

# Halifax Field Naturalists Newsletter

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MARCH-MAY 1986

No. 43

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return address:

Halifax Field Naturalists  
c/o Nova Scotia Museum  
1747 Summer Street  
Halifax, N.S., B3H 3A6

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MARCH-MAY, 1986

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**MEETINGS:** First Thursday of every month at 8.00 p.m. in the Auditorium of the Nova Scotia Museum, 1747 Summer Street, Halifax.

**FIELD TRIPS:** are held at least once a month\*\*\*\*\*It would be appreciated if those travelling in someone else's car on field trips share the cost of gas.

**MEMBERSHIP:** is open to anyone interested in the natural history of Nova Scotia. Memberships are available at any meeting of the Society or by writing to ... MEMBERSHIP CHAIRMAN, HALIFAX FIELD NATURALISTS, c/o N.S. Museum.

Individual memberships ..... \$7.00 per year.  
 Family " ..... \$10.00 " "  
 Sustaining " ..... \$15.00 " "

This covers our fiscal year ... JANUARY 1 to DECEMBER 31.

Members receive the HFN Newsletter and notices of all meetings, field trips and special programs.

**EXECUTIVE 1986:**

President .....	Michael Downing	(r)	823-2081
Treasurer .....	Bernice Moores	(r)	422-5292;
Secretary .....	Leigh Mazany	(r)	455-8592; (w) 424-2026
Past President .....	John van der Meer	(r)	455-1029; (w) 426-8276
Membership .....	John van der Meer	"	"

**DIRECTORS:**

Assistant Editor ..	Ursula Grigg	(r)	455-4818
Program .....	Chris Corkett	(r)	479-1134; (w) 424-2565
Program .....	Regina Maass	(r)	477-1469; (w) 424-7006
Publicity .....	Connie Eaton	(r)	423-6971
Bird Atlas .....	Clarence Stevens	(r)	469-6144
Director .....	Colin Stewart	(r)	466-7168; (w) 424-3737 or 3829
Director .....	John Strong	(r)	477-1351

**NEWSLETTER:**

Editor .....	Doris Butters	(r)	463-0033
Asst. Editor .....	Ursula Grigg	(r)	455-4818
Editorial staff .....	Edna Staples	(r)	868-2919
	John Strong	(r)	477-1351

(with the help of other members).

**MAILING ADDRESS:** Halifax Field Naturalists  
 c/o Nova Scotia Museum  
 1747 Summer Street, Halifax, N.S., B3H 3A6

HFN is a member organisation of the Canadian Nature Federation.  
 HFN is incorporated under the Nova Scotia Societies Act.  
 HFN NEWSLETTER is produced by courtesy of the Nova Scotia Museum.



# notices

IT'S UP TO US . . . . .

CANADA ENVIRONMENT WEEK (1 - 7 JUNE 1986)

---oOo---

We are all very much aware of the importance of nature and the need to protect it. That is also the reason why HFN is actively helping organise Canada Environment Week.

During the first week of June we will bring to a larger audience the message ..."It's up to us". It is more than true that WE have to do something about our environment, be it in the city or the countryside, at sea or on land, in the High North or in southern Ontario. Let's prove that the initiative to protect our natural environment does not depend on the federal and provincial governments alone!

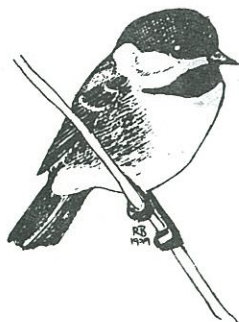
An ambitious program is being set up (a dozen groups pledged their participation and 30 events are scheduled). You will hear more on TV, radio and in your daily newspaper. HFN has organised two special walks during the week.....

On Sunday, 1 June, at 2.00 p.m., marine biologist URSULA GRIGG will lead a beach and backshore walk to Cow Bay. We meet at the moose statue in Cow Bay at 2 pm.

On Saturday, 7 June, at 2.00 p.m., field naturalist PIERRE TASCHEREAU will tell us more about the flora of Point Pleasant Park. Meet at the Halterm parking lot at 2 pm.

Use the opportunity to get some of your 'unconcerned' or 'maybe interested' friends out.

. . . . . The more the merrier ! !

SUMMER COURSES - 1986TERRESTRIAL BIOLOGY -*Boreal Chickadee*

*A Birdwatcher's Guide  
to Atlantic Canada.  
R. Burrows*

A residential summer school course --- "Introduction to Terrestrial Biology" will be offered by Dalhousie University from June 4-24, 1986. The course is worth a half credit towards an Honours or Major in Biology at Dalhousie University.

- Enrolment will be limited to 25 students;
- Tuition fee is \$166 CDN and covers all field and laboratory supplies and equipment;
- Accommodation is available at a Hall of Residence at \$133 CDN per seven-day week and includes three meals a day and a single room;
- No academic prerequisites are required, but students must meet the admission requirements of the University before they can register for the course.

The instructor will be Pierre Taschereau, PhD., Resource and Environmental Studies, Dalhousie University, Halifax.

The program will include theory and field/laboratory trips :-

THEORY:

- Week 1. 1. Flowering Plants  
2. Conifers  
3. Ferns and fern allies  
4. Lichens, mosses and liverworts
- Week 2: 1. Mammals  
2. Birds  
3. Reptiles  
4. Amphibians
- Week 3. 1. Insects and Arachnids  
2. Myriapods  
3. Crustaceans and Molluscs  
4. Annelids

LABORATORY/FIELD TRIP

- Field - old-growth forest  
Lab - forest floor  
Field - lakeside and stream  
Lab - lower plant groups.
- Field - animal signs and live-trapping  
Field - birds of forest and field  
Field - snake, frog and salamander habitats  
Lab - observation, terraria, vivaria.
- Field - habitats of insects and spiders  
Field - anthropogenic habitats  
Lab - centipedes, millipedes and sowbugs  
Lab - slugs, land snails and earthworms.

For details contact: The Chairman, Dept. of Biology, Dalhousie University, Halifax, Nova Scotia, B3H 4J1 (902: 424-3515)



Please send me more information on the Dalhousie University marine and terrestrial biology course.

NAME \_\_\_\_\_

HOME ADDRESS \_\_\_\_\_

\_\_\_\_\_ POSTAL CODE \_\_\_\_\_

TEL NO. (HOME) \_\_\_\_\_

TEL NO. (WORK) \_\_\_\_\_



WHALES AND SEALS OF EASTERN CANADA -

-- An introductory course on the whales and seals of Eastern Canada will be given this summer to familiarise the participants with some of the common marine mammals found off Eastern Canada, including right, fin and humpback whales, together with grey, harbour and harp seals.

