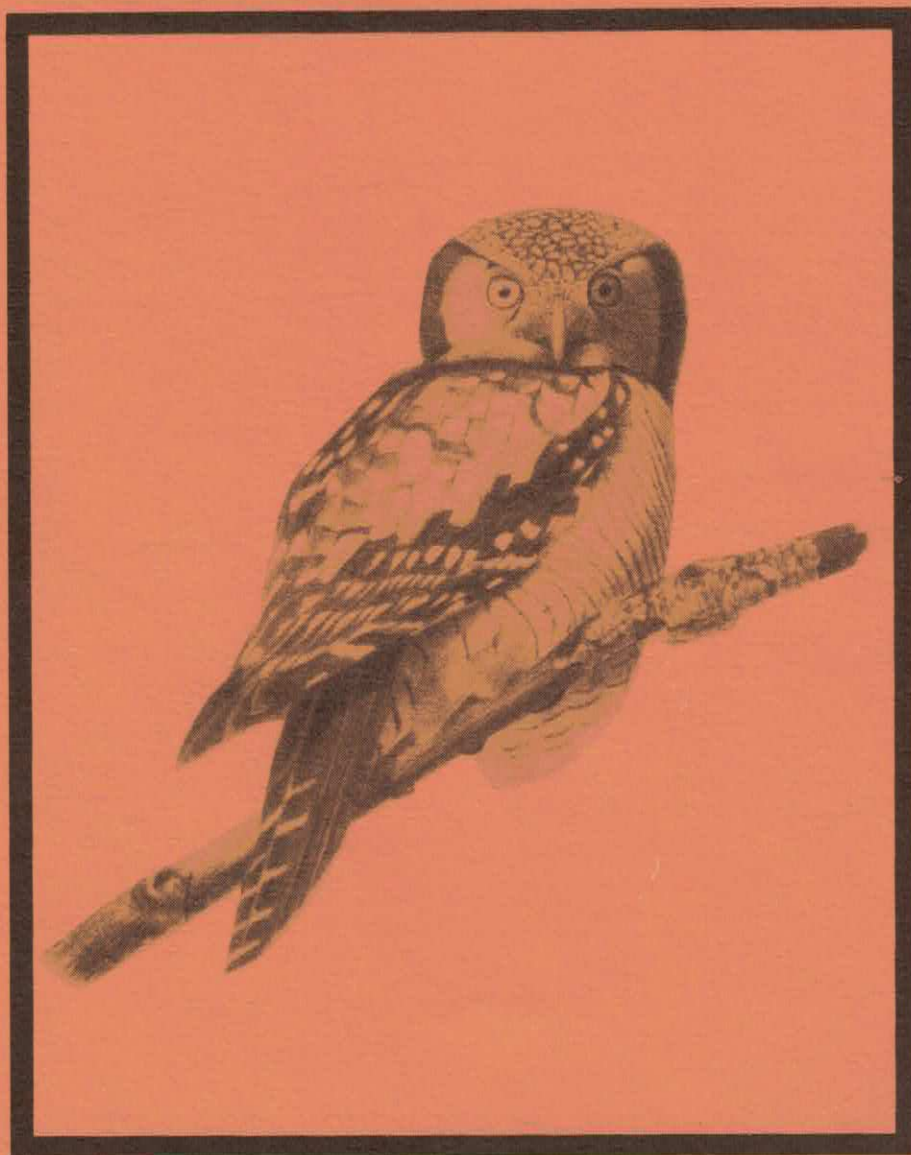


27 (3) Autumn / Automne 2000

N.B. Naturalist
Le Naturaliste du N.-B.





N. B. Federation of Naturalists Fédération des naturalistes du N.-B.

277 avenue Douglas Avenue, Saint John, N.B. Canada E2K 1E5

The Federation is a non-profit organization formed in 1972 to encourage an understanding of nature and the environment, and to focus concern for the natural heritage of New Brunswick.

La Fédération est une organisation sans buts lucratifs formée en 1972 pour encourager une meilleure compréhension de l'environnement naturel, et pour éveiller le souci pour le patrimoine naturel du Nouveau-Brunswick.

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FEDERATED CLUBS / CLUBS FÉDÉRÉS

Association des Naturalistes de la Baie de Bouctouche, RR#2,

Boîte 9, Bouctouche, NB E0A-1G0; 743-9192; courriel / e-mail:

mesange@nb.sympatico.ca. Réunions les 1er jeudi de chaque mois

(janvier à décembre) à l'Eco-centre Irving, la dune de Bouctouche.

