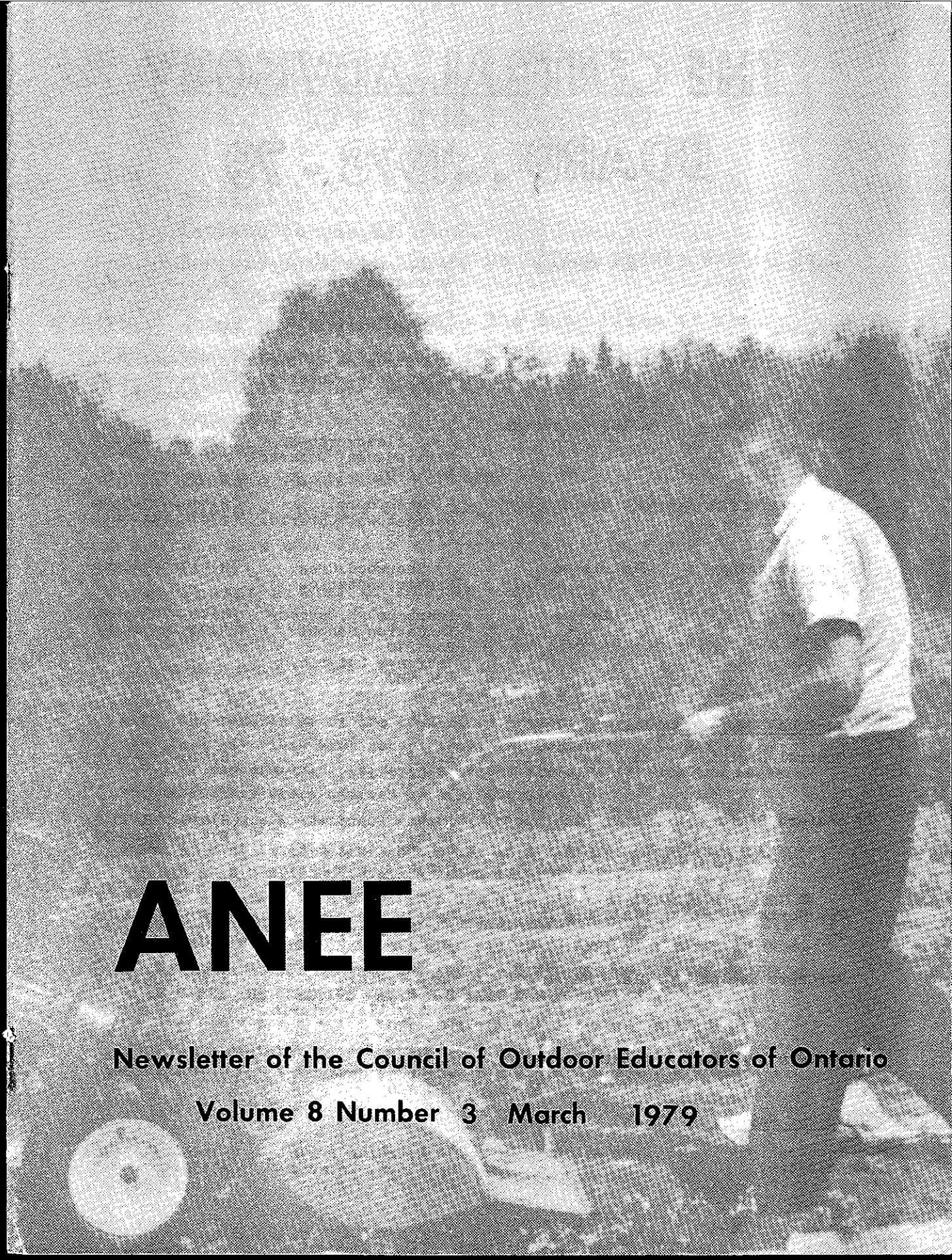

ANEE

Newsletter of the Council of Outdoor Educators of Ontario

Volume 8 Number 3 March 1979

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IN THIS ISSUE

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Cover Photo: Ritual of Spring - by Mudge

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ANEE, the newsletter of the Council of Outdoor Educators of Ontario is published six times each school year. The publication is mailed to C.O.E.O. members only. Membership can be arranged through the membership secretary whose address appears opposite.

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ANEE (AH-NEE) IS AN OJIBWAY WORD USED AS A GREETING OF FRIENDSHIP. IT IS USED AS A CORDIAL SALUTATION AMONG FRIENDS MEETING INFORMALLY. OUTDOOR EDUCATION IS A DISCIPLINE WHICH HAS AS ITS FOUNDATION A DESIRE TO LIVE IN HARMONY WITH THE ENVIRONMENT; THE TRADITIONAL WAY OF LIFE OF OUR NATIVE PEOPLE CHERISHED THIS ATTITUDE. ANEE IS A MEANS OF COMMUNICATING AMONG OUR MEMBERS WHO ARE SCATTERED ACROSS A LARGE PROVINCE. IT IS HOPED THE GREETING -ANEE- IS FELT THROUGH THESE PAGES.

* *

Printed on de-inked recycled paper.

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FROM THE EDITOR'S DESK

Like all young women, I am occasionally conscious of the lines mother nature seems fit to bestow upon my face, and with an outdoor lifestyle, these lines appear with alarming regularity. There are a myriad of products on the market in the form of lotions, day creams and night creams that claim to give you the sun and the wind without the drying effects of either, and I must admit to dabbling in a variety of them once in a while.

My favourite of these preparations has always been Oil of Olay, a creamy smooth concoction of pink fluff that seems to have a totally inappropriate name - its most redeeming quality is to me, incredible non-oiliness. I ended my irregular and haphazard use of it, however, when I watched a Greenpeace Special on T.V. and learned that a very important ingredient in Oil of Olay is whale oil.

All of that was months ago, however, and hardly the reason for my current editorial. But, the last time I returned to Scarborough from my assignment in the North, I found a generous free sample of the product in question stuffed in my mailbox. Upon studying the package, I realized that while food products sold in Canada must list ingredients on the package, there is no such regulation governing cosmetics. I for one plan never to use Oil of Olay again, but I also plan to write my MP to protest the slaughter of defenceless whales for the manufacture of so unworthy a product.