Topics include:

Description, commercial importance, breeding, life history, historical background, the sealing controversy and an overview of the marine community.

Handouts, films and coffee will be included and a whale watch weekend will be spent in the lower Bay of Fundy. An eight-hour cruise will take place aboard the 44-foot "Kenny and Girls 5", which will sail out of Westport, Brier Island.

Dates:

Wednesdays, July 6 - Aug. 6, 1986  
Saturday and Sunday - 2-3 August (Whale Watch, Brier Island).

Times:

Wednesdays: 7.30 to 9.30 pm  
Saturday and Sunday: 9.00 am to 5 p.m.  
(8-hour Cruise)

Instructor:

Chris Corket, PhD., Biology Dept.,  
Dalhousie University, Halifax.  
Telephone: 424-2565

Fees:

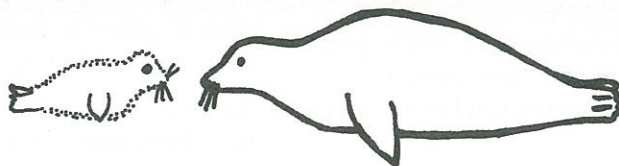
\$195.00 which includes the 8-hour cruise with transport to be arranged.

Enrollment :

Limited. To enroll for the course or to obtain further information, contact Chris Corkett at the above number or write to him at Dalhousie University, Halifax, N.S., B3H 4J1.

Program:

Wed. July 16. . . . . Introduction  
"Baleen Whales and film.....  
Where the bay becomes the sea"  
  
Wed. July 23 . . . . . Toothed Whales  
" " 30 . . . . . Seals  
Sat. Aug. 2 and Sun. Aug 3 . . . . . Whale Watch  
Wed. Aug. 6 . . . . . A:- Review  
B:- Sealing Controversy



NOTE:- Chris will also lead a Whale Watch Cruise for HFN members on July 19/20. Information on this appears elsewhere in this newsletter.

WHALE WATCH WEEKEND  
SATURDAY/SUNDAY - JULY 19/20, 1986.

A four-hour Whale Watch Cruise, sailing out of Westport, Brier Island, has been arranged for Saturday and Sunday, July 19/20. We meet at Robicheau's store in Westport on the Saturday at a time to be arranged later. Cost will be \$25. per head.

Bring sleeping bags for use in an empty house with running water and heating facilities, or bring camping equipment for use at Brier Island campsite. There are also some bed-and-breakfast facilities in a private house.

It is expected that most cars will leave Halifax on Friday afternoon and drive at least part of the way. For car pooling and further information leave your name with Chris Corkett at 479-1134 (evenings).

Common whales we are likely to see include right, humpback, fin and minke whales, together with harbour porpoise and white-sided dolphin. In addition we can expect to see a variety of seabirds and grey and harbour seals.

Chris Corkett.

CATHERINE TRAILL NATURALIST'S CLUB is organising a field trip to Calgary from June 6-13. Anyone interested in attending "An Alpine Workshop at Banff" should contact: Dr. George McKiel, R.R.#2, Delisle Farm, Alexandria, Ontario, K0C 1A0

THE SIERRA CLUB OF ONTARIO is organising hiking holidays in England's Peak District and North Wales, September 6-20, 1986. If interested, contact The Sierra Club at 191 College Street, Toronto, Ont., M5T 1P9

## hfn news

### FOSSILS -

By now most of us know about the exciting fossil finds recently made near Parrsboro but are we aware that it is against the law in Nova Scotia to dig fossils or artifacts without a Heritage Research Permit? This protection for N.S.'s heritage resources is part of the Special Places Protection Act passed by the Legislature in 1980 - an Act which covers historical, archaeological and paleontological sites, including those under water.

Loose fossils, not attached to bedrock, are yours to keep. Fossils are often washed out of cliffs by waves or erosion, and have lost most of their scientific value. Bob Grantham, the NSM's geologist can help you find information about them, and would like to see any fossil that is particularly nice or interesting. But .....

Fossils still in the bedrock must be left alone. Only people with a Heritage Research Permit may collect fossils still attached to solid bedrock. And ...

You may collect one or two artifacts from the surface only (stone tool, piece of pottery, etc. but...DO NOT DIG BENEATH THE SURFACE.

The NSM asks us to help find the site later by marking it on a map, photographing it and writing a short description of it, and sending or bringing the artifact to NSM.

So - if you like to go fossil hunting, first get your permit, or read the little pamphlet recently published by NSM ----- "Do Not Disturb".

### REGIONAL HIGH SCHOOLS 1986 SCIENCE FAIR PRIZEWINNERS -

At this year's Science Fair, John van der Meer awarded a \$20 book gift certificate and a year's family membership in HFN to the following students -

In the Gr.11-12 section: MICHAEL SAUNDERS of Dartmouth High School for his display of Animal Skulls, and in the Gr.8-9 section: HILARY BELL of Creighton Park Jr. High for her presentation on Acid Drainage at Halifax Airport.

Michael repeated his presentation at HFN's May meeting, and it is hoped that Hilary will offer us hers at the June meeting.

OUR CHANGING STYLE OF DIRECTION

A message from the incoming President,  
Michael Downing

When I first became involved with the Halifax Field Naturalists five or six years ago, directors' meetings were held mainly to plan the program. Occasionally, such meetings also planned entire major projects. Other projects were managed almost autonomously by individual directors. The only committee, the newsletter committee, also worked very much on its own. Presidents and other interested directors addressed environmental issues on behalf of the club freely, without always even reporting their actions to the Board. In effect, there was no executive - just a loosely-knit association of individuals sometimes working as a committee. That things went as well as they did is to the credit of a few energetic people who did the work. Things did go very well at times, but an association with this sort of executive structure can thrive only until the inevitable day when its small group of doers moves on to other things.

This lack of continuity is one reason why, in my view, the popular contempt for organizing (The hell with all that stuff! Let's just get out and do it!) is misguided, not to say simplistic. There are many others. In those days the directors could direct no more than they had time to actually do themselves. Even some of that was lost, when those who had done it moved on. We were taking formal positions on political issues, on the basis of single opinions, sometimes without even knowing we had done it. There was no study of priorities, no considered allocation of limited human resources (nor even any attempt to determine just what the limits were), no moderating and co-ordinating of individual efforts and enthusiasms to serve a larger purpose.

Since that time, under John van der Meer, the Board of Directors has discussed the organization problem at length. We have agreed that projects, and certain on-going functions, should be managed by committees, and that the work of the directors' meetings should be to handle the general business of the club and to direct the committees. We have decided to try to draw as many people as possible onto

committees from outside the Executive. We have also revived the office of Secretary. Before that, there was a period of several years during which the directors did not even have minutes of their meetings. This change in our understanding of our role, from that of the people who do everything to that of the people who initiate, organize and coordinate activity from without as well as within, has been the most important act of the Board over the past two years. Without it, there might well be no Halifax Field Naturalists a few years down the road.