Sorties les 3e fin de semaine. Journal: "Pattes de Mouches".

Chignecto Naturalists' Club, c/o CWS, box 6227, Sackville, NB

E0A 3C0; 536-0454; meets Sackville Public Library, 7:30 pm, 1st

Thur., Sept.-June.

Club des Naturalistes de la Péninsule acadienne, C.P. 2041, St.

Simon NB E8P 1L8; courriel: cnpa@francophone.net site web:

http://www.francophone.net/cnna; réunions alternants entre

Caraquet, Shippagan et Tracadie, 1er mercredi, sept. à juin: *Le*

Gobe-mouche mensuel.

Club d'ornithologie du Madawaska Ltée, a/s Musée historique du

Madawaska, 195 boul. Hébert, Edmundston NB E3V 2S8; Gilles

Roussel (dom. 735-5430; bur. 735-2035) courriel: gilles.

roussel@ext.gov.nb.ca; réunions à 19h30, 2ième mercredi, sept. à

juin, Musée du Madawaska; *Le Jaseur* bimestriel.

Club l'Envolée Chaleur, 732 Rue Mario, Petit-Rocher, NB E8J

1V6; 783-4336; réunions à 19h, 1er lundi, sept. à juin, salle

d'activités (au sous-sol) de la Bibliothèque de Beresford.

Club Les Ami(e)s de la Nature du sud-est, a/s Gilles Bourque, 407

Rue High, Moncton NB E1C 6E3; 532-2873 (ligne

d'information); réunions alternant entre Dieppe et Shediac, 1er

lundi de chaque mois; excursions 3ième samedi ou dimanche; *La*

plume verte.

Ford Alward Naturalist Association, c/o Elizabeth McIntosh, 560
Kenneth Road, Glassville, E7L 1B3; 246-5572; meets
Florenceville Town Hall, 7:00 pm, 1st Tues., Sept.-June;
meetings advertised in local newspapers.

Fredericton Nature Club, Box 772, Stn A, Fredericton, NB E3B
5B4; 455-0569; meets Odell Park Lodge, 7:00 pm, 2nd Wed.,
Sept.-May; monthly newsletter.

Kennebecasis Naturalists' Society, c/o Ms H. Folkins, 827 Main
St., Sussex, NB E4E 2N1; meets St. Paul's United Church Hall,
7:30 pm, 4th Mon., Sept.-June; quarterly newsletter.

Moncton Naturalists' Club, Box 28036, Highfield Square P.O.,
Moncton, NB E1C 9N4; 384-6937 (information line); meets
Church of the Nazarene, 21 Fieldcrest Drive, 7 pm, 2nd Mon.,
Sept.-June; monthly newsletter.

Ornitho Restigouche Club, 6 Van horne Cr., Campbellton, NB
E3N 3K3; 789-7759.

Restigouche Naturalists' Club, c/o Campbellton Library, Box
130, Campbellton, NB E3N 3G9; 684-3258; meets Campbellton
Centennial Library, 7 pm, 1st Monday

Saint John Naturalists' Club, P.O. Box 2071, Saint John, NB
E2L 3J5; meets N.B. Museum at Market Square, 7:30 pm, 2nd
Mon., Sept.-May, elsewhere in June; monthly newsletter.

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N.B.Naturalist carries articles and reports pertaining to the natural history of New Brunswick. Articles are invited in either English or French, and will be printed in the language in which they are received. The opinions expressed are those of the authors. Please send all submissions for the *N.B. Naturalist* to: **Irene Doyle, 6 Van Horne Cr., Campbellton, NB E3N 3K3, (506) 789-7759, colector@nbnet.nb.ca.** Ask for details of computer compatibility. Advertising rates available on request.

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On peut lire dans *Le Naturaliste du N.-B.* des rapports touchant l'histoire naturelle du Nouveau-Brunswick. Les articles seront acceptés en français ou en anglais pour être reproduits dans la langue d'origine. Les opinions exprimées sont celles de leurs auteurs. **Veuillez faire parvenir tous vos articles pour le Naturaliste du N.-B. à: Irene Doyle, 6 Van Horne Cr., Campbellton, NB E3N 3K3, (506) 753-7261, colector@nbnet.nb.ca.** Demandez les détails de compatibilité d'ordinateur. Tarifs publicitaires disponibles sur demande.

