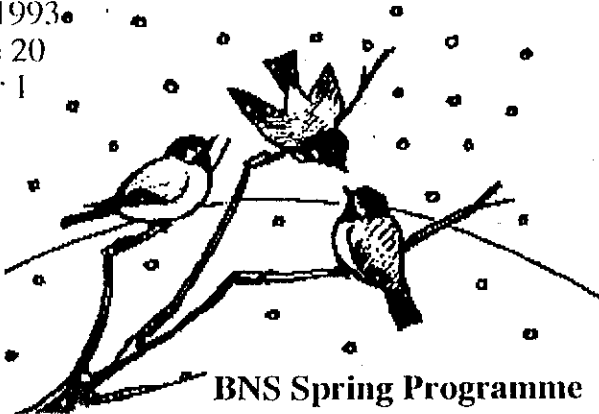


Blomidon Naturalists Society Newsletter

Spring 1993
Volume 20
Number 1



BNS Spring Programme

MONDAY EVENING MEETINGS: All meetings will start at 7:30 p.m. and, unless otherwise indicated, will be held in Room 244 of the Beveridge Arts Centre at Acadia University. All lectures and field trips are open to the public and BNS members are encouraged to bring friends and neighbours. Any changes in the date, time or subject of meetings are announced on posters, the Kings Kable notice board and in *The Kentville Advertiser* and *The Hants Journal*.

NOTE THAT THE FRONT DOOR OF THE BEVERIDGE ARTS CENTRE MAY BE LOCKED IN MAY AND JUNE. THE BACK DOOR, UP THE HILL AND TO THE WEST, WILL BE UNLOCKED.

April 19 -- National Parks for the Future

Rick Swain, of Kejimikujik National Park, will speak about the changing role of national parks and potential sites in Nova Scotia for future national parks.

May 17 -- Project Wild

BNS Vice-President, George E. Forsyth, invites you to enjoy an evening of "Wild" activities. A teacher, George will share some school activities that he uses from the Canadian Wildlife Federation's **Project Wild**. Prepare yourself for a wild night. Wear comfortable slacks and shoes.

June 21 -- Ducks Unlimited

John Wife, waterfowl biologist for Ducks Unlimited Canada, will present some of the projects his organization has been involved in in the Maritimes. He will also show the Ducks Unlimited film, "Touched by the Tide".

Blomidon Naturalists Society Newsletter

Volume 20, Number 1, Spring 1993

Editors: George Alliston
Margaret Alliston
Art: Mary Pratt
Production: Dick Rogers
Distribution: Lana Churchill
Brenda Thexton
Judy Tufts

The *Blomidon Naturalists Society Newsletter* is published quarterly, in **January, March, June, and October**, by the Blomidon Naturalists Society, P.O. Box 127, Wolfville, N.S. B0P 1X0. Printed in Canada. For subscription information, see "1993 Membership Fees and Form". Send change of address notification to the above address.

Articles may be reprinted with permission of the author or the editor. Please credit the *Blomidon Naturalists Society Newsletter*. Unless otherwise stated, opinions are those of the authors, not necessarily the Blomidon Naturalists Society.

The primary objective of the Society shall be to encourage and develop in its members an understanding and appreciation of nature. For the purpose of the Society, the word 'nature' will be interpreted broadly and shall include the rocks, plants, animals, water, air, and stars."

From the BNS constitution :

The Blomidon Naturalists Society is a member of the Federation of Nova Scotia Naturalists, an Affiliated Member of the Canadian Nature Federation and a member of the Nova Scotia Trails Federation.

The Blomidon Naturalists Society is a registered charity. Receipts for income tax purposes will be issued for all donations.

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The *BNS Newsletter* is printed
on 100 percent recycled paper.

Field Trips

Spring - Early Summer

To celebrate the recent publication of **A Natural History of Kings County**, we will feature the twelve field trips described in the appendices of the book during the next two or three seasons. These field trips will visit examples of most of the varied habitats Kings County offers. All of the trips are very accessible and suitable for everyone. For further information, please consult **A Natural History of Kings County**, on the pages indicated below.

Unless otherwise noted, all times given are for meeting at the Robie Tufts Nature Centre parking lot. Leaders' telephone numbers are included to allow those without access to local news to confirm trips.

Everyone, BNS member or not, is welcome on all field trips.

Saturday, March 20, 1993, 7:30 p.m. Wolfville Ridge Stile Park

Meet at the Stile Park and celebrate the vernal equinox with Sherman Williams (542-5104) and other astronomers by exploring the night sky (pp. 23, 165).

Saturday, April 17, 1993, 1:00 p.m. (1:30 at Horton Bluff Lighthouse) Horton Bluff

Explore the exposed geology of this area with Sherman Williams (542-5104). Wear boots and a windbreaker (p. 155).

Saturday, April 24, 1993, 1:00 p.m. (at the Annapolis Legion) Belleisle Marsh

Reg Melanson, Manager of the Eastern Habitat Joint Venture program for the N.S. Department of Natural Resources, will explain the new dyking/path system and, with luck, we may see migrant waterfowl. Should be a three-hour walk. Contact: Greg Turner (245-4689). Rain date: May 1. *An Annapolis Field Naturalists field trip.*

Sunday, April 25, 1993, 10:00 a.m. Spring Birds

Jim Wolford (542-7650) will lead the B.N.S. and the Nova Scotia Bird Society on a tour of Kings County spring bird "hot spots" (p. 88). Bring your lunch.

Saturday, May 8, 1993, 9:30 a.m. Rockville Notch

International Migratory Bird Day
Larry and Lynn Coldwell (847-3225) want to show us the beauty of this area in western Kings County and invite us to have our picnic lunch here, too. Early bird migrants, early flowers and pretty waterfalls should make for a memorable day (p. 161).

Saturday, May 15, 1993, 9:30 a.m. (at the Annapolis Legion) (or 10:00 a.m. at the Kejimkujik Park Visitors' Centre) Canoeing at Kejimkujik

Trip leaders are Keji Park Intrepreters Rick Swain and Erich Muntz. Canoe a quiet part of the river: for both novice and expert. Includes instruction and guided paddle. Canoe rentals available but, if possible, bring your own canoe, paddles, PFD, lunch, etc. BNS members contemplating this

trip should contact Valerie Mount (638-8894) before making definite plans. Rain date: May 16. *Annapolis Field Naturalists field trip.*

Sunday, May 23, 1993, 8:30 a.m.
(9:00 a.m. at Scots Bay)

Cape Split

Jim Wolford (542-7650) will lead our traditional spring hike to this spectacular area (p. 159). Bring your lunch to eat in the breathtaking beauty!

Saturday, May 29, 1993, 8:00 a.m.
Wolfville Dyke

Sherman Boates (542-2361). The Natural History of the Minas Basin: A Local and Global Perspective (or how to celebrate Apple Blossom Weekend without the crowds) (pp. 40, 61).

Saturday, June 5, 1993, 8:30 a.m.
White Rock

Peter Austin-Smith (542-2109). Spring! Birds, flowers, trees, water, a beautiful area (p. 164)!

Sunday, June 6, 1993, 8:30 a.m.
(at Kentville Agricultural Centre lower parking lot on Highway 1)

Kentville Ravine

Join John Pickwell (681-8281) and see this natural site that is a candidate for protection under the Endangered Spaces program (p. 162).

Sunday, June 6, 1993, 8:00 a.m.
(at Cornwallis Inn, Kentville)

Birds of the Kentville Area

Richard Stern (678-1975) will lead this joint Nova Scotia Bird Society / BNS field trip to look for spring birds. Bring a lunch.

Saturday, June 12, 8:30 a.m.

Biodiversity Cruise

A preliminary survey of the area being considered for the Cornwallis River corridor project. Led by members of the Conservation Committee (contact Tom Herman, 678-0383). 542-2109

Friday, June 18, 1993

through Sunday, June 20, 1993

Federation of Nova Scotia Naturalists

Annual General Meeting

Cheticamp, Cape Breton

See separate article for details.

Saturday, June 19, 1993, 1:00 p.m.

Three Pools

CANCELLED

Saturday, June 26, 1993, 9:00 a.m.

Pickett's Wharf

Sherman Bleakney (542-3604) has spent countless hours exploring the Minas Basin. He will share his interests and humour in an accessible portion of the Minas Basin shore (p. 158). Bring a lunch.

NOTE CHANGE OF DATE

Sunday, July 11, 1993, 8:30 a.m.

Methal's Pond

Bernard Forsythe (542-2427). You are sure to enjoy this canoe outing: birds, orchids, and who knows what else Bernard will find! Bring a canoe, personal flotation device and lunch.

At the time we went to press,

information was not yet available for the Nova Scotia Museum summer 1993 trips and the summer 1993 "Parks are for People" program. Information about trips in our area

will be included in the next *Newsletter*. We're hoping that trips will be scheduled to Wellington Dyke (p. 157) and the Cape Blomidon Shore (p. 159).

We need another and a wiser and perhaps a more mystical concept of animals. Remote from universal nature, and living by complicated artifice, man in civilization surveys the creature through the glass of his knowledge and sees thereby a feather magnified and the whole image in distortion. We patronize them for their incompleteness, for their tragic fate of having taken form so far below ourselves. And therein we err, and greatly err. For the animal shall not be measured by man. In a world older and more complete than ours they move finished and complete, gifted with extensions of the senses we have lost or never attained, living by voices we shall never hear. They are not brethren, they are not underlings; they are other nations, caught with ourselves in the net of life and time, fellow prisoners of the splendour and travail of the earth.

from *The Outermost House* by Henry Beston
submitted by Jim Wolford

Society Notices and Business

Errata

Volume 19, Number 4, Winter 1992

We thought we had the typo gremlins beat but they struck again in the Winter 1992 issue.

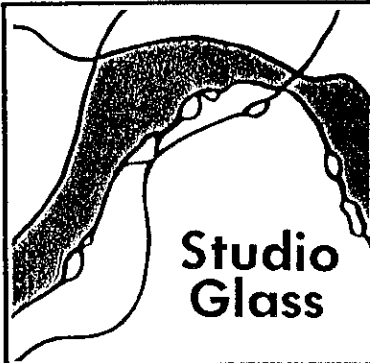
The page footings should be "Winter 1992 - *BNS Newsletter*" not Fall 1992 - *BNS Newsletter*".

The sub-title under "Field Trips" on page 3 should be "Spring" not "Spring - Early Fall".

The title of the table at the top of page 27 should be "Weather Statistics - Autumn 1992" not "Weather Statistics - Summer 1992".
Our apologies.

Acknowledgements

Thanks to Colin Stewart for updating us about endangered spaces in Nova Scotia and to everyone who participated in Show-and-Tell Night. As always, we must thank the contributors to the *Newsletter*, and to the *Newsletter* production team.



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BNS Membership Fees

Annual membership fees, which cover the costs of producing and mailing four issues of the *Blomidon Naturalists Society Newsletter* and other Society activities, were due on January 1, 1993. **FEES ARE NOW PAST DUE.** If you haven't already done so, please mail them in as soon as possible. For your convenience, a renewal form and return envelope are included with this issue of the *Newsletter*.

Annual fees are \$10.00 for an individual adult membership, \$12.00 for a family membership, and \$1.00 for an individual junior membership (less than 16 years old). Members may also subscribe to the *FNSN News*, the newsletter of the Federation of Nova Scotia Naturalists, for an additional \$5.00 annually.

Notes from the BNS Directors

by Tom Herman
Kentville, N.S.