I fear, however, that we have not really fully assimilated the fact that directing is the first responsibility of directors, and that no amount of work elsewhere can make up for failure here. It will be my main goal as President, following up on the gains made under the past President, to lead the Board of Directors to full maturity in its newly-perceived role.

Our first priority, from which we cannot allow ourselves to be distracted, must be the health of our essential standing committees which manage the program and the newsletter. By a healthy committee, I mean one which is doing its job well, has good lines of communication with the Executive, and is sufficiently large and well-organized that its operation could not be seriously threatened by the departure of any single member. Next, we must look at our third standing committee, membership and publicity, discuss the needs which led to its formation, and either clarify its mandate and ensure that it, too, is healthy, or disband it. It might then be reasonable to consider new projects involving new committees. However, success or failure will depend not so much on what projects we undertake as how well we manage them. It will always be our first responsibility to ensure the health of all existing committees and to allow the formation of new committees only if they have a reasonable chance of thriving.

The current problem is that the Board has seen the need for delegating responsibility to committees, but it has not yet learned how to do this. We still strike

committees and then gradually forget about them. We still spend a lot of time talking about striking new committees when we haven't got enough people on the ones we already have, to do the work. It's still a fight to stop committees from doing committee work at Directors' meetings, and to keep discussions on topic. We still dissipate much of our energy in false starts. At this point, this problem is the limiting factor on what the Halifax Field Naturalists can do. This is progress. Five years ago, the limiting factor was the time the Directors had to do things themselves.

But there is no theoretical limit on the amount of activity a board of directors can direct, if it runs tight, well-organized meetings and uses the committee system well. And this is my goal as incoming President - not that the club should do any particular thing, but that the operation of the Executive should be sharpened to give the club more ability to do things. The limiting factor on the activity of the Halifax Field Naturalists will then be the total amount of effort all the members want to put into it, and we shall find out where we really stand.

### SAVING THE WILDERNESS

One of the greatest environmental issues facing Canadians today is the depletion and destruction of the last great wilderness areas in the country. It seems as the economy goes down and resources grow more and more scarce, industry is determined to go farther in pursuing raw materials. Concerned individuals can have little impact on the policies of a company but they can directly influence governmental decisions and attitudes by making their feeling known to elected representatives.

Environmentalists the world over are concerned with the fate of South Moresby and Meares Island off the coast of British Columbia.

Prime Minister Brian Mulroney, Ottawa.  
Premier William Bennett, Victoria, B.C.

Gentlemen,

*Canada's British Columbia owns at least two very special world-class forest wilderness areas which are threatened with destruction, and you are the men in elected positions of leadership to take appropriate action to save Meares Island, off Vancouver Island, and the South Moresby archipelago of the Queen Charlotte Islands.*

*Meares Island, adjacent to Pacific Rim National Park, embraces a magnificent rain forest containing cedars 60 feet in circumference and 1500 years old, possibly the biggest and oldest trees in Canada. They will not survive unless the entire island is left uncut, as a rain forest creates its own micro-climate which supports a large interdependent ecological community. Adam Zimmerman, chairman of MacMillan Bloedel, which plans to lumber Meares, told a CBC reporter that there is 'nothing special' about Meares Island, and that a facade of trees would be left so tourists looking across the water wouldn't notice any change. A company led by a man with his attitude shouldn't be allowed near one of Canada's priceless heritage and beauty spots.*

Following is a letter received (by Gary Schneider, editor of Island Naturalist the newsletter of the Natural History Society of Prince Edward Island) from Martin Haase of Chester, N.S., executive secretary of Friends of Nature. This group is the North American affiliate of The Men of the Trees, that Richard St. Barbe Baker worked with for many years until his recent death.

This letter can be used as an example if you wish to voice your opinions to politicians from the Island all the way up to Prime Minister Brian Mulroney. The more you show your concern, the more inclined the government will be to preserve these areas.



The Island Protection Society, which is leading the campaign to save the South Moresby archipelago, has produced a beautiful book entitled Islands at the Edge describing the unique flora and fauna and wonderful beauty of this area. Everyone who reads this book and sees its magnificent photos cannot help but be convinced that South Moresby must be preserved in its virgin stage, especially after looking at the terrible pictures of the clear-cut devastation that has been inflicted upon some of the Queen Charlotte Islands. Jacques Cousteau, who wrote the foreword for the book, is one of the "wholehearted defenders" of the islands and says they are a "unique and therefore priceless microcosm".

As our membership is world-wide, and most of our 20,000 supporters are not Canadians, it is not up to us to tell you how to save Meares and South Moresby. We leave the mechanics up to you and the Indians who have a claim to the lands, but certainly these islands are of top national park quality. They are world-class virgin areas, and just as people from all over the world, including many Canadians, worked to save significant areas of virgin redwoods in California, so now people from many countries are asking you to take action to preserve the forests of Meares and South Moresby.

Sincerely, Martin R. Haase

More on these matters can be obtained from The Western Canada Wilderness Committee, c/o O.R.C., 120 Hornby Street, Vancouver B.C., V6Z 2E2. They are also accepting orders for the book Islands at the Edge (\$29.95) and donations to save the islands.

New members of Friends of Nature are always welcome - they are active in many environmental issues around the world. Write to:

Martin R. Haase,  
P.O. Box 281, Chester N.S., B0J 1J0.



.....If you are a hungry evening grosbeak, how do you reach delectable sunflower seeds from inside a cylindrical feeder designed for smaller birds? Easy. You stand on one leg on the short perch, allowing the other leg to dangle in midair, meanwhile maintaining balance by furious wing-action, and at the same time contort your too-large body into a shape that will allow you to direct your beak into the feeder opening - and there you are ..... eating! An observation from Dorothy Morris's kitchen window during a winter cold spell.

.....Dorothy also noted coltsfoot blooming in Shubie Park on April 5..... mayflowers showing pink, with one in bloom, hazel catkins, aspen catkins fat and grey, elderberry buds with the first little fingers of leaves peeping out on some - all on the 13 of April.

**nature  
notes**

..... On the day of freezing rain which left thick ice around every branch and twig a crow alighted carelessly on the topmost twig of a tall tree near Butters' garden - skidded around in a half circle and back with wings fluttering madly before regaining its balance. Whoops! A second crow followed but flew into a crotch and stayed put.

..... But the big news at the end of March was of the two Eurasian siskins at Ian MacLaren's feeder. Birders came from as far away as Colorado in response to a Rare Bird Alert to observe and list these rarities.

..... Is March 23 early for robins? DEB spotted two at a bird table in Upper Economy on that day.