Sheila

Sheila Mudge, Editor ANEE

LETTERS TO THE EDITOR

A New Look at Certification

It is time for C.O.E.O. to take a firm stand on "Certification." For too long, school children have been entrusted to instructors who are not properly certified, and those of us who are concerned about the quality of that instruction must make our concern known now. Furthermore, the law is quite clear in this regard and where the law is currently being broken we should seek to have it enforced.

I strongly suggest that C.O.E.O. adopt a position THAT ALL INSTRUCTORS IN CHARGE OF SCHOOL CHILDREN SHOULD HOLD A VALID ONTARIO TEACHERS CERTIFICATE.

I contend that a lot of teaching is now being done, particularly in the area of outdoor skills, by people who have certain skills but lack the pedagogical expertise to transmit these adequately to their clients, thus our students are subject to severe intellectual abuse by people who are not properly certificated. This practice must stop.

Let there be no pussy-footing on this issue. Remember, we have the weight of law on our side. The Education Act 1973 s,227 (1) says "... no person shall be employed or act as a teacher.....unless he is qualified as prescribed by the regulations R.S.O. 1970, c.424,s 18 (1)."

It is not my intention to force some people out of their present roles. I feel that it would only be fair to give them a maximum of two years to acquire a Teachers Certificate. This would certainly be adequate provided they already have a university degree. For most of them, a year in a Faculty of Education would be adequate to correct their faults and provide adequate evaluation of their level of teaching skills. After that, the success-

ful ones could return to their jobs with a valid Ontario Teachers Certificate and do a professional job with children.

Remember, when it comes to Outdoor Education, our students deserve only the very best.

LLOYD FRASER

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To the Editor

Re: Humber College's Wilderness Emergency Care Course

I have just finished taking Humber's Wilderness Emergency Care Course, and I found it a very worthwhile expenditure of time. The content of the course went far beyond a standard St. John's Ambulance certificate course, and ran for three hours once a week for twelve weeks. An additional weekend was spent in the instruction of cardia-pulmonary resuscitation (CPR.) The course provided much opportunity for practical work in addition to lectures, including simulated wilderness emergencies, and for group discussions.

The next session begins Tuesday, April 10, at 7:00 PM.

For further information contact:

Mike Hatton,
Health Sciences Division.
Humber College of Applied Arts
& Technology,
205 Humber College Blvd.,
Rexdale, Ontario.
M9W 5L7

I highly recommend it to you.

John Heaslip.

WATERS AROUND US
AFFECT
WATERS WITHIN US

By Bessel J. Vandenhazel
Prof. of Science Education
Nipissing University College

All the readers of this paper carry small amounts of the insecticide DDT in their liver. It is hoped that the concentration of this chemical is low enough to not cause cancer in the long run. The use of insecticides such as DDT and Aldrin has now been banned in most countries as they have spread throughout the world and can be detected in all forms of aquatic life and in virtually all people from the high arctic to the tip of South America. Insecticides have been found under Arctic ice where they are killing small shrimp-like creatures.

Ardent fishermen and native people who eat fish regularly have now been advised by the Ontario Ministry of Health not to eat fish from Lake Temiskaming and Lake Saug. The mercury levels in the fish of these lakes far exceed the acceptable level of 0.5 parts per million. Long time eaters of fish from these areas, who feel concerned about mercury levels in themselves or in their children may ask their personal physician to take hair and blood samples for laboratory analysis.

Who could have dreamed that the Ontario Government would feel obliged to place advertisements in newspapers advising people to not eat fish from the lakes and rivers of our beautiful province? Has the quality of life in Ontario degenerated to the point that many natural waters have become unfit for swimming and its fish unfit to eat?

BODY AS FILTER

During the past two decades an abundance of technical, medical and legal information dealing with pollution has accumulated. It has been found that pollutants may take a long time to affect human health. Let's see how mercury affects our well being.

Pulp and paper industries, chlorine plants and fur-cutting enterprises have in the past, and in some instances, still releasing over 80 percent of the mercury used in their processes into the air and into the waterways of Ontario and Quebec. Farm grain was until a few years ago treated with mercury compounds, thus adding more of this metal to the waterways and to wildlife eaten by people. The use of mercury compounds in grain treatment has fortunately been discontinued in Canada because of its harmful effects on birds and fish.

The human body, being an efficient filter, retains the various types of mercury in the brain, the spine, the kidneys, the liver, in hair and in skin. Once the mercury atoms are lodged securely they proceed to destroy cells, one at a time. Some poisoning symptons may appear after two months, but may go undetected for 10 to 15 years.

The symptons of mercury poisoning can be blurred vision, restriction of the visual field, muscle tremors, congenital defects in newborn children, loss of hearing, numbness in arms and legs and finally convulsions. How does our body filter out these poisons?

About four litres of water pass daily through the human body. It is taken in with liquid foods, vegetables, meat, fish and bread. Water that is not needed leaves the body through the skin, the urinary system and the lungs. Not only useful ingredients dissolved in the water are retained by the body, but also pollutants such as mercury, lead, insecticides, asbestos fibres and PCB's are efficiently filtered out and stored in various parts of the body. The

fatty tissues seem to pick up insecticides, the brain mercury, the bones lead and the bowels asbestos.

There is another way in which dangerous materials enter the human body: Thousands of litres of air enter our lungs daily and part of this is filtered to make the oxygen available to the bloodstream. However, impurities such as asbestos fibres, sulfur fumes and ozone are filtered out and may cause either lung cancer or may simply turn part of the lung imoperative. It may take a miner working in poorly ventilated shafts 10 years to develop crippling lung diseases and another two or three years of medical check-ups before he is to receive financial compensation.

