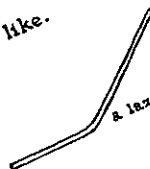
Occasionally a  wanders off and gets lost, but most of them know where they belong and stay there.

If a hunter does not know just where to look, he will not be able to find one.



Another problem is that one  does not always look exactly like another .

Because of where they came from or the life they have led, they do not all look like what you think a  should look like.




a lazy useless one





a juvenile



an old crippled one

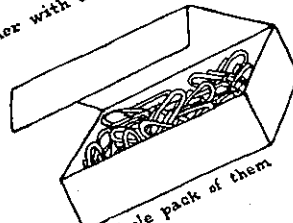
You cannot smell or hear a , so to find one you have to search very carefully.

Most   live alone, but sometimes a hunter can discover more than one of them at once.





a couple of married ones



a mother with children




a whole pack of them

A  is not difficult to capture once it is found. BUT A  CAN BE DANGEROUS!!



Hunters should be careful not to go  hunting with their bare hands. When you have captured a  you must take it back to your desk WITHOUT USING YOUR HANDS.

WANT TO GO ON A  HUNT?

Hide paperclips of varying sizes around the classroom or library and allow the students to read the activity card. The students use a tool to capture the paperclips. DO NOT use the word paperclip or give much of an introduction. Let the students make up their own rules, methods etc. After several minutes call the 'hunt' closed and count the paperclips, by size, and record the totals. (large - males, medium - females, small - babies) Allow the students to go hunting again and record the new totals. The follow-up can be started with a class discussion: sharing methods and technique. Discuss feelings toward the animals, other hunters. Did the herd 'die out' because of overkill? Could rules be made to help the hunt? What would be the wise use of this resource? Remember your view point as a teacher is important. Give equal time to hunting and preservation. This activity is a great way to begin a unit on Native People and their rights. Compare their hunting methods to our own. The need for predators in an environment. The direction you take is only limited by your imagination.

Snails are No Slugs!

Recipe for a Snailery.

[read the instructions thoroughly before you begin!]



1st - Find a snail. or 2 or 3 or 4.

Next, making the appropriate ceremonious concessions to the spirit of the snail and the habitat from which you will be temporarily "borrowing" them, place them in a clean container. Any securely-lidded container will be O.K.

What will I keep them in?

Glass containers are the best to see snails - a clean glass jar with air holes punched in the lid will do. A terrarium with soil, leaf litter, and some healthy plants transplanted from the snails real home would be a whole lot better. Make sure the terrarium has a tight - fitting screen lid - you can make one out of old screening to use with an aquarium. Make sure it fits well! Snails are invertebrate explorers of unknown terrain. - up hill and down hill and deep dark corners!



Where should I keep them?

Snails should be kept in a cool place, out of direct sunlight. The earth or leaves should be kept moist and fresh. Snails retreat in dry conditions and then they aren't any fun to watch.

What should I feed them?

Add some fresh green leaves regularly for your snails to eat. The kind of leaves being eaten when you found the snails would be best. But fresh lettuce, cabbage, or spinach would do in a pinch. No self-respecting snail would refuse!



What should I offer my snail to drink?

You don't have to offer a drink to be a good host/ess! Simply providing fresh leaves will satisfy the most elegant snails' gourmet tastes.

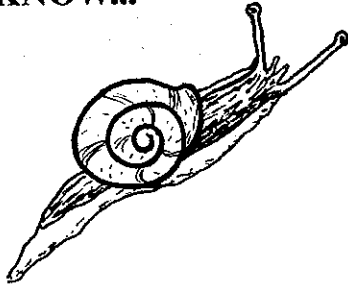
Snails like things clean!

They will happily scour the algae from the sides of your terrarium for you, and they would charge extra for doing it! But you may want to clean their home for them before it gets out of hand. Simply transfer your snails to another container with a fresh leaf to distract them while you wash and scrub their home. You may want to forego the soap this time: snails prefer no soapy residue. Even tap-water gives them indigestion - rain water is "naturally" much more to their taste.

How do I know if my snail is pregnant?

If one day you discover many little tiny snails, you will know your snail WAS pregnant. Most snails do not have separate male and female snails. The eggs of one snail are usually fertilized by the sperm of another, though each individual is both. Snails lay eggs which hatch in a few days. More amazing snails to watch!