The BNS Executive met on January 26, 1993. Regular items of business, including reports from the Treasurer, Newsletter Editor, Program Committee, Special Publications Editor, Conservation Committee, Robie Tufts Nature Centre Committee and the Federation of Nova Scotia Naturalists were reviewed. Numerous additional topics were also considered.

Sales of *A Natural History of Kings County* have proceeded briskly and more than lived up to our expectations. We will make arrangements shortly for a second

printing of a thousand. Under the direction of Merritt Gibson, our Special Publications Editor, an annotated checklist of Kings County Birds is also in preparation. It should accompany nicely *A Natural History of Kings County*.

We discussed a variety of BNS functions and activities needy and worthy of support. These included the Robie Tufts Nature Centre, the Wolfville Library, the new dykeland trail, a study of short-eared owls nesting on the dykelands and the Endangered Spaces Campaign (see this *Newsletter* for reports on the latter two projects). We are looking forward to a successful raffle.

Plans for the dykeland trail beginning near the Robie Tufts Nature Centre are progressing. We continue to meet regularly with the WBDC (Wolfville Business Development Corporation) regarding the project, which forms part of what has been dubbed "Wolfville Back to the Water". At present we are evaluating the design possibilities and constraints for a freshwater impoundment along the trail.

We also outlined the possible contributions that the BNS could make to the new Wolfville Library. We have since discussed some of these ideas with the Librarian, and will continue to do so over the next few months.

The Directors struck a committee to determine the future editorship of the BNS Newsletter, as the present editors will be stepping down this summer. We recognize the importance of this position and the need to accomplish a smooth transition to the new editorial team.

Finally, we discussed funding for a variety of projects this summer involving BNS. As a result we have applied for funds from the Baillie Fund to support the Short-Eared Owl project, and for funds from the SEED and Nova Scotia Youth Conservation Corps programmes to operate the Robic Tufts Nature Centre and construct the dykeland trail. We'll keep our fingers crossed, and let you know of our success in the next Newsletter.

Conservation Committee Report

by Peter MacDonald
Greenwich, N.S.

At the Blomidon Naturalists Society Conservation Committee meeting on 17 January 1993, the following were discussed.

Rails to Trails Committee and Cornwallis River Corridor Project

Peter Austin-Smith provided an update on the Cornwallis River corridor project and discussion took place. Since the initial letter offering BNS assistance was written in January 1992, little has been heard regarding the project.

It was felt that since Kentville Recreation seems to be spearheading this project, a progress report from them is needed. It was agreed that the project is a valuable and worthwhile one and that BNS should be involved, and it was decided that another letter should be written to the Kentville Recreation department and to the Municipality. It was agreed that this letter should emphasize the interest that BNS has in the project, our desire to be actively involved, our sizable membership

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and the degree of expertise available within our group. Of particular interest are results of last year's College of Geographical Sciences (Lawrencetown) study. The letter should also mention the possibility of meeting with other parties to further explore the role of BNS in the project.

The possibility of a Cornwallis river study (similar to the Clean Annapolis River Project), which would fit very nicely with the corridor concept, was discussed. A series of hikes along the corridor as information gathering field trips and the number of special areas along the railroad track were also discussed.

It was agreed that BNS Executive should be approached to approve a series of BNS hikes, conducted as information gathering field trips, along the proposed corridor. By coordinating such field trips through the Program Committee, we could begin an inventory of habitats along the corridor.

As a meeting of the Rails to Trails Committee is expected soon, Lorna Hart agreed to represent the BNS in the absence of Peter Austin-Smith.

Wolfville Dykeland Development

Tom Herman provided an update on the Dykelands development issue, and described the proposed Ducks Unlimited development. Tom and Harold Forsythe are representing BNS on this issue, and are meeting this week with the head of the Dykelands Commission, and the private owner of a portion of dykeland needed for the proposed wetland project. It was reported that Ducks Unlimited recognizes the

potential for educational opportunities and that a DU engineer will be investigating the feasibility of such a project. Wolfville Business Development Corporation owns the remainder of the land required and is in favour of the project.

It was suggested that the Eastern Habitat Joint Venture [EHJV] might purchase a portion of the private dykeland. It was agreed that the Nova Scotia Department of Natural Resources should be approached to see whether the EHJV would be interested in purchasing approximately two acres of the dykeland to support the project.

Advisory Committee for the Environment

Peter Austin-Smith represents BNS on the Kings County Advisory Committee. The Committee advises the municipality on environmental concerns brought to their attention.

A recent concern discussed was tree spraying. A report summarizing each town's tree spraying over the past 15 years is forthcoming; included will be numbers of diseased trees, chemicals used, results, and potential effects on people. Tom Herman will attend the next meeting of the Committee to represent the BNS in Peter's absence.

Special Places in Kings County

Progress on the Special Places project was discussed. Gaspereau River Valley, upstream from the White Rock bridge, was highlighted as an area of special concern. Inventory methods for the site were discussed. Among the species present are eagles (winter roost), amphibians, fiddleheads, dragonflies,

salmon (spawning) and gaspereau (fishing has historical significance). It was noted that sites such as this have the potential to become ecological reserves, and that BNS should conduct inventories of special places in Kings County. Tom offered to take candidate sites to the Special Places Advisory Committee, on which he sits. Their next meeting is January 26, 1993. It was agreed that the BNS Executive should be approached for approval of the BNS Program Committee's coordinating a series of field trips to candidate special place sites for inventory purposes.

Environmental Youth Corps

The potential for using this program was discussed.

BNS Newsletter News

With this issue, we start the twentieth year of publication of the *Blomidon Naturalists Society Newsletter*. All of us who have worked on the *Newsletter* over the years hope that you, the readers, have enjoyed our efforts and along with us have learned a little too. To help us provide you with the kind of *Newsletter* you want in the future, please take a few minutes to complete the questionnaire enclosed with this issue and return it in the envelope provided.

Many thanks.

BNS Newsletter Submissions

Deadline - June 1, 1993

Please send or give all contributions to the *Newsletter* to:

George Alliston
174 West Brooklyn Road
R.R 3
Wolfville, N.S. B0P 1X0
542-3651

Send submissions for "Trivial Tidbits" (non-bird items only) to Jim Wolford at:

Biology Department
Acadia University
Wolfville, N.S. B0P 1X0

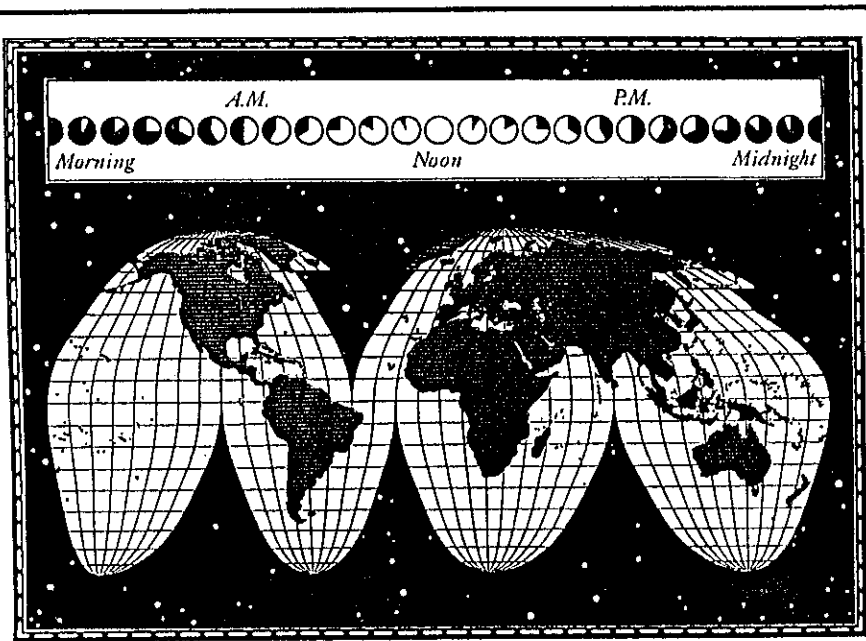
Last-minute observations can be phoned to 542-2201, ext. 334 (leave a message) or 542-7650 (late evening to midnight).

Richard Stern would like to receive observations for "Bird News" (for Kings, Hants and Annapolis Counties only) on migration dates, unusual numbers, nesting records, interesting behaviour and rarities, of course. Please forward your observations to him as soon as possible after they were made. Send observations to Richard Stern at:

40 MacDonald Park Road
Kentville, N.S. B4N 5C7

Last-minute observations can be phoned to Richard at 678-1975.

The editors would greatly appreciate submissions being at least double-spaced to facilitate both editing and word processing. If you are able to submit articles in word-processed form, please contact the editors for technical details. Also contact the editors for the format in which to submit drawings.



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Federation of Nova Scotia Naturalists

Annual General Meeting

Cheticamp, Cape Breton, June 18 - 20, 1993

Plan to attend the 1993 Annual General Meeting of the FNSN in Cheticamp; enjoy the splendour of Cape Breton Highlands National Park and an interesting and varied program (see below) presented by Les Amis du Plein Air. A separate registration form is included with this Newsletter for your convenience. The program will be as follows:

Friday, June 18

- 7:00 Registration
- 7:30 Naturalists Get-Together - evening walk
Nature Bookstore browse and members' slides
- 9:00 Wine and Cheese - (entertainment)
- 11:00 Owl Hoot with Blake Maybank

Saturday, June 19

- 7:00 Early Bird Walk with Blake Maybank
- 7:00 Photo Tour of Cabot Trail
- 8:30 Registration / Wake-up coffee and snack
- 9:00 Whale Cruise
Lecture, "The Fossils of the Coal Seams", by Erwin Zedrow
- 10:00 Sip-'n-Chat (Show and Tell)
- 10:20 Lecture, "Natural History Impressions", by Tony Erskine
- 11:30 to 1:30 Lunch**
- 12:30 Whale Watch
- 1:30 Interpretive Nature Hike with Pixie Williams and Lynn Baechler
Whale Cruise
Talk on Cape Breton Highlands National Park
- 3:00 Insect Hike with Dave MacCorquodale
Acadian Hike (Le Chemin du Buttereau)
Tour of Les Trois Pignons Gallery and Museum
Acadian Story Teller
- 4:30 Cape Breton Ceilidh
- 6:30 Lobster Boil or Barbecue
- 9:30 Slide presentation, "Rare and Endangered Plants
in Cape Breton", by Hal Hinds
- 10:30 Campfire, Star Gazing with John Fraser

Sunday, June 20

- 7:00 Morning walk with Blake Maybank
- 8:30 Wake-up coffee/snack
- 9:00 Slide presentation, "The Cheticamp River", by Clarence Barrett
- 9:30 ANNUAL GENERAL MEETING
- 10:30 Coffee Break
- 10:45 ANNUAL GENERAL MEETING
- Noon Lunch**
- 1:00 Whale Cruise or Nature Hike

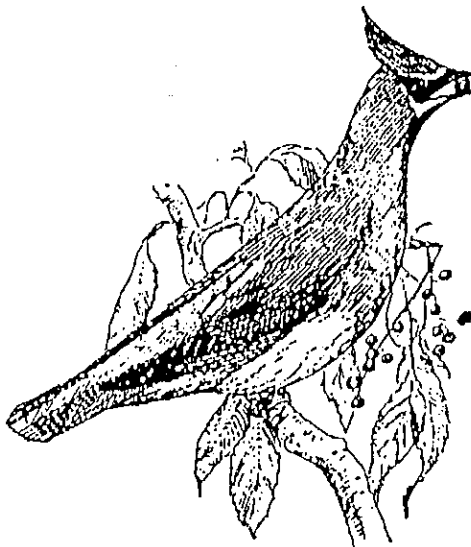
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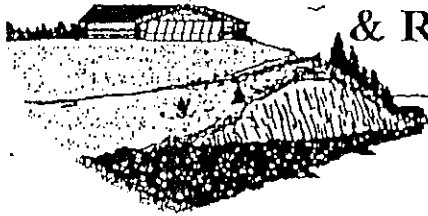
From Desert Sands to Alpine Slopes
22nd CNF Annual Conference
Vernon, British Columbia
July 22 - 25, 1993

The North Okanagan Naturalists' Club are celebrating their 42nd anniversary by hosting the twenty-second annual conference of the Canadian Nature Federation in Vernon, British Columbia, from July 22 through July 25, 1993. The conference will be held at the Silver Star Mountain Resort. Included in the conference calendar are pre- and post conference field trips, day trips, local birding and botany walks, symposiums, exhibits, a barbeque, a banquet, and children's activities. The trips will explore the Okanagan Valley from the deserts in the south to the alpine slopes in the north.