VIGILANCE NEEDED

Until recently residents of North Bay and Nipissing District thought of air and water pollution as something that only occurred in other parts of Ontario and Quebec. The problem is now creeping up, however. The Ministry of Health has recommended to not eat pickerel, sauger and northern pike from Lake Temiskaming and Saug Lake because of unsafe mercury levels. Much has been said about attracting tourists to this area. Unless frequent tests confirm the quality of fish, water and air of the region however it may be advisable to ask tourists to stay home. This has happened in other Ontario regions and could happen here. Wise fishermen avoid eating fish from the English River, the St. Clair River and the Credit River. What can we do?

There are four areas of concern that require frequent investigation in Northern Ontario.

1. Asbestos fibres--Since there is at least one asbestos-using industry in the Lake Nipissing Watershed stream waters should be sampled regularly and checked for fibres. To protect the plant workers, the quality of the

air in all sections of the plant should be monitored continuously. The union could play an important role in protecting its members.

2. Mercury--Into several river systems of Northern Ontario mercury has been released since 1900 by mines and industries. Part of this mercury may have been washed out by now. Much of this metal, however, has settled in bottom sediments and is now finding its way into plants, birds and man. The provincial ministries of health and environment should be encouraged to hire more staff and establish a laboratory in North Bay.

3. PCB's--Canadian and U.S. business claimed to have polychlorinated biphenyls (PCB) under control in 1972. Now, however, it is found in drinking water and in fish in a number of areas around Lake Ontario. The chemicals are known to have caused liver and kidney damage. Credit River salmon has been found to contain 4½ times the level recommended for human consumption.

It is not known how many industries in this area are using and disregarding products containing PCB's. The public utilities commissions and Ontario Hydro are using transformers containing this chemical. The fluid from discarded transformers is supposed to be recovered and stored and never to be taken to a dump, as traces of PCB's will leach out and enter the foodchain through plants and fish.

4. Herbicides or Weedkillers--Railway companies, Ontario Hydro and the Ministry of Transportation are still using weed and brushkillers that are known to have produced birth defects in South Vietnamese people. A very useful brushkiller 2.4.5. T will under certain conditions leach out of the soil into the underground watersystems and end up in farmwells. As this chemical has been responsible for birth defects in people and small laboratory animals it can

no longer be sprayed in large quantities in some counties of the province.

The herbicide pichloram is still commonly used by Ontario Hydro and the Ministry of Transportation in roadside spraying. It is quite persistent and will spread with ground water into wells and rivers. When used for irrigation and drinking purposes water containing pichloram will destroy crops and a number of human cells. The long-term effects of many new chemicals are supposedly not known. It has become quite obvious, however, that any substance able to destroy a cell in plants or in insects will also destroy human cells. It will take a little more time but the end results are the same.

CONCLUSIONS

It has become clear in the last two decades that man is an inseparable part of the natural environment. Whatever happens to the waters around us will eventually happen to the waters within us. Poisons that enter the global water-systems in Japan may end up in the Antarctic as well as in the brains of Canadians eating canned fish.

Industrial mercury released in Northern Ontario may show up in fish and harm the growth of children in North Bay or Toronto. We are indeed living in a global village. Only continuous monitoring of the quality of the waters, and the air and the wildlife of Northeastern Ontario will give us timely warning signals. New environmental legislation, environment-oriented education in the schools, and excellent reporting by the communication-media have contributed to a greater awareness of man's dependence on clear air, unpolluted water and food without chemical contaminants.

The decisions of the 1970's will decide the health and well-being of generations of people to come.

Senior high school, university instructors and medical doctors will find more detailed information on this topic in "Health Effects of Environmental Pollution" by Dr. G. L. Waldbott, the Mosby Company, 11839 Westline Industrial Drive, St. Louis, Missouri, 63141. Teachers of Grade 8 or 9 science will find the following two texts useful in the classroom: Asphalt Jungle, Water World, Investigations in Science Series, Wiley's of Canada, Rexdale, Ontario. These books were written in Ontario for Canadian schools.

Reprinted: Courtesy
Nipissing University
North Bay Scuba Club.

* *

POT POURRI

Many of you will know Stan Talesnick from his Active role in many aspects of C.O.E.O.; and from the leadership he has given in outdoor education. We are pleased to learn that Stan has accepted the position of Camp Director at the Ontario Camp Leadership Centre. He will head up those courses which have a focus on skill development including the successful course for teachers which is offered in August.

ABOUT THE ENVIRONMENT

THE LAST RITES OF SPRING

By Thomas J. McAuley

It is said that in spring a young man's fancy turns to young ladies or -- if the young man is very young -- to baseball. In many Ontario communities, however, spring turns the young man's fancy to poaching!

The above is not an idle statement. The problem of poaching in Ontario is acute, and many of the poachers are young! Boys that for many reasons venture out along the streambanks each spring in an illegal search for the spawning rainbow trout.

The problem was brought home to me when I was a newspaper reporter in Collingwood.

The Collingwood area abounds in rainbow trout spawning streams. The Pretty River, the Beaver River, the Nottawasaga River, the Batteaux River and Indian Brook are just some of the major spawning runs within a few miles of Collingwood. In April the rainbow begin actively entering the streams to spawn. The large females seek gravel beds in which to scoop out their nests. The gravel beds are located in shallow water and the fish are exposed.

Also in April, the Ministry of Natural Resources organizes teams of conservation officers and bivouacs them in motels in the major 'poaching problem areas.' I was interested in writing a news story concerning poaching so I contacted the conservation officers in a motel near Collingwood. I was informed they had just nabbed five poachers with 23 rainbow trout. The trout were illegally netted out of the Batteaux River.

I was shocked when I heard the story from the officers. The poachers ranged in age from 13 to 15 years!

All were students in the Collingwood elementary school system. I had always pictured poachers as swarthy, tobacco chewing, stubble faced 'good ole boys.'

In my conversation with the officers I discovered that it was not uncommon for youths to be poachers. In this case, as the poachers were all juveniles, I was not able to obtain their names. Therefore, I was never able to interview them and discern their reasons for their illegal actions.