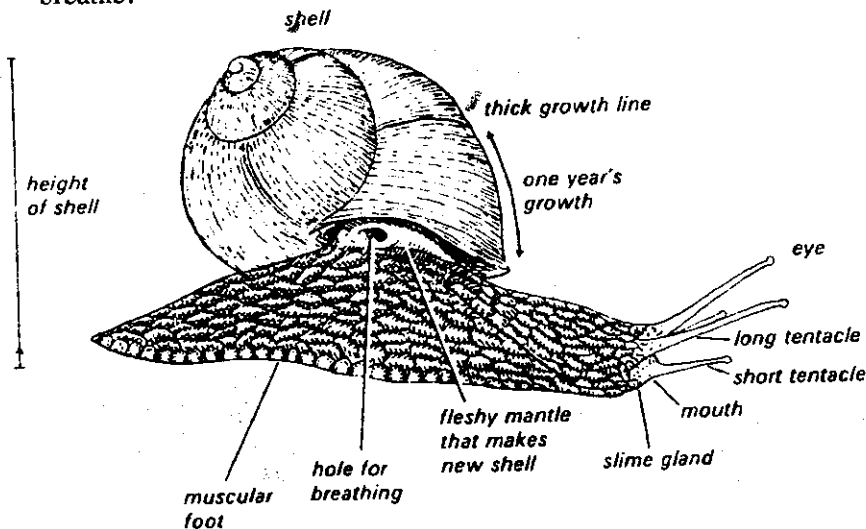
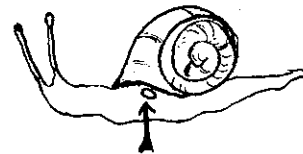
DID YOU KNOW...



... that snails have up to 23 000 teeth - in a row like the raspy teeth of a saw!

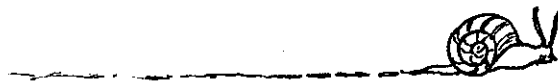
If you let a snail crawl on your hands after eating, you may feel it scraping off a flavourful meal. Whoever said there's no such thing as a free lunch?!

...that snails breathe through an air hole much like a blow-hole for a whale? Watch them breathe - it's amazing! How fast do they breathe?



...that a snail will retreat into its shell and seal the doorway during cold weather or drought (avoiding drying out) and has been known to survive there for 19 years! (Usually it's for days.)

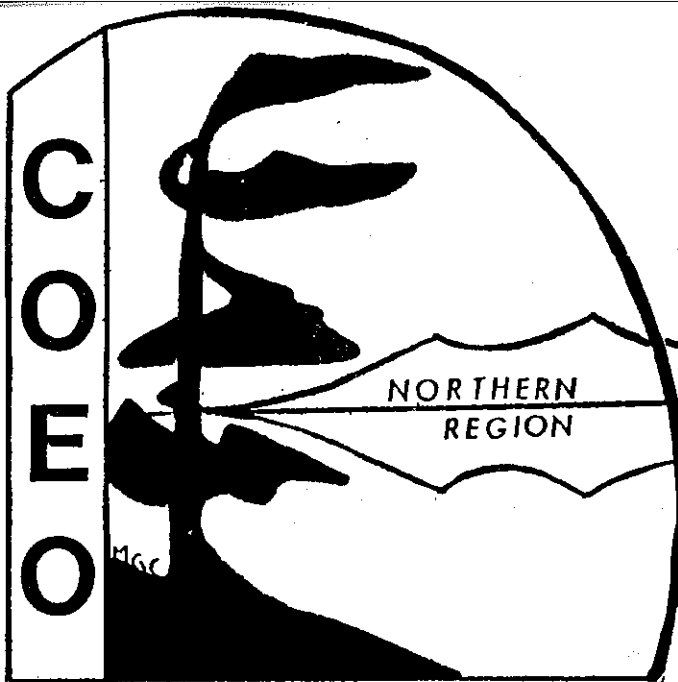
Snails move by excreting a slime from a slime gland just behind its mouth to help them cling and move over rough dry surfaces.



Please remember to return your snails to their original environment before they get too homesick.

Enjoy!





KEEP AN EYE TO THE
NORTH
FOR UPCOMING WORKSHOPS

NORTHERN
REGION

reaches out

. . . . for '87/'88

Project Wild Workshop; "Wild" Workshop;
Spring Celebration Workshop;
Traditional Winter Travel by Toboggan & Snowshoe
Ste-Marie Among the Hurons Winter Live-In Workshop.

Isn't It True?

Someone once said that MEMBERSHIP is made up of four kinds of bones. Which kind are YOU?

There are WISHBONES -- they spend their time wishing someone else would do the work.