Visit the NBFN web page:

<http://personal.nbnet.nb.ca/maryspt/NBFN.html>

Rendez visite à la page web de la FNNB:

<http://personal.nbnet.nb.ca/maryspt/FNNB.html>

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Cover: Hawk Owl, by Gunnar Brehm

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Visit the NBFN web page:**Rendez visite à la page web de la FNNB:****<http://personal.nbnet.nb.ca/maryspt/NBFN.html>**

Please note: membership fees are due January 1.

Sincere thanks to our many volunteers who contributed to this publication.
 Merci beaucoup à tous les bénévoles dévoués qui ont contribué à cette publication.

Please submit articles for the next issue by **February 1, 2001**
 Veuillez soumettre les articles à l'intention du prochain numéro avant le **1 février, 2001**

President's Message – Message de la Présidente

Pierrette Mercier

As in many other organizations, inflation has hit the NBFN. For the past couple of years, the cost of publishing the NB Naturalist has been higher than that of the annual fees charged for it. Although everybody involved with the newsletter from the editors to the person responsible for the mailing are doing it voluntarily, the cost of printing and mailing fees have increased and the NBFN can no longer absorb the deficit.

Also, in the past two years, the Federation has seen a reduction in membership by 60 members. This results in a loss of revenue of \$900.00 for this year. Therefore, it becomes necessary to increase the individual membership fees for the year 2001 from \$15.00 to \$16.00 and from \$20.00 to \$21.00 for members outside of Canada.

This increase is still well below the annual inflation rate. The previous increase of membership fees was in 1991, where the fees passed from \$10.00 to \$15.00 and the last increase before that was in 1984. For now an increase of \$1.00 will be sufficient to avert a projected deficit for next year.

We are presently looking into other possible funding sources for the newsletter to offset further cost increases in producing the Naturalist. The editorial staff is striving to continue to improve the quality of the newsletter and have been doing an exceptional job but limited financial resources are always an issue.

This increase is for the regular individual memberships only and does not affect the annual club fees which remains at \$1.00 per member of a club for this year. The cost of the liability insurance may cause us to make an increase next year but for the moment it is not necessary. I hope you will understand the need of this small increase in membership dues and will continue to enjoy the NB Naturalist for many years.

I would also like to remind you that your newsletter depends on you for articles, poems, commentaries, etc. There is a great need for new articles and everybody can submit them. You can submit your articles by giving them to your club representative or by sending them to Irene Doyle (colector@nbnet.nb.ca).

Et bien, la hausse du coût de la vie va encore frapper la FNNB. Pour la deuxième année de suite, le coût de production de la revue, Le Naturaliste, dépasse les revenus apportés par la cotisation. Malgré que tout le monde impliqué avec le Naturaliste, des éditeurs à la responsable de la poste, sont des bénévoles, le coût d'imprimé et de posté la revue a augmenté et la Fédération est incapable de continuer à absorber le déficit. Aussi durant les deux dernières années, la Fédération a connu une baisse dans le nombre de ses membres de plus 60. Ceci amène une perte de revenus de plus de \$900.00 pour cette année. Pour ces raisons, la FNNB n'a pas le choix d'augmenter la cotisation aux membres régulier qui passera de \$15.00 à \$16.00 et de \$20.00 à \$21.00 pour les membres à l'extérieure du Canada.

Cette augmentation est toujours sous l'augmentation normale du coût de la vie. La dernière augmentation de la cotisation a eu lieu en 1991 où elle a passé de \$10.00 à \$15.00 et la dernière augmentation avant cela était en 1984.

Une augmentation de \$1.00 devrait être suffisant pour éviter un déficit pour l'année 2001. Nous regardons présentement des sources de revenus pour aider à rencontrer les coûts de production de la revue dans les années futures. Le personnel éditorial s'efforce de produire une revue intéressante et de qualité mais le financement est toujours une barrière.

Cette augmentation est pour la cotisation aux membres individuels seulement et n'affecte pas la cotisation aux clubs qui demeure à \$1.00 par membre d'un club. Cette cotisation sera révisée l'année prochaine et dépendra du coût de l'assurance aux membres. J'espère que vous comprenez la nécessité pour cette petite augmentation et vous continuerez à apprécier Le Naturaliste du Nouveau-Brunswick.

