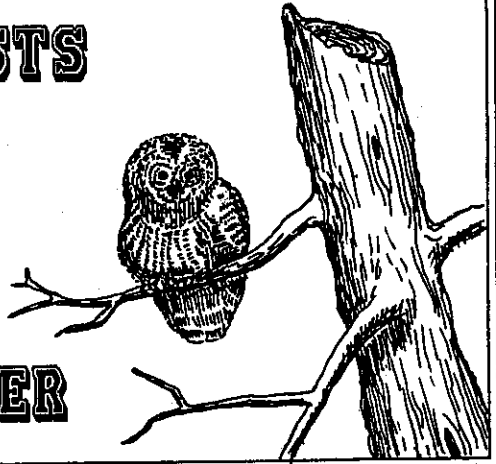


# BLOMIDON NATURALISTS SOCIETY



## NEWSLETTER

VOLUME 17  
NUMBER 2  
JUNE 1990

### BNS Early Fall 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.

1. September 17 -- "10,000 Years of Natural History in Kings County". The fall programme will begin with a "nature walk" through time. Well-known naturalist, Merritt Gibson, will discuss the exciting information he has collected for the Natural History of Kings County and other projects.

2. October 22 -- "Adventures in Costa Rica" by Tom Herman. As many Society members know, Tom Herman and his family have been in Costa Rica for the past year (see article in this Newsletter). Judging from the correspondence we have received from Tom, this presentation will be at least as exciting as an Indiana Jones movie.

## Field Trips

Unless otherwise noted, all times given are for meeting at the Acadia Gym parking lot. Leaders' or contact persons' telephone numbers are included to allow those without access to local news to confirm trips.

1. June 27, Wednesday, 7:00 p.m. at the administration building, Blomidon Park -- Natural History of Blomidon. Jim Wolford will point out birds, trees, flowers, mammals, insects, fungi and other organisms that you never dreamed existed in this area. Contact Peter Austin-Smith (678-8921 days). The first of the BNS Blomidon Park Nature Walks.

2. July 2, Monday, 12 noon at the Annapolis Tidal Power Plant parking lot -- Beach Walk with Graham Daborn, Director of the Acadia Centre for Estuarine Research. Learn to identify the flora and fauna in the intertidal zone of the Annapolis River estuary. Wear rubber boots. Contact Greg Turner (245-4689). Sponsored by the Annapolis Field Naturalists.

3. July 3, Tuesday, 7:00 p.m. at William DeGarthe Memorial Provincial Park, Peggy's Cove -- Walking tour of rocks, minerals and landforms of Peggy's Cove. Learn about this ancient, glaciated and famous landform with Howard Donohoe of Dept. of Energy and Mines (429-4610). Sponsored by the N.S. Museum.

4. July 4, Wednesday, 7:00 p.m. at the administration building, Blomidon Park -- Creatures of the Mud. Discover the exciting world of the unique animals that live in the Bay of Fundy mud with mudflat scientist Sherman Boates. Contact Peter Austin-Smith (678-8921 days). A BNS Blomidon Park Nature Walk.

5. July 7, Saturday, 4:00 a.m. at the Robie Tufts Nature Centre (Front Street chimney) -- watch the chimney swifts leave the chimney. Contact George Forsyth (542-7116).

6. July 7, Saturday, 8:00 p.m. at the Robie Tufts Nature Centre (Front Street chimney) -- official opening of the Robie Tufts Nature Centre sponsored by the BNS and the Wolfville Business Development Corporation. Other events all day; watch the local media for details.

7. July 8, Sunday, 7:30 a.m. -- Blomidon Blitz! Maritime Breeding Bird Atlas Day. Spend the day recording breeding bird activity in Blomidon Park. Alternate meeting place: Blomidon Park entrance at 8:00 a.m. Jean Timpa (542-5678).

8. July 11, Wednesday, 7:00 p.m. at the administration building, Blomidon Park -- Endangered Species: The Peregrine Falcon. Peter Austin-Smith (678-8921 days) of the N.S. Dept. of Lands and Forests will lead a trip to the site in the park where they have been reintroducing peregrine falcons to the upper Bay of Fundy. He will discuss studies of this and other endangered species. A BNS Blomidon Park Nature Walk.

9. July 14, Saturday, 8:00 a.m. -- Canoe the Cornwallis River with Larry Bogan (678-0446). A leisurely canoe trip with a slow current at your stern. Bring your canoe, personal flotation device and lunch. Finish in early afternoon. Alternate meeting place: Lovett Bridge at 8:30 a.m.

10. July 22, Sunday, 7:30 a.m. -- Cadden Bay, Keji Seaside Adjunct Park with Peter MacDonald (542-5958). A vast selection of habitats in a short walk to see waterfowl, seals, and rare piping plovers. Two hour drive to get there. Bring sturdy footwear and lunch; return by supper.

11. Final week of July -- Kim Mawhinney and Sherman Boates will lead an outing to Evangeline Beach to view shorebirds and demonstrate banding procedures. Because weather is the determining factor, long-term notice is impossible. Those interested must let George Forsyth (542-7116) know by July 15 and they will be notified.

12. August 1, Wednesday, 7:00 p.m. at the administration building, Blomidon Park -- Coastal Birds of Blomidon. The upper Bay of Fundy is an internationally important staging area for migrant shorebirds. Kim Mawhinney will lead a walk along the shore looking for sandpipers, gulls, cormorants, herons and ducks. Contact Peter Austin-Smith (678-8921 days). A BNS Blomidon Park Nature Walk.

13. August 4, Saturday, 11:00 a.m. -- Shorebirds and Chimney Swifts with Jim Wolford (542-7650). First we'll tour the Evangeline Beach area to see "a living carpet of semi-palmated sandpipers and other shorebirds". After a supper break, reconvene at the Robie Tufts Nature Centre (Front Street chimney), probably around 8:00 p.m., to see a "flying carpet of chimney swifts". Bring a lunch. There are many good restaurants in the Wolfville area for supper (or bring it too). Jointly sponsored by the BNS and the Halifax Field Naturalists.

14. August 8, Wednesday, 6:00 p.m. at Prescott House -- Wellington Dyke Walk. History and natural history of the dykelands with Charlie Borden and Sherman Boates (542-2361). Sponsored by Prescott House Museum.

15. August 11, Saturday, 10:00 a.m. at Five Islands Provincial Park, Colchester County -- Walking tour of the rocks, minerals and landforms of Five Islands with Howard Donohoe of Dept. of Mines and Energy (429-4610). Learn about dinosaurs, volcanoes, glaciers and sand dunes. Sponsored by N.S. Museum.

16. August 11, Saturday, 1:30 p.m. at the Legion Social Centre, Annapolis Royal -- Railroad Flower walk with Ruth Newell. Duration: 2-1/2 to 3 hours. Rain date: August 12. Contact Gini Proulx (467-3235 evenings). Sponsored by the Annapolis Field Naturalists.

17. August 12, Sunday, after sunset at Stile Park, Wolfville Ridge -- Perseid Meteor Watch with the BNS astronomy team. Contact: Larry Bogan (678-0446).

18. August 15, Wednesday, 7:00 p.m. at the administration building, Blomidon Park -- Flowers and Trees of Blomidon. During a relaxing walk through the park, Marian Zinck will introduce and discuss the wildflowers and trees found in the park. If you have questions about wild plants, Marian will be glad to answer them. Contact Peter Austin-Smith (678-8921 days). A BNS Blomidon Park Nature Walk.

19. August 18, Saturday, 10:00 a.m. at the Smith's Cove Look-off -- Fossil Hunt with Jack Colwell, Professor of Geology, Acadia University. Find brachiopods for sure. Wear sturdy footwear and bring a lunch and a hand lens if possible. Contact Greg Turner (245-4689). Rain date: August 19. (Smith's Cove Look-off is on the south side of Rte. 101 at the Bear River / Smith's Cove exit.)

20. August 23, Thursday, 8:00 p.m. at Blomidon Park campground registration booth -- Night Insects of Blomidon with Barry White of N.S. Museum and Tom Smith of N.S. Dept. of Lands and Forests. A field walk on attracting and observing insects. Bring a flashlight. Sponsored by N.S. Museum.

21. September 30, Sunday, 10:00 a.m. -- Shorebirds and Brown (i.e. "hard to identify") Ducks with Jim Wolford (542-7650). We'll tour Grand Pre in the morning and Canning and environs in the afternoon. Bring a lunch. Joint BNS, Nova Scotia Bird Society trip.

The BNS Newsletter is published on equinoxes and solstices.

Editors: George and Margaret Alliston  
Art: Mary Pratt  
Production: Larry Bogan  
Distribution: Lana Churchill and Brenda Thexton

"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

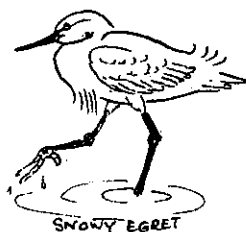
The Blomidon Naturalists Society is a member of the Federation of Nova Scotia Naturalists, an Affiliated Member of the Canadian Nature Federation and a member of the Nova Scotia Trails Federation.

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

Address correspondence to:  
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Wolfville, Nova Scotia  
B0P 1X0

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## SOCIETY NEWS

### Acknowledgements

Many people must be thanked this time:

our speakers: Sherman Williams, for an interesting astronomical talk plus some Society history; Mike Dadswell, for a thought provoking look at the Atlantic fishery; and Nancy House, for an effervescent description of her trip through Africa;

our field trip leaders: Sherman Williams, for another successful astronomical trip at Stile Park; Sherman Bleakney, with or without geese at Wellington Dyke; Jim Wolford, for showing us the birds of Kings County; and Denise Packard and Sherman Boates for leading us through the orchards on Mother's Day, even if it was a month too early;

Harold Forsyth, for coordinating the Wolfville Swift Project (and doing a lot of the work himself), and everyone who helped him (Sherman Boates, Jim Wolford, etc.);

George Forsyth and his committee (Merritt Gibson, Miriam Tams and Peter Austin-Smith), for organizing the successful inaugural meeting of the Federation of Nova Scotia Naturalists;

everyone who helped with the Federation of Nova Scotia Naturalists meeting - speakers, moderators, field trip leaders, etc.;

Brenda and Bill Thexton, for indexing and preparing a complete set of BNS Newsletters to be placed in the Acadia University Archives;

all our Newsletter contributors;

and all our members who made donations to and sold raffle tickets for the Wolfville Swift Project. Your Society has accomplished a great deal over the past few months; without such active support of the members, it would not have been possible.

### Summary of Minutes - BNS Directors Meetings

#### Directors Meeting - April 18, 1990

As chairperson of the organizing committee for the inaugural meeting of the Federation of Nova Scotia Naturalists, George Forsyth outlined the progress his committee had made. Curtis and Margaret Chipman are to be asked to be honorary chairpersons of the meeting. Miriam Tams agreed to look after publicity for this meeting and for future activities of the Society.

Harold Forsyth presented the landscape architect's current plan for the Chimney Swift Project and answered questions about the plan and the species of trees and shrubs to be used. He advised that the plan had been approved in

principle by the Wolfville Parks and Trees Commission. Following discussion the plan was agreed to by the Directors. Harold also briefed the Directors on the current status of construction scheduling and financing of the Swift Project. A letter from Sherman Bleakney with suggestions for subjects for the displays at the interpretive centre was read. It was moved, seconded and carried that the centre be named the Robie Tufts Nature Centre, subject to approval by Mrs. Tufts.

Breeding Bird Atlas Blitz - June 1990 - One of two priority squares on Bowater-Mersey lands in the southeast of the province is being allocated to the BNS. Volunteers will be required and the contact person will be Jim Wolford.

The Treasurer reported that our current bank balance is \$1,118.88 compared with \$550.00 at this time last year. The cost of printing the March Newsletter has not been deducted from this balance.