Later, in discussions with friends of mine in the Collingwood area, I learned more about the problem. A good friend, who has a 12 year old son, told me about the days when he was a youth and when poaching was a spring ritual.

"Each spring when winter broke and the weather turned balmy we would skip school and go poaching," he told me. "Our fathers gave full approval, or at least didn't object too vigorously. As young boys we would head to the spawning beds with home made nets, spears, rakes, or even pitchforks. Anything we could think of to capture the fish we used. Every spring I filled the family larder with trout. We never looked at the spearing of trout as being illegal. Hell, it was a tradition."

After hearing this story of the 1940's it did not surprise me when my friend's son proudly related a story where he and a buddy had recently speared a ten pound rainbow in a small creek near their home.

His story was interesting because it explains one reason -- a fairly common reason, I suspect -- why young boys will poach rainbows.

The boy and his friend were spending a Saturday 'exploring' along the creek near their home. While doing so they spotted the big trout in a shallow pool. They

tried capturing it with their hands but could not. Using problem solving logic that would make Piaget proud, the boys fashioned a crude spear from a young tree. They sharpened and barbed the spear by carving the branch with a large hunting knife. The resulting weapon was crude but it was effective enough to kill the trout with repeated stabbings.

Poachers are of three types: the professionals, who spear, net or, in isolated cases, dynamite the fish in order to collect the roe (the roe is sold to legitimate anglers as bait;) the illegal fisherman, who ignores the game laws and uses large treblehooks to snag the visible spawning fish: and the irresponsible poachers, who take the fish by any means, net, snagging, spears, rakes, pitchforks, or even crude spears fashioned from young trees.

The young poacher usually falls into the latter category. His reasons for doing so are numerous. It is not uncommon for young boys to perform cruel acts without really understanding the cruelty and deprivation of their actions. To them poaching rainbow is often just a lark, a fun thing to do on a warm spring day. It may be a spur of the moment idea, as it was for my friend's son, or it may be well planned, as it was for the juveniles the conservation officers arrested.

It is easier to understand the actions of the two other types of poachers, the professionalists do it for profit, and possibly for the excitement of doing something illegal. The snagger is a fisherman who has not developed his or her angling skills to a degree good enough to catch the fish legally. Their reason for snagging is often frustration. Frustration at their own inability.

The carnage left by the professional poachers need only

be seen once never to be forgotten. With their spears they skulk the streambanks at night wantonly killing the female trout. At daybreak the banks are littered with the dead rainbows with bellies slit open to release the spawn.

The young poachers may not be so calculated and dedicated in their cruelty but the result is the same -- female trout killed before they can complete the instinctive battle to propogate the species.

The courts can not be relied upon to end the practise of poaching. As one conservation officer put it, "The judges just don't consider it (poaching) to be a serious offense." Poachers apprehended and brought before our courts usually end up paying a small fine.

For teachers the answers are obvious -- education. Teachers can be a powerful guiding force in instructing students in proper appreciation for their environment and its' inhabitants. In doing so the teachers will have taken a giant step in forwarding the cause of conservation.

In Ontario there are dozens of streams where trout and salmon spawn. If there is one near your school system the problem of juvenile poachers is problem evident. And if not evident, then likely inevitable!

Data on poachers and of the problems of spawning fish can be obtained from any regional office of the Ministry of Natural Resources. Teachers should make use of the ministry and the conservation officers to assist with any program or lessons concerning poaching.

Data regarding the laws governing sports fishing in Ontario is published each year by the Ministry of Natural Resources in a pamphlet entitled 'Fishing 1978 Summary of the Regulations.' The pamphlet may be obtained from any Resources regional office, or from most sporting goods stores that sell fishing equipment.

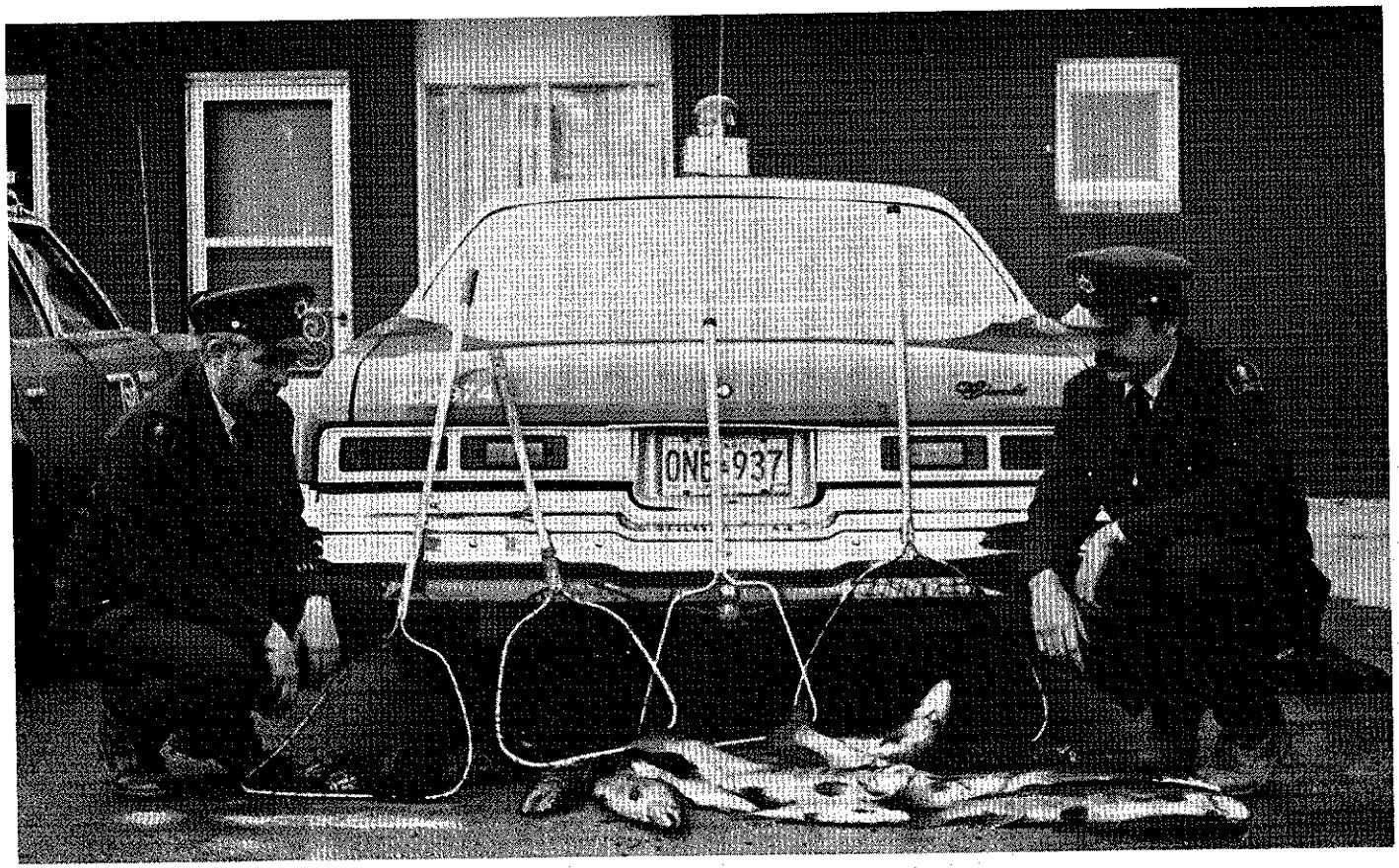
Making room in the school curriculum should not be difficult. In the intermediate levels it can be taught in many science units that are concerned with the environment or conservation. It can also be included in many geography units. If the school has a program in family studies it can be included there. Also, if the teacher is one that holds classroom meetings I am sure the topic of fishing would not be difficult to get started.