There are JAWBONES -- they do all the talking, but very little else.

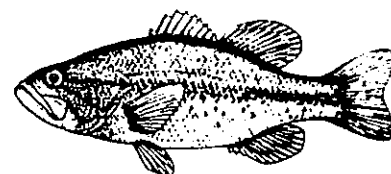
There are the KNUCKLEBONES -- they knock everything anyone else tries to do.

And then there are the BACKBONES -- they get under the load and do the work.

FROM "The Sting"
Ontario Beekeepers Assoc.
Vol. 5 #1 (1987)

**OUTDOOR EDUCATION
NEEDS YOU!**

VOLUNTEER.



Largemouth Bass

We Apologize!

Unfortunately the article "Science is Happening Here!" was incorrectly credited to Rod Bain. It was actually written by Rod Ferguson who has done a great job supporting COEO over the years. We apologize for the error and any inconvenience it caused the people involved. Ed.

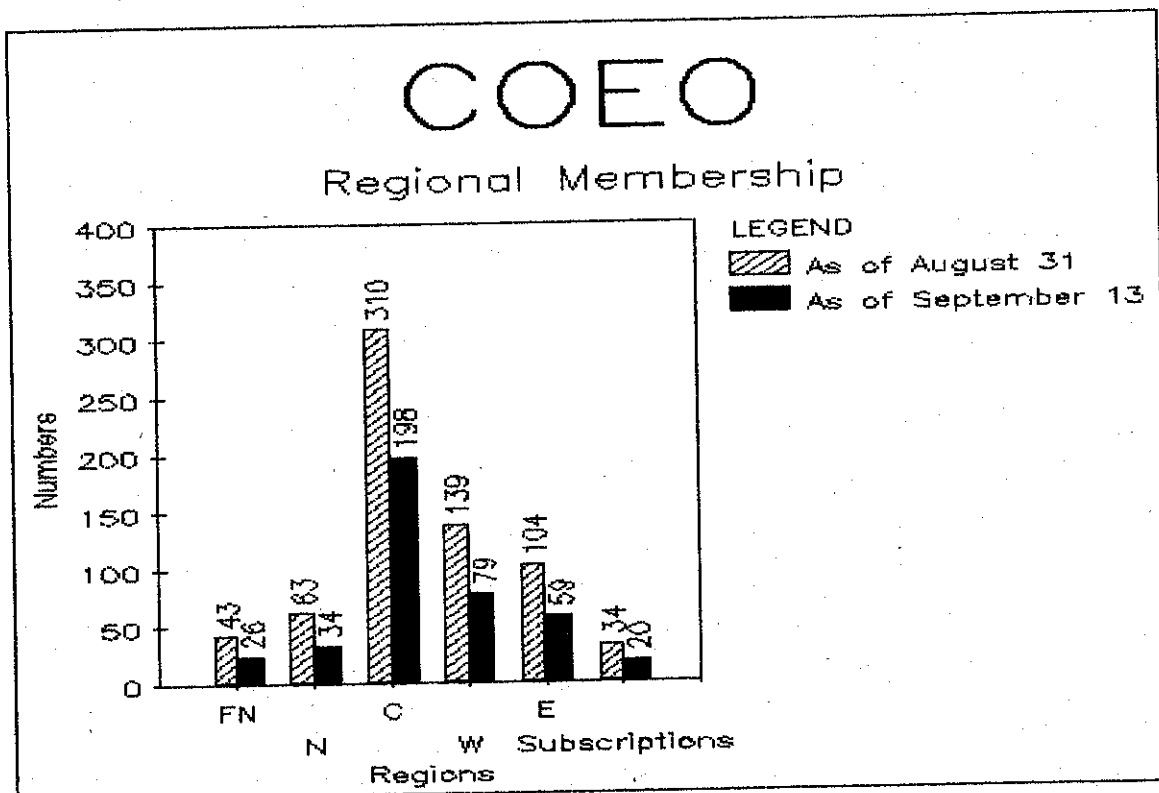
This will be your **LAST** issue of Anee

Unless

You have renewed your membership.

To check to see if you have renewed or not look on the address label. If your membership number begins 87 you must renew **NOW** in order to maintain your membership. Please use the membership form at the back of this issue.

Numbers beginning with 88.....have already renewed.



Professional Development

Dear Outdoor Educator:

In conjunction with NORTHERN ILLINOIS UNIVERSITY, The Council of Outdoor Educators of Ontario is again sponsoring courses in Outdoor Education at the Masters level in the Toronto area. Courses will be offered in the Spring and Fall terms. Participants take these courses for interest, for credit to transfer to an Ontario University, or to work toward a M.S. Ed. degree in Outdoor Teacher Education from Northern Illinois University.