N'oubliez pas que votre revue dépend de vos articles, poèmes, commentaires etc. Il y a grand manque d'article surtout francophone. Tout le monde est bienvenue d'y écrire quelque chose. Vous pouvez remettre vos articles au représentant de votre club à la Fédération ou à Irene Doyle (colector@nbnet.nb.ca).

How Many Salmon?

Anne Lavoie

Many people who live along salmon rivers in New Brunswick are probably aware of the sport of salmon fishing, whether it be for "blacks" in the spring or "brights" during the summer and early fall months. What many people do not realize is the amount of data that is collected while contemplating this very popular species.

Electrofishing and trapnetting are just two of the means used in studying this valuable and precious resource. There are also areas on the different river systems where gates are installed in order to hold salmon in a large, well-guarded pool until they are ready to spawn. This greatly increases their chances of surviving poaching attempts until the spawning season, when they are released to their favorite egg-laying territory.

Overall, it certainly helps to know how many salmon are in any given river system and this is where the business of 'seasonal counts' comes in. This is to say that a summer and a fall tally are carried out on the Restigouche River system in order to determine just how many salmon the system holds. This is done in two ways; a snorkeling count and a redd or canoe count.

The former, which I will elaborate on, involves teams of divers who don either wet or dry suits, depending on the season. A face mask, hood and snorkel are also part of the equipment used. Naturally during the month of October when the salmon are counted just before spawning season, one would certainly wish to be wearing a dry suit because of the air and water temperatures which generally range in the vicinity of 1 degree C to 15 degrees C, and 6 degrees C to 9 degrees C, respectively. Since the salmon usually start to spawn around the 18th of October, there is a bit of a rush to get in all the counts from the pools of the various tributaries before the fish head onto the bars to spawn.

With the smaller, upriver tributaries, it is enough to have a single diver and a canoe person to cover the stretch of water which is scheduled for the day. The

diver will get into the pool at the upper section and float down through the pool to the lower or bottom section of the pool. This is done in conjunction with the canoe partner who is usually slightly ahead of the diver, and at a 45 degree angle. This method allows the salmon to pass upstream between the canoe and the diver; the diver will count all the salmon between him/herself and the canoe and the canoeist will check out the ones which might have gone on the other side of the canoe.

The same method is used on larger tributaries with the exception of additional divers to accommodate the size and depth of the pools. Likewise, instead of counting the passing salmon in "ones" or groups of fives, larger pools may mean they have to be counted in groups of ten. Also, snorkelers are required to differentiate the percentage of salmon to grilse in any given pool. The ratio on the Restigouche is approximately 60% salmon to 40% grilse.

You might think that salmon just streak by the diver in a flash but this is not so. They usually are quite wary but will swim upstream in a fairly orderly fashion. The fall counts can be even more exciting because of the obvious changes in the behavior of the salmon. It is not unusual to have a large male salmon break away from the school

and mosey on over to check out an intruding diver. With their large, extended kype and formidable size, they are very impressive.

Other fish we will come across while involved in the snorkeling counts include fresh-water eels, lamprey eels (summer counts), whitefish, suckers, trout, gaspereau and we may even occasionally swim over a beaver or muskrat which can be quite amusing. Also, some of the salmon we view may be sporting salmon flies still lodged in the mouth area; of these, "bombers" are very noticeable. There may also be salmon with obvious fungal infections or blindness.

The total counts of all tributaries provide valuable information on the health and stability of the salmon population of the Restigouche River system.



BOTANY QUIZ

Gart Bishop, Kennebecasis Naturalist's Society

No plant to identify this month, just a question as to the meaning and origin of "Serviceberry", which is the common name for a number of shrubs or small trees found throughout New Brunswick. The answer will appear in the next issue of the N.B. Naturalist / Le Naturaliste du N.-B.

The woody plants called Serviceberry belong to the *Amelanchier* genus, which is a member of the Rose Family and has as close cousins such notable species as our apples, cherries, hawthorns and mountain ash. "Serviceberry" was the name I was taught to use at the UNB Forestry department, but there are many others ... and what you use, may depend on where you have lived. The names Shadbush, Juneberry, Saskatoonberry, Indian pear, Grape-pear, Sugar Pear, Sugar Plum and Wild Pear all refer to the same group of plants.