Angling is the second most popular sport in North America, exceeded in popularity only by bicycling! If you find this hard to believe take a look at the following figures concerning fishing practises in Ontario. The data was collected by E. T. Cox in 1970 from information derived when Ontario had mandatory resident fishing licences.

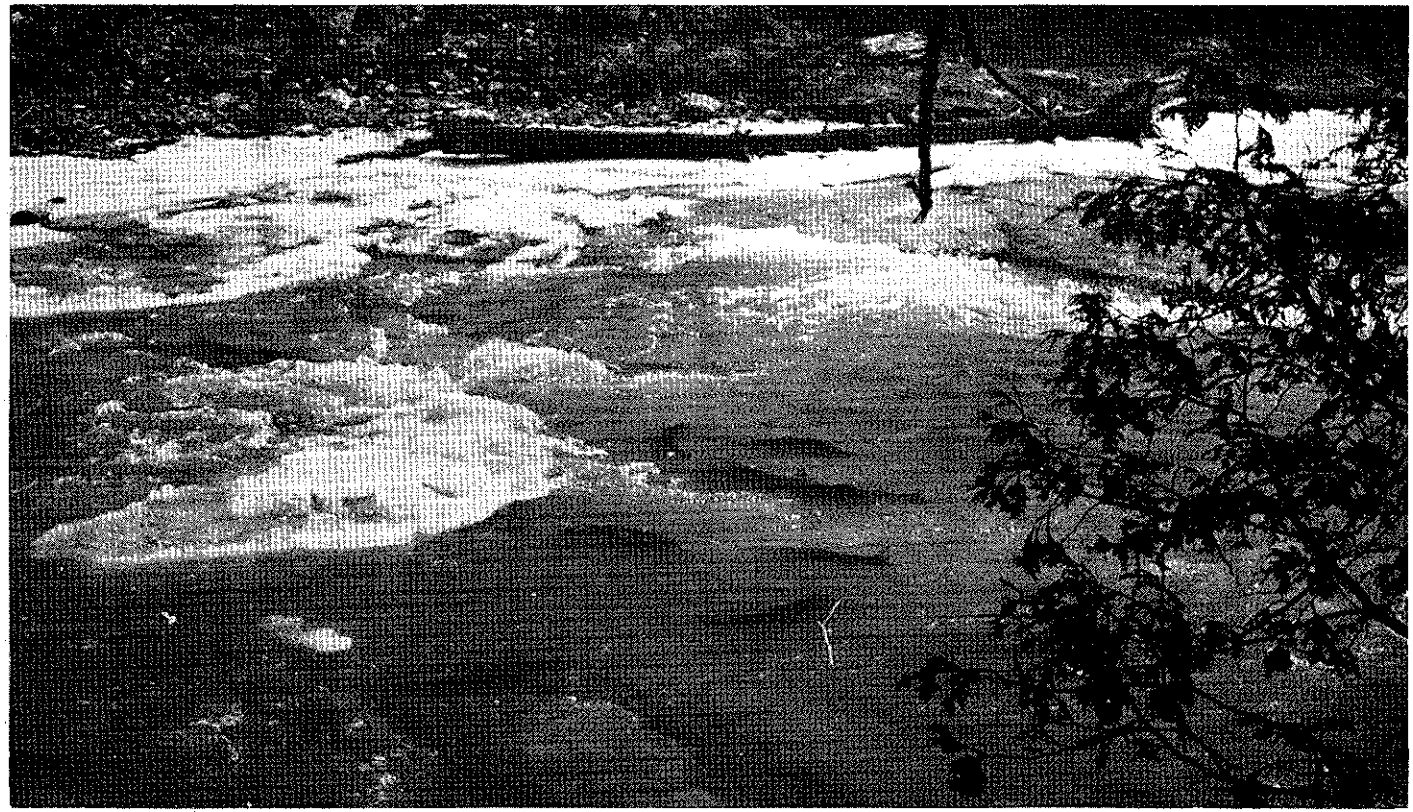
One out of five men fish; one out of every seven women fish; one out of every three boys fish; and one out of every four girls fish. In 1969 resident and non-resident anglers spent $200,676,000 in pursuit of their sport.