The Newsletter Editor asked that someone be appointed to look after advertising. The names of suitable people will be submitted at the next meeting. It was agreed that the Acadia University Library be approached regarding archiving back copies of the Newsletter.

#### Special Directors Meeting - May 1, 1990

This meeting was called to provide Dale Smith of the Parks Planning Division of the N.S. Department of Lands and Forests with the opportunity to discuss the possibility of an arrangement with the Society whereby our expertise could be used to assist in interpretive programs at Blomidon Provincial Park.

Dale explained that Blomidon Park has a great deal of potential but few resources. Unlike the national parks, the provincial park system has no interpretive service. He said that the purpose of the meeting was purely exploratory at this stage, but that he hoped arrangements could be made whereby the Society could share information with the park and possibly provide leaders for field trips and interpretive talks. He suggested that, if something along these lines could be worked out, a program might commence next year.

Considerable interest was expressed by the members of the executive and directors and it was suggested that a number of field trips led by members of the Society might even take place this year. (See Field Trips in this Newsletter.)

Dale agreed to discuss the matter further with his staff and forward a proposal to the Society. He expressed his appreciation for having the opportunity to discuss the proposal with the directors and with our cooperative attitude.

#### Newsletter News

Thanks to the cooperation of Pat Townsend, the Acadia University Archivist, and the efforts of Bill and Brenda Thexton, a complete set of Blomidon Naturalists Society Newsletters now resides in the Acadia University archives. In addition, Brenda Thexton has compiled a table of contents for each issue and a listing of all articles by subject. It

is our intent to have these compilations entered and maintained on a computer diskette. Hopefully these measures will provide greater accessibility by naturalists current and future to our past observations and musings.

Many thanks Brenda, Bill and Pat.

BNS Newsletter Submissions Deadline - September 1, 1990

Please send or give all contributions to the Newsletter to:

George Alliston (542-3651)  
R.R 3  
Wolfville, N.S. BOP 1X0

For "Trivial Tidbits" only, see the instructions at the beginning of "Trivial Tidbits". Send the submissions to Jim Wolford at:

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

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

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. Sketches or diagrams should be submitted in final form, preferably on a separate page.

**SWIFT PROJECT AND RELATED ITEMS**

**A Fragmentary History of Roosting Chimney Swifts  
in Wolfville**

by Jim Wolford  
Wolfville, N.S.



Groups of roosting chimney swifts have been recorded in the chimneys of three buildings in the Town of Wolfville: in the old Wolfville School, University Hall at Acadia University and the Farmers Dairy chimney (now the Robie Tufts Nature Centre). These three buildings are located in the centre of the town within 1,500 feet of each other.

The old Wolfville School, located, I understand, on the site of the current Wolfville School basketball courts, was built in 1892 and torn down in 1972. University Hall was built in 1924 after a fire in 1920 had destroyed the second College Hall. The University Steam Plant was built in 1950-51 after which, I believe, the southwest University Hall chimney was no longer used for heating. However, a rather noisy exhaust vent was installed at the base of this chimney in the 1960's.

The Farmers Dairy constructed and occupied their new building on Front Street in 1957. In 1974-75 the Dairy stopped manufacturing dairy products there and used the building for a depot. It may have been at this time that the chimney became available to the swifts for roosting.



The earliest documentation I have found of swifts roosting in Wolfville was in the Acadian newspaper of August 4, 1938. Robie Tufts asked for and received permission from the School Board to "erect a staging" at the old Wolfville School to band "that species of Martin known as the 'Chimney Swift'". Robie Tufts' notes from 1963 to 1968 indicated that the old Wolfville School chimney was used by roosting swifts during this period. His notes from 1968 indicated that about 250 swifts dropped into the school chimney on May 24 but, on June 14 of that year, swifts were "pouring" down the southwest chimney of University Hall. Although this is the first written evidence I have found of the use of the University Hall chimney (and the use of the old Wolfville School and University Hall chimneys in the same time period), Merritt Gibson remembers swifts using both these chimneys during his boyhood days in Wolfville in the early to mid-1940's.

Swifts were certainly present at University Hall in 1974. In late May of that year several days of extremely severe weather - cold temperatures, snow and rain - prevented the birds from feeding (their insect prey were not flying) and, presumably, thermally stressed the weakened birds. An estimated 900 dead and starving birds were picked up on the Acadia campus. Birds that were still alive when collected were taken inside the biology building and fed around the clock for four days by a group of volunteers. Although many died, about 200 survived and were released. (In 1990 our cold wet weather in mid-May resulted in a few casualties - eight dead swifts were found in Wolfville.)

When I arrived at Acadia University in the fall of 1975, the old Wolfville School had been dismantled and the Farmers Dairy chimney had presumably just fallen into disuse by the Dairy. My own observations of roosting swifts at University Hall must have begun in the summer of 1976 but my first journal notes were on July 14, 1979. Then on July 31, 1979, I observed 200+ swifts circling and entering the Farmers Dairy chimney.

From 1979 through 1987, my rather sparse and irregular observations (76 dates, averaging only eight checks per year) suggest a general pattern of using the University Hall chimney until early to mid-July, then roosting at the Farmers Dairy chimney for the rest of the season until the swifts departed in early September. There was, however, some use of the University Hall chimney at the very end of the season in 1982.

However, my data for 1988 (14 dates) and, especially, 1989 (91 dates) show quite a different pattern. After mid to late May, nearly all roosting activities were at Front Street.

Before the summer of 1989, I had guessed that we would see a dip in the roosting numbers of chimney swifts in mid-June through July since most of the swifts should have been nesting then. Swifts are not colonial nesters but disperse to nest as single pairs in chimneys, hollow trees, barns, silos, etc. But our counts showed only a slight decrease in late June.

So far our highest "guesstimate" of swifts roosting in the Farmers Dairy chimney was of 880 birds on July 20, 1989. Our highest accurate count was 647 birds on August 6, 1989; that night the swifts were filmed and later carefully counted (twice) by Walter Urban and Sherman Williams.

Sure enough, just when a pattern seems to emerge, the birds do something else! So far in the spring of 1990, roosting was at the Farmers Dairy chimney from May 9 to May 24, then at University Hall from May 26-28, Farmers Dairy on May 29, and University Hall from May 30 to June 5.

So what will the rest of 1990 show? We'll just have to watch it night by night. I still haven't tired of it (yawn).

I wish to acknowledge the help from many others in gathering the data we have. I don't have a formal list but you all know who you are. Please keep on passing me your notes and estimates of the numbers of roosting swifts.

### Swift Project Progress Report

Phase 1 of the Swift Project (refurbishing of the chimney and construction of the interpretive centre - to be called the Robie Tufts Nature Centre) was completed in late May, only slightly behind schedule. Given the extremely bad weather conditions that prevailed in May, this delay, while undesirable, was not unwarranted.

The funding for Phase 1 of the project is now in place. The BNS commitment to raise \$5,000 has been fulfilled from the proceeds of the raffle and donations from members and supporters. The Wolfville Business Development Corporation (WBDC) has contributed their \$5,000 and the generous matching grant of \$10,000 has been received from Dover Trust.

Currently the WBDC and the Town of Wolfville are proceeding with curb work in the parking lot area.

It is intended that Phase 2 of the project (landscaping, installation of benches and interpretive displays) be proceeded with this summer. As mentioned in our last release, a student has been hired for a 15-week period and is currently, under the direction of Sherman Boates, designing some displays. The WBDC is in the process of awarding the landscaping contract.

The finances for Phase 2 of the project (\$20,000) are falling into place. In this phase of the project, your Society has assumed direct financial responsibility for the preparation of the displays. However, the BNS and the WBDC have worked closely in fund-raising efforts for this phase of the project. To date, we have received a \$2,200 grant from the James L. Baillie Memorial Fund of the Long Point Bird Observatory, Port Rowan, Ontario and a grant of \$13,800 has been approved by the Environmental Partners Fund. A local public appeal\* for funds has also been launched and the initial response appears to be positive.

Now, if only we can convince the swifts to be less promiscuous in their roosting habits, we may be able to see the successful completion of this project.

\* Since BNS members had already been solicited for funds and had participated in ticket sales for our raffle, it was intended that they be excluded from the public appeal. Unfortunately, some members were not excluded. We apologize to those members who received this additional solicitation.

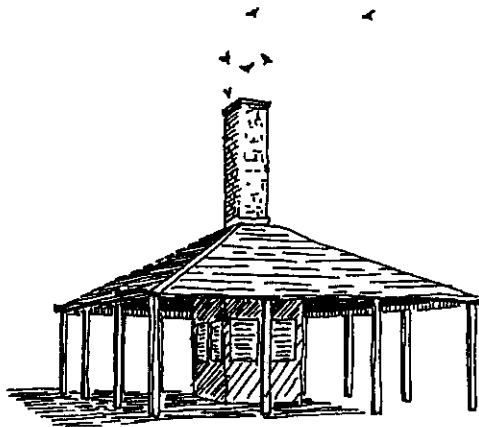
## BNS Raffle Results

The draw for the raffle prizes was held at our May 21 meeting. First prize, sponsored by Uniglobe Fundy Travel, Kentville, of a weekend for two at the Delta Barrington in Halifax with transportation by Wood's Limousine Service, was won by Pat McLeod of Wolfville. The second prize winner was Sally Hills of Wolfville who won a whale-watching trip for two donated by Brier Island Ocean Studies and overnight with meals at Brier Island Lodge. Sally Hills also won a painting donated by John Pickwell. (Sally either bought a lot of tickets or was extremely lucky!) Ed Sawler of Wilmot won a pair of binoculars donated by the Camera Corner in New Minas and Curtis Thompson of Port Williams won a book, "The Birds of Canada", donated by the Box of Delights in Wolfville. Ray Winkelman of Wolfville won a backpack donated by Wilderness Outfitters of New Minas and Leslie Armstrong of Coldbrook won a fishing tackle box donated by Cleve's Sporting Goods of Kentville.

Congratulations to the winners and our thanks to the businesses and individuals who generously contributed these prizes!

The objective of the raffle and appeal to members was to raise the \$5,000 we committed to Phase 1 of the Wolfville Chimney Swift Project (see Progress Report in this Newsletter). We are pleased to report that, through your efforts, our objectives have been met. A total of 4,546 raffle tickets were sold at one dollar each and, to date (June 7), \$1,436 in donations have been received. After deducting expenses we have net receipts of \$5,658 -- exceeding our objective by about 12 percent.

The success of the raffle and appeal is directly attributable to you, the members, who got out and sold the tickets and dug into your own pockets for donations. The Directors of your Society wish to express their sincere thanks for your support.



Letters

April 19, 1990

Dear Mr. Austin-Smith,

My name is Nicholas. I am eight years old. My cousin's name is Victoria. She is four years old. Last year we came to Wolfville to see the swifts. We had fun. We are members of T.R.E.P.A. For Earth Day we collected our pennies to "Save the Swifts". We want to see the swifts again this year.

Nicholas Boudreau  
Tusket Falls, N.S.

(T.R.E.P.A. - Tusket River Environmental Protection  
Association. Ed.)

-----  
April 27, 1990

Dear Nicholas:

I was very pleased to receive your letter and I wish to thank you for the money order for \$15.00 to help "Save the Swifts". I was also happy to hear that you had fun when you came to Wolfville with your cousin Victoria to see the swifts.

We are repairing the chimney now and will soon build a nature centre around the lower part of it. The centre will have pictures and tell people all about the swifts and other animals and plants in the valley. A picture of the centre is in the little booklet which I have sent to you with this letter.

I hope that you and your cousin will be able to visit Wolfville again to see the swifts and the nature centre.