For further information and a registration kit, contact Jim Wolford or write:

Secretary, North Okanagan Naturalists' Club
P.O. Box 473, Vernon, B.C. V1T 6M4

The Blomidon Naturalists Society is an affiliate member of the Canadian Nature Federation.



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Natural History Books for the New Wolfville Library

Sharon Wendt, Librarian at the Wolfville Library, has advised the BNS that she is trying to enhance the Wolfville Library collections prior to moving to the new library building in May 1993. She has appealed to BNS members specifically for books about natural history. New and old books, both hard cover and paperback, are welcome.

Hard cover books must be of sufficient interest and in good enough physical condition that it is worth the cost of cataloguing them. Upon receipt by the Wolfville Library, hard cover books will be sent to the Annapolis Valley Regional Library headquarters in Annapolis Royal for evaluation. Suitable books will be catalogued and returned to Wolfville where they will become part of the Wolfville Library collection. Although they will normally reside in the Wolfville Library, they can be requested by the libraries in the regional library system for periods of two weeks at a time.

Interesting hard cover books that are in too poor physical condition to be circulated may be held in the reference collection at Annapolis Royal. The donor will be consulted before this is done.

Books that are evaluated as not being worth cataloguing will be returned to the Wolfville Library and their disposition discussed with the donor.

Most paperback books will not be catalogued. They will be circulated out of the Wolfville Library only. Oversize paperback books of unusual

interest will be treated like hard cover books.

If the donor desires, the Wolfville Library will put bookplates recognizing the donation in the books.

Receipts for income tax purposes will be provided to donors of new books as long as the sales slip is available. Unfortunately, because the Annapolis Valley Regional Library system does not have a staff member recognized by Revenue Canada to do evaluations for income tax purposes and it is prohibitively expensive to contract evaluations out, no receipts can be provided for books other than new ones.

Books should be donated soon so they will be on the shelves when the Wolfville Library opens in its new building.

Since over 95 percent of the books in the Wolfville Library collection are actively used, this is a good opportunity to provide the Wolfville Library with books you think are important to an understanding of natural history.

To donate books, take them to Sharon Wendt, at the Wolfville Library, on Tuesday through Saturday, from 11:00 a.m. to 5:00 p.m. or call Sharon at 542-5760.

Nature Conservancy Canadian Acre Certificates

Last November, the Nature Conservancy of Canada, which has been protecting Canadian wildlife habitat for the past 30 years, announced its Canadian Acre Certificate program. Funds from certificate sales will be matched by organizations affiliated with the Conservancy in an attempt to preserve more biologically significant regions across Canada.

Purchasers can choose from six certificates: Atlantic Coastal (Maritimes), St. Lawrence River Lowlands (Quebec), Carolinian Woodlands (Ontario), Prairie Grasslands (Prairie Provinces), Pacific Coastal (British Columbia), and one national certificate, Critical Wetlands. For \$25, the purchaser receives a personalized reproduction of a Canadian artist's rendition of the chosen area, a one-year membership in the Nature Conservancy and its newsletter.

For more information about Canadian Acre Certificates, contact the Nature Conservancy of Canada, 110 Eglinton Avenue West, 4th Floor, Toronto, Ontario M4R 2G5.

A Study of Nesting Short eared Owls in the Dykelands of Eastern Kings County

by George Alliston
West Brooklyn, N.S.

The apparent decrease in nesting activity by short-eared owls in the dykelands during the past several years and the potential impact of farming

activities on nesting birds is of concern to the BNS. We believe that it is important that we act immediately, and on a large scale, to determine the nesting status in our area of this threatened species.

Objectives

The objectives of this study are:
1) to determine the status of the nesting short-eared owls population in the 4000 ha of the dykelands of eastern Kings County;
2) to improve the nesting success of short-eared owls nesting in hayfields by informing the farmers on whose land the birds are nesting and seeking the farmers' cooperation in avoiding the immediate area of nest sites while they are active;
3) to inform the public, and particularly the farmers that work the dykelands, about the status of this threatened species.

Background

The short-eared owl is a bird of open habitats; low arctic tundra, marshes, grasslands and shrub lands. The general paucity of such habitats in the Maritimes suggests that short-eared owls have probably never been common in this area.

Erskine's (1992 - *Atlas of Breeding Birds of the Maritime Provinces*) "best guess" of the current breeding population in the Maritimes is about 100 pairs, only 30 of which are believed to occur in Nova Scotia. At only three locations in Nova Scotia was breeding by this species confirmed during breeding bird atlas studies (1986-1990) and one of these was the dykelands of eastern Kings County. All 15 nests reported for the Province of Nova Scotia under the

Maritimes Nest Record Scheme are from this area.

Given the huge tides of the Minas Basin, it would seem most unlikely that the tidal marshes of eastern Kings County afforded much nesting habitat for ground-nesting short-eared owls prior to the building of the dykes. The more stable environment of the extensive agricultural grasslands protected by the dykes undoubtedly attracted this species. But what agriculture giveth agriculture also taketh away. It seems that current agricultural usage and practices may be decreasing available habitat as well as directly impacting the survival of nesting females and their young. Today most of the dykelands are used to grow hay or silage. Small portions are used to grow wheat and corn or are used as pasture. In recent years an increasing portion of the dykelands (currently about 10 percent or 400 ha) has been used to produce landscaping sod. The Grand Pre dykelands, a 1400 ha area where all recent records of nesting short-eared owls were documented, now is about 20 percent in sod production. Nesting short-eared owls appear to utilize well established hayfields and avoid areas subject to more intensive and disruptive forms of agriculture.

The timing of harvesting hay and silage has changed in recent years. In the past it was generally not until July that the hay harvest began but in recent years the harvest normally has begun in early June. Hay harvesting activities would now have the potential of affecting a greater portion of the nesting population (more of the nests with unfledged young).

The technology of harvesting

hay and silage has also changed in recent years. With new more efficient machinery, and to control weeds, little unharvested vegetation is left around the peripheries of fields -- areas that appear to be favoured by nesting short-eared owls. Young birds that are not fledged when the hay harvest begins, as well as incubating females, stand little chance of surviving an encounter with these machines.

All recent records of short-eared owls nesting on the dykelands were documented by Bernard Forsythe. Between 1978 and 1988 Bernard found and monitored 13 nest sites on the Grand Pre dykelands. Of these nests eight (62 percent) produced fledged young. Of the five nests that failed, two were known to have been inadvertently destroyed during haying activities. Causes of failure of the other three nests were not known but clutch predation was suspected. These admittedly limited data suggest that as many as half of nest failures may be due to agricultural activities. All three nests found in 1987 and 1988 were unsuccessful (two due to farming activities). Bernard has not been successful in finding any short-eared owl nests since 1988.

Project Preparation

In preparation for the launching of this project, we have approached several organizations:

- 1) the Nova Scotia Department of Natural Resources is most supportive of the goals of this project. They are willing to provide us with any relevant information they have, and if necessary, lend their support in our dealings with organizations and

individuals.

2) the Acadia University Centre for Wildlife and Conservation Biology is also supportive of the goals of this project. They have offered to provide access to any relevant research that has been conducted at the University as well as the use of library facilities. They are entertaining our suggestion that they do comparative study of microtine population levels under various agricultural regimes in the dykelands.

3) the Nova Scotia Department of Agriculture and Marketing is providing, at no cost, copies of maps of the dykeland areas that indicate the property boundaries and names of property owners.

4) the Dyke Commissions have been approached to provide us with the mailing addresses of the 200+ farmers who hold dykeland properties.

5) an application has been made to the James L. Baillie Memorial Fund for Bird Research and Preservation for funding to cover the Society's out-of-pocket expenses associated with this project.

Prior to the beginning of the field season, the BNS intends to:

1) prepare a pamphlet describing the biology and status of the short-eared owl with special emphasis on the local population. Pamphlets will be distributed locally and be made available at the Robie Tufts Nature Centre;

2) prepare and distribute a letter (and the pamphlet referred to above) to all (200+) owners of dykeland properties outlining the status of the short-eared owl, emphasizing its positive value to farmers (rodent control), explaining our project and

requesting their cooperation.

3) design and print forms and maps to assist in data collection during the spring field program;

4) recruit volunteers for the field program.

5) a) prepare a set of written instructions for participants;

b) hold a meeting of all participants to discuss the project, answer questions and "fine tune" our approach.



1993 Field Season

Short-eared owls conduct most of their nesting activities during the period from early April through early June and it is during this period that our extensive field program will be conducted. We intend to involve a relatively large number of volunteers to conduct frequent (perhaps twice weekly) systematic surveys of the dykelands to document the presence, location and behaviour of short-eared owls. These data will be used to identify particular sites where nesting is suspected. Areas where nesting is suspected will be subject to a detailed investigation by a two-person team experienced in and

dedicated to this biologically and politically sensitive task.

The surveyors' function will be to obtain complete and uniform coverage of their assigned area while confining their activities to the roadways of the dykelands (i.e. not trespassing on the farmers' fields). Surveys will be conducted in the early morning and/or evening hours when the owls are most active.

When the nest search team is advised of a suspected nest site they will contact the landowner to advise him of the situation and obtain permission to search for the nest. The nest search team will confer with the surveyors that reported the site and conduct further detailed observations at the site. If owl activity is observed one member of the team will undertake the actual nest search using the behaviour of the adult bird(s) as an indicator of proximity to the nest. This "minimum disturbance" technique has been used most successfully by Bernard Forsythe in his previous studies.

If a nest site is found, the landowner will be advised of our findings and his cooperation sought in protecting the vicinity of the nest site until the nest fails or the young fledge. The nest search team will conduct further (but infrequent) visits to monitor the fate of the nest and band the young.

We plan to complete the systematic surveys by early June. Nest monitoring will continue until activity at all known nests has terminated.

Future Studies

It is our intent that the project be continued for several, preferably

consecutive, years. The well-known tendencies of short-eared owls to shift their nesting sites in response to fluctuations in prey populations requires a multi-year study before any valid conclusions can be reached regarding the status of this species in our area.