What areas of Ontario are especially susceptible to the practise of poaching? Almost anywhere is a handy answer. There are 36 spawning streams that enter Georgian Bay, 13 that enter Lake Huron, 62 that enter Lake Ontario, and 19 that enter Lake Erie. In Northern Ontario almost any stream network that enters Lake Superior will have spawning grounds for rainbows.

The task will not be easy for the teacher concerned with furthering conservation practises. In some areas of the province poaching is almost a way of life for some people. It is a tradition, and traditions do die hard. It will take a concentrated effort to end poaching and if it is to ever end then education must take the leading role in bringing about its' demise.



The damage young kids can do! These two conservation officers nabbed five juveniles with nets and 23 rainbow trout. The fish were illegally netted from the Batteaux River. All of the juveniles were students in the local elementary school system.



Migrating rainbow trout take a breather while fighting their way up Collingwood's Pretty River to the spawning grounds. The Pretty River is closed during spring for sport fishing but the exposed fish make an easy target for the poacher's spear. This picture was taken during the second week of April.

THE OUTDOOR GOURMET

POTATO PEEL BROTH

(also known as Garbage Soup)

One of the most useful and delicious preparations I have found for the making of various soups is this hideous-sounding liquid. I never throw away a potato peel; if I don't have everything I need at the same time, I simply boil my potato peels in water and salt whenever they happen to come off the potatoes, and put away the potato water to complete the broth at another time.

Peels from 6 to 7 large, healthy potatoes
1 large onion
2 carrots
1 small stalk celery
1½ quarts water
a sprig of parsley
1 clove garlic (optional)
salt and pepper
MSG

Peel the potatoes after washing them carefully, taking off strips at least ¼ inch thick. Peel the onion and quarter it, wash the carrots and celery and cut them into large pieces. Put the potato peels and all the vegetables into a large pot with 1½ quarts of water, add a small sprig of parsley and, if you wish a peeled clove of garlic. Simmer over a low flame for at least 1½ hours, or until all the vegetables are very soft. Add water as it evaporates, keeping everything covered. When the peels and vegetables are tender, either one of two courses may be taken: for a clear broth simply drain off the liquid and correct the seasoning, for soups where the consistency of a very thin puree is desirable, remove the celery and garlic and press the rest through a sieve until only a dry pulp of peels remains.

Variations on this broth may be effected easily by the addition of various other vegetables, in small amounts, or by seasoning with herbs such as bay leaf or sweet basil. The basic broth should be fragrant, light brown

in colour, and delicious to the taste all by itself. It is used as the basic for several soups in this book, and you will no doubt find variations of your own.
This recipe makes about 6 cups.

Reprinted from--The Vegetarian Epicure
by--Anna Thomas
Vintage Books, Random House, New York

* *

Creative Arts

EARLY SPRING

Now the soft rain comes over the blue hill,
And the red-shouldered blackbird sounds his flute
Along the meadows of the Silvermine,
Between its willow banks the winding stream
Is tinged with violet dusk, as the great moon
Rises in splendour on the Eastern ridge,
And through the twilight all the marshy ground
Rings with the silver chorus of the frogs.
In rocky groves the shy hepaticas
Awake to don their softest blue once more,
And troops of golden adder's-tongue return.
In cool damp woods Jack-in-the-pulpit stands,
And the dark trillium for a mystic sign;
That all the old earth magic is renewed.

Bliss Carman

DATEBOOK

Conservation Leaders To Meet in Toronto:

North America's annual gathering of natural resources conservation leaders will be in Toronto this year. The 44th North American Wildlife a nd Natural Resources Conference is scheduled for March 24-28 at the Harbour Castle Hilton Hotel in Toronto, Ontario. About 1,200 participants from all over the world are expected to attend. The Conference, which convenes each year in a major North American city, was last held in Toronto in 1942.

Sponsored annually by the Wildlife Management Institute, the Conference will follow the National Wildlife Federation's annual convention which will run from March 24-28 at the same location.

The North American Conference is noted as the one conclave each year where the entire conservation community comes together to exchange new ideas and information. Meeting at the Conference will be organizations such a s the National Audubon Society, International Association of Fish and Wildlife Agencies, Safari Club International, The Wildlife Society, Ducks Unlimited, Sierra Club, Boone and Crockett Club, National Waterfowl Council, Wilderness Society, Outdoor Writers Association of America, Natural Resources Council of America, Izaak Walton League of America, and more.

Also attending will be the Leaders of Canada's federal and provincial resource agencies, directors of the 50 state fish and wildlife agencies, heads of U.S. federal land-management agencies, and Mexican natural resources officials. Representatives from many Asian, European and African nations will be there too.

Although related meetings and events will get underway

Saturday and Sunday, March 24 and 25, the Conference will open formally Monday morning, March 26 with a welcoming address by the Honourable William G. Davis, Premier of Ontario. The opening session will be followed by two sessions that afternoon. Four sessions are scheduled for Tuesday, March 27, and the final session will be Wednesday morning, March 28.

This year's program is planned to be of special interest in Canada and northern regions of the U.S. It includes sessions on wildlife administration in Canada, northern resources developments, wildlife research needs, managing international resources, the Great Lakes, native peoples and others.

The public is invited to participate in all conference sessions. The registration fee is $10. Spouses, students and media representatives may register free.

A press headquarters will be maintained during the Conference, beginning Sunday afternoon, in the Richmond Room of the hote.

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The Y.M.C.A. is for the sixth year offering it's annual canoe instruction course to teachers on June 1st, 2nd, and 3rd, at Camp Pine Crest. The Director is again C.O.E.O. member Larry Bagnell and the special guest is Emile Maschek who holds the highest standing in history for a Canadian in the downriver event at the World Championships.
As this event is annually filled several months in advance we suggest, if interested, you obtain a more detailed program and schedule from the Y.M.C.A. Camping Service, 36 College Street, Toronto, Ontario. M5G 1K8. Telephone-922-7474.

Larry Bagnell,
Director, Canoe '79.