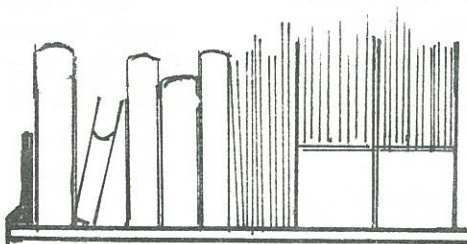
..... Catkins were out in Shubie Park on March 21, Dorothy Morris says.

..... And two Johnny-jumpups were in bloom at Lesley's place near Keji on March 30.

..... Clarence Stevens saw a dozen very sluggish leopard frogs sunning themselves on March 29, at Lower Branch, a town located on the South Shore near Bridgewater

.....and spermatophores of yellow-spotted salamanders were present in Julie's Pond on April 12.

..... At the bird feeder in the Butters' garden in Dartmouth - attracted by a 'mewing' like that of a kitten, Lesley spotted her first catbird flashing its rusty rump in the seedbox, in February. Early in April a large flock of goldfinch, one male already canary yellow, other males changing day by day from an olive drab by increasing amounts of yellow. Three evening grosbeaks appeared one day and some tiny finch-like birds with rosepink on head and neck (purple finch changing to breeding plumage?) and others that were probably female purples.



## on the shelf

New material continues to arrive, most of it containing items of information or general interest. There is also a new contribution - The Osprey - a quarterly put out by Newfoundland Natural History Society. Vol.16 #2 deals with blueberries, bees, birds and budworm; No.3 contains a brief on the caribou herd of the Avalon Wilderness area of Nfld.

N.B. Naturalist, V.14.#3 ....in celebration of New Brunswick's provincial parks 50th anniversary there is a list of parks, a description of their facilities in summer and winter and a map for locating them.

Catherine Traill Naturalist's recent newsletters describe the functions of some soil creatures from protozoa to earthworms..... gene splicing: lending Atlantic salmon anti-freeze genes from winter flounder.... descriptions and illustrations of wild flowers with appropriate extracts from the diaries of Catherine Parr Traill and her sister, Susannah Moody.

St. John Naturalist Club.... growing native trees from seed.... bird feeders and ways to squirrel/cat-proof them.

Island Naturalist....feeder recipes for the birds....the birdbath and not-so-interested birds..... and a rather surprising story on the large and varied system of parks in Nicaragua, remarkable for their beauty and attention to the needs of Nicaraguans.... Part II : Water Birds, part of Geoff Hogan's "Birds of the Past" series.

Nature Canada magazine for Jan/March '86, contains a nicely illustrated article on muskoxen, and another on "An Arctic Oasis" - open water 'polynya' - by Richard Brown of Bedford Institute of Oceanography.

and - as they say - much, much more!

The Library Shelf is on the lowest shelf of the rack to the left of the desk in the foyer of the NSM. PAM boxes and binders hold the contents, appropriately labelled.

## SALUTE TO THE TREES -

Many a tree is found in the wood  
 And every tree for its use is good:  
 Some for the strength of the  
     gnarled root,  
 Some for the sweetness of flower or fruit;  
 Some for the shelter against the storm,  
 And some to keep the hearthstone warm;  
 Some for the roof and some for the beam,  
 And some for a boat to breast the  
     stream --  
 In the wealth of the wood since the  
     world began  
 The trees have offered their gifts to man.  
 But the story of trees is more than their  
     gifts:  
 'Tis a beautiful wonder of life that lifts,  
 From a wrinkled seed in an earthbound clod  
 A column, an arch in the temple of God,  
 A pillar of power, a dome of delight,  
 A shrine of song, and a joy of sight.  
 Their roots are the nurses of rivers in  
     birth:  
 Their leaves are alive with the breath  
     of the earth:

They shelter the dwellings of man; and  
     they bend  
 O'er his grave with the look of a loving  
     friend.  
 I have camped in the whispering forests  
     of pines,  
 I have slept in the shadow of olives and  
     vines:  
 In the knees of an oak, at the foot of  
     a palm,  
 I have found good rest and a slumber's  
     balm,  
 And now, when the morning gilds the  
     boughs  
 Of the vaulted elm at the door of my  
     house,  
 I open my window and make a salute:  
 "God bless thy branches and feed thy root!  
 Thou hast lived before, live after me,  
 Thou ancient, friendly, faithful tree."

by Henry van Dyke

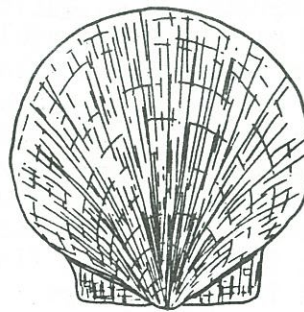
(abstracted from an unknown  
 periodical by Lesley Butters).

# reports

## THE DEEP-SEA SCALLOP: Part II

*In a previously published article it became clear how peculiar deep-sea scallops really are. Moreover, their fine food quality has made them a much-wanted product; this article elaborates on the scallop fishery, and some of its implications,*

It is clear that 'scallop dragging' provides a considerable income to the Atlantic Provinces; \$73 million of scallop meat were sold in 1979, representing a catch of 9208 thousand metric tons. Despite the large cash value of scallops, they will never become 'the food of the future', even if mariculture would supplement the fishery. The limited availability of suitable habitat, poorly-known biology and slow growth hamper expansion. Nevertheless a large number of people make a living by fishing scallops.



DEEP-SEA SCALLOP

Before World War II the scallop fishery was largely restricted to the Bay of Fundy (off Digby) and landings amounted to 225 to 775 metric tons annually. An offshore fishery on Georges Bank (starting in the late 1950's) averaged 9-10,000 tons with a peak of 13,081 tons in 1977. About 90% of Canadian scallop landings originate from Georges Bank; the fleets operating from the ports of Lunenburg, Riverport, Liverpool, Yarmouth and Saulnierville.

Offshore draggers typically measure 30-40m in overall length, they are powered by diesel engines of 400-1800 hp and are able to fish year round. Two drags of

500kg each are operated simultaneously, one on either side of the ship. An 'offshore' drag consists of a heavy metal frame with a bag attached (knit of steel rings of a specific size),

The inshore fishery operates much smaller draggers of 15-20m, each operating one gang of up to seven drags (each drag being a smaller version of the offshore drag). Digby and Northumberland fishermen use Cape Islander boats to drag (with steel enforced aft decks) which are easily converted for trawling, driftnetting or lobstering. The Bay of Fundy (Digby) and to a lesser extent the southern Gulf of St. Lawrence formed the centres of the inshore fishery until recently when several secondary fishing grounds (Browns, Lurcher, and German Bank) began to be exploited. Scuba divers operate a recreational fishery along the Nova Scotia and New Brunswick shores.