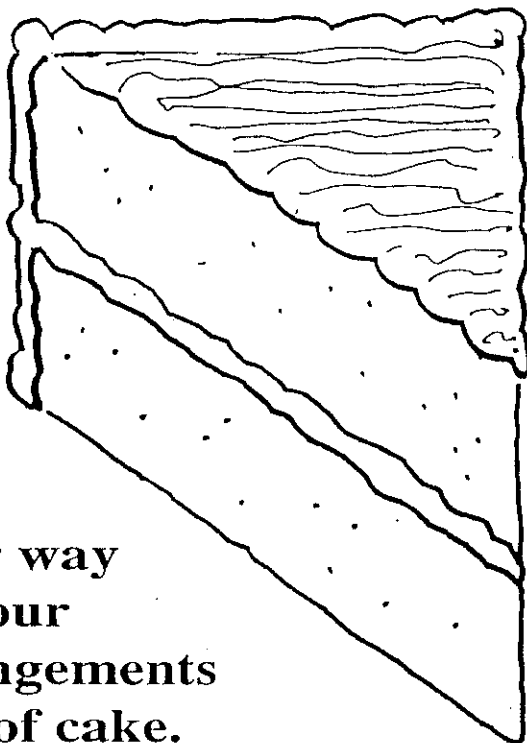
APPEAL FOR VOLUNTEERS

To carry out this project successfully we require a large number of committed volunteers. From early April through early June, each volunteer should be prepared to spend two two-hour sessions per week, in the early morning or evening, conducting surveys on their assigned portion of the dykelands. Volunteers should appreciate that we will be dealing with a threatened species and the likelihood of a nesting pair being found in your assigned area is small. Regardless of the presence of short-eared owls in your area, we are sure that all keen naturalists will be rewarded in some way for their efforts.

If you are interested in volunteering, contact George Alliston (542-3651) for further information and to reserve your section of the dykelands.

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Articles

Eastern Cougar Found in New Brunswick!

by George Alliston
West Brooklyn, N.S.

Fifty-four years after the last confirmed record of the eastern cougar in the Maritime Provinces, its presence has again been confirmed. Irrefutable evidence of the animal's presence was obtained near the town of Juniper, Carleton County, New Brunswick.

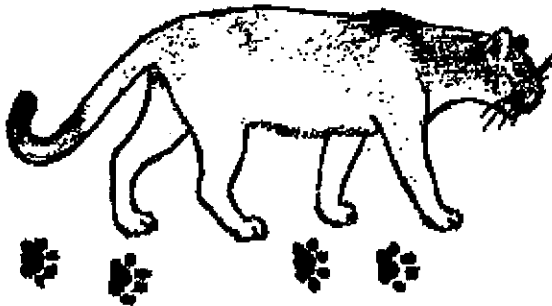
On Wednesday, 18 November, 1992, Irving Woodlands employee Tom O'Brien discovered large and unusual fresh animal tracks in the snow along one of Irving's wood roads near Juniper (Deersdale). A light snowfall had occurred on Monday evening (16 Nov) so the tracks were probably less than 36 hours old when found. Mr. O'Brien made his discovery known and the next day two biologists (Rod Cumberland and Jeff Dempsey) from the Fish and Wildlife Branch of the New Brunswick Department of Natural Resources and Energy arrived to investigate. Fortunately temperatures had remained below freezing all week and no snow had

fallen since Monday so the integrity of the tracks had been preserved.

The biologists followed the tracks for more than two kilometers meticulously measuring stride length (distance between two consecutive prints of the same foot) during walking (30 observations), running and stalking; measuring distances jumped (one jump was 5.25 m long and cleared saplings over a meter high); noting the distance between or height of obstacles it walked between, over or under; noting how it walked along felled logs; measuring the length and width of pawprints (18 observations); photographing the tracks and, perhaps best of all, finding a scat that was definitely from the animal being tracked.

Evidence from the 30 measurements of walking stride indicated that "the stride was too long for typical New Brunswick mammals (i.e. coyote, lynx and bobcat). Remarkably the animal's stride

changed little throughout different habitat types and averaged nearly 44 inches. Most literature describing a stride of



this length attribute it to cougar as it is double the typical bobcat and lynx stride".

Evidence from the photographs and measurements of tracks were thought to "reveal strong feline characteristics including width greater than length, deeper impression of the front of the plantar pad, teardrop shaped toes, non-symmetrical pattern to the toes, walking on top of logs for considerable distances and lack of claw marks".

Although the evidence from the tracks and stride measurements was highly suggestive it was not conclusive. Evidence from the scat which had been sent for analysis to the Canadian Museum of Nature would be required to provide definite proof. After three months of waiting, in late February 1993, the New Brunswick Department of Natural Resources received their reply (from C.G. van Zyll de Jong) which read in part:

"the bulk of the scat is made up of the remains of prey consumed, comprising white body hair and black vibrissae from snowshoe hare (*Lepus americanus*), a patella, also from a snowshoe hare and miscellaneous

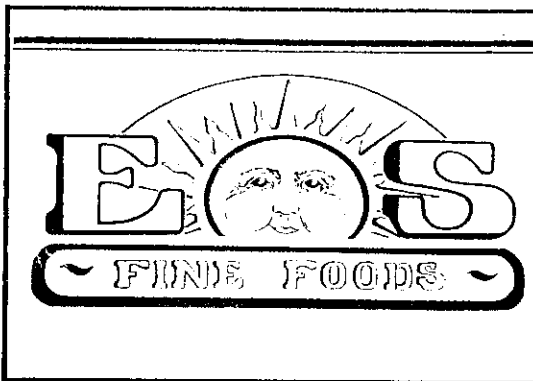
small bone fragments. **In addition there were hairs, foot and leg hairs, from a cougar. The latter were, presumably, ingested during grooming after feeding. There is, thus, little doubt that the scat was produced by a cougar.**" [Ed. emphasis ours] At last, definite proof! Bruce Wright² would have been pleased!

¹ based on information published by

the New Brunswick Department of Natural Resources and Energy, provided by B. Sabeau, Nova Scotia Department of Natural Resources.

² Bruce Wright was a wildlife

biologist at the University of New Brunswick with a deep interest in the eastern cougar and a conviction that this species still inhabited New Brunswick. His book, **The Ghost of North America. The story of the eastern panther** is the bible for all naturalists and biologists interested in this species.



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Bald Eagle Counts in Eastern Kings County, Nova Scotia

by Jim Wolford
Wolfville, N.S.

The recent history of bald eagles wintering in eastern Kings County, Nova Scotia, can trace its beginnings to Cyril K. Coldwell, Gaspereau's well known farmer, fisher, raptor rehabilitator, taxidermist extraordinaire, bird-bander, ornithologist and philosopher.

In his youth, Cyril started putting out animal carcasses to attract American crows. He continued baiting intermittently until the late 1950s, when he began what he thought was a study of American crows. When his crow-trap actually caught common ravens, the object of his study changed. He banded ravens from 1965 through 1987, banding an astounding 6000 birds and obtaining nearly 450 band returns.

Where is the bald eagle connection, you ask? It was an unplanned bonus from this research on ravens. A few bald eagles showed up in winter at Cyril's carcass-feeder in the 1960s, and their numbers began to increase slowly over the years. Since the late 1980's we have witnessed a very rapid increase in wintering eagle numbers.

Poultry operations in eastern Kings County also gradually increased since the 1960's and, most importantly, by the late 1970's several were putting out food for wintering eagles. The number continues to grow; today there are at least 15 operations that provide carrion for wintering eagles.

The bald eagle is an

opportunistic predator/scavenger and is not totally dependent upon agricultural carrion. They prey on spawning tomcod and other fishes, on waterfowl that are crippled or sick or otherwise available, and they forage widely along our very extensive tidal flats for who-knows-what.

The Wildlife Division of the N.S. Department of Lands and Forests (now Natural Resources) monitored the eagles nesting around Cape Breton's Bras d'Or Lake for many years; they also banded and colour marked the young eagles in the nests.

Wildlife Division personnel and Acadia University students watched for marked/banded eagles in various parts of the province, including Cyril's farm. Eagles from Cape Breton were found to concentrate from December through February along the lower Shubenacadie River and in eastern Kings County, and to move freely between these two areas.

During the winters of 1977 through 1991, the Wildlife Division also conducted weekly eagle surveys along selected roads in eastern Kings County. The banding and weekly winter surveys are no longer done, but the nest sites are still checked for occupancy and success.

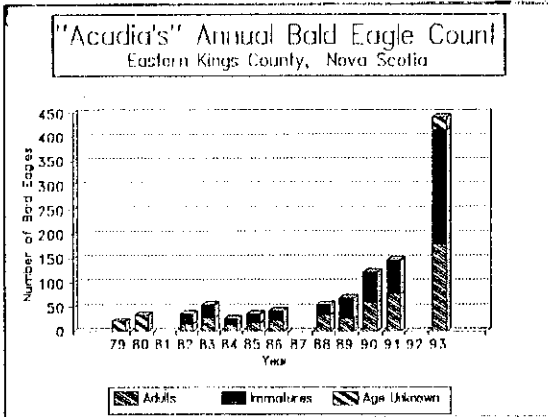
The "Acadia Biology Department and friends" have conducted a winter census of eastern Kings County eagles during most years since 1979; the results of these censuses are presented in the figure below. The census methodology is simple; we send out eight to 12 field parties for one hour in mid- to late morning -- this minimizes the chances

of recounting the same birds. The area covered by these counts is bounded by Avonport, Kingsport, Medford, Scots Bay, Sheffield Mills, New Minas, White Rock, Lumsden Reservoir and Gaspereau. After this brief census everyone goes back to Cyril's farm for coffee, doughnuts and compiling.

misleading (due to multiple counting of the same birds) as some thought.

I'll end this article with a word about Kings County eagles in summer. One or two pairs have nested at Black River Lake for many years, but there are definite recent signs that our breeding population is increasing. Successful nests were discovered at both Wallbrook and Greenwich in 1991 (the Wallbrook nest may have been established in 1989 or 1990). Last summer both of these nests were successful -- three huge fledglings on the Greenwich nest made quite a sight.

Does anyone know of any other local nest sites?



Note in the figure the amazing population growth that has taken place since 1989. Perhaps our Wolfville Christmas Bird Count numbers of 333 and 377 during 1991 and 1992 are not as

Another Bluebird Nest Box

In the Spring 1992 (Vol. 19, No. 1) *BNS Newsletter*, from information provided by the North American Bluebird Society, we published two sets of plans for bluebird nest boxes. If you didn't get around to building your boxes last year, we are providing this very simple but effective design provided by the Ohio Department of Natural Resources. For instructions on site selection and maintenance of nest boxes, we refer you to last year's *Newsletter* article.

"It takes only three feet of 1"x10" white pine to make the bluebird nest box. Since all cuts are

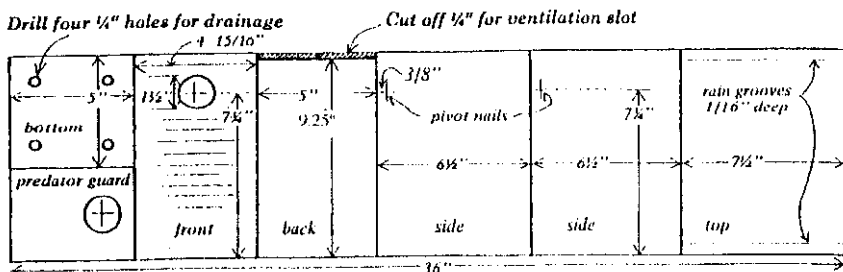
straight, no special tools are needed. Use 1.5" galvanized nails and glue all permanent joints.