Yours sincerely,

P.J. Austin-Smith  
President, BNS

-----  
Attached please find a small contribution for the maintenance of your chimney. How uplifting it is to read about people who care. May the chimney swifts enjoy their residence for many years to come!

Renate Boutros  
Downsview, Ontario

## Dedication of the Robie Tufts Nature Centre

On Saturday, July 7, 1990, at 8:00 p.m., dedication ceremonies will be held in Wolfville at the site of the new nature interpretation centre (Swift Pavillion) on Front Street. In honour of one of Wolfville's most famous and influential ornithologists, the centre will be known as the Robie Tufts Nature Centre. A number of other events are planned for that day -- the local media will provide details concerning the scheduling of these events. We hope that you will be able to attend the dedication ceremony, and other events, to help celebrate the occasion. The cooperation amongst your Society, the Wolfville Business Development Corporation, the Town of Wolfville, residents and businesses in the area and the general public, that has contributed to the success of this project is, in itself, sufficient reason for celebration. We hope that the swifts will also attend!

### FIELD TRIP REPORTS

#### Star Night at Stile Park March 21, 1990

by Sherman Williams  
Avonport, N.S.

The spring Equinox star observing night was very well attended. During the evening, between 50 and 60 interested observers came to Stile Park to enjoy the views of the night sky. The weather co-operated perfectly; skies were clear and temperatures mild.

Interpretation of the evening's celestial arrangements was given by Roy Bishop, Larry Bogan and Sherman Williams. Telescopes and binoculars were set up to view various objects. Of particular interest were the views of Jupiter and its moons and the bright nebula in Orion. Through the evening, Orion and his dogs gradually slipped toward the western horizon, chasing the Pleiades before them. The Gemini Twins, Pollux and Castor, were right behind them. In the same time, Leo, the Lion, climbed higher in the southeast in time to straddle the meridian before midnight. The bright light of the star, Arcturus, got noticeably higher above the eastern horizon as the evening progressed letting us know that Earth was spinning and time was indeed passing. It was time to call it a night - and a very successful star observing night at that.

#### Canada Goose Flypast March 27, 1990

by Sherman Bleakney  
Wolfville, N.S.

What an evening! About the only things that could be construed as avain on this trip were the numerous fowl-ups: fowled up times, fowl temperature, fowl wind and my fowl temper.

The occupants of a dozen or more warm cars, some from as

far away as Hantsport, enjoyed a lovely sunset and a few small flocks of ducks materializing out of the orange sky and winging over our heads and into the darkening Basin behind us. On this same date last year, low-flying geese performed in the same manner, with one major flock flypast of approximately one thousand honkers providing a memorable visual and aural experience.



This year, at near darkness, a group of possibly eight geese were spotted flying low and in the wrong direction! What did make our evening, though, were the four or more short-eared owls which were active from the moment we arrived. We watched them flying and swooping and, whenever they landed in the open fields, many of the B.N.S. participants viewed the owls face to face through our tripod telescope. Finally, plunging light levels and temperatures (-10 deg. C) forced even the hardiest into their heated chariots and away.

Mosses and Ferns in New Minas  
April 28, 1990

by John Pickwell  
New Minas, N.S.

Despite the cloudy, cold weather, about 25 people, including a biology teacher from Horton District High School and 15 of his students, participated. Our numbers diminished inversely with the mileage covered (and, perhaps, with the teacher's departure to attend a meeting).

The cold spring made it too early to look for annual ferns although we did find the fiddleheads of the Sensitive Fern, *Onoclea sensibilis*. However, as can be seen from the list of species observed below, we found good numbers of mosses, club mosses, lichens, liverworts and perennial ferns. Some highlights of the trip were:

- examining the cups of the Cup Moss, *Tetraphis pellucida*, with a hand lens and observing the gemmae, organs of vegetative reproduction, in the centre of the cups;

- spraying lichens like Lungwort, *Lobaria pulmonaria*, and mosses, like *Orthotrichum sordidum* and *Ulota crispa*, with water and watching their dry, gray leaves quickly open up. The latter two both assumed a starlike shape and became difficult to tell apart. An interesting discussion ensued about how mosses and lichens conserve water.

- seeing the large, oval, bright green leaves of *Pseudobryum cinclidioides* with a hand lens and noting its one-cell thickness and large cells. The large leaves make it hard to believe it is a moss.

As well as ferns, mosses, liverworts and lichens, we also saw a large Eastern Hemlock that had had many small branches eaten off by a porcupine and a garter snake, *Tham-*

nophis sirtalis pallidula, which I unwisely picked up, resulting in my having very smelly hands. In general, the trip opened people's eyes to the many other things besides birds that can be seen in the woods.



Ferns Observed

Crested Fern  
Wood Ferns

Sensitive Fern  
Cinnamon Fern  
Common Polypody  
Christmas Ferns

Dryopteris cristata  
Dryopteris intermedia  
Dryopteris marginalis  
Onoclea sensibilis  
Osmunda cinnamomea  
Polypodium virginianum  
Polystichum acrostichoid

Mosses Observed

-  
-  
Little Tree Moss  
Broom Mosses  
  
Wheat Seed Moss  
-  
-  
Shiny Moss  
White Cushion Moss  
-  
-  
-  
Red-stemmed Feather Moss  
Haircap Mosses  
-  
-  
-  
Roughnecked Moss  
Sphagnum Mosses  
    Star Sphagnum Moss  
    Spoonleaved Sphagnum Moss  
    Prickly Sphagnum Moss  
Cup Moss  
-

Aulacomnium androgynum  
Buxbaumia aphylla  
Climacium dendroides...  
Dicranum fulvum  
Dicranum montanum  
Dicranum polysetum  
Dicranum scoparium  
Diphysicum foliosum  
Fontinalis antipyretica  
Fontinalis novae-angliae  
Hypnum imponens  
Leucobryum glaucum  
Mnium hornum  
Neckera pinnata  
Orthotrichum sordidum  
Plagiomnium cuspidatum  
Pleurozium schreberi  
Polytrichum commune  
Polytrichum juniperum  
Polytrichum piliferum  
Pseudobryum cinclidioides  
Rhytidiaelphus triquetrus  
  
Sphagnum girgensohnii  
Sphagnum palustre  
Sphagnum squarrosum  
Tetraphis pellucida  
Ulota crispa

Club Mosses Observed

-  
Wolf's Claw Moss  
-  
-  
Ground Pine Moss

Lycopodium annotinum  
Lycopodium clavatum  
Lycopodium dendroideum  
Lycopodium obscurum  
Lycopodium tristachyum

Lichens Observed

Lungwort

-

-

Lobaria pulmonaria

Physcia ?

Usnia ?

Liverworts Observed

-

-

-

-

Fury Liverwort

-

Large Fury Liverwort

Bazzania trilobata

Lepidozia reptans

Nowellia curvifolia

Porella platyphylloidea

Ptilidium pulcherrimum

Radula complanata

Trichocolea tomentella



BAR-HEADED  
GOOSE

Kings County Birding

April 29, 1990

by Jim Wolford  
Wolfville, N.S.

This joint Nova Scotia Bird Society/Blomidon Naturalists Society excursion attracted about 30 people. The day was overcast and the morning quite chilly but by noon the temperature was comfortable.

Our first highlight came at the Wolfville wharf. After a few minutes of boredom, some willets flew in. Then, from somewhere under the wharf where we were standing, an American coot flushed, landed on the mudflats and foraged in front of us. (Coots are hardly ever seen in our area, and never before on the seashore.)

We caravanned to cover the area's hot-spots; I'll only list a few memorable encounters. Near Starr's Point I entertained everyone by chasing a very elusive swamp sparrow through the cattails.

At the Habitant River aboiteau in Canning, in a flock of 70 Canada geese we observed a bar-headed goose. This was probably the same bird seen near Kentville in late March. It was unbanded but very tame - probably an escaped captive-reared bird.

We then had lunch at Harris' Pond in Canning and, for our lunchtime viewing, there were 12 Bohemian waxwings (rather late for this species), eight male yellow-rumped warblers, a greater yellowlegs, a couple of painted turtles, etc.

At Canard Poultry Pond, sticking out like a sore thumb among the usual zillions of gulls, was an all-white glaucous gull (a two-year-old). Also six species of ducks were observed there.

At a Sheffield Mills marsh, an American bittern was seen quite close to the road, and a nice chorus of spring peepers and leopard frogs was a bonus.

At the Wolfville sewage ponds there were 22 adult ring-billed gulls and, at the mouth of the Cornwallis River, there were, as usual, 65 brant.



In late afternoon our final stop was at Cyril Coldwell's farm at Gaspereau where the nest-platform in the tree in front of his house held a female great horned owl and three large nestlings.

My personal bird-list for the day was 46 species plus the presumed escapee bar-headed goose and the great horned owl(s).

Finally, as I predicted on the wharf in the morning, I somehow got my face badly burned even though we didn't see the sun all day!



Mother's Day Tour of the Orchard Nest Box Project  
May 13, 1990

by J. Sherman Boates  
Wolfville, N.S.

How our field trip to the orchards ended up being scheduled for Mother's Day is beyond me. Like any serious scientist I am positive that I gave serious consideration to the timing of this field outing. Denise Packard and I wanted everyone to observe tree swallows and other species of birds in the nest boxes at all stages of the breeding cycle i.e. eggs and young of a variety of ages. However, someone, no doubt yours truly, messed up and the field trip was held one month earlier than it should have been.

I was happy when eight people assembled at the gym parking lot by 8:30 a.m. We headed out to tour three orchards: Lee Miner's orchard in Gaspereau, the Eaton orchard in Hillaton and, finally, Garth Brown's orchard in the same area. The first two are managed orchards that are sprayed with pesticides whereas Brown's orchard has never been sprayed with pesticides.

Swallows were abundant in all of the orchards and warm, sunny weather provided a beautiful backdrop for observing the nest-building and courtship behaviour of these elegant birds. Although we saw many nest structures in a variety of stages of completion, no eggs had yet been laid. We did have an interesting discussion, prompted by Bernard Forsythe, about whether swallows prefer white feathers to line their nests or use them because they are the most readily available. We didn't really resolve this one, but we are considering an intensive three-year study that will solve this nagging question once and for all.

Other bird species were scarce but we observed male purple finches and red-winged blackbirds singing (not together!) and a male chestnut-sided warbler and an American redstart.

Bernard Forsythe was, as always, a great asset to have along. He tracked the chestnut-sided warbler through impenetrable undergrowth and effortlessly scaled a tall, spindly tree to replace the roof on a kestrel box while his wife, Sandra, watched nervously from the sidelines.

One very nice find was a huge expanse of blooming trout lilies along the river behind Lee Miner's orchard.

Sometime after eleven o'clock (I had lost track of time again) we parted company. As I write this three weeks later, I realize that the recent cold spell itself would have messed up the timing of the field trip. Our laying dates for swallows are more than two weeks later than last year! We are very anxious to see the overall effects of this weather on our swallow populations. We will keep you posted.

### NATURAL HISTORY NEWS

#### The Inauguration of The Federation of Nova Scotia Naturalists

by George Forsyth  
Port Williams, N.S.

Environment Week 1990 was an appropriate time for the launching of Nova Scotia's newest naturalist organization, the Federation of Nova Scotia Naturalists. Previously, Nova Scotia was the only province without a provincial naturalists group, one to bring people together to enjoy common interests and to share common concerns.

In 1989 the various naturalist organizations throughout the province were invited to send representatives to a meeting to discuss the feasibility of forming a provincial organization and how to do it. On October 22, 1989, 12 Nova Scotia naturalist and environmental groups met at Acadia University and decided to proceed with the formation of the Federation (see the December 1989 Newsletter).