The value of the catch has increased over the years due to high demand and dwindling resources. Heavy pressure on the scallop beds has forced the Canadian government to enforce a strict management scheme. The aim is to provide a renewable resource to the fishermen of Atlantic Canada and to avoid as much as possible ups and downs in the scallop populations. However, incomplete knowledge of the basic biology has made the life of fisheries' scientists quite difficult. Scallop recruitment is difficult to predict, adults make poorly understood migrations, etc. And fishing efforts in the scallop fishery are handicapped in several ways. First, the number of boats in operation is limited to 77 units offshore, and 30-50 in Digby or 550 in the Gulf of St. Lawrence inshore. Second, a kilogram of scallop meats must contain a minimum number of scallop muscles, thus restricting the fishery on smaller animals. Third, some beds are closed for the fishery during certain periods, allowing the population to recover. Fourth, the drags have to comply with specific size qualifications, allowing the smaller shells to escape from the drag. Scallops can only be profitably fished if a minimum density occurs in a given area. This minimum level depends on economic rule such as fuel and labour costs, market price, supply, etc.

From an ecological perspective it is necessary to guarantee a minimum number of animals to safeguard the future. Optimally, the highest value of the lowest biological and economic threshold should determine actual fishing effort. Such has not always been the case.... A very recent example of 'how things can go wrong' has been seen on the eastern tip of Georges Bank, due to a longstanding dispute between Canada and the US. Both countries have disagreed on the exact location of their border for decades. The high dollar value of scallops and the potential for oil and gas were the principal issues of the controversy. In the late 70's and early 80's mounting pressure on both governments resulted in exploitation of the overlapping territories with minimal enforcement of protective measures. Understandably, scallop stocks suffered badly under this period of virtually 'free' fishing. Ultimately in 1985 a settlement was imposed on both nations by the International Court of Justice in The Hague (the Court is a body of the United Nations Organisation). The exact geographical location of the east coast border of the US and Canada is now established. The disputed scallop grounds came under Canadian jurisdiction, thus closing off a period of anarchy.

An effective management scheme came into effect shortly after the decision and it is anticipated that four to five years will be necessary to restore the scallop grounds to a healthy level.

The deep-sea scallop and its fishery affects our daily lives in a multitude of ways, be it through the economic activity in the numerous supply stores along the coastline or the folkart objects some Maritimers like to make or buy, e.g., the painted scenes on shell. The scallop has a place in our area; let's keep it like that for the future.

Suggested reading:

Sea, salt and sweat. 1977. Nova Scotia Dept. of Fisheries, Halifax. 109 pp.

The sea scallop. Underwater world. 1981. Communications Branch, DFO, Ottawa, Ont., K1A 0E6, 8 pp.

Nova Scotia fisheries atlas. 1982. N.S. Dept. of Fisheries, Halifax, 44 pp.

Filip Volckaert.

AN INTRODUCTION TO THE  
MARITIME BREEDING BIRD ATLAS

Thanks to the work of a few dedicated people, a Breeding Bird Atlas has been established here in the Maritimes and is well underway to its first full year of data collecting.

A number of prominent organisations are financially aiding the program, but the actual field work is being done by hundreds of volunteers from all over the Maritimes. In order to cover all three provinces the way they should be, even more will be needed. Without volunteers a project of this size would be next to impossible to achieve and also would be extremely expensive.

The aim of the Maritime Breeding Bird Atlas is to determine which species are nesting where in the Maritimes. Once you get the hang of it, atlasing is not too difficult and often proves to be a great deal of fun. Basically it entails keeping your eyes and ears open as you walk quietly through the countryside. With a little practice you soon find birds nesting nearly everywhere you visit.

But perhaps you are not too interested in birds. You can still participate in the atlasing program. How? Well, I would guess that if you read your HFN newsletter you are at least a little interested in nature. Perhaps mammals or insects are 'your thing' - maybe amphibians really get you hopping - or again, there are those who say that botany 'sort of grows' on them. But regardless of what facet of nature fascinates you, the atlas program can tie in.

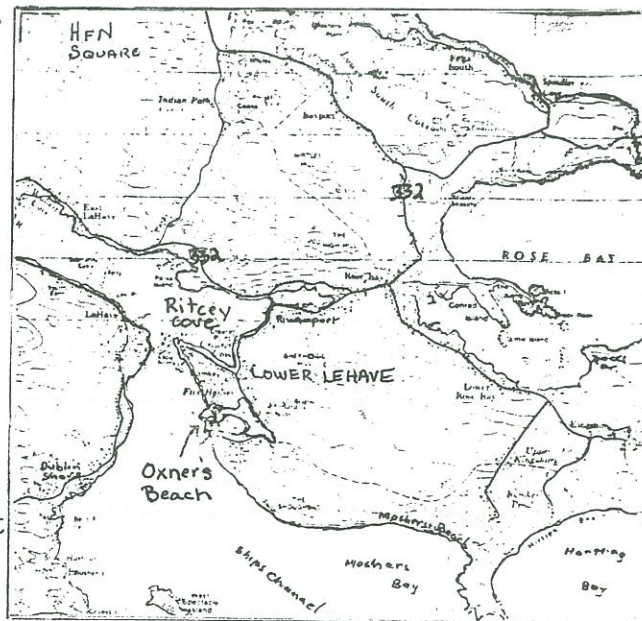
We know, for example, that birds are sensitive to changes in the environment and by studying changes in bird populations we may on occasion be able to correct a problem before it is too late.

If you are interested in a square of your own, contact Judith Kennedy, the Maritime Co-ordinator, at the N.S. Museum, Halifax. Ph: 429-4610.

Birds, trees, insects, animals, fishes, flowers - they are all part of the Web of Life, closely intermingled, dependent one upon another. So whatever aspect of nature interests you, the atlas program can be a chance for you to contribute towards an improvement in end results.

To give an idea of possible results of an atlasing program, the state of Vermont conducted a five-year breeding bird atlas program five years ago. The results changed many ideas about which birds were nesting in certain places. Some considered not very common have been found to be more widespread than expected. Other birds, that were supposedly doing well proved to be either very rare or almost absent from Vermont. Also, seven unexpected species were found to be nesting in the State.

Many similar discoveries will be made here in Maritime Canada. In the future such knowledge will lead to the most needed conservation programs and there will be less room for misdirection of time and money.



In order to aid in this project, HFN as a group agreed to cover a ten kilometre square along the South Shore of Nova Scotia. We invite each member to attend at least one of the field trips to our plot, or to visit it on their own. On these field trips you will learn how to identify the birds, what to look for as evidence that a bird is on territory and breeding, and what to record on the data cards. These trips will be informative and enjoyable learning experiences.