The predator guard is simply an extra piece of wood around the entrance hole. The added thickness makes it difficult for intruding beaks or paws to reach the nest. A 1.5" entrance hole will keep European starlings out."

"Paint the outside of the box any dull colour. Don't use white.

Roughen the inside surface of the front piece so young birds can cling to it for feeding and to exercise their wings before their first flight. A rough surface can be made by sawing slots 1/8" deep, punching shallow

holes with a screwdriver, tacking on a strip of fine hardware cloth, or gluing on small scraps of wood."



[Illustration by Jim Glover for Ohio Department of Natural Resources, Division of Wildlife]

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Weather Statistics - Winter 1993

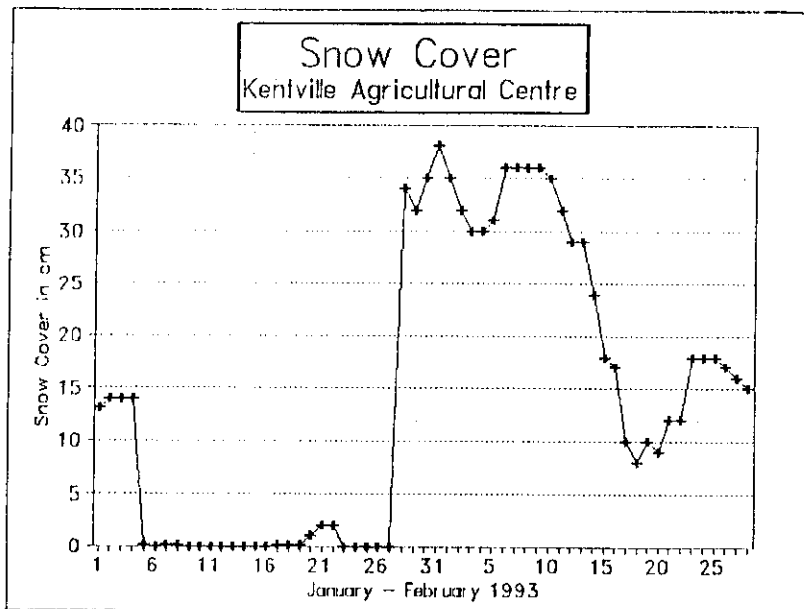
by George Alliston
West Brooklyn, N.S.

Perhaps the most memorable feature of our weather in January and February 1993 is how cold it has seemed. While the mean temperature for January was 1.1 deg C less than the 30-year average, February's mean temperature was a full 3.8 deg C below the 30-year average. On January 31, the temperature at the Kentville Agricultural Centre sank to -27.5 deg C and on February 7 to -30 deg C. Although neither of these are all-time records for Kentville, where records have been kept since 1913, they are close enough; the all-time low for January was -30.6 deg C recorded on January 19, 1925, and the all-time low for February was -31.1 deg C recorded on February 1, 1920 (only 1.1 deg C lower than this year's reading!).

In February there were 15 days in which the minimum temperature was -15 deg C or below and six days that it was -20 deg C or below! We did, however, manage to work in a January thaw; from January 22-25 maximum temperatures varied from +7.5 to +10.5 deg C with lows for those days hovering around the freezing point.

There was little snow cover during the month of January (see figure) and with cold temperatures, frost was able to penetrate deeply into the ground. Gardeners, horticulturalists and orchardists are awaiting spring with some anxiety.

Precipitation in January was only about 60 percent of the 30-year average while February's was quite close to the average. January was a dull month having only about 75 percent of the "normal" sunshine. In February we did, finally, get "average" amounts of sunshine.



Weather Statistics - Winter 1993
 recorded at the Kentville Agricultural Centre
 (30-year averages - 1951-1980 - in parentheses)

Month	Mean Temp. deg C	Precipitation		Total* mm	Bright Sunshine Hours
		Rain mm	Snow cm		
January	-6.1 (-5.0)	29.0 (64.7)	54.6 (71.6)	81.0 (135.6)	65.5 (89.2)
February	-9.0 (-5.2)	48.8 (42.0)	51.1 (69.4)	102.6 (106.8)	111.7 (109.6)
Total or Average	-7.6 (-5.1)	77.8 (106.7)	105.7 (141.0)	183.6 (242.4)	177.2 (198.8)

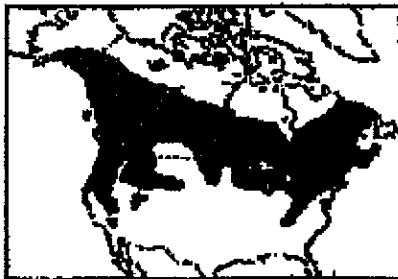
* Rain plus snow, melted

Flying Squirrels

by Jeni Wright *
 North Alton, N.S.

Northern flying squirrels are as common as red squirrels but the flying squirrels are active at night so people do not see them as often. The flying squirrels live all across Canada except in Newfoundland, southwestern Saskatchewan and southeastern Alberta.

Flying squirrels have silky fur and their fur is a lot softer than red squirrels. Their fur is thin and lighter than the red squirrel so it is easier to glide. The fur on the tail is dense and acts like



feathers, not letting the air through. They use the tail to steer.

Their skin flap that they use to glide is attached to their wrist. When they turn out their wrist the skin comes out for gliding and when they are walking they fold the skin against their body.

Flying squirrels have a litter size of about three. Some of the litter may share a den with their mother for the first winter.

This is the third year we have seen flying squirrels eating at our bird feeders. The last two years we have had two flying squirrels. This year, on Christmas Eve, there were

five flying squirrels. This group was probably a mother and her young. Four were in the feeder a foot from the window and there was one in the feeder at the end of the deck. They must have all come to celebrate.

I have observed the flying squirrels when they are getting ready to glide. They put their head down and put one paw out and push off with the others. Then they glide to a lower spot. One time the flying squirrel launched itself from the feeder, heading down hill. It turned to the left to land on the maple tree.

On January 27 there was a snow storm that started at 2:40 p.m. The first flying squirrel that evening came at 9:37 p.m. The snow was piled up really high on the deck. The flying squirrel jumped onto the railing and scrambled its way through the snow to the feeder. There was a pile of snow a foot high on top of the feeder. The flying squirrel dug through the snow to eat the seeds.

In a few minutes a second flying squirrel came. This one jumped from the tree onto the deck railing. When it landed on the snow, it knocked some snow off and then slid off itself. The flying squirrel then tried to jump from a different branch but fell off again. It then went back to the original spot and just made it to the feeder. The flying squirrel almost fell off again when it went over the higher pile of snow. What an effort to get something to eat!

A third flying squirrel came at 10:50 p.m. This one looked at the railing but didn't try to jump. It then climbed the tree and jumped to the post that was a foot from the window and ate in that feeder. This was much easier.

Then the fourth and fifth flying

squirrel came to eat.

When I first started feeding the birds in November the flying squirrels were coming around 6:30 p.m. In January they started coming around 10:00 p.m. Now they are coming after midnight. I have observed the flying squirrels at all times on different days from 6:30 p.m. to 2:00 a.m.

We have three red squirrels that come during the day. These squirrels will not eat with each other in the same feeder. If one red squirrel comes into a feeder with another in it, they will argue and one will chase the other out. The flying squirrels will all eat in the same feeder together.

If I go outside and a red squirrel is there it will scream at me. But at night when a flying squirrel is there and I go outside it stays and eats. I have never heard its call.

I wanted to find out what kind of sunflower seeds the flying squirrels preferred. I set up two feeders on the deck railing. One contained oil sunflower seeds and the other contained striped sunflower seeds. The flying squirrels ate out of the feeder closer to the tree from which they jumped to the feeder. It didn't matter what seeds were in that feeder.

Then I put the two types of seeds in the same feeder, one on one side and one on the other. The flying squirrels ate the striped sunflower seeds no matter what side they were on. Now I know that flying squirrels prefer striped sunflower seeds.

If you have a bird feeder, watch at night for flying squirrels. Maybe you will have some too.

REFERENCE

Woods, Jr., S.E., **The Squirrels of Canada**, National Museum of Canada, 1980.

[Illustrations provided by the author]

* Jeni Wright was the 1992 winner of the BNS Robie Tufts Young Naturalists Award.

type of protection (national park, ecological reserve, provincial park, wildlife management area, conservation easement) is irrelevant, as long as it adequately protects the species, habitat and processes of the area. Use by people is acceptable as long as it doesn't compromise that first principle.

The park planners began the process by using aerial photos to identify relatively large (over 100 ha), roadless (no modern logging roads, etc.) areas. There were hundreds of these.

The framework for assessing representation is **Natural History of Nova Scotia**. The 1984 original draft describes nine regions, 34 districts, and 64 units. The revision of "NHNS" was to provide a basis for the system plan, but a late start (roughly last June) meant the system plan proceeded without it. While doing the aerial photo identification of sites the planners also identified the landscape unit that each site was part of. They came up with 91 units. (This isn't as big a difference as the numbers make it appear. In the "NHNS" document some units are fragmented while in the park system each fragment would be a separate unit.)

The next step was to investigate a subset of these 100+ ha areas - those over 5000 ha and at least 80 percent crown land. This narrowed it down to roughly 80 sites. Of this subset, 30 have been proposed as those which, as a group, provide the best opportunity to preserve the biological diversity of the province.

These 30 sites (or as many as survive the internal review and the

More Parks? *

[An Endangered Spaces Update]

by Colin Stewart

[FNSN] N.S. Endangered Spaces
Co-ordinator **

At the FNSN's inaugural meeting the then Minister of Lands and Forests, Dr. Chuck MacNeil, announced a parks system planning exercise which was to be completed by March of 1993. This was, in part, an initial response to the Endangered Spaces Campaign which the province endorsed last April.

...[H]ere's a bit of a review.

First, the 'Spaces objective is to adequately represent the biological diversity of each natural region within protected areas. The

government approval process) represent most of the province's effort to reach the Endangered Spaces goal of adequate representation. It will take years to secure what they do announce. At least a third of the units of the province are not adequately represented in the entire 30 sites anyway.

Two other things are not yet clear. These are defining the role of Special Places (Nature Reserves) in the plan, and determining what the existing provincial parks (like Blomidon) contribute to the overall plan. We expect that the plan will address both of these issues.

So, what sort of announcement do we expect? The government can not just announce that all this land is now park. Some of the properties have up to 20 percent private land, while in other cases the land is already committed to forestry or other uses. The announcement could be as flimsy as "These are the areas we plan to add to the park system by the year 2000". We are looking for something more substantial. Many of the areas should be designated immediately, while a timetable for consultation and negotiation should be set for the rest. Some of the areas likely to be protected are traditional hunting areas for large numbers of people. Unless provincial parks are to be opened to hunting to a very significant degree, there will have to be a commitment to reexamine the Parks and Wildlife Acts and regulations.

Let me digress a bit. I recently attended a conference in Ottawa which put a number of 'Spaces people together with industry people. In one presentation a mining industry representative gave a good talk which

ended with an impassioned plea to be allowed to get the mineral resources out before areas are protected (or to exclude those areas with suspected mineral reserves). ...

One of the forestry people spoke about a sequential park model which would see parks established in maturing forests. When the forests matured the parks would be moved to adjacent maturing sites. The former parks would be cut, replanted, and made ready for the return of the parks in half a rotation. This person seriously believed that this would both provide people with what they wanted in parks and protect the species. These are the attitudes of intelligent and respected people. They were not expressing opposition to protected areas. They just believe that species and habitat protection can be accomplished with only inconvenience (but not real loss of resources) to their industries. They present these convincing arguments to others. There is a danger that the message will be heard as "you don't need protected areas because industry is cleaning up its act".