Throughout this past year, the bylaws for a provincial naturalist organization were developed and the need for an inaugural meeting realized. Because of its size and the support of its membership, the Blomidon Naturalists Society was asked to host the first annual conference of the Federation of Nova Scotia Naturalists.

On June 8, 9 and 10, 1990, about ninety interested naturalists met at Acadia University. The conference began on Friday with a social evening: a chance to meet others and view the displays from member groups.

On Saturday and Sunday, a very full agenda kept everyone thinking about the conference's theme of "Natural Places". For the "early birds", there were field trips to local special places.

The speakers on Saturday morning discussed the government's park and ecological reserve systems. Richard Brown and Sherman Boates spoke about one of Nova Scotia's unique and special places - the area most closely associated with the Blomidon Naturalists Society - the Bay of Fundy, Minas Basin area.

The Nova Scotia Minister of Lands and Forests, the Honourable "Chuck" MacNeil, addressed the luncheon gathering and wished the Federation every success, pledging his support to our future endeavours.

During Saturday afternoon's meeting, the speakers narrowed their focus and spoke on various community projects: Bowater-Mersey's Pocket Wildernesses; the Wolfville Chimney

Swifts Project; Halifax's Hemlock Ravine and McNab's Island; and Cole Harbour's Rural Heritage Society, Heritage Farm and Park.

Following these speakers the general meeting was convened. At this meeting, the bylaws were accepted and an executive elected. The executive are: President, Michael Downey, Halifax Field Naturalists; Vice-President, Alice White, Annapolis Field Naturalists; Secretary, Peter MacDonald, Blomidon Naturalists Society; Treasurer, Randy Milton, Eastern Mainland Naturalists Society (Antigonish); Director-at-Large, Nick Hill.

On Saturday evening a banquet was held with speaker Gary Saunders, an artist, author and naturalist.

The conference's final day was much like a typical Blomidon Naturalists program except that it lasted all day. There were early morning field trips followed by speakers talking about their special places; where to find beautiful plants in Annapolis; the lichens of Nova Scotia; where to find dark sky to observe the largest natural space; the birds of the Tusket Islands. The final speaker deserves special recognition as he represented the B.N.S. during the bylaws discussions, is our Society's current representative to the Federation, led the post-conference field trip to our namesake and gave a splendid talk and slide show about his special place, his back yard. Sherman Williams must be thanked for closing the conference with such a special message.

### Canadian Lakes Loon Survey

Since 1981, the Long Point Bird Observatory (LPBO) has been conducting surveys of loons in Ontario. The Ontario surveys were begun over concern about the possible effects of acid rain and human disturbance on common loons. These surveys discovered that loons may not be successfully producing young on lakes that are susceptible to acid precipitation. But it is clear that we need to have information from all regions of Canada, from both disturbed and undisturbed habitats, in order to monitor the health of loon populations and the aquatic ecosystems that support them. For example, Quebec is home to a large proportion of Canada's loons, yet 82 percent of its lakes are considered acid sensitive. Are loons in Quebec being affected in ways similar to those in Ontario?

Each year, volunteers survey lakes and record information about the breeding success of loons. Three careful visits (perhaps an hour and a half checking the whole shoreline) at the right times should tell us all we really need to know, but additional observations are always useful. In June, volunteer surveyors watch for pairs of loons that seem to be resident on the lake, and any possible nesting behaviour. The main event in July is the appearance of newly hatched chicks, and in August surveyors record how many chicks have survived the summer. But we don't just need records from lakes with loons. It is equally important to know what types of lakes loons do not successfully nest on, as well as where they do.



Many volunteer surveyors have cottages or homes on the lake they report on, or they regularly visit the same lake to canoe or fish. Some surveyors are able to report on several lakes in one area, or survey assigned lakes that are of particular scientific interest. Others even act as volunteer regional coordinators, organizing their own group of volunteers to cover a large lake or group of lakes. Cottage associations may also appoint a member to organise a loon survey.

The Canadian Lakes Loon Survey is but one of the Long Point Bird Observatory's many projects. (See Project Feeder-Watch in this Newsletter. Ed.) LPBO, founded in 1960, is an independent, non-profit organization dedicated to understanding and preserving birds. If you would like more information about LPBO, contact them at the address below.

Members interested in participating in the Canadian Lakes Loon Survey should send their name, mailing address, and the name and location of the lake (or lakes) they will be surveying to the address below. Volunteers will receive a survey kit, complete with instructions and a report form.

Canadian Lakes Loon Survey  
Long Point Bird Observatory  
P.O. Box 160  
Port Rowan, Ontario  
N0E 1M0

Telephone: (519) 586-3531

#### NATURAL HISTORY REPORTS

#### Weather Note for Spring 1990

by Larry Bogan  
Cambridge Station, N.S.

Very "good" and very "bad" weather sticks in my memory and, as a result, this year's "poor-weather" May makes me remember 1989's excellent May. May of 1989 was warm and sunny, cheering gardeners and most everyone else. The hard facts of what we experienced this year are shown in the statistics below.

March weather this year could be described as:

- average temperature and precipitation
- sunnier than average; even more than the average of the last few years which have tended to be sunnier than the 30-year average.

April this year was:

- warmer than average
- very rainy with double the normal rainfall
- average sunshine which was disappointing!

May was:

- colder by 1 C than average
- a very rainy month with 2-1/2 the average rainfall
- cloudy with only 80% of expected sunshine

Spring Season overall was:

-a bit cooler

-very wet with twice the expected rainfall

-about average in degree days and sunshine hours

Weather Statistics from the Agricultural Centre Kentville, Nova Scotia (30-year averages reported in parentheses)						
Month	Mean Temp. C.	Rain- fall mm	Snow- fall cm	Heating Degree- days	Growing Days above 5C	Bright Sunshine Hours
March	-0.5 (-1.0)	42 (46)	25 (50)	573 (590)	10.3 (5.2)	182 (128)
April	6.1 (4.4)	135 (66)	11 (15)	357 (408)	60.0 (35.0)	151 (152)
May	9.4 (10.4)	198 (77)	- (1.7)	274 (238)	139 (170)	164 (201)
Spring Season	5.0 (4.6)	375 (189)	36 (67)	1204 (1236)	209 (210)	497 (481)

FeederWatch 1989-1990: Midyear Results \*

by Erica H. Dunn  
Coordinator  
Project FeederWatch

Have you noticed an increase in your bird seed bill this year? Following a lackluster season in 1988-89, the winter of 1989-90 has brought an increase in bird traffic to feeders all across North America. We base this statement on a preliminary analysis of the data submitted by FeederWatch participants in January, 1990. These Project FeederWatch early birds were among 8,000 people participating in the continentwide bird feeder survey in 1989-90 (see map). In previous years, our January analysis has been a good predictor of the year-end picture, but keep in mind that at the time I'm writing this, FeederWatchers have three more months of data to collect - and the birds have three more months to change their minds.

Nearly every bird species that is common at feeders visited them in higher numbers in January 1990 than in January 1989. The biggest gains were in American goldfinch, purple finch, and pine siskin. The increases in goldfinch and purple finch numbers in the Southeast and North Central regions were particularly striking, and purple finch was also more abundant in the West Coast region. Siskins increased in every region: the birds are well known as a "boom-or-bust" species that launches unpredictable large-scale invasions into some parts of North America where they



aren't found in other years. In fact, pine siskins began this season with signs of matching their big invasion of 1987-88. Siskin numbers in January '90 were about the same as in January '88, but this year the birds were much more evenly distributed across the continent.

Sparrows made up another group that burgeoned at feeders. This January the dark-eyed junco, the most widespread bird at feeders in North America, showed large gains in the Southwest, Southeast and North Central regions. A few of the less common sparrows also increased, about doubling in abundance: chipping sparrow, American tree sparrow (especially in the Northeast and North Central regions), Harris' sparrow (in the North Central region) and white-crowned sparrow (in the Southwest). In our annual report for 1988-89, we suggested that the severe droughts of recent years might have depressed some sparrow populations. Are we now witnessing a recovery? We're grateful that house sparrows did not increase too!

This January we're also seeing more red-breasted nuthatches in several regions. The change might have gone unnoticed in your yard, since these birds usually come to feeders only one or two at a time. Like pine siskins, red-breasted nuthatches occasionally irrupt but they are more predictable than siskins, moving south every two to three years. In the Northwest and West Coast regions, numbers of red-breasts weren't much different this January than a year earlier, but everywhere else these small birds were twice as abundant. Some of the extra business at feeders this winter might have resulted from the record cold temperatures experienced in many regions in December, when birds that would have fended for themselves in warmer weather dropped by for some extra calories. But the dramatic climbs in numbers of sparrows, nuthatches and finches are probably due to real changes in population levels.

\* Reprinted from FeederWatch News, Vol. 3, No. 1, Spring 1990, with permission of the author.

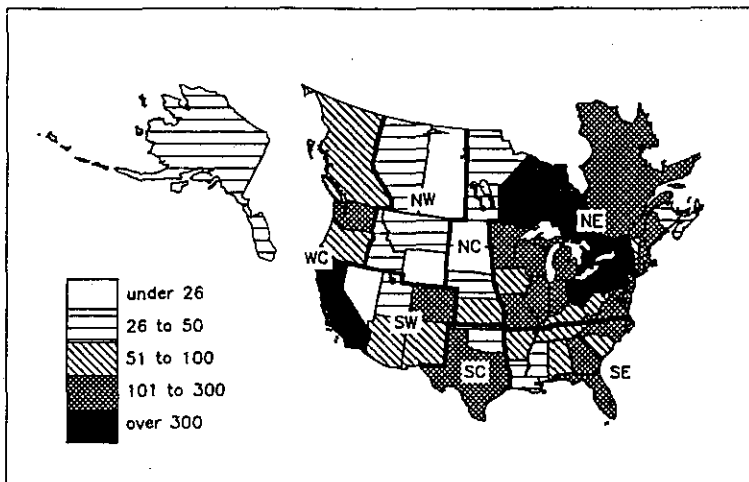


Figure 1. FeederWatch regions, showing distribution of participants by state and province, 1989-90.

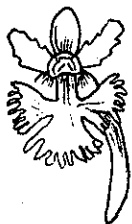
Project FeederWatch is a joint project of the Long Point Bird Observatory in Canada and the Cornell Laboratory of Ornithology in the United States. As shown on the Feeder-Watch distribution map and indicated to the editors by Dr. Dunn, more participants in Nova Scotia are desirable, particularly because of our diversity of habitats. Collecting this information all over North America provides a method for answering some of our questions about distribution patterns (like Jim Wolford's wondering where all the purple finches and pine siskins came from this spring) and also may provide new information about migrations.

Participants record, on computer-readable forms, the peak number of each species seen at their feeders during ten two-day periods from November until April. You can participate even if you will be away during part of that time since FeederWatch can handle receiving fewer than ten sets of observations from an individual feeder.

Participants are required to pay a registration fee of \$12.00 since the sponsoring organizations are non-profit. The fee covers the expense of printing and mailing the computer forms, newsletters in April and August each year, and computer time for processing the data. To join, send your name, address and a cheque made payable to "Project FeederWatch" to:

Project FeederWatch  
Long Point Bird Observatory  
P.O. Box 160  
Port Rowan, Ontario  
N0E 1M0

Note that early registrants will receive a newsletter containing the 1989-1990 FeederWatch results. Forms will be mailed around early November. Materials are also available in French. Those interested in receiving the newsletters and reports but not in collecting data may do so by paying the fee and requesting newsletters only.



### A Closer Look at the Purple Fringed-orchid

by Bernard Forsythe  
Wolfville, N.S.