REGIONAL NEWS

Central Region is sponsoring a spring workshop at the Frost Centre in Dorset, from May 11th to 13th, 1979. Suggested workshops are orienting, survival, making camping clothing, sawmill demonstration and low-impact cooking.

Cost is $40. for C.O.E.O. members, and $46. for non-members. Send name, home phone number and address, business address and phone number, plus C.O.E.O. membership number to:

Mary Parulski,
1005 Midland Ave.,
Scarborough, Ont.
M1K 4G7

* *

As a classroom teacher in a large city, I have different concerns on outdoor education than a full-time teacher in outdoor education at a centre or residential school. Central Region is interested in looking into organizing a Fall workshop on use of the schoolyard, city parks, lawns....by classroom teachers of the Primary Grades. Anyone interested in helping or with ideas on this area of teaching, please contact:

Dinny Biggs,
c/o Lord Dufferin School,
303 Berkeley Street,
Toronto, Ontario.
M5A 2X6

BOOKS - MAGAZINES - FILMS

Nature Quizzes for Canadians

by Vicky and Bill McMillan

J. J. Douglas Ltd., 1976.

A truly Canadian book, stressing topics unique to this country and including only plants and animals occurring in Canada, this collection of nature quizzes will spark research and interest amongst all age groups. The author's belief that thought provoking quizzes can teach a great deal about a subject is clearly borne out in the pages of questions about a wide variety of subjects in Canadian Natural History.

MISNAMED ANIMALS

Because of superficial similarities to unrelated species, many animals have inaccurate and confusing common names. How many misnamed animals can you spot in the following quiz?

1. Which "crab" is not a crab? (a) Hermit crab (b) Horseshoe crab (c) Rock crab

2. Which is not really a worm? (a) Tapeworm (b) Shipworm (c) Earthworm

3. When is a "minnow" not a minnow? When it is a small (a) Shiner. (b) Goldfish. (c) Northern Pike.

For each group, pick the bird that is taxonomically out of place:

4. (a) Hermit Thrush (b) Northern Waterthrush (c) Swainson's Thrush

5. (a) Sharp-shinned Hawk (b) Goshawk (c) Common Nighthawk

6. (a) Fox Sparrow (b) Song Sparrow (c) House Sparrow

7. Despite their names, sea cucumbers are animals, most closely related to (a) starfish. (b) jellyfish. (c) barnacles.

8. Which of the following is not an insect? (a) Sowbug (b) Stink bug (c) Ladybug

9. True flies (Order Diptera) do not include (a) house flies. (b) sawflies. (c) crane flies.

10. Which statement is true about the Northern Flying Squirrel (*Glaucomys sabrinus*)? (a) It is not really a squirrel. (b) It cannot really fly. (c) It does not even occur in northern Canada.

MISNAMED ANIMALS – *ANSWERS*

1. (b). All three are arthropods, but hermit and rock crabs are true crabs (Class Crustacea). Horseshoe crabs (Class Merostomata) are more closely related to spiders than to crustaceans.

2. (b). Shipworms are actually marine mollusks related to clams, oysters and other bivalves. Their shells are greatly reduced, but their soft bodies may be as long as 2'. Shipworm borings through pilings and other wood account for much destruction. "Worm-eaten" specimens of their work are common on beaches.

3. (c). Many small fish are called minnows, but shiners (*Notropis* spp.) and Goldfish (*Carassius auratus*) are true minnows, members of the large Minnow Family (Cyprinidae). Northern Pikes (*Esox lucius*) belong to the Pike Family (Esocidae).

4. (b). The Northern Waterthrush is not a thrush (Family Turdidae) but a warbler (Family Parulidae).

5. (c). Sharp-shinned Hawks and Goshawks are accipiters (true hawks)—long-tailed, short-winged, flesh-eating birds. Common Nighthawks, like Whip-poor-wills, are goatsuckers (Family Caprimulgidae)—nocturnal, insectivorous birds.

6. (c). House, or English, Sparrows, introduced to Canada, are not related to the Fox Sparrow, Song Sparrow and our other native sparrows (Family Fringillidae). Instead, they are weaver finches (Family Ploceidae).

7. (a). Like starfish (also misnamed), they are echinoderms. Jellyfish (not fish, of course) are coelenterates, related to sea anemones (again, misnamed, because they resemble flowers). Barnacles are crustaceans.

8. (a). Sowbugs are crustaceans that inhabit moist places on land. (And ladybugs, incidentally, are not bugs, but beetles—Order Coleoptera.) Stink bugs are true bugs (Order Hemiptera).

9. (b). Sawflies (Order Hymenoptera) are relatives of wasps and ants.

10. (b). Northern Flying Squirrels *are* squirrels (Family Sciuridae), found throughout most of Canada. However, they *glide* (do not really fly) using an outstretched layer of skin along each side of the body.

* *

Do you know that Paul Wagner of Environment Canada has information packages available for weather studies?

* *

Do you know that if you order trees from the Ministry of Natural Resources to embark on a tree planting program, you can obtain free Tree Grower's Calendars, as well as free advice with planting plans, insect and disease problems, pruning and thinning?

ANIMATED FILM ON WATER

BACKGROUND

Since the autumn of 1977, the Conservative Authorities Branch, Ministry of Natural Resources, has been associated with the National Film Board (NFB) in the production of an animated film on water. The film is designed to improve the public's understanding of water as a complex resource, and of the need to manage it wisely on an integrated watershed basis.

Scheduled for release in July, 1979, the film will be available for use by television stations, cinemas, libraries and educators through the NFB distribution network.

DESCRIPTION

Led by the "Chief," animated water droplets fall, on their initial mission, to the earth in the form of rain. On their many adventures through a watershed they pass through agricultural lands, the main river itself, a natural and man-made filtration process, an urban household, and a sewage treatment plant. On the journey through the river system the water dropleta encounter many "nasties" and "beasties", otherwise known as pollutants. Through evaporation some of the droplets, including the Chief, are saved from these adversaries, only to find themselves immediately involved in another dangerous mission.