The first course we will offer this year is **Environmental Quality and Education**, to be taught by Bob Voge. This course will be taught in the Toronto area at a location to be announced later.

CIOE 520 OBJECTIVES:

- to increase one's awareness of Environmental Education messages, materials and activities.
- to develop an understanding of complex international and cultural systems which have major impacts on the environment.
- to gain a broad understanding of the natural and artificial aspects of the environment.
- to develop an understanding of environmental problems, some alternative solutions, and individual, corporate and governmental actions to reduce these problems.
- to design educational materials suitable for one's own teaching situations.

Class activities would be a combination of lectures, readings, discussions, simulations, and field experiences in the community and the natural setting.

For those students who wish, an **Independent Study** credit course will follow this CIOE 520 course. The topic to be investigated would be arranged between the student and the instructor.

COEO will also be offering a course in the Spring term. Exactly what that course will be is to be determined by the interest shown over the next few months. One option is the **Introduction to Educational Research in Outdoor Education**, a basic course in educational research.

The Council of Outdoor Educators of Ontario is signing a contract with Northern Illinois University to offer four courses in Ontario in 1987-8 (three in the Toronto area and one on the Ottawa area). We must enroll a total of at least 70 people in these four courses in order to fulfill this contract.

Please spread the word about these offerings as widely as possible!

The program is offered with the permission of the Minister of Colleges and Universities of Ontario who require that we advise you that "The Ministry of Colleges and Universities does not endorse this program of studies or certify that it meets Ontario University standards. In addition, it cannot guarantee that the degree will be recognized by Ontario Universities and employers."

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

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

Mark Whitcombe



COEO COUNCIL OF OUTDOOR EDUCATORS OF ONTARIO

Graduate Studies in Outdoor Education

Northern Illinois University

The Professional Development Committee of the Council of Outdoor Educators of Ontario has, since 1978, sponsored the offering of graduate level courses in Outdoor Teacher Education. The course offerings were from Northern Illinois University and were offered in the Toronto area.

Your assistance is requested in determining the level of interest in the continuance of this program. Please complete the Questionnaire below and return it to the address indicated at the bottom of the form.

Lloyd Fraser
Chairman of Professional Development

Name: _____ Tele: (W) _____ (H) _____

Address: _____

A: Circle appropriate answer:

1. I am (very; moderately; not at all) interested in Graduate studies in Outdoor Education.
2. I would take courses for (interest; transfer to an Ontario University; credit toward a M.S.Ed. degree at NIU.)
3. I would probably take (1, 2, 3, 4, 5) courses in Ontario.

B: Indicate which of the courses below are of interest to you. Use number 1 to indicate the course of greatest interest, number 2 through 8 for other courses of interest.

- | | |
|--|--|
| • Foundations of Outdoor Education. | • The Role of the Media in Curriculum Development for Outdoor Education. |
| • Arts and crafts in Outdoor Education. | • Organization and Administration of Outdoor Education Programs. |
| • Intro. to Research in Outdoor Education. | • Independent Study |
| • Historical & Philosophical Development of Outdoor Education. | • Seminar in Outdoor Education. |
| • Leisure in the Outdoors. | • Other. |
| • Environmental Quality Education. | C: I would like additional information on the M.S.Ed. program (check _____) |
| • Outdoor Interpretation. | D: Return completed Questionnaire to: Mark Whitcombe, 34 Blind Line, Orangeville, Ontario, L9w 3A5 |
| • Teaching Physical Science Outdoors. | |
| • Field Science | |

Professional Development

Graduate Course in Outdoor Education

CIOE 520

Environmental Quality and Education

Instructor - Bob Vogel

October 3-4, 1987

October 24-25

November 7-8

November 21-22

Location: Toronto area

Fee: \$300.00

Please enrol me in COURSE CIOE #520, Environmental Quality and Education. I enclose a deposit of \$50.00 to reserve a place.