Next to the pink lady's-slipper, our most often encountered orchid is probably the purple fringed-orchid. There are actually two species of purple fringed-orchids and, with a bit of study, they are not too difficult to tell apart. Although the large purple fringed-orchid is not a common plant over much of its range, along its eastern edge one can sometimes find impressive colonies. I have located two such colonies of several dozen plants at Black River. Evenings in late July will find me at these sites enjoying the pale purple flowers with their pleasant light fragrance while the Swainson's thrushes sing their rising phrase "we are forever dreaming" in the background. Heaven could not be more beautiful.

The small purple fringed-orchid is the species most often noticed as it is widespread and colonies sometimes contain hundreds of plants. It blooms later than the larger species and is at its best in late summer. This orchid likes damp, poorly drained pastures, unmowed fields, wet woods, ditches and shorelines. The large colonies are striking with plants that vary in colour from pale pink to deep purple. Rarely will one be found that is pure white. Another orchid, the ragged fringed-orchid, likes the same habitat as the small purple fringed and they sometimes will be found growing together. If you find these two orchids growing close to each other, examine them closely as they occasionally will hybridize. Hybrids vary greatly in colour and the lip-division shows characteristics of both parents.

Small purple fringed and ragged fringed-orchid hybrids even have their own common name, Andrews' rose-purple orchid. This hybrid needs to be studied more. So far I have spotted Andrews' rose-purple orchids in a mixed colony on Wolfville Ridge and at another site in Scots Bay. There were two or three hybrids at both these sites in 1988 and 1989.



SMALL PURPLE  
FRINGED



RAGGED FRINGED  
ORCHIS

Most people tend to look at orchids, or other plants, just casually. There is nothing wrong in doing so; however, getting down to their level plus asking a few questions and doing some bookwork changes one's appreciation of them completely. They are so beautiful and wonderful that one is compelled to find out more about how they live.

Wild orchids should not be picked or transplanted. Because of their complicated life cycle, they rarely last more than a season or two if transplanted. It is much better to use a camera. This forces one to take a closer look at the plant and it will still be in its rightful place for the next admirer who passes by. Also you will have the pictures, as a trophy, to enjoy any time.

### A Long-tailed Jaeger in the Gaspereau Valley

by George Alliston  
West Brooklyn, N.S.

On the morning of April 6, 1990, at approximately 6:45 a.m., I was just beginning my morning walk when I absent-mindedly noticed a gull-like bird approaching from the north, flying low and directly toward me. At that hour, concerned more with getting the cobwebs out of my head and establishing a pace that would allow me to complete my walk in the prescribed time, I paid little attention to the bird. Only as it passed adjacent to me at a distance of about 100 feet did I realize that the bird was not a gull but a jaeger! Eleven summers of biological research in the Canadian arctic had made me quite familiar with the three arctic jaeger species. But which was this? Definitely not a pomarine! I attempted to look at the tail to verify whether it was a parasitic or a long-tailed but without success. By this time the bird was flying directly away from me at about



eye-level and I could not get a look at the tail. Within seconds it had disappeared over a hedgerow. My walk took me in its direction but I did not see it again.

When I returned, I checked Robie Tufts' Birds of Nova Scotia. There had been no previous inland records of either parasitic or long-tailed jaegers and, indeed, few sightings at all of these species, particularly the long-tailed, in coastal waters around Nova Scotia. Doubts concerning the identification surfaced; after all, it had only been a few seconds from the time I recognized the bird as a jaeger until it disappeared - perhaps I was wrong. By the end of the day doubt prevailed and I put aside my plans to inquire about unusual sightings with the more dedicated local birders.

About noon the next day, I received a call from Jean Timpa asking if I had heard about the rare bird sighting in the Gaspereau Valley. I replied that I hadn't and inquired rather expectantly about what species had been sighted. I was most pleased when Jean said it was a long-tailed jaeger.

In the late afternoon of April 6, Rick Whitman observed a bird he believed to be a jaeger in a pasture in the Gaspereau Valley, not very far west of the Gaspereau Bridge. Rick's only previous observation of jaegers had been on nature programs on television. Wishing to have someone corroborate his unusual observation, Rick called Bernard Forsythe. Bernard and Cyril Coldwell arrived at about 6:00 p.m. and were able to positively identify the bird as a long-tailed jaeger. Its dark plumage and comparatively short tail feathers suggested that it was a sub-adult.

Bernard, Cyril and others assembled there that evening were able not only to observe at close range a most unusual species for this part of the world but also to observe the bird behaving rather unusually. The jaeger was catching and eating worms in much the same manner as an American robin would do. Under normal circumstances a jaeger would never encounter anything resembling an earthworm. Its normal habitat is the open ocean where it feeds on fish, plankton and, especially, pirates food from other seabirds, chasing them and forcing them to regurgitate their catches which the jaeger then consumes. Jaegers inhabit the terrestrial environment only during their breeding season and their breeding areas are in the arctic tundra. While on their breeding grounds, jaegers feed on insects, small birds, birds eggs and lemmings. Earthworms, or anything resembling them, do not occur in the arctic tundra. This behaviour was obviously an "intelligent" response to an unfamiliar environment by a rather desperate bird.



The next day the jaeger remained in the field and entertained the many observers with its worm-eating antics. The jaeger would take short flights about the field but its uncharacteristic tameness suggested its weakened condition. By noon it had snowed sufficiently to cover the ground and disrupt the jaeger's worm catching. My memories of the jaeger on its nesting ground were that of a voracious predator of bird eggs so, courtesy of Ellis Gertridge, a dozen brown eggs were obtained and placed in various locations in the pasture.

When Bernard returned that evening the jaeger flew into the field and landed but was quite unsteady on its feet. The eggs had not been touched. Bernard decided to take another approach and, courtesy of Cyril Coldwell and his raptor rehabilitation facility, obtained five (dead) white mice. He placed them on a board to provide some visual contrast (remember, the ground is snow-covered) and placed his offering within about a foot of the weakened jaeger. This ploy worked! The jaeger took a mouse, and by pecking and beating, dismantled and ate the hapless creature. A second mouse was treated similarly.

The next morning the jaeger was still in the pasture, only one of the five mice remained and the bird appeared to be much more active and in much better condition. At about 10:30 a.m. a dog flushed the jaeger and it flew east along the Gaspereau Valley not to be seen again.

### TRIVIAL TIDBITS



of Local Natural History  
March 1, 1990 to May 31, 1990

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

From the compiler:

Thank you to everyone who not only sent in written observations but, as requested, wrote them on separate pieces of paper (I prefer 3x5 inches or smaller, and please arrange them in the order of the categories below).

Remember that you are the only proper judge of what kind of sighting or encounter or absence is noteworthy. Share your impressions with the readers. Also write a note or tell me how "Trivia" could be improved.

#### Weather

A possible weather balloon was seen on Mar. 24(KV).

#### Skies

The only report was of aurora borealis Mar. 25 (KV).  
What about Comet Austin!

#### Plants and Fungi

I found my usual early coltsfoot flower at Gaspereau on Mar. 19. At New Minas on Apr. 20 a few mayflowers were open and the red oak acorns on the ground from last year's bumper crop were swollen to the point of bursting (germinating).

The only flowering reports (other than my own long list) were purple trillium Apr. 30 (MZ), small white wild violet May 7 (MZ), garden valerian May 8 (MZ), shadbush May 9 (MZ), marsh blue



violet May 10 (MZ), golden saxifrage, Selkirk's violet, hobblebush, American fly-honeysuckle on May 13, and cuckoo-flower May 26 (BBT). Also bayberries were consumed by a northern flicker in late February, by yellow-rumped warblers all winter and by tree swallows May 20-21 (BLF).

#### Invertebrates (non-insect)

On Apr. 6-7, large earthworms must have been at or near the surface at Gaspereau since a vagrant long-tailed jaeger was consuming many (BLF et al).

On May 28, fairy shrimp were found in a woodland pond in Blomidon Park, as in 1988 and 1989 (GD).

#### Insects

Helga Onyschuk reports that polyphemus moth cocoons brought inside in Sep. 89 produced adult moths this winter. And another cecropia moth emerged May 11 from a cocoon brought inside in April (MF, PBM).

A mourning cloak butterfly was found dying on Apr. 6 (MP).

On Apr. 30 a medium-sized predaceous diving beetle flew inside my car at Coldbrook.

#### Fishes

Smelt and gaspereau arrived at Gaspereau Apr. 19 and Apr. 27 respectively (CKC). Also in the Gaspereau River and netted in mid-May were three small adult lampreys (CKC, PCK).

Large numbers of big killifish (mummichogs?) were being caught for fishing bait in the New Minas riverside pond on Apr. 25 (JW).

On May 11 BLF found two small brook trout in a barred owl nest-box near Sunken Lake.

#### Amphibians

Mary Pratt helped a wood frog (?) cross a road in Wolfville on Mar. 17. They were moving in numbers Apr. 3 and 4; yellow-spotted salamanders were a few days late this year on the same days (JW). Spring peepers were first heard Apr. 4 (CKC, BLF, JW).



On Apr. 30 BLF flushed a red-tailed hawk from a pond, and the hawk dropped a yellow-spotted salamander. SAC found another one under black plastic in her Mosherville garden May 31.

#### Reptiles

The barred owl nest-box near Sunken Lake also held two dead garter snakes May 11 (BLF).

## Mammals

On May 11, the above-mentioned barred owl nest-box also contained three short-tailed shrews, two red-backed voles and a jumping mouse (BLF).

The report of the invasion of basements in Cape Breton by star-nosed moles in mid-February was later corrected; it was really the "common shrew" (whatever that is) (Chronicle Herald).

I saw a bat flying on the Acadia campus at 8:50 a.m. May 28. In Canning during the rainy cold weather of mid-May, four bats were seen flopping around on the ground (MG).

Don Keith noticed a peculiar group of five to seven grass-and-cattail nests in hawthorns at Windsor. Each nest was seven to eight inches long; BLF thinks they are probably red squirrel nests but why in a group?

A red squirrel in Wolfville took over a starling nest in a nest-box, ate the eggs and built its own nest in the starling nest-cup.

On a very cold Mar. 27, a bird of prey (a buteo) swooped from a power pole in the Canard Valley to grab and lift a small skunk, only to drop it on the edge of the road. A half hour later, crows were feeding on the skunk (RDe). Fresh mink tracks were in Wolfville Mar. 4 (JW).

On Mar. 17, Mary Pratt found a raccoon dozing in a tree-crotch in Wolfville and I hit one with my car en route to Windsor. Karen Casselman saw eight 'coons between Summer-ville and Cheverie on the evening of May 2.

A red fox was catching mice Mar. 10 at Cheverie (KLC). On Mar. 20, a fox chased three young girls at West Brooklyn - it was shot and sent for rabies tests (The Advertiser).

Someone in BNS reported a coyote in Canning (in March?); it crouched and bristled as the observer drove by. Karen Casselman had four white-tailed deer eating grass (and possibly red maple buds?) in her Cheverie yard on May 3.

## Birds

### Loons and Grebes

Gordon and Judy Tufts saw a pied-billed grebe on Drain Lake near Sackville on Apr. 27, and a red-necked grebe at Hall's Harbour on May 6.

### Hérons and Cormorants

I saw a great blue heron in Canning and a double-crested cormorant at Boot Island on Apr. 1. A little egret was on Bon Portage Island, associating with snowy egrets, from early May to at least May 23 (CN, PCS).

### Geese and Ducks

A not-very-wary bar-headed goose, unbanded, from who-knows-where, showed up with Canada geese and stayed near Kentville Mar. 22-31 (TT, BLF), then was at Canning Apr. 29 (NSBS, BNS), then returned to the Kentville area May 10 (TT).

At least 30 Canada geese (overwintered?) were present Mar. 1-2 (HT, EEE). Then "arrival" reports began Mar. 14 (DGT).

An early American wigeon was at Canning Mar. 17 (MG), and seven were seen Apr. 1 (JW). A gadwall overwintered at Greenwich until at least Mar. 25 (JW).