Low Juneberry
Britton and Brown, vol II

There are 12 species of this genus listed in Hal Hinds' 1986 Flora of New Brunswick, as well as a couple of varieties, the majority of which are found in the southern half of the province. Only a couple species attain tree size, the remainder are shrubs usually less than 3 m high. It is a particularly difficult group of plants to identify to species ... and sometimes because of hybridization ... next to impossible. Still, as a group, it is relatively easy to recognize a "Serviceberry".

In spring spectacular splays of its white flowers (shaped like five-bladed propellers) are bountiful, and the first to capture our attention along the fencelines and roadsides. The flowers are pollinated mainly by

small spring bees. Usually within a week of the Serviceberry being in flower, the Pin Cherries are in bloom, followed closely by the Chokecherries.

Perhaps the most common and widespread species is Mountain Serviceberry or Bartram's Shadbush (*Amelanchier bartramiana*). It is also one of the easiest to identify. The flowers (and fruits) are in clusters of 1-4, while for all the other species, the flowers are in racemes (an unbranched elongated group of flowers) of usually more than 4 flowers. Serviceberries have toothed, alternate leaves, and small (1 cm diameter), dark blue, applelike fruits. Foliage color is often a deep blue-green. In winter, the long, pointed buds are often two tone red and green with twisted tips. The smooth bark is commonly grey coloured.

Smooth Serviceberry (*Amelanchier arborea* variety *laevis*) is a small tree (6-10 m high) commonly found in the southern part of the province. Its wood is strong, close-grained and very heavy, 52 pounds to the cubic foot, dry weight (Oak is 62-76, Maple 62-68, Pine 37, Spruce 41 -45). The heart wood is commonly dark brown tinged with red while the sap wood thick and lighter brown. The wood takes a beautiful polish, so potentially it might have been a more valuable cabinet wood than Oak or Maple if the trees grew large enough and in dense enough stands for lumbering.

Being quite tolerant of moisture and shade, they occupy a wide range of habitats, and they tend to be slow growing and relatively long-lived. One 15 cm Smooth Serviceberry in the Sussex area was recently cut down and found to have 97 rings!



Mountain Serviceberry
W.C. Grimm & M. Campbell

At least twenty-two bird species relish Serviceberry fruits. Prominent feeders include veeries, hermit thrushes, catbirds, cedar waxwings and northern orioles. Feeding on the fruits, bark and twigs are black bears, beavers, fox, red squirrels, white-tailed deer and moose.

Few plants have provided such a widely used seasonal clock as Serviceberries, a function reflected in many of their common names. On the eastern seaboard, colonial fishermen timed the spawning runs of shad fish by the flowering of this plant, hence the name "Shadbush".

Native North Americans used the fruits abundantly for food. One way of eating them was dried and mixed with venison and bear meat to make pemmican.

"Take some juneberries with you" was a common farewell among the Chippewas. They and other tribes also mixed decoctions of the root and bark for medicinal tonics. Serviceberries are among the most overlooked and neglected of our wild fruits. They can be used in almost anyway that one would use blueberries.

But ... do you know why they are called "Serviceberries"?

The following books were consulted for this article:

The Flora of New Brunswick (1986) by Hal Hinds

A Natural History of Trees (1977) by Donald Peattie

The Book of Forest and Thicket (1992) by J Eastman

The Book of Shrubs (1957) by W.C. Grimm.

L'association du bassin hydrographique de la baie de Shediac

Rose-Alma Mallet

L'association du bassin hydrographique de la baie de Shédiac a été créée il y a plus d'un an. Cette association est régie par un groupe de bénévoles représentant les communautés de la région de la baie de Shédiac en partenariat avec le ministère provincial de l'Environnement et des Gouvernements locaux. Le but de l'organisme est de trouver des solutions aux problèmes environnementaux de la région définie par le bassin hydrographique de la baie de Shédiac. Ce qui inclut les communautés de Pointe du Chêne, Boudreau-Ouest, Cap-Brulé, Cap-Bimet, Grand Barachois, Shédiac, Scoudouc, Cap de Shédiac, Shédiac Road, Shediac Bridge, Rivière de Shédiac, McDougall, Saint-Phillippe, chemin Cap-Breton, Grand-Digue, Cap des Caissies, Cap de Cocagne et Iristown. Plusieurs associations du genre ont vu le jour dans la province et tous font partie d'un réseau de communication et d'entraide.