Our experience in 'Spaces suggests that if you can sit down with these people for a day or so they do end up realizing that it does come down to a loss of some forest or mineral resources to industry. (There is also a small proportion of the population which doesn't care about species going extinct, or about preserving options for our grandchildren. There is also a "don't worry, we'll figure out how to fix it" attitude).

How does this affect the system plan? I suspect the mining, energy, and forestry people within the



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department are trying to have the potentially most valuable parts removed from the proposed plan. As well, the information given above is all from statements made in public meetings. I would be surprised if industries haven't realized that they could lose access to some land. Presumably, they are contacting the Minister and their MLAs to try and ascertain whether the pieces most important to them will be affected. And if they are finding that some will, they are surely urging that they be removed, or that their inclusion be deferred.

There is all party support for the Endangered Spaces program in the House. We need people (you) to contact MLAs and remind them that this is coming up, and also that a large number of (usually quiet) people support this effort to leave some pieces of the original Nova Scotia (or as close as we can get to it) for future generations.

If each MLA gets three or four calls or letters ... [by] early March as a reminder of the importance of this issue to people, then we should expect a more substantive announcement, and we should expect that government will follow through with the next steps quite expeditiously.

If all goes well, and possibly with a little help from the naturalists of the province it will, the next newsletter will see us moved from less than a quarter of the way towards the 'Spaces goal to something much nearer to half. (Given government's standard pace it is probably safe to assume that we will be prodding them for a while yet.) This will still leave roughly a third of our natural units inadequately represented. In virtually

all of these the province simply doesn't own enough natural land to protect. Yet we still hope to see these areas represented. In some cases the larger corporations will be able to help, but in most it will come down to small companies, and mostly, individual citizens. This is why we are pursuing the Conservation Easement Act, why we are looking towards a Nature Trust for the province, and why we in the non-government sector have to continue to play a major role.

* Reprinted with permission, from *FNSN News*, Volume 2, No. 4, pp. 6-8.

** Launched in 1989 by World Wildlife Fund (WWF), the **Endangered Spaces** campaign is a ten-year initiative designed to ensure that each of Canada's 350 natural regions is represented by a park or other protected area by the year 2000. The Canadian Wilderness Charter is the mission statement of the campaign. WWF is working with local conservation organizations, government and business to achieve the campaign's goals. In Nova Scotia, the Federation of Nova Scotia Naturalists' (FNSN) and, through it, its member organizations are the main proponents of the Endangered Spaces campaign. Colin Stewart coordinates the Nova Scotia efforts for the Federation and WWF. A brochure about the endangered Spaces campaign was included with the last issue of the *BNS Newsletter*.

Why Are There So Many Sphagnum Moss Species?

by John Pickwell
New Minas, N.S.

On a BNS field trip a number of years ago, Dr. Sherman Bleakney asked me why there were so many species of Sphagnum Moss. Although I had a rough idea of the answer, the question has intrigued me ever since.

Since that trip I have read all the relevant literature I have been able to find and identified many species of Sphagnum Moss, noting the habitat preferences of each species. When unsure about my species identification, I sent specimens to Dr. Robert Ireland of the Botany Division, National Museum of Natural Sciences, and Dr. Wolfgang Maass, for verification.

Sphagnum grows only in moist habitats but then so do a lot of other plants. Sphagnum is not a particularly good competitor but it does have some special advantages in being able to thrive in very acidic and nutrient-poor environments.

Unlike many other plants, Sphagnum is able to exchange hydrogen ions for other nutrient ions such as potassium, sodium, calcium and magnesium. This exchange results in the production of galacturonic acid.

If the wetland environment is being constantly supplied with a significant flow of nutrient-rich, low acidity water, then the acid formed

by the Sphagnum is diluted or washed away. Under these circumstances Sphagnum has little chance of becoming a dominant species group in this particular wetland. If, on the other hand, the wetland is one where water flow is very limited or is only supplied by precipitation, Sphagnum is likely to be more successful. Under these conditions as Sphagnum grows and generates acids, these acids build up in the environment thus creating conditions in which Sphagnum is at a competitive advantage. Hypothetically, the acid build-up can reach a point that even the invading, pioneer species of Sphagnum will be unable to tolerate. At this point, other more acid-tolerant Sphagnum species invade and take over; they, in turn, are superseded by even more

acid tolerant species. Eventually the wetland becomes completely dominated by Sphagnum. This plant community is generally called a bog.

There are many kinds of Sphagnum bogs each differing in their formation and species

composition according to where they are situated and how they develop. Because of a number of factors, like differential rates of growth for different species, the surface of a bog is not flat. It is raised into hummocks, between which are hollows, some filled with pools of water. Each species of Sphagnum is adapted to conditions in a specific portion of



Sphagnum magellanicum

this complex.

The lowest acid concentration is in the pools. Here we find the most water- and least acid-tolerant species like *S. cuspidatum* (known as the Drowned-cat Sphagnum) and *S. Torreyanum*, etc. These species hardly look like Sphagnum at all. They have weak stems and large floppy capitula, the new branches crowded together at the top to form a head on the plant, where most of the new growth occurs. Just above the water we are likely to find more rugged species like *S. magellanicum*. Conditions higher up the hummocks are drier and more acid. Typical species of the hummock sides are *S. rubellum*, *S. Russowii*, etc. On top of the hummock in a true bog, where conditions are direst and most acid, we would most likely find *S. fuscum*. This species is a true specialist, adapted to driest and most acidic sites. It is a small plant, tightly packed together, the long pendant branches of the fascicles twining down and around the stem, acting like a lamp wick drawing up water from below. This species is seldom found anywhere but at the top of hummocks in very acid bogs.

The species found in different bogs may differ depending on where the bog is found e.g. near the coast or inland. Differing factors such as water chemistry will favour different species so all bogs are definitely not alike. Other plants have also evolved to take advantage of these unique habitats. These plants also modify the habitats in many ways e.g. herbaceous plants and shrubs, among other things, provide shade. Different species of Sphagnum are adapted to open or shady conditions.

Of course, not all wetlands are

bogs. Fens, which are characterized by having a flow of water through them, can be categorized as "poor", "medium" or "rich" depending upon the acidity and levels of nutrients of the feeder streams. Fens are not likely to contain the most acid-loving species although *S. rubellum* may be found in drier areas. In wetter areas, *S. subsecundum* and *S. squarrosum* are generally found.

Other wetlands may be wooded swamps or even wet patches in the woods. In these areas are found many of the so-called woodland species like *S. Girgensohnii*, *S. palustre*, *S. squarrosum* and, in more open spots, *S. subsecundum*.

The genus Sphagnum is obviously a highly successful one having evolved a large number of species that are able to populate most wetland areas and even dominate certain wetland systems. In general, Sphagnum species are highly evolved specialists, each adapted to thrive in a rather specific habitat. Since most species are highly specialized then it is possible for many species to occur within a given wetland system (particularly bogs) each occupying its own subtly different habitat and hence minimizing competition with other Sphagnum species.

I realize that this is only a partial answer to Dr. Bleakney's question, and an answer I'm sure he knew when the question was asked! However, being the great teacher that he is, I'm sure his question was designed to stimulate me to dig a little deeper -- and I did!

Squirrels as Major Predators of Snowshoe Hares? *

by George Alliston
West Brooklyn, N.S.

In a study of the ecology of juvenile snowshoe hares conducted in 1989-90 at Kluane National Park, Yukon Territory, Mark O'Donaghue and Susan Stuart radio-tagged 254 newborn snowshoe hares to monitor their movements and survival during their first weeks of life.

Unlike rabbits, hares are born fully furred; their eyes are open within an hour of birth and before they are a day old they are capable of hopping quickly along the forest floor. Hares are born in well concealed depressions, often under logs or shrubs and generally remain at their birth site for from three to seven days after which they move to individual hiding places generally about ten to twenty feet from the birth site. These young hares spend their days hiding alone in a well concealed spot often under shrubs, leaves or logs. The young hares reassemble at the birth site generally shortly after twilight for their once-per-day nursing and then return to their hiding places. By the time the young are 10 to 14 days old, they begin to feed on grass but continue to nurse until they are three to four weeks old. As they grow older they move farther from the birth site and by the age of 20

days, their home range is about the same as that of their mothers (four to six acres). Juvenile hares begin leaving their natal ranges when they are about five weeks old.

Observations of the radio-tagged baby hares revealed that two-thirds of these animals died during their first two weeks of life. What came as a great surprise to the investigators was that more than 75 percent of these deaths appeared to be due to predation by squirrels - with red squirrels being responsible for about 80 percent of the squirrel depredations and arctic ground squirrels accounting for the other 20 percent. Raptorial birds (great horned owls, northern goshawks, red tailed hawks) that are generally thought of as significant predators on small mammals accounted for only about eight percent of the deaths of radio-tagged baby hares.

The investigators, upon finding so many dead radio-tagged baby hares stashed in trees, red squirrel middens and in arctic ground squirrel burrows were reluctant to

place the blame directly on the squirrels -- perhaps the baby hares died of other causes and had been scavenged by the squirrels. Observations of mother hares

chasing
squirrels away from where their young

were hidden, direct observations of depredations by squirrels, and an experiment using carcasses of



VARYING HARE
(SNOWSHOE)

predator-killed baby hares (squirrels scavenged only about a quarter of the carcasses) strongly suggest that the squirrels were acting mainly as predators and not as scavengers.

This study was conducted during peak years of the snowshoe hare cycle and it is not known whether squirrels prey extensively on baby hares only when they are very abundant. It is also unknown if squirrel predation has a significant effect on the hare population cycle or whether the young hares would have been killed later anyway by other predators. Only further research will answer these questions.

* Based on an article entitled "Hare-Raising Encounters", by Mark O'Donaghue and Susan Stuart in the February 1993 edition of *Natural History*.

What is Bird Trends? *

by Erica H. Dunn
Long Point Bird Observatory

The purpose of *Bird Trends* is to summarize trends in bird populations in Canada. To monitor bird numbers over wide geographic regions, large scale surveys are required, and most of these need volunteer participation to get adequate coverage. Each such survey has its own form of reporting and feedback to field workers, but we feel it is useful to pull together results from all projects. Do Breeding Bird Surveys and Migration Monitoring agree in which species are declining? Are there gaps in geographic or species coverage that haven't been identified? Are monitoring programs combining to

detect population changes effectively?

Bird Trends will try to come to grips with such questions, though making only a small beginning. Our goals:

- summarize the most recent data on bird population trends in Canada,

- promote greater participation by volunteers in bird monitoring projects, and

- identify strengths and limitations of existing surveys and define needs for further work.

Studies of bird populations can be broken down into three broad categories. At the most basic level, studies focus on **geographic distribution**. The many books titled "Birds of...." suggest that much of this job is already complete! However, Breeding Bird Atlas and checklist projects have shown that there is much more to be learned. The tasks of documenting species distribution in remote regions and at detailed local levels present continuing challenges.

In defining geographic distribution, of course, we must also include migration routes and wintering areas. We know in a general way where most species and well-marked subspecies winter. But at a population level - for example, knowing where Quebec Wood Thrushes winter - the state of knowledge for most species is primitive. Currently the main method for discovering where birds travel is bird banding, but the accumulation of results is very slow and its importance generally under recognized.