All observations made on our square, or questions relating to the square, should be sent to our square co-ordinator: Clarence Stevens II, 207 Windmill Road, Dartmouth, N.S., B3A 1G1. (Ph: 469-6144).

CODE FOR BREEDING BIRD ATLAS

The Maritimes Breeding Bird Atlas asks volunteers to look for evidence of breeding for all species of birds found within the Maritimes. To record this evidence on the data card, we have developed a series of easily computerized codes. The codes come with an explanation which should make clear the instances to which they can be applied. Perhaps the most difficult thing to do is to separate out those species which are singing while still migrating from those species which are singing to actually defend their breeding territory. Consulting existing range maps will help you decide which species are very unlikely to breed in your square, and many bird reference books (other than field guides) give approximate breeding dates. If you still have doubts about the suitability of a code for a particular situation, consult with your regional coordinator, or better yet, look for irrefutable evidence that the species in question is nesting! Once you start looking for breeding evidence, you will find that most species are quite willing to announce when (and often where) they are reproducing.

Breeding Codes:

All of the following codes apply to a species seen or heard during its breeding season. Please consult the Breeding Season Chart. This Chart will outline the range of dates during which breeding can be expected for each species. It should be available for distribution in June.

Observed :

X -- species identified, but no indication of breeding.

Possible :

H -- species observed, or breeding calls heard, in suitable nesting HABITAT.

Probable : (all codes refer to species in suitable nesting habitat)

P -- PAIR observed; note that 2 birds of the same species do not always constitute a pair.

T -- permanent TERRITORY presumed through territorial behaviour in the same location on at least 2 occasions a week or more apart; includes song, interactions between males of same species, nuptial flights, etc.

C -- COURTSHIP behaviour between a male and female; includes display, copulation, or food exchange. (Note: ducks often court during migration, so record cautiously.)

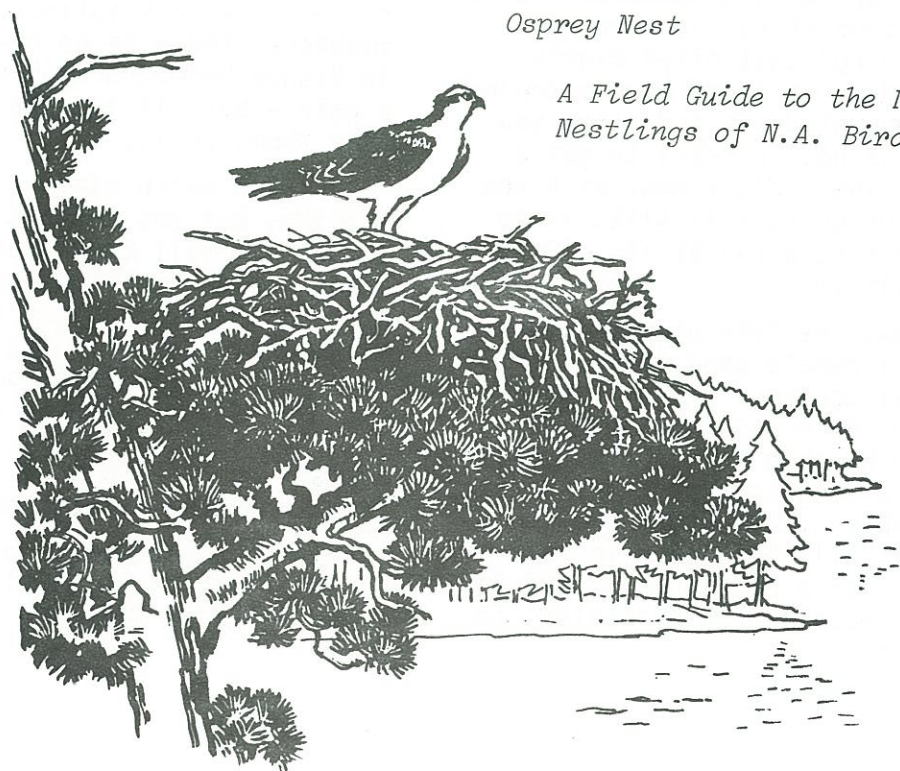
V -- VISITING probable nest-site, but no further evidence obtained (primarily for hole-nesters).

A -- AGITATED behaviour or anxiety calls of adult indicating nest-site or young in the vicinity.

N -- NEST-BUILDING or excavation of nest-hole by wrens and woodpeckers.

Confirmed :

- NB -- NEST-BUILDING or adult carrying nesting material; use for all species except wrens and woodpeckers.
- DD -- DISTRACTION DISPLAY or injury feigning.
- UN -- USED NEST or eggshells found; use only for unique and unmistakable nests or shells.
- FL -- recently FLEDGED young (nidicolous species) or downy young (nidifugous species), including young incapable of sustained flight; use with caution at square edges as fledgling blackbirds and swallows may move a considerable distance from the nest while remaining dependent on adults.
- ON -- OCCUPIED NEST indicated by adult entering or leaving nest-site (including high nest-holes, the contents of which cannot be seen) or adult seen incubating.
- AY -- ATTENDING YOUNG; adult seen carrying food or faecal sac for young. Use this carefully at square edges as some species collect food a long distance from the nest, or feed recently fledged young which have moved away from the locality of the nest. Some birds, especially corvids, carry food before eating it themselves - do not use this code for these species.
- NE -- NEST with EGGS; cowbird eggs confirm both cowbird and host species.
- NY -- NEST with YOUNG seen or heard; cowbird chick confirms both cowbird and host species.

*Osprey Nest*

*A Field Guide to the Nests, Eggs & Nestlings of N.A. Birds. C. Harrison.*

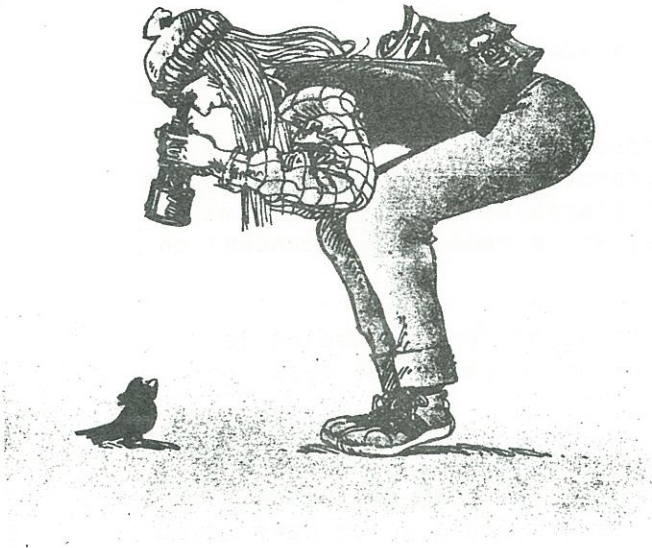
Start with economy, something 7x35 or 8x40 power. The first number in, say, 7x35 is the degree of magnification, the second is an indication of how much light the lenses let in. More powerful glasses, 10X and up, can be tricky to focus and require a steady hand. Glasses with smaller fields, such as X20, keep you in the dark. At all costs avoid bargain-house specials -- 16X50 for \$50. They will make your eyeballs bleed, and you might as well try looking through a brick. The Japanese make the best cheap stuff; Bushnell and Tasco offer good products from \$75 to \$95.