A green-winged teal (perhaps two) of the Eurasian race was seen at Greenwich and Canard Poultry from Mar. 24 to Apr. 16 (JW, BLF). A pair of blue-winged teal was at Starr's Point very early, Mar. 25 (BLF).

Five common goldeneye were at Canning Mar. 25 (MG). Tom Taylor saw a lone male common eider at the New Minas river-side pond in mid-April.

A common merganser had 11 eggs in a nest-box at Methal's Lake May 5 (BLF). At a nest-box near Sunken Lake, a hooded merganser had one egg May 1 and eight eggs May 16 (BLF).

### Diurnal Raptors

BLF reports a bald eagle on a nest at Methal's Lake and its mate providing a large fish on May 5. An osprey was at Aylesford Lake Apr. 13 (BSw). Spring reports of northern harriers began Mar. 19 (CN) and Mar. 27 (RS).

A red-tailed hawk at a pond on White Rock Mountain had a yellow-spotted salamander Apr. 30 (BLF). In May two sightings of broad-winged hawks were made in Woodville (Hants Co.) (BBT) and Wolfville Ridge (JGT).

Two merlins were seen in early March (BBT, CKC). Then on Apr. 29-30 Wolfville Ridge had some excitement when one to three merlins were calling loudly to one another and chasing (JGT). American kestrel reports began Mar. 24 and 25 (BLF, BBT).

### Coots and Shorebirds

A greater golden-plover was on Hartlen's Point golf course near Eastern Passage May 23 (JGT).

A roadside killdeer nest of four eggs was destroyed by a truck Apr. 13 on Wolfville Ridge. A replacement nest then lost the eggs to a predator by Apr. 23. Another nest nearby held three eggs Apr. 30 but it lost the eggs to crows. In each case the parent killdeers removed the remains of the eggs and the small stones lining the "nest" and dropped them in a ditch of water; then a new location was chosen for their next attempt (JGT).

Greater yellowlegs were extremely early at Canning and Upper Dyke Apr. 1 and 2 (MG). On May 26 a willet nest of four eggs was found on the Wolfville dykelands (SVK). A least sandpiper was at Canard Poultry Pond May 19 (JGT).

Twelve sanderlings, presumably successful overwinterers, were at Summerville Beach southwest of Liverpool Mar. 3 (GPI, BSh).

BLF approached an American woodcock in thick alders at Greenfield Mar. 30; it gave several hiccup-like sounds before opening its bill to make the "peenting" ground-call.

Another woodcock was in GD's yard in the evening of Mar. 27; it was "rocking" and probing in the ground. (Foot-stomping is used by wood turtles and humans to get earth-worms to the surface (JW)).

A Wilson's phalarope was at Port Williams sewage ponds May 27 (GF).

## Jaegers and Gulls

A subadult long-tailed jaeger attracted lots of attention Apr. 6-8 at Gaspereau (RW, BLF et al. See separate article in this Newsletter).

On Mar. 19, a great black-backed gull was found dead on the Vaughan Bridge (at Wallbrook). It had been banded on Jul. 5, 1976, on Boot Island by Cyril Coldwell.

Wolfville sewage ponds still had 22 adult ring-billed gulls Apr. 29. The large immature glaucous gull was still at Canard Poultry the same day (NSBS, BNS).

## Owls

Cyril Coldwell's mostly-wild great horned owl had three large chicks by Apr. 29; then one chick disappeared and one of the later fledglings was road-killed (CKC). Marian Zinck reports that at Canning on May 26 an adult and young great horned owl took two starlings from a nest.

On Apr. 2 a barred owl was on the ground at the edge of a roadside pond on Wolfville Ridge (DA, RD) (see Mark Elderkin's thesis on foods of these owls - JW). On May 1 at Cheverie a barred owl was calling repeatedly at midday (KLC).

BLF reports that ten pairs of barred owls using nest-boxes in the Wolfville region had 24 eggs this year.

At Wellington Dyke, there was a roost of six short-eared owls Mar. 25 and, in the same area on Apr. 15, a dead long-eared owl was found and another one heard and seen (BLF). Several northern saw-whet owls called on South Mountain from late February to mid-March but not thereafter (BLF).

## Nighthawks, Swifts, Hummingbirds

The only record of nighthawks was of one at St. Croix May 29 (BS).

The first two chimney swifts were in Wolfville May 1 (JSBo). On May 9 the Annapolis Field Naturalists and I watched at least 150 go into the chimney of their Legion Social Hall. The Wolfville swifts this spring have been fickle about using the Front St. chimney vs. University Hall on the Acadia campus. Highest counts so far were 800 at the former on May 20 and 670 at the latter on May 26 (PA, HF, JM, JW et al). The Thextons saw lots leaving the Front St. chimney at 8:10 a.m. on May 15.

The wet and cold weather took a toll on the swifts but how many died is unknown. Two carcasses were found in the Front St. chimney, five dead ones (and an sick one that died) were found outside University Hall, at Middleton High School at least 15 died (AO), and one more was found at Bear River's Oakdene School (SH).

Of three early reports of ruby-throated hummingbirds, Gerry Trueman's May 11 sighting in Wolfville gets the prize.

## Woodpeckers

Three reports of northern flickers in March were probably of birds that had wintered here; the numerous observations in mid-April were undoubtedly migrants.

On Apr. 16 on Melanson Mountain an excited male hairy woodpecker was closely following a female black-backed woodpecker - was the hairy near-sighted? (BLF). The Bezansons have found nests for both hairy and downy woodpeckers at New Minas.

### Flycatchers and Swallows

On May 12 a strange bird was briefly in Cyril Coldwell's yard - his description leaves little doubt that it was a gray kingbird (from Florida). On May 11 early eastern kingbirds were at Wolfville and Coldbrook (MP, JGT). And another eastern kingbird on Brier Island May 20 was eating at a feeder! (BLF - very cold day, no flying insects). A very early least flycatcher was at Greenfield May 10 (JGT).

Marian Zinck saw a purple martin Apr. 25 at Sheffield Mills and two were seen at Eastern Passage Apr. 29 (RBA). Tree swallows were first reported Apr. 14 (JGT) and Apr. 15 (GF). Some reacted to our rainy cold mid-May by abandoning early nests in orchards (DP) and by eating bayberries (BLF). A cliff swallow and several bank swallows were at Canard Poultry Pond May 13 (JW).

### "Dickey-Birds"

Again this year common ravens nested next to Acadia's Faculty Club and the fledglings' loud begging calls on May 11 announced their success.

Gini Proulx reports that, like last year, there were two black-capped chickadees with green plastic leg-bands at a feeder regularly since mid-Nov. 89 - no clue as to who banded them or where.

Bernard Forsythe has a pair of black-capped chickadees that had domestic problems. In a box behind his house on Wolfville Ridge, a single egg was on a bare floor on May 18. But then on May 21 the chickadees began to place a moss lining in a different box in front of his home.

On Mar. 2 at Arlington (North Mtn.) six red-breasted nuthatches were at a feeder and two of them showed courtship feeding (?) (VB). On the Acadia campus, white-breasted nuthatches were feeding nestlings May 26 (JW). A brown creeper was singing near White Rock Mar. 22 and, by late May, they were in several woodlots on the South Mountain (BLF).

During the height of the American robin migration, the Thextons in Wolfville were literally invaded on Apr. 1; the robins stayed all day to gobble pieces of old apples. A strange report of an apparent fledgling veery trapped in a deep window well on the Wolfville Ridge on May 29 (JGT, CKC, MP) - who can explain this?

Northern mockingbirds were found in mid-May at Cheverie (GR) and May 29 at Centreville (BBT). Two gray catbirds were in Wolfville May 16 (GT).

A single cedar waxwing was seen in Wolfville Apr. 11 (CB). Reports of Bohemian waxwings were frequent until mid-April. A partial-albino European starling was in Canning Mar. 25 (JW).

A blackpoll warbler and a Wilson's warbler were in Wolfville for a week, May 19-26 (JT). At least two dull-coloured yellow-rumped warblers subsisted on Wolfville Ridge, eating mostly bayberries, until at least Apr. 18

(BLF); the first pretty singing male was seen Apr. 21 (BLF). Several kinds of warblers were first seen or heard on May 10 (JGT, JW, MZ).

A male summer tanager was on Bon Portage Island from May 9 to May 23 (CN, PCS).



Everybody is reporting rose-breasted grosbeaks at feeders - why? - can anyone guess what is usually in the woods but can't be found by them this year? At Cheverie with them at a feeder on May 19 was a male black-headed grosbeak (GR). (And there's a third-hand report of one also being seen near Truro a week later? and another at Old Barns?)

One American tree sparrow was still in Wolfville May 8 (BBT). Fox sparrows were first noted Mar. 19 (BBT) and Mar. 20 (BS), and at least one was still singing locally Apr. 24 (JGT). An overwintering song sparrow at Clementsvale sang heartily on Mar. 9 when it was sunny but -5 deg. C. (GP). A swamp sparrow was singing along the Wolfville dykes Apr. 14 (CB).

As usual a few white-throated sparrows overwintered in Wolfville (PCS). My last report of a few Lapland longspurs and snow buntings at Grand Pre was Apr. 1 (JW).

Probably my favourite spring bird, the bobolink, was first noted May 11 at Wolfville (MP). Reports of (probably) arriving male red-winged blackbirds began Mar. 20 (CKC, AR, MZ); the first females were a surprise at my feeder on Apr. 27 (JW). Single rusty blackbirds were at Wolfville Mar. 25 (CB) and on South Mountain Apr. 30 (JGT).

Perhaps this year Nova Scotia will document its first nesting house finches, as occurred last year in New Brunswick. Two male house finches, one an orange variant, were in Port Williams from late Feb. to Mar. 16, after which the "normal" male remained into late May (MT). A female appeared at a Wolfville feeder on May 12 (BBT).

After a general absence for most of the winter, purple finches reappeared (from where?) in early March (MG, PCS) and they gradually built up in numbers; 18 males at Dianne Thorpe's Wolfville feeder must have been a wonderful sight (and sound) in mid-May.

On Mar. 3-4 there were 35-60 common redpolls in Wolfville (PCS) and Canning (MG). Then a single redpoll surprised me at my Wolfville feeder on May 1 (JW).

Like the purple finches, pine siskins reappeared in early March, then invaded nearly everyone's feeders in April and stayed through May. American goldfinches remained abundant as they had been through the winter.

Evening grosbeaks were present at only a few feeders until April; by late April they were common in Wolfville.

I have a sad and puzzling report with which to end this instalment. Keith MacInnis at Hantsport has a communal nesting-box in his yard. In March he found dead house sparrows stuck in the entrance-holes; over a few weeks he found a succession of eight casualties. They were all facing into the box and their heads and necks had been chewed by something, but nothing was seen inside the box. Any ideas?