The emphasis in *Bird Trends* will be the second level of bird population study: **documentation of species abundance and trends in numbers**. Bird populations are continually changing, and we want to detect persistent trends before it is too late to do anything about them. The few surveys that can help document trends depend heavily on volunteers for collection of data. Both field workers and the public want to know whether such efforts are getting the job done and what the results are.

For each report, we plan to run a summary article on a particular group of birds: waterfowl, shorebirds, and so on.

The third level of bird population study is **identification of causes of change in bird populations**. This is the most specialized level, and although volunteers may still be involved, professional scientists carry out most of the analytical work. Pinpointing causes of change is a complex and challenging task, as is the development of solutions to reverse or mitigate negative effects.

At every level of bird population study, of course, there is a range of geographic scale and species coverage. Distribution and abundance of birds and causation of trends can be studied within a single woodlot or can cover the whole of North America. *Bird Trends* will concentrate on projects at the provincial to national scale that monitor many species at once, but will occasionally discuss more narrowly focussed projects that provide worthwhile models. Similarly, the time scale over which population change is measured ranges from short-term fluctuations to changes since prehistoric times. We'll limit

ourselves here to long-term trends documented by modern population-monitoring surveys, most of them begun in the 1960s or later.

Bird Trends should be of use to anyone who wants a ready source of information on the status of Canadian bird populations and programs currently in place to study them. We hope it will prove of interest to the legion of naturalists who gather most of the data and to those who compile and disseminate results. Without these dedicated people, our knowledge of Canadian bird populations would be considerably poorer.

* Reprinted from *Bird Trends*, Number 1, Summer 1991, pp. 1-2.

Bird Trends is published, in both English and French, by the Canadian Wildlife Service. To be put on the mailing list for *Bird Trends*, send your name, address including postal code, and the language version you wish to receive, to:

Nongame Birds and Latin
American Program
Canadian Wildlife Service
Ottawa, Ontario
K1A 0H3

Trivial Tidbits ...

of Local Natural History

Early January through
Early March, 1993

selected and compiled
by Jim Wolford
Wolfville, N.S.

Skies

Feb 22-25 -

Mercury visible in west at dusk with **Venus** and the very young **crescent Moon** (SW).

Mar 8 - in early evening, a nice show of pink and red **aurora borealis** (SW et al).



DANDELION

Plants

Jan 8 - two **dandelions** were not only in bloom, but also smelled good!, in an orchard in Greenwich (BLF).

Invertebrates

Feb 8 - an active **millipede** was found indoors in a Wolfville bathroom (DP).

Mammals

Jan 2 - one **snowshoe hare** seen in Wolfville (GT).

Jan 4 - report of **snowshoe hares** and their tracks being seen frequently near Wolfville feeders (DGT).

Jan 22 - a **muskrat** foraging for grass-roots (?) in a bare hay-field at Grand Pre (BBT).

Feb 14-15 - overnight, lots of squealing noises from **raccoons** at both Kentville and Gaspereau (TBH, DPI).

third week of Dec - odour of **skunks** noticeable in Wolfville and at Grand Pre (BBT).

Feb 13 - four **skunks** seen together near Starr's Point (SVK).

Jan 31 - **crows** were harassing a **mink**, which dove into the snow, at Scots Bay (MG).

Jan 11-12 - two sightings of **otters** in Wolfville near Acadia Nature Trail - one seen at 9:00 p.m., then two together in mid-afternoon (DGT).

Feb 25 - an **otter**, feeding on ducks, reported at Sullivan's Pond in Dartmouth (PM, BS).

Jan 13 - a **red fox** seen on the bank of the Meander River (Hants Co.) (DGT).

Feb 14 - at about 10:30 a.m. a **red fox** appeared at a bird feeder in Avonport; he stayed for about half



SKUNKS

an hour intermittently sampling sunflower seed and cracked corn. The fox appeared to be in excellent physical condition (SW).

Feb 16 - "While driving up the West Brooklyn Mountain Road, I encountered two red foxes fighting in the middle of the road. I had to stop the car, and they paid no attention whatever. Eventually the fight proceeded to the ditch, and I was able to go on my way. Barry Sabean (N.S. Department of Natural Resources) suggested it was probably two males fighting over territory." (GA)

Feb 9 - the remains of a dead deer (not present on Feb 7) found south of Avonport. Carcass had already been dismembered and its flesh stripped, probably by coyotes (lots of canid tracks present) (SW).

Contributors to TRIVIAL TIDBITS

GA	George Alliston
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GEF	George E. Forsyth
MG	Merritt Gibson
TBH	Tom Herman
SVK	Sam VanderKloet
PM	Peter MacLeod
DP	Debbie Pineo
BS	Bev Sarty
GT	Gerry Trueman
BBT	Brenda & Bill Thexton
DGT	Dianne & Gordon Thorpe
DPT	Dan Toews
SW	Sherman Williams
JWW	Jim Wolford

BNS Bird News

Winter 1992-1993

by Richard Stern
Kentville, N.S.

This has so far been a winter characterized from an avian perspective as one with no snow, and therefore plenty of food away from feeders, until late January, and a general lack of "winter finches". Eagle and Buteo numbers in our area continue to rise. I have only included Christmas count sightings of particular interest, since details of the local counts were in the last issue. There are still plenty of interesting sightings.

Common Loon

Ten were seen by JGT along the Fundy shore on Jan 22.

Horned Grebe

Six were seen west of Margaretville on Jan 22 (JGT). This is usually the less common of our two wintering Grebes along the Fundy shore.

Snow Goose

One was present roosting in the stubble in a field next to Middle Dyke Road for several days at the end of Dec (MAG,RBS,etc.). This species is becoming a more regular vagrant in Nova Scotia. I speculate that these birds are strays from the

high arctic population (Greater Snow Geese) that stop over at Cap Tourmente, Quebec, in fall, and winter on the middle Atlantic coast, and whose numbers have been rapidly increasing in recent years.



SNOW GOOSE

Ruddy Shelduck

Two individuals of this exotic species, native to central Asia and North Africa, were present on a pond at Hortonville till freeze-up in late Dec (JWW, etc.). These are presumed to be escapees from a waterfowl collection.

Green-winged Teal

A pair still present on the as yet unfrozen Stirling's Pond, in Greenwich on Jan 17 (JWW).

Common Goldeneye

A rather unusual sighting of a small flock flying over BLF's house on the Wolfville Ridge on Feb 5. Eight to ten were on the Cornwallis River at Coldbrook on Jan 25 (ASM).

Barrow's Goldeneye

Two females were present amongst the small flock of **Common Goldeneye** at the tidal power plant at Annapolis Royal on Jan 26 (RBS). This rare species is regularly found in this location in winter, and is

relatively easy for the careful observer, preferably with 'scope, to pick out.

White-winged Scoter

Three hundred and five were along the Fundy Shore on Jan 22 (JGT). Fifty percent of these were at Parker's Cove. Large numbers of Scoter are common in this location, but usually later in winter through early spring.

Surf Scoter

Forty-six were seen in the same location on the same day as the previous species.

Oldsquaw

Seventy-two were in the same spot on the Tufts trip along the Fundy coast. Again, par for the course in that location in mid-January.

Red-breasted Merganser

Fifty-one were amongst the other sea-ducks mentioned above.

Common Merganser

Small numbers were present on whatever water remained unfrozen in the Cornwallis River in and around Kentville all winter (RBS).

Black Vulture

An emaciated individual was found near Windsor around Feb 6 and taken to CC's for rehabilitation. Although normally a great rarity from much farther south, there were two other locations where well documented observations of single individuals have been made this winter: one around Margaretville in late fall, and the other in the Green Bay and Lunenburg area in Jan. Of course, they could all be the same bird wandering around the province!

Northern Goshawk

DJ reported to JGT that one had been seen several times near his feeder in late Jan, on Wolfville Ridge

Road. It had on one occasion unsuccessfully tried to catch a hen Pheasant. The Tufts were lucky to have "a wonderful view" of this uncommonly-seen but magnificent raptor on Jan 22 as they set out on their sea-duck search along the Fundy shore.

GR and WGC also had a sighting of one at Sheffield Mills on Jan 2.

Northern Harrier

An immature-plumaged bird was near Chipman Corner on Jan 7 (JGT). A few overwinter in open country most years.

Bald Eagle

The species continues to increase locally, with 377 on the Wolfville Christmas count and 442 counted during the "official" annual eagle count in eastern Kings County held this year on Jan 31. These birds are prominent throughout eastern Kings County all winter. Since the "official" winter eagle count began in 1977 (22 birds counted), numbers have steadily increased and eagles are now twenty times as numerous as on the original count! The eagles continue to be a local, and now more widespread, attraction, and a focus for "Eagle Day" celebrations at Sheffield Mills, at which the B.N.S. played a prominent role. One was seen eating a Black Duck on the bank of the Meander River on Jan 13 (GDT).

Red-tailed Hawk

There were 217 seen on the Wolfville Christmas Count this year -

up from 154 last year. King's County continues to be Nova Scotia's Red-tail capital! A second partial-albino bird

(about 75 percent white with some blue/gray feathering in the tail, and clearly different from the Saxon Street bird which was still around on Jan 18) was seen near Eye Road on Jan 7 (JGT). This seems similar to a bird seen in Gaspereau several

years ago. A possible third albino was seen by MFE in Port Williams on Jan 22. This one had an all-white body and a pinkish red tail.

Rough-legged Hawk

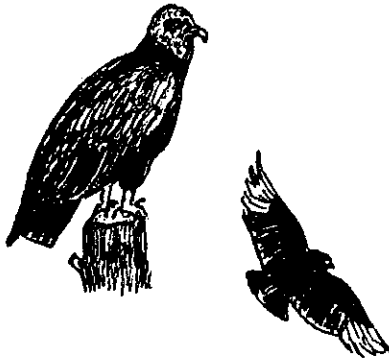
As usual five or six individuals, often individually recognizable by their different plumages, have overwintered on the Grand Pre dykes (JGT etc.). An immature-plumaged bird also overwintered on the dykes near Chipman Corner, near Kentville (RBS).

Gray Partridge

Numbers in our area remain very low. FLL etc. visiting from Halifax found six along Middle Dyke Road on Jan 2. BLF found a covey along Saxon Street on Feb 6, before they ran for cover in a nearby hedge when a Red-tailed Hawk flew over. JGT also found a covey under a feeder in Canard Acres in early Feb.

Purple Sandpiper

As usual a flock of 20+ has overwintered in the Margaretville and Port George area. This is one of the few reliable overwintering shorebirds, and is always found on



BLACK VULTURE

rocky shores, often with heavy surf. This part of the Fundy shore has been a reliable location for several winters for this chunky shorebird with yellow legs and a yellow bill.

Iceland Gull

Three seen at the Wolfville Sewage Plant on Jan 11 (BBT) were still present on Feb 7 (JWW), and one was at the Kentville landfill in early Feb (RBS). This species is relatively rare in the Valley compared to the huge numbers wintering, for example, around the sewage outfalls of Halifax Harbour.

Barred Owl

BLF reports that the "resident" pair behind his house on Wolfville Ridge have survived well on natural and provided food, and by Feb 20 were seen going into his nest box.

KC also had one in her yard in Cheverie, hunting almost daily from Dec 15 to Jan 7.

CR and WGC saw one in Aaldersville, also in a backyard on Jan 26.

Short-eared Owl

Up to 13 have been present on and off at the east end of the Grand Pre Dyke all winter (many obs). On Jan 3 one was flying very high over Canard Dyke, in bright mid-morning sunshine, identifiable only with a telescope, and being mobbed by Ravens (RBS). On Jan 11 one was seen at Port Williams Bridge (JWW).