Name _____

Phone: H: _____

W: _____

Address _____

Postal Code _____

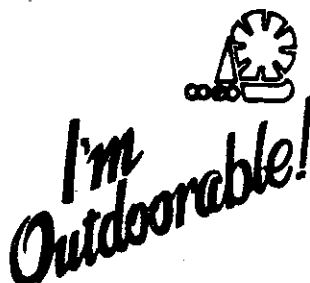
city _____

C.O.E.O. MAIL ORDER SERVICE

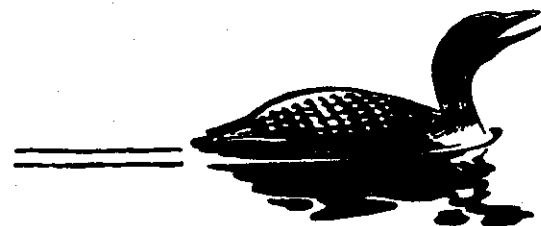
Why wait for Conferences? Order your favourite COEO merchandise by mail!!

CLEARANCE SALE!!

These items are now available.....



T-Shirts
S,M,L,XL
(smalls are small)
\$8.00



**COUNCIL OF OUTDOOR EDUCATORS
OF ONTARIO**

COEO T-Shirts are traditional favourites and make great gifts! At present we have Red, White, Gray, Blue, & Green, but please, note that not all sizes are available in all colours. Specify 1st, 2nd, & 3rd colour choice!



COEO Posters \$1.00

"Loon" by Jeff Reading

"Children & Nature" by Bruce Hood

A COEO Book

"Leading to Share Sharing to Lead" by R.J. Rogers

- a must for the outdoor leader \$4.00

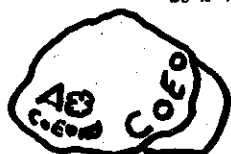
COEO Logo Lapel Pins

White on Green or Blue background \$3.00

COEO Logo Crests (8.5 x 6.5cm) - \$1.50

&
Decals - \$1.00

28 x 42 cm



Hats - for those that wear many!

Cycling style, great for kids too!

Blue on White - \$3.00 or 2 for \$5.00



Enjoy your second favourite activity with a **COEO Beer Stein!**

- \$4.00 (We cannot guarantee against breakage in transit)

SPECIAL FEATURE PRESENTATIONS

"Catalogue of Programmes & Personnel, Sites & Services"

- containing over 200 entries, this unique directory is a must.

\$12.00 per copy

COEO Order Form

Ordered By:		Order Date: _____		Ship To:	
Name: _____				Name: _____	
Address: _____				Address: _____	
City: _____	Prov. _____	Postal Code: _____		City: _____	Prov. _____ Postal Code: _____
Day Phone: () _____				Evening Phone: () _____	

Qty.	Size	Colour			Product Description	Unit Price	Total Price
		1st	2nd	3rd			

Special Instructions: _____

Canada Post: charges include packing, insurance and deliver within Canada.

Order Total	Parcel Post	1st Class
under \$10.00	\$2.00	\$3.75
\$10.00-\$20.00	\$2.50	\$5.00
\$20.00-\$40.00	\$3.75	\$7.50
\$40.00-\$100.00	\$4.25	\$8.00

HOW TO ORDER?

Send this form, with a cheque (not postdated) or money order payable to COEO to

COEO Merchandise
c/o Gord Baker
Forest Valey O.E.C.
60 Blue Forest Dr.
Downsview, Ontario
M3H 4H5

Total

Shipping ^{1st Class} Parcel Post

Subtotal

7% Sales Tax (Ontario res. only)

TOTAL

If item not in stock:

- _____ cancel and refund
- _____ accept colour or brand substitute
- _____ backorder for 60 days

Membership Application Form

Please print and send with remittance to the address below:

Name(Mr.Mrs.Ms) _____

Address _____

City/prov. _____ Postal code _____

Telephone (W) _____ (H) _____

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

Position _____ Employer _____

University/College attending if full time student _____

I am in the _____ Region of COEO



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

Northern Parry Sound, Nipissing, Muskoka,
Haliburton, North Bay, Simcoe County

Western Essex, Kent, Elgin, Middlesex, Huron, Bruce, Grey,
Perth, Wellington, Waterloo, Oxford,
Brant, Haldimand-Norfolk, Dufferin, Lampton

Central Niagara South, Lincoln, Hamilton-Wentworth
Halton, Peel, York, Ontario, Metro Toronto

Eastern Victoria, Durham, Peterborough, Northumber
land, Hastings, Prince Edward, Lennox and
Addington, Renfrew, Frontenac, Leeds,
Grenville, Ottawa-Carleton, Dundas, Russell,
Stormont, Prescott, Glengarry, Lanark

Out of Province Any area in Canada except Ontario

Outside Canada

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

Please check: NEW _____ RENEWAL _____ Mem# _____

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

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

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

Return to:

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