## Contributors

DA	Diane Amirault	AO	Ann Otto
GA	George Alliston	HO	Helga Onyschuk
PA	Peter Austin-Smith	DP	Denise Packard
RBA	Rare Bird Alert	GP	Gini Proulx
CB	Calvin Brennan	MP	Mary Pratt
VB	Val Blanchard	GPI	Gertrude Pitcher
JRB	Joanne and Ron Bezanson	AR	Ann Ryan
CKC	Cyril Coldwell	GR	Gerry Rathbun
JSBo	Sherman Boates	BS	Bev Shanks
KLC	Karen Casselman	CS	Clarence Stevens
SAC	Sheila Connell	RS	Richard Stern
GD	Graham Daborn	BSh	Barb Shaw
RD	Richard Daury	BSw	Brad Sweet
RDe	Richard Deveau	JSI	Jeannette Simpson
EEE	Ev & Ed Eagles	BNS	Blomidon Naturalists Soc.
AF	Adam Forsythe	PCS	Peter Smith
GF	George Forsyth	NSBS	Nova Scotia Bird Society
HF	Harold Forsyth	GT	Gerry Trueman
MF	Marilyn Frost	JT	Jean Timpa
BLF	Sandra & Bernard Forsythe	LT	Linda Thomson
MG	Merritt Gibson	MT	Miriam Tams
MGI	Mike Gillis	TT	Tom Taylor
SH	Stephen Hawboldt	HTh	Heather Thorpe
DK	Don Keith	BBT	Brenda & Bill Thexton
JDK	Joan & Don Keddie	DGT	Dianne & Gordon Thorpe
PCK	Peggy Crawford-Kellock	JGT	Judy & Gordon Tufts
SVK	Sam Vander Kloet	KV	Kate Van Nostrand
CM	Charles Morris	JW	Jim Wolford
JM	Jake MacDonald	RW	Rick Whitman
KM	Keith MacInnis	SW	Sherman Williams
PBM	Pat & Bill Martell	BBY	Betty & Barry Yoell
CN	Chris Naugler	MZ	Marian Zinck
AFN	Annapolis Field Naturalists		

## ARTICLES

### Notes from a Delinquent Costa Rican Correspondent

by Tom Herman  
San Jose, Costa Rica

Naturally I had intended to write regularly. But shortly after my arrival I succumbed to "diversititis", an affliction well known to temperate zone biologists who venture to low latitudes for the first time. Symptoms include dilated pupils and drooping jaw (from the utter awe of it all), digital fatigue (from excessive thumbing of field guides) and a tendency to babble incoherently (from trying to learn the names of 1,400 species of trees in Spanish and Latin, as well as the names of the 840 species of birds lurking therein).



My first instalment was to have summarized the results of my personal Christmas Bird Count. But somewhere between the keel-billed toucans and the blue-crowned motmots, I thought better of it. No need to rub it in. Besides, the mercury had plummeted to 18 deg. C. (after all it was late December) and it's difficult to write under such harsh environmental conditions.

In addition, at that time "in-house" natural history began to provide numerous distractions. As the dry season descended upon us, so did the tarantulas and scorpions - literally. Our first close encounter was a passive one. A tarantula had just completed a full-gainer from the peak of our roof onto the floor of our hallway. Tarantulas are not particularly adept at high diving and do not often repeat the performance. Following that, there were numerous more exciting encounters with large hirsute arachnids who made less dramatic but less fatal entrances.



SPANT. TARANTULA

The scorpions were generally more subtle. I'm sure most went unnoticed. We religiously checked boots and shoes every morning before donning them (after all, we'd seen the movies), but all our shaking (of shoes) went for naught. However, I can now recommend shaking shirtsleeves in the morning as well! Black coffee remains my preferred early morning stimulant.

As if the diversity and abundance of our own in-house arthropods were not enough, word of my interest in "bichos" (Costan Rican equivalent of "creepy-crawlies") spread quickly throughout the neighbourhood. Children bearing jars containing bichos of all shapes and sizes began arriving at the front door. Things got entirely out of hand (some things also got entirely out of the jars, much to the dismay of some of my family members who do not share my attraction to large arthropods). I am certain that our neighbours considered me certifiably insane. While Costa Ricans have a tremendous love for some elements of nature, such as birds, orchids and waterfalls, they have a tremendous loathing for other elements, such as insects and snakes.

Imagine the look of disbelief on the face of one of our neighbours when I screeched to a halt in front of his house, jumped out of my car and bagged a large, brightly-coloured, false coral snake (*Lampropeltis triangulum*) as it slithered across the road. Here, the usual protocol for roadside snakes involves backing up - if you miss them the first time. Snakes are snakes, after all, and although fewer than 20 of the 130 species resident in Costa Rica are highly venomous, most Costa Ricans don't carry keys to the local herpetofauna (flattened or otherwise). So all species are considered deadly.

This brings me back to the original subject of my letter: "diversititis". How does one cope with the sheer diversity of it all? This tiny country (slightly smaller in area than Nova Scotia) harbours approximately 840 species of birds (roughly ten percent of the world's total), more than 300 species of dragonflies, 1,200 to 1,500 species of orchids and approximately 1,400 species of trees. You can find nearly 15 percent of the world's butterfly species in less than 1,000 hectares of Caribbean lowland primary forest!

This diversity presents a tremendous challenge not only to naturalists, but also to local conservationists, foresters and agronomists. It is difficult to preserve, manage and manipulate ecosystems effectively when you don't even know what they contain. And not all of the unknown species are small and secretive. There are still undescribed tree species among the forest giants!

Of course, part of the fascination with diversity arises from the fact that, in many groups of organisms, it is coupled with extreme specialization. Everyone has a favourite tropical "specialist". One of my favourites is a damselfly: *Thaumatoneura inopinata*.

The adults of this large, handsome species hang (literally) around waterfalls - apparently only on the Caribbean slope and usually below approximately 1,000 meters elevation. The aquatic nymphs are specialized for life on the rocks within the splash zone. They have been found nowhere else. This species is reported only from Costa Rica and Panama. But it does not occur at all waterfalls in this region. In fact, in Costa Rica, it has been collected from only three localities.

You can imagine the thrill I experienced on a recent collecting trip (with some fellow "odonatologists") when we discovered a "new" population of *Thaumatoneura*. While I was busily scaling a rock face beside the waterfall (to get within a net's reach of an adult male), one of my companions standing at the base of the falls swung his net at a large fast-flying dragonfly of the darner family (Aeshnidae). In hand, it turned out to be unlike anything any of us had ever seen - most probably a species new to science. A productive morning to say the least.

Not surprisingly, like so many tropical species, *Thaumatoneura* has no common name for, like so many tropical species, nowhere is it common. Rarity is, of course, the other side of the diversity coin. When there are so many species in a system, most are represented by only a few individuals. If these species are also highly specialized, like *Thaumatoneura*, they are doubly at risk. To be a rare specialist makes you especially susceptible to any activity that may modify or reduce your habitat. After nearly a year here, I can easily appreciate why so many full-time tropical biologists have largely abandoned research to become full-time tropical conservationists.



Acadian Calamity  
Another rain forest in crisis \*

by Gary Schneider  
Cardigan, P.E.I.

In the seventies, forester Stephen Manley had a dream of restoring Prince Edward Island's native forest, a rich ecological theatre where yellow birch, sugar maple, ash, hemlock, beech, white pine, red oak, and red spruce played major roles and where red maple, white spruce and balsam fir

were simply minor players.

Dr. Manley, once Director of Operations with the P.E.I. Forestry Branch, left the Island in 1979 when government policy shifted to the production of softwood for pulpwood and sawlogs. Yet his name still comes up in discussions of environmentally sound forest practices, sometimes with reverence, other times with a roll of the eyes.

More than 40 people turned out one rainy evening in Montague in early November to hear Dr. Manley, who now teaches at the University College of Cape Breton, speak about hardwood and mixed wood stands. Most of his audience, which included woodlot owners, silviculture workers and employees of the Department of Energy and Forestry, came away wishing that he were still working here.

The meeting, sponsored by the forest committee of the Environmental Coalition of P.E.I. and the Eastern Woodland Association, was intended to focus a growing concern over present forest practices.

Dr. Manley did not come with good news. We are in trouble - perhaps not irrevocable, but it's a serious condition demanding immediate attention.

"We have a Maritime rain forest here," Dr. Manley said, and the minimum expectation of yield for this forest should be somewhere around 50 to 80 standing cords per acre, generating two and a half cords of biomass per acre per year. Instead, he said, we have something of a "bastardized" condition that averages about 15 standing cords per acre, generating but one to one and a half cords of biomass per year.

The lower yield is no surprise, he continued. It comes about because our forests lack a mixture of tree species. They are "early successional", representing what we have done through mismanagement to an Acadian forest. "We have literally reduced by orders of magnitude the capacity of the landscape to produce a lot of valuable material."

Dr. Manley spoke with compassion and enthusiasm about the rich biological diversity and resiliency of the Acadian forest. Remnants of this forest are now found in only a few places in the Maritimes. Once it was the dominant forest condition in this region, a condition developing over the last 10,000 years.

In an Acadian forest, the major species should make up 95 percent of the forest, with the other five percent being minor species such as white spruce, balsam fir, red maple, aspens, etc. Dr. Manley contrasted this to today's forest on P.E.I. where white spruce, balsam fir and red maple make up approximately 80 percent of the species mix. These "pioneer" species, he said, signify an early successional system which is not all bad but shows that "the forest or ecosystem has become literally impoverished".

On P.E.I., as in the rest of the Maritimes, federal and provincial response to declining forests has been to focus



attention on the need for more softwood. "Hardwoods look after themselves," or "hardwoods just need a little thinning" are two rationalizations often heard. Therefore the main thrust is directed at softwood plantations. To Dr. Manley, this is the wrong way to go.

When we try to maintain a forest of these lesser, early successional species, generation after generation, "we feel the strength of 10,000 years of biological interaction," he said. "When foresters try to establish conifer plantations after clearcutting mixtures of, for example, red maple and balsam fir, you see that the plantation either has to be sprayed with herbicides or cleaned manually, removing the rush of herbaceous vegetation, shrubs and sprouting maple suckers that come up afterwards.

"The strength of that sprouting is, in effect, an expression of the kind of nutrient reserve that is available in that ecosystem. By fighting that, you are making a serious problem for yourself... You make the forest even more early successional, and you reduce its complexity to the point where you also reduce your options for strong yields."

Dr. Manley stated "the difficulty you have with establishment of species on a site is directly proportional to the mistake that you've made."

Transplanting, once deemed a noble profession at least by industry and tree planters, is now questioned by those who wonder if planting thousands of acres of softwood is the right thing to do. How these seedlings are planted is also questioned. Present practice has them being planted in what foresters call the "mineral layer" that, on P.E.I., often looks like white sand. The condition of this leached layer, Dr. Manley says, signals the state of our present forest.

"On many sites this layer may be as much as 12 inches thick. There's nothing but sand in it," he said. "It's very difficult to plant trees in this kind of system. That's why foresters want to grind it all up with a scarifier to try to get more microbial activity going. But if they do that, and then put an early successional system back in place, the same thing happens all over again."

"In this Maritime climate, there is an abundance of water which is great if a complicated forest system develops in place to deal with that water," he said. "But when the forest is stripped, or in an early successional condition, the abundance of water - and we'll just forget that it may be acid rain at this stage - moves the nutrients through the profile." The nutrients either become locked in deeper layers of the soil or wash away in streams. The original, deep brown forest soil becomes a shallow podzol, characteristic of Northern or Arctic systems.

"If you try to make a huge clearcut, too much, too fast, you're going to get less back," Dr. Manley said. If you plant conifers after conifers, yields will be reduced with each succeeding generation. Asked about the present focus on genetically improved softwood, Dr. Manley replied, "Even if you improve them, they still have to exist in an ecosystem with certain limits, the limits of an Arctic system that only generates about a thousand kilograms (1-1.5 cords) of biomass per acre per year."

When asked if he thought this policy of maintaining early successional systems was deliberate mismanagement, Dr. Manley said, "No. I think it's a very deliberate kind of

management to support the forest industry. I don't think anyone wants to take the chance on having vision," he said, "because vision takes a long period of time."

Dr. Manley pointed out that "we're not really tree people, we (as a society) don't take our forest resource so seriously that we have to make a living from it; that we live there and husband it carefully."

Much of the evening's talk centred around environmental issues but, as the World Conservation Strategy points out, sound environmental practices make economic sense. Dr. Manley was at his most animated when he talked about the ridiculousness of today's practices in economic terms.