The film will be 8 - 10 minutes in length and be available on 35 mm for theatrical release, 16 mm and video cassette for educational distribution and telecast. Educational aupport materials will be developed to assist educators in portraying the various water management concerns to film audiences. Subject areas which may be elaborated upon after reviewing the film include Conservation Authorities in Ontario, hydrological cycle, conservation of water on a watershed basis, and factors affecting water quality and quantity within a watershed.

ENERGY: SOURCES, USES AND CONSERVATION

(A Teaching Outline)

Grade 1

1. Energy can be defined as the ability to act, move and do work.
2. Sources of energy: the sun, horses, people, machines.
3. How do we use energy?
   Observation of familiar things that are energy:
   (a) in the school building: furnaceroom and heating system, lights, vacuum cleaners, electric stoves and appliances.
   (b) around the school : Hydro and telephone poles, cars and buses on parking lot, gas and/or oil pipes.
   (c) at home : stove, furnace, lighting, cars, boats, snowmobiles, air conditioning, water heater.
4. Food as a form of energy.
5. Do toys need energy? : Mechanical kits, balls, bicycles, spinning tops, electric-trains, Yo Yos, wind-up toys.
6. How can we use less energy at home or at school?

Grade 2

1. Energy can be defined as the ability to act, to move and to do work.
2. The Four Seasons:
   (a) Spring : More sun energy reaches Canada in the form of heat and light.
      i. the days get longer (13 hours of light in April);
      ii. the snow and ice melt;
      iii. trees start to grow, grass turns green;
      iv. we change to lighter clothing;
      v. people use less heat and electricity.
   (b) Summer : The sun gives Canadians plenty of light and heat.
      i. in Canada we receive from 15 to 24 hours of daylight in June;
      ii. lakes and swimming pools warm up;
      iii. crops grow well;
      iv. water evaporates from roads and parking lots;
      v. wind as a source of energy: sailboats, windmills, tornados;
      vi. energy uses in summer : holiday travel, the use of fans and air conditioning; refrigeration of food.

(c) Autumn : In Canada we receive less energy from the sun.

i. the days are getting shorter;
ii. temperatures drop outdoors;
iii. nightfrosts occur;
iv. trees shed their leaves;
v. animals prepare for winter: thicker fur, storage of food, migration, hibernation.
vi. people prepare for winter:
- warmer clothing is used to preserve body heat;
- the furnace gets a check-up,
- cars and buses get snowtires;
- the last food is removed from gardens and stored for winter use.

(d) Winter : Little solar energy reaches us in Canada.

i. the days are short (8 hours in December;)
ii. water freezes while giving off some heat;
iii. electricity, natural gas, coal and wood are used to heat our homes;
Do we need classrooms and living rooms warmer than 20-22 degrees C?
How can we save energy and money?
-by turning off the lights when they are not used;
-by using automobile engine heaters as little as possible;
-by lowering the room temperatures at night;
-by having ceilings and walls well insulated;
-by turning off the TV set when no one is watching;
-by preventing heat losses through drafty doors and windows;
-by fixing dripping hot water faucets;
-by using washing machines and dishwashers with a full load only;
-by using automobiles and snowmobiles less frequently.

The origin of fuels used for heating homes and driving vehicles, cooking food and operating industries.

Experiments now being conducted to trap more solar energy for uses in homes, schools and industries.

Grade 3

1. The Woodlands : Sunlight is needed for photosynthesis. The chlorophyll in the leaves helps trees to trap sun energy and store it in the form of wood. When wood is burned this energy is released.
Dark soils absorb sunlight readily and warm up sooner than light coloured soils.
The warmth of a soil helps plants to grow.

2. Birdlife : - the use of feathers to prevent the loss of body heat and keep out cold air.
- fat stored in summer and autumn can be

used to keep warm in winter.
- special adaptations of birds to arctic conditions: feathers on feet acting like a snow shoe, burrowing in snow to keep warm and protection from cold winds.

3. Water : The energy in running water can be used to generate electricity.
The uses of water in heating homes and schools.
The use of water to carry away wastes from kitchens and industries.
Pollution.
Ice needs heat to become water.

4. Comparing Animals :

How do animals get their energy?
Compare how they use their energy : swimming, flying, running.
How do seals keep warm in ice cold water?
Why don't elephants get too warm in tropical countries?

5. Thermometers :

- thermometers measure the hotness of air, water or food;
- the celsius scale is the most common one today;
- freezing water, boiling water, room temperature;
- graphing outdoor temperatures;
- sources of heat at home and at school.

6. The Moon :
- the moon is visible because the surface reflects sunlight;
- the gravitational pull of the moon helps to form tides in the ocean;
- people in France and Russia use the tides to generate electricity.

7. Plants :
- seeds need a warm space to germinate and grow;
- crops such as corn, rice, wheat and potatoes as a source of energy for man.

8. Rain :
- the water cycle;
- evaporation requires heat;
- condensation releases heat;
- erosion of unprotected soils.

WHAT CAN WE DO TO USE LESS ENERGY AT HOME AND IN SCHOOL?

Other grade levels to follow in future issues.

By- B. J. Vandenhazel

A second National/International Outdoor Education Workshop has been scheduled for July 30 - August 10, 1979 by Northern Illinois University's Faculty of Outdoor Teacher Education.

The initial workshop last summer attracted participants from twenty states, three Canadian provinces and Australia. The site for this year's special event will again be the Lorado Taft Campus near Oregon, Illinois. Enrollment will be limited to fifty persons. Three semester hours of graduate credit may be earned.

The twelve day intensive session will focus on self-renewal and leadership development. Opportunities will be provided for a variety of activities, field experiences, discussion groups and presentations within a framework of the following major themes: curriculum development, environmental awareness, resident programs, cultural history and traditions, and outdoor recreation.

A core of six staff members will provide continuity throughout the workshop. They will be aided by visiting resource people who will join the workshop for a few days at a time.

For a full description of format, program, resource personnel, accomodations, and costs write to: Dr. Bud Wiener, Workshop Director, Taft Campus, Box 299, Oregon, Illinois, 61061, or call 815-732-2111.