Spruce Grouse

One flew across the road in front of JGT near Windsor on Jan 3. Most people never find this species by searching, but indeed the frequent observer in the right habitat will often just come across one such as this. If seen on the ground they are often remarkably tame and approachable.

Wild Turkey

Reports were received of several individuals in West Paradise in Feb, presumably introductions (KW).

Belted Kingfisher

A hardy individual seen on Jan 23 near Blueberry Acres (MAG).

Northern Flicker

As usual a few individuals have managed to survive the winter, e.g. on Jan 3 one was seen eating Mountain Ash berries near Wolfville (BLF), two to three were seen at the Wolfville sewage pond on Jan 12 (JGT), one was seen north of Canning on Feb 5 (RBS), one at Coldbrook on Feb 7 (ASM), etc.

Pileated Woodpecker

As usual there were several scattered sightings of individuals of this spectacular species.

Horned Lark

The usual roving flocks were present on the dykelands all winter, with numbers starting to increase by mid-Feb, as more southerly wintering birds started to return. One hundred on Jan 7 at Chipman Corner (JGT) was quite a sizable flock for mid-winter.

Blue Jay

JGT and RBS both found a few fewer than usual at feeders this winter. There were 851 on the Wolfville Christmas Count this year compared to 1037 in 1991 - only a small decrease. Has anybody else any comments?

Gray Jay

Two reports, of one along Westwood Ave., Wolfville on Dec 16 (EEE), and two at Wallbrook on Jan 24 (BLF). This species is most commonly seen in heavily wooded areas, and is rare in winter in our

part of the province, although it may visit feeders during severe weather.

American Crow

All winter the skies over Kentville have continued to darken with Crows at dusk and dawn. The main roost of several thousand has tended to be around the United Church and K.C.A. School. RBS estimated 5,000+ in an apple orchard on Tiny Parrish Road in mid-afternoon on Feb 5.

Common Raven

On Feb 25 BLF noticed a pair building a nest near Westwood Avenue in Wolfville.

Black-capped Chickadee

The 1484 counted on the Wolfville Christmas count was the highest total yet for our area, and numbers seemed to continue high, e.g. at feeders, all winter.

Boreal Chickadee

This species is decidedly uncommon in our area, probably because of the relative lack of extensive boreal-type habitat. They only rarely come to feeders, unlike their cousin the Black-capped, but one did come to JGT's feeder throughout Jan.

Brown Creeper

A few remain with us all winter, but are generally seen feeding, characteristically searching up (Nuthatches search down) the trunks of trees rather than visiting feeders. One was at JGT's feeder on Wolfville Ridge on Jan 16, and one was at CM's just down the hill in Gaspereau on Feb 1.

Eastern Bluebird

After seven birds had been seen in early Dec at Sheffield Mills (see last issue) there were no further sightings until mid-Feb when five turned up to feed on Canada Holly berries at the

Harwoods in Woodside, the same site used by last year's wintering flock. This occurred after several nights of record low temperatures, suggesting that cold temperatures are not the limiting factor in overwintering at high latitudes.

American Robin

No - they are not the first sign of spring; as many as usual overwintered, often associating with Waxwings and feeding on berries, with reports from several observers in Wolfville, Kentville, Kingston, Margaretville, Delaps Cove, Annapolis Royal etc. About 30 regularly flew west over Wolfville Ridge in the early morning and back in the evening (BLF).

Varied Thrush

Almost in "our" area, a female of this rare winter visitor from the cedar rain forests of British Columbia has been present at Cherryfield, on the Annapolis/Lunenburg Co. border, coming to a feeder for three weeks in Feb (GC).

Brown Thrasher

Another rarity, one was at a feeder in Falmouth Jan 3 (JM,PK).

Northern Mockingbird

One was present on and off all fall and winter in west Wolfville (MH). Another present for the third winter at Alders Ave., New Minas, was noticed to behave aggressively towards visiting Cedar Waxwings (ASM).

Cedar Waxwing

Small flocks were common around the district during early Feb (BBT,BLF, RBS etc.) - not unusual during the winter in recent years. One hundred were counted by JWW in Wolfville on Jan 4.

Bohemian Waxwing

Much more irruptive than the previous species, there are some years when large numbers are widely seen, and other years when just the odd flock is observed. This winter has so far been one of the latter. There were 110 at Delaps Cove on Jan 27 (JGT), 100+ in Wolfville on Feb 1 (BLF), 36 at Grand Pre on Feb 12 (BBT), and some in Wolfville in early Feb with the Cedar Waxwings feeding on berries (BLF).

Northern Shrike

In some winters relatively large numbers of this solitary northern passerine predator winter in our area. This was definitely not one such winter, with only one reported on the Wolfville Christmas count, one seen near Porter's Point on Jan 7 (JGT), one at Outram, Annapolis Co. on Jan 22 (JGT) and one at White Rock on Feb 25 (BLF).

Yellow-rumped Warbler

It is always nice to have a report of warblers during the winter, and this species is the most frequently reported, since it is fond of Bayberries and not entirely dependent upon insects for food. One was present in BLF's Bayberry bush on Feb 3.

Pine Warbler

Another more regular early winter visitor to feeders; one was at JWW's suet feeder in Wolfville on Dec 31.

White-throated Sparrow

A few hardy individuals hung on as usual, e.g. five to six at GT's feeder on Jan 2.

Lapland Longspur

This year good numbers were

along the main road across the Grand Pre dyke, mixed in with Snow Buntings and Horned Larks. There were 25+ on Jan 1, and again on Feb 23 (RBS).

Snow Bunting

The only large flock so far reported is of 50+ on Brooklyn Street, Coldbrook, on Feb 17 (ASM).

Brown-headed Cowbird

A flock of 20+ was present in Windsor on Jan 2 (BBT), and a few were also present on and off at a feeder near Martock around the same time (RBS). On Jan 23, 25+ were at Sheffield Mills with Starlings (JWW).

Common Grackle

Only one report so far this winter, of one in Wolfville on Jan 7 (BLF). Usually a few winter here but returning flocks in late March are a true sign of impending spring.

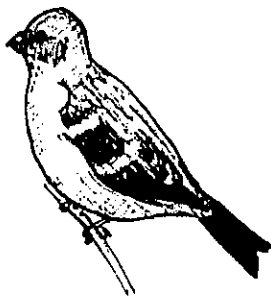
Pine Grosbeak

A dozen or so were regular visitors to the woods near Woodside in the latter half of Jan (J&AH). Thereafter, almost unprecedented numbers were present in eastern King's Co. (Wolfville, Gaspereau, Greenwich etc.) for the few days

around the end of Jan through the beginning of Feb, before disappearing again. Flocks of up to several hundred were widely reported, often tame and approachable, and almost invariably feeding on Ash seeds.

The majority seemed to be in gray immature

plumage, although pretty bright pinkish-red adult males were present. Evidently flocks like these used to be



PINE GROSBEAK

more common, and a theory presented in Tufts' Birds of Nova Scotia is that their niche may have been taken over by the increasing wintering population of Evening Grosbeaks. It is of interest that Evening Grosbeak numbers have been way down this winter.

Common Redpoll

Definitely not an irruptive winter for this species this year, but 30 were seen at Upper Burlington on the West Hants Christmas count on Jan 3.

House Finch

The Canning male hung around till at least Dec 31 (JWW).

American Goldfinch

Uncommon this winter. A few small flocks reported from various feeders. Seventy-five were at MA's West Brooklyn feeder regularly since late Jan.

Pine Siskin

Decidedly rare this winter in contrast to last year. However there were 20 at EU's feeder in Avonport on Feb 14, and 15 at JWW's in Wolfville during a blizzard on Feb 15.

Evening Grosbeak

Numbers in our area are way down this winter, although apparently they are up along the Noel Shore. There were 32 on Gospel Woods Road on Feb 14 (BEM), and 25 to 50 at MA's feeder in West Brooklyn from late Jan on. There were, however, up to 60 that visited CR's feeder a little farther south, at Aaldersville in Jan.

Contributors to Bird News

- | | |
|------|-------------------------|
| MA | Margaret Alliston |
| WGC | Bill Caudle |
| CC | Cyril Coldwell |
| GC | Greta Crossland |
| EEE | Evelyn & Ed Eagles |
| MFE | Mark Elderkin |
| BLF | Bernard Forsyth |
| MAG | Merritt Gibson |
| J&AH | John & Avril Harwood |
| MH | Mike Hawkswood |
| DLJ | David Jones |
| PK | Peggy Kochanoff |
| FLL | Fulton Lavender |
| CM | Clint MacInnes |
| JM | Jane McConnell |
| ASM | Angus & or Sela MacLean |
| BEM | Bernard & Eleanor Mason |
| CR | Christine Ross |
| RBS | Richard Stern |
| GT | Gerry Trueman |
| BBT | Brenda & Bill Thexton |
| GDT | Gordon & Diane Thorpe |
| JGT | Judy &/or Gordon Tufts |
| EU | Eva Urban |
| KW | Kathleen Wilson |
| JWW | Jim Wolford |

Sources for Local Natural History Information

(compiled by Blomidon Naturalists Society)

<i>Information</i>	<i>Source</i>	<i>Office</i>	<i>Home</i>
Rocks & Fossils	Geol. Dept., Acadia Univ.	542-2201	
Fish	NS Dept. of Nat. Resources	679-6091	
Flora - General	Ruth Newell	542-2201	542-2095
Flora - Trees	Merritt Gibson	542-2201	582-7569
Flora - Fungi	Darryl Grund	542-2201	542-9214
	Nancy Nickerson	679-5333	542-9382
Flora - Lichens	Karen Casselman	424-7370	633-2837
Flora - Seaweeds	Darryl Grund	542-2201	542-9214
Flora - Mosses & Ferns	John Pickwell		681-8281
Birds - General	Bernard Forsythe		542-2427
	Richard Stern	678-4742	678-1976
	Gordon & Judy Tufts		542-7800
	Jim Wolford	542-2201	542-7650
	Jean Timpa		542-5678
Birds - Hawks & Owls	Bernard Forsythe		542-2427
	Cyril Coldwell	542-2201	542-2854
Birds - Falcons & Eagles	Peter Austin-Smith		542-2109
Mammals	Tom Herman	542-2201	678-0383
Amphibians & Reptiles	Sherman Bleakney	542-2201	542-3604
	Jim Wolford	542-2201	542-7650
Seashore & Marine Life	Sherman Bleakney	542-2201	542-3604
	Jim Wolford	542-2201	542-7650
	Graham Daborn	542-2201	542-5373
	Michael Brylinsky	542-2201	582-7954
Indian Prehistory	Ellis Gertridge		542-2816
& Archaeological Sites	James Legge		542-3530
Astronomy	Roy Bishop		542-3992
	Sherman Williams	542-3598	542-5104

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Harold Forsyth
R.R. 2 Wolfville, N.S. B0P 1X0

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Book by Robert Bateman	Box of Delights
Replica of the Grand Pre Church - from the Norwich Collection	Herbin Jewellers
Three pairs 7 x 35 Binoculars (\$60 each)	Jim Wolford
Three copies of <i>Legacy - The Natural History of Ontario</i>	Jim Wolford Acadia Bookstore
Whale Adoption	Brier Island Ocean Study
Five copies of <i>A Natural History of Kings County</i>	Blomidon Naturalists Society

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