La vision de l'association est de rassembler les citoyens et citoyennes de la communauté et de planifier un plan de gestion du bassin hydrographique qui s'assure que tous les résidents et résidentes du bassin puissent jouir d'une bonne qualité d'eau et que les développements se fassent sans compromettre la capacité des générations futures à obtenir la même qualité d'eau. L'approche utilisée est écosystémique, c'est à dire qu'elle se préoccupe non seulement de la qualité de l'eau, mais tout ce qui lui est lié, telle que les

activités forestières, agricoles et industrielles, la conditions des habitats de la faune, de l'impact économique, du tourisme, etc.... L'association espère d'accomplir ceci par l'éducation du public. L'association a entrepris plusieurs petits projets de recherche qui lui permet de créer une base de donnée qui pourront servir dans le future à faciliter les prises de décisions concernant l'environnement. Voici des études qui ont été menées jusqu'à présent: Inventaire des marais salés, Evaluation des changements récents des barges et des lieux propices à l'inondation, Pamphlet éducationnel sur la protection des eaux, Plan de développement du bassin, Analyse des éléments qui influencent la qualité de l'eau dans le bassin versant de la baie de Shédiac.

Il y a présentement trois personnes au bureau de l'association. Ces personnes travaillent sous la surveillance d'un comité directeur composé de membres de la communauté. Ces personnes sont : Roger LeBlanc (Coordinateur), Danny Goddard (Technicien), Maryse Bourgeois (Projet d'intendance des habitats cotiers du sud-est du Nouveau-Brunswick).

L'Association du bassin hydrographique de la baie de Shédiac

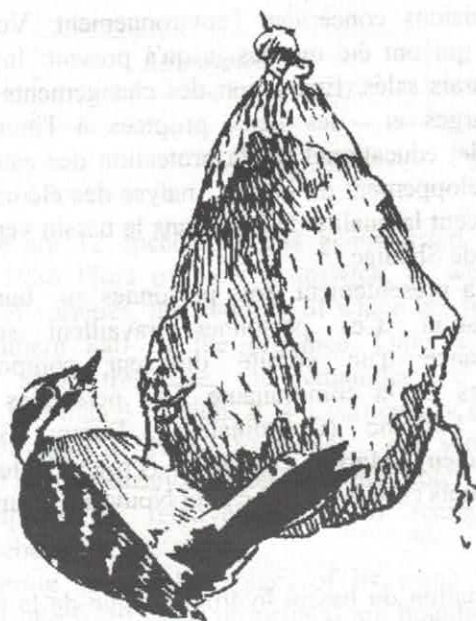
164, rue Pleasant, suite A, Shédiac, N.-B. E4P 2LB,
Courriel: sbwa@nbnet.nb.ca, Tél: (506) 533-7880

Book Review: *Birds at Your Feeder*

Becky Whittam

Birds at Your Feeder A guide to feeding habits, behavior, distribution and abundance
by Erica Dunn and Diane Tessaglia-Hymes

Nearly one-third of the entire North American population over the age of sixteen is involved in bird feeding—close to the combined total for participation in hunting and fishing. Despite this wide interest, and though birds are probably the best-studied and most understood organisms on earth, remarkably little research has been focused on birds using feeders. *BIRDS AT YOUR FEEDER: A Guide to Feeding Habits, Behavior, Distribution, and Abundance* is the first book ever to use the data gathered from Project FeederWatch, a continent-wide survey of feeder birds sponsored by Bird Studies Canada, the Canadian Nature Federation, the Cornell Laboratory of Ornithology, and the National Audubon Society. Not just a simple how-to book, *BIRDS AT YOUR FEEDER* is an indispensable guide for anyone who feeds birds, has thoughts about feeding birds, or is planning to begin. It is a perfect book for participants of Project FeederWatch, who will be able to see how their data contribute to science on a continental scale.



Downy Woodpecker by Peter Burke

BIRDS AT YOUR FEEDER is filled with over 400 pages detailing and describing the species most likely to turn up in your yard. Charming black and white illustrations by Peter Burke show each species as they often appear at your feeders: American Goldfinches feasting on niger seed, Boreal Chickadees at suet, and American Tree Sparrows scrounging the ground for mixed seed. These pictures, combined with helpful listings of each bird's favourite food, abundance by region, and feeder-visitation frequency, will help you both to identify all the species at your feeders and to attract the ones you've so far found elusive. The species summaries are filled with interesting facts about birds and bird