The second necessity is a field guide. These pocket-sized books can look intimidating but so did the phone directory the first time you tried it. Select any guide by Roger Tory Peterson or the Golden guide Birds of North America. Peterson and Golden are illustrated with paintings. Some guides (Audubon) use photos, which don't always show the distinctive detail as well as a painting does.

And the good advice? Be comfortable. The Canadian climate being what it is, that means do whatever you can to stay warm and dry. While there are a (very) few bird-watchers who won't step foot into the woods unless everything they have on has an Eddie Bauer label, most are unconscious of fashion, and many are comatose. There is no de-rigueur costume as there is in more rigid recreational disciplines, such as golf or snooker. There is no need to hack around in Vasque Sundowner hiking boots at \$125 a pair - but, if it makes you feel good to wear them, do it.

You can watch birds just about anywhere, anytime, but the hottest action is during spring and fall migrations. There are local field-naturalist organizations all over the place, many of them offering guided bird walks...Bird-finding in Canada is a helpful kitchen-table publication put out six times a year by Gerry Bennett, P.O. Box 519, Kleinburg, Ont., L0J 1C0, who also keeps track of the disease called 'listing' that affects hard-core birders.

*(by Joey Slinger, from the Financial Post Magazine - May 1, 1985 and sent in by Nancy Sherwin)*



### BIRDING FOR FUN AND GAINS -

It is hard to begin a beginner's guide to bird-watching since it is hard to say what might possess a person to begin bird-watching - just as it is hard to say what possesses some men to wear lacy silk underwear under their business suits or some women to take up chewing tobacco. Let's just say that some of us can work up passions for things that offer mighty peculiar rewards. At least bird-watching will get you out-of-doors and allow you to open nature's hood a crack to get a peek at the engine. Right now, with the spring migration going full tilt, it is a good time to take a run at it. It is delightfully simple.

There are two absolute necessities and one piece of extremely good advice. One necessity is binoculars. Birds, quite sensibly, keep their distance from us. If you want to be able to tell that this brown bird is a song sparrow and that one a hermit thrush and that other one isn't a brown bird at all, but has a lovely yellow breast with a black V-neck and is a meadow-lark, you'll need binoculars to bring them closer.



BREEDING BIRD ATLAS - BEGINNERS' WORKSHOP  
March 9, 1986.

I hope that Peter and Linda Payzant will hold another bird workshop soon, because this was a fun Saturday afternoon event. One of their techniques was to project a photograph of a bird for a few minutes. While the photograph was shown we were not allowed to write anything, but after the viewing we were asked to write down any characteristics we thought would be important for identification.



On comparing their descriptions it was found that some had seen wing bands and others insisted there had been speckles; it was quite amusing. However, I felt that as we played this game, all of us in the workshop were getting better at it. Of course, before starting the Payzants went over some terms and left



a huge poster of a 'typical bird' hanging on the wall to remind us that the 'crown' is the area on top of a bird's head, etc. Such terms proved useful when describing identifying marks, as we looked at their projected bird slides.

It was an afternoon packed with information, in which the Payzants reviewed field guides, binoculars, tripods and telescopes. I felt lucky to have bought a stout pair of binoculars years ago because the current average prices they quoted brought me some pain. However, they did give us practical advice on how to avoid binoculars with distortions. Apparently those with centre focusing (containing two prisms) are best. They suggested checking with Nature Canada Bookstore and members of the Bird Club Halifax when buying basic equipment.

It was also emphasised that it is futile to use a telescope without a robust tripod.

One of the things I really liked about this workshop was that it showed how an understanding of the scientific classification for bird orders and families could help in finding the bird in a field guide more quickly. The Payzants started us using our field guides in a meaningful way, which I considered to be one of the most important and useful parts of the workshop.

As I said at the beginning of this review, I hope there is another workshop because the Payzants indicated that they had not covered all the material they had prepared for this session. I would like to go to another session, reviewing and enlarging upon the subject of bird watching, if the Payzants are willing to present it.

Reviewed by Lynn Ragan.



NEXT DEADLINE -  
 25 JULY 1986, for the  
 AUGUST issue. Mail contribu-  
 tions to N.S.Museum, or  
 phone Editor at 463-0033



# field trips

## SUGARING-OFF AT MUNRO'S

Date: Saturday, March 23, 1986.  
Place: Munro's Sugar Camp, Black River, King's Co., in Gaspereau Valley.  
Leader: Mary Primrose.  
Participants: About 20, including four small children  
Weather: Glorious. A sunny day with temperature about 5°C.

After a meander over to the river at Smiley's Intervale (pardon the pun!) to see the high waters, four carloads arrived at Munro's Maple Sugar Farm, for a very interesting tour. There we were met by the last members of the group.

Mr. Munro explained very clearly the maple product process from the very roots. He explained how the sap flows from the tree's leaves to its roots during the fall (in fact the trees could be tapped in the fall, but temperatures are not consistent enough at that time of year to get a good long run; also, trees tapped in fall cannot be tapped again in spring). When the days start to get warm in spring (5-7°C), and combine with below-zero night temperatures, sap starts to move back up the tree to supply the leaf buds with energy.

That's when the maple industry goes into high gear, although changes in wind and air pressure can cause the sap to temporarily stop running. The rock (or sugar) maple (*Acer saccharum*) is the important species; sugar content of sap from these maples is highest (2 - 2.5%). Of Mr. Munro's 5000 maples, he taps only 1000 at present.

He uses modern techniques with ultra-violet transparent piping to allow UV light through to sanitize the sap as it drips out of the tree, and a dark purple piping to absorb the sun's heat and quicken the thawing out process in the mornings. Squirrels like to gnaw holes in the piping to get at the sap but are controlled by the elimination of their habitat - firs and spruce - in the area. He also gets some help from a family of goshawks nesting nearby, and from barred owls.

Sap, passing through pipes in a covered stainless steel container, is evaporated over a wood-fired boiler. It is boiled to a set sugar level (saturated solution of sugar and

water); the maple flavour developing according to the length of time the sap is exposed to heat.