"How can you argue managing a (white spruce - balsam fir) system which has such a low productivity? Why can't we recognize the great value in having more diversity, more respiration, more complete use of the site, more stability, more protection from fire, more economic opportunity?" he demanded.

"There are 2,600 species there that we've done nothing with. Some of the richest nutmeats known are present in the Acadian forest spectrum but we've done nothing with them and they're all going."

After two and a half hours the meeting closed with one woodworker asking why present day forest practices call for harvesting followed by planting softwoods without even doing a soil test and without even knowing if they will survive.

"I don't know why; that's why I don't work as a forester everyday," Dr. Manley replied. "I spent over 15 years trying to convince people not to do that, that (maintaining a healthy and economically viable forest) was more complicated, more exciting than that, and that there were other things we could do... That at the very best we could plant 26 kinds of trees in one place and learn how to do it, and even if it was tough, tough!

"But you can't expect to get an answer if everybody seems to think they already have them," he concluded.



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### Forest Conservation Invests in Nova Scotia's Future \*

by Eric Hundert  
School of Resource and  
Environmental Studies  
Dalhousie University

A sustainable approach to forestry is more than a continuous supply of forest products. It is a system that sustains the health of the forest ecosystem and ensures economic benefits to society. The World Commission on Envir-

onment and Development (WCED) defines sustainable development as "development that meets present needs without compromising the ability of future generations to meet their own needs".

In Canada, the National Task Force on Environment and Economy supports the concept of sustainable development and states: "Our economic systems should be managed to maintain or improve our resource and environmental base..". Following from the Task Force's recommendation, Nova Scotia has established a Round Table on Environment and Economy to design a conservation strategy that will guide environmentally sound development within the province.

To meet the challenge of sustainable development in Nova Scotia's forestry sector will require changes in attitudes and in methods of operation. Historically, forestry has been an industry characterized by fast profits with little regard for the future of the natural resource base. Past practices have contributed to the degradation of our forest resource. Areas that once supported old-growth stands of pine, red spruce, yellow birch, and sugar maple now contain pioneer species, such as white spruce, balsam fir, red maple and white birch.

In a 1980 survey of Nova Scotia's forests, ecologist F.B. Goldsmith found that "The forest industry has had to shift from species to species as the resource has adjusted to intensive exploitation and now, in spite of legislation and grant aid, there is a real risk that options for the future are being reduced."

Nova Scotia's forest industries produce goods valued at \$850 million annually and generate more than 11,000 jobs. These industries require a sustainable supply of raw materials. Provincial forest policy has recognized this and promotes silviculture programs to improve the productivity of our woodlands.

Of course, forests are more than lumber and pulpwood. Forests sustain wildlife, purify and regulate water, and provide areas for recreation. Our forests are also important in themselves, as unique ecosystems that contain examples of the biological diversity of the planet.

According to the WCED, "Conservation of living natural resources -- plants, animals and microorganisms, and the non-living elements of the environment on which they depend -- is crucial for development." Although Nova Scotia's Forestry Policy and legislation include conservation objectives, the major focus is to double forest production over the next 35 years. There have, over the past 10 years, been some positive initiatives such as improved harvesting and silvicultural methods and wildlife habitat projects.

But can present day conservation needs be met within a system that has increased productivity as its primary goal? The National Task Force answers this question when it states: "these ideals cannot easily be put into practice through political, social and economic structures which have been designed for other purposes".

In its review of forest management in Canada, the Canadian Nature Federation recommends that "Logging must be carried out in a manner that protects and enhances non-timber values and minimizes long-term ecological disruption by simulating natural processes of forest succession". In Nova Scotia, where the annual harvest encompasses 25,000

hectares, practices that conflict with this recommendation are all too common. They include:

- the premature harvesting of healthy trees,
- conversion of hardwood sites to softwood plantations,
- destruction of natural regeneration during harvests,
- an increasing reliance on herbicides.

Non-sustainable practices, while economic in the short-term, will ultimately hinder economic development. As a result of unmanaged harvesting, Nova Scotia's forests now contain an abundance of species of little commercial value, while the sawmill industry is suffering from a scarcity of quality logs.

The WCED and the World Wildlife Fund, along with several Canadian conservation organizations, have called for an increase in the amount of land protected from development. There are few undisturbed areas left in Nova Scotia and these, along with sites representing each of the province's forest types, should be protected as ecological reserves with special management zones established around them.

Nova Scotia's Special Places Protection Act is designed to preserve areas of ecological significance. Although passed in 1980, only two sites have so far been designated under the legislation. A comprehensive system of potential forest reserves has yet to be included in provincial forest planning.

Improved land-use planning could ensure that forest management is directed properly and help conserve wilderness lands. If our most productive and easily accessed lands are managed sustainably, we will be able to leave more remote areas for those animals and plants that require a minimum of disturbance.

Clearly, there is much to be accomplished before our forestry sector can be considered truly sustainable. Government and industry must recognize that conservation is an investment in the future and act accordingly. To achieve the objectives of the WCED will require changes in government policy and cooperation from industry. This is imperative if our forests are to continue to provide us with the economic and environmental benefits that we expect and rely on.

\* A shorter form of this article appeared in the "Environmentally Speaking" column of The Chronicle Herald on March 24, 1990. The article is reprinted here with the permission of the author.

### Guide to the Heavens for Summer 1990

by Larry Bogan  
Cambridge Station, N.S.

Period of coverage: June 21 - September 21  
(Astronomical Summer)

During the summer, the number of hours with skies dark enough for astronomical observations is small and changes dramatically over that period. Only the time between the end of evening twilight and the beginning of morning twilight is considered "dark" to the astronomer. On June



21, darkness occurs from about 11:30 p.m. to 3:15 a.m. ADT while on September 21 it is from 8:45 p.m. to 5:15 a.m. ADT. Thus the length of observing time increases from about four hours at the beginning of summer to eight and one-half hours at the end of summer.

Usually, planets are the objects of much interest and this summer many will be visible in our skies.

#### Jupiter:

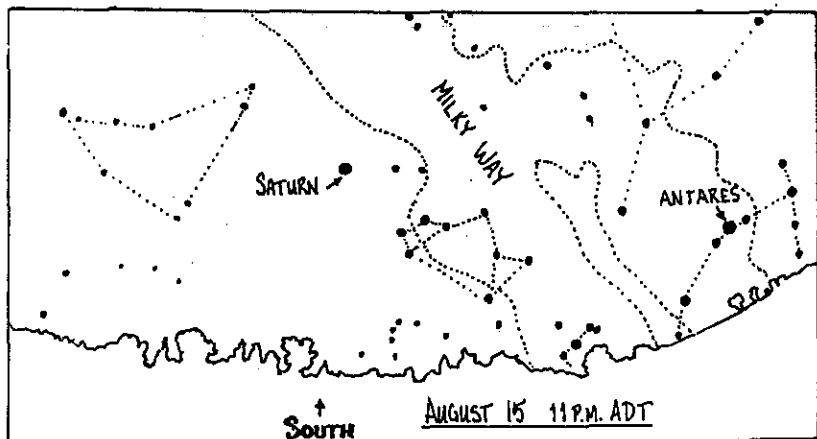
You will only be able to see this planet in the evening sky just after sunset during June. By mid-July, it is on the other side of the Solar system from the Earth and invisible because of the intervening Sun. In August and September the planet will be in the morning sky.

Using only binoculars, you can follow the dance of the four bright moons of Jupiter. With a modest telescope, the bands and other features in the atmosphere of Jupiter can be seen, but during the past year the northern band has nearly disappeared and the southern one has dimmed.

#### Saturn:

Saturn is on the opposite side of the Solar system from Jupiter and as a result will be in a good position to be seen during the summer. Unfortunately, it is in the constellation Sagittarius which is rather southerly. In mid-July, look due south at about midnight. After mid-summer it will be in the southeastern sky in early evening.

Saturn's rings are its most interesting feature but look for its brightest satellite which appears like a dim star. If you are looking through a larger telescope, look for three smaller satellites closer to Saturn.



#### Mars:

Every two years, Mars becomes easily visible. You may remember that in 1988 Mars passed as near to the Earth as it will be until the year 2003. This year it will be closest to Earth in late November and hence will be of most interest in the autumn. By September it can be seen as a bright reddish star rising before midnight in the constellation Taurus and near the Pleiades star cluster.

### Venus:

Many people think of this planet only as an "evening star" but during the summer it will only be visible in the morning sky. It is low in the east just before sunrise and not easy to pick out although it is the brightest starlike object in the sky. Venus and Jupiter will pass very close to each other on August 13. Unfortunately, the Earth will be turned such that we will not be able to see them when they are at their closest but on either the 12th or 14th you will be able to see them separated by less than the diameter of the Moon (1/2 degree).

### Uranus and Neptune:

These are also in the evening sky during the summer but I refer you to "The Observer's Handbook" published by the Royal Astronomical Society of Canada for details on how to find them.

### Other Events

#### Perseid Meteor Showers:

This event's activity peaks on the same night that Venus and Jupiter pass close to each other (August 13) but you should be able to see them a couple of days before and after that date. This year the Moon is in its last quarter and will not rise until nearly midnight so there will be dark skies in the early evening for observing the meteors.

#### Eclipses:

There is a partial lunar eclipse on August 6 and a total eclipse of the Sun on July 22 but neither one is visible from Nova Scotia. It is not a good year for eclipses in North America. Next year, many astronomers will be heading for the tip of Baja California or Hawaii to observe one of the longest total Solar Eclipses in a number of years. Already accommodations in these regions are booked solid around that time.

#### Stars:

Every summer, the brightest part of the Milky Way, and all the interesting objects associated with it, are visible. Get into an area with dark skies and look up; it's one of the beautiful views of our part of the universe. Use your binoculars to seek out the clusters of stars and nebulae embedded in the thick clouds of stars that make up the Milky Way.

#### Northern Lights:

While you are enjoying the summer skies you may be entertained with dancing Northern Lights since the sun is at its peak of sunspot activity and will be periodically exciting our atmosphere into beautiful light emissions. Unfortunately, there is no way to reliably predict when they might occur.

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Sources for Local Natural History Information  
(compiled by Blomidon Naturalists Society)

<u>Information</u>	<u>Source</u>	<u>Office</u>	<u>Home</u>
Rocks & Fossils	Geol. Dept., Acadia Univ.	542-2201	
Fish	N.S. Dept. of Lands & Forests	678-8921	
Flora - General	Ruth Newell	542-2201	542-2095
Flora - Trees	Merritt Gibson	542-2201	582-7569
Flora - Fungi	Darryl Grund	542-2201	542-9214
Flora - Lichens	Nancy Nickerson	678-2171	542-9332
Flora - Seaweeds	Karen Casselman		633-2837
Flora - Mosses & Ferns	Darryl Grund	542-2201	542-9214
Birds - General	John Pickwell		678-8281
	Bernard Forsythe		542-2427
	Richard Stern	678-4742	678-1975
	Peter C. Smith	542-2201	542-5998
	Gordon & Judy Tufts		542-7800
	Jim Wolford	542-2201	542-7650
Birds - Hawks & Owls	Jean Timpa		542-5678
	Bernard Forsythe		542-2427
	Cyril Coldwell	542-2201	542-2854
Birds - Falcons & Eagles	Peter Austin-Smith	678-8921	542-2109
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
Indian Prehistory & Archaeological Sites	Michael Brylinsky	542-2201	582-7954
	Ellis Gertridge		542-2816
	James Legge		542-3530
Astronomy	Roy Bishop	542-2201	542-3992
	Larry Bogan	542-2201	678-0446
	Sherman Williams	542-3598	542-5104

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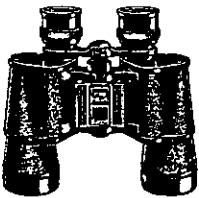
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