Maple syrup is 65% sugar. To make maple butter, the syrup is further evaporated to a super-saturated solution and then cooled before beating to ensure that the sugar crystals are very small so the butter will be smooth. Maple cream and candy are made with varying beating/cooling procedures. We were treated to maple taffy made by pouring the super-saturated syrup solution directly onto the snow. M-m-m-m!

After purchases were made and lunch consumed, several of us went for a walk along the woodlot road. We spied a patch of greenery of the heath family poking out from the snow and got a good close-up view of a downy woodpecker (female?) very busy in a tree alongside the road, and quite oblivious of us noisemakers.

To round out the afternoon we drove to Cyril Caldwell's to see the horned owl's nest high in a tree in his front garden - no sign of the owl, though - and some of Cyril's raptor patients. We did not see any birds in the field opposite the house but Michael Downing, who had left Munro's ahead of us did see two birds feeding on a carcass in the field by the river. He did not have too clear a view but thought they were bald eagles.

A stop for tea in Wolfville by the noisemakers finished off a delightful day in the Valley.

Thanks, Mary, for persisting with this outing despite meagre sap flows. It was most enjoyable.

Nancy Sherwin.

## A TRIP TO COLDBROOK FISH HATCHERY

Date: Saturday, April 19, 1986.  
Place: The Federal Fish Hatchery at Coldbrook, Kings Co., N.S.  
Leader: Dr. Chris Corkett  
Weather: Sunny, cool brisk wind., temperature about 3-5°C.  
Participants: About 20 including 4 children from Blomidon Field Naturalists.

On a cool but sunny morning, eight members of HFN, led by Chris Corkett, took off for Coldbrook Fish Hatchery, nr. Kentville, where we were joined by 12 members of Blomidon Field Naturalists with their president Jim Wolford.

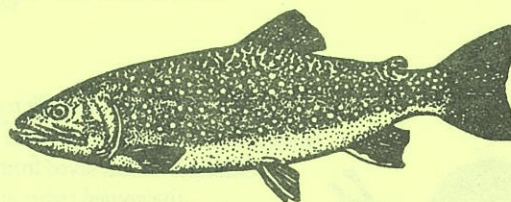
The hatchery manager, Mr. Glenn Penney of the Federal Department of Fisheries and Oceans, gave us the life history of the smolts (1-2 year old Atlantic salmon) which had been hatched inside in the nursery, and were now able to be outside in holding ponds. In each of the dozen or so ponds, we were told that there were between 1600 and 2000 young Atlantic salmon, the majority of which will reach a size suitable for releasing into the Gaspereau, Stewiacke and Annapolis Rivers. The prime purpose of the hatchery, opened in 1938 by the federal government, is to increase the salmon stock in the natural breeding rivers of Nova Scotia, and so help to preserve the species.

The water used at the hatchery is spring fed and good for holding other broodstock, such as speckled (brook) trout, a native of Nova Scotia, and rainbow trout which are imported from West Virginia. The latter are reared at the hatchery and can be bought by aquaculturists for fish farms and ponds.

Inside the hatchery building were more tanks, each with its quota of fingerlings or fry. Glenn showed us one or two with large heads and thin bodies, wasting away by subsisting on their own flesh, but the majority are strong and lively. The one exception was a tank with small dark salmon fry about 2cm long. Their empty yolk sacs were still attached but the fry were lethargic and would not feed so were expected to die. They represented the eggs of five salmon and had been hatched in a relatively warm atmosphere. When put into the tanks the incoming water proved to be very chilly this year, too cold for these little fellows, and they lacked the

energy to move around in search of food. The cold water does not appear to bother the trout fry.

Another anomaly showed to us by Glenn was (or were?) two small fry joined together just above the tail and sharing one yoke sac. These too, could not be expected to survive.



BROOK TROUT  
*(Salvelinus fontinalis)*

*from: Summer Nature Notes by : Merritt Gibson.*

As usual we visited Cyril Caldwell's bird hospital behind the barn; there were two brown owls, a snowy owl, one hawk and several bald eagles, including 4 adults and an immature. Some of these birds can never be returned to the wild. The hawk gets very agitated when humans are around but it is obvious that they are all well-fed and cared for, whether convalescent or resident.

To round off the day we followed Tim Randall to Smiley's Intervale and the Meander River. The spring run-off provides an excellent habitat for our native bloodroot. Cautioned by Mary Primrose to tread softly, we found on close examination, myriads of bloodroot pushing up through the debris left by the flood waters - many of them showing their fragile pink buds, and not a few were in full bloom, like white stars amid the muddy debris.

Our thanks to Chris Corkett for leading us to the fish hatchery, and to Mary Primrose and Tim Randall for the side trips to Harvey's Farm on the Meander River and to Smiley's Intervale. We had a very interesting day.

Helen Smith.

Statistical lore for everyday living  
COMPILED BY DAVID OLIVE

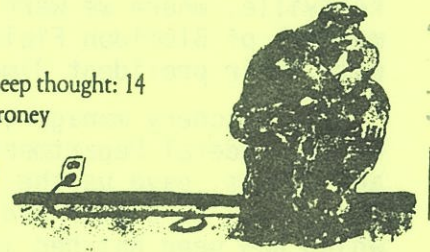


Percentage of romance fiction readers who consume a new title every day: 30

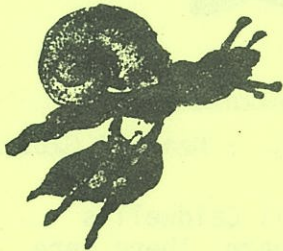
Percentage in a sample of Fortune 500 chief executives who as youngsters had a dog: 87  
Who had a cat: 24

Membership of the Monarchist League of Canada: 14,000  
Of Japan's Godzilla fan club: 50,000

Watts of power used by the human brain when it is engaged in deep thought: 14  
Wattage required to engage Prime Minister Brian Mulroney and his full Cabinet in deep thought: 518  
Wattage required by an electric frying pan: 1,200



Number of sea slugs that Pierre Taschereau, sole member of the Nova Scotia-based Society for the Loving Understanding of Sea Slugs, estimates he has saved from certain death since he set up the animal rights group last April: 45,760



Value of library books not returned by a Toronto university student who was recently sentenced to serve time for possession of stolen goods: \$13,000



Rank among Canadian cities of Edmonton in percapita spending by escort services on Yellow Pages advertisements: 1

Percentage of Tennessee schools that have banned The Diary of Anne Frank because of its "sexuality": 37



Number of corporate directorships held by former Ontario premier William Davis, one of Canada's most sought-after professional directors: 8  
Held by Jean Béliveau, legendary forward who led the Montreal Canadiens to several Stanley Cup victories in the 1960s: 8



ILLUSTRATIONS BY BARRY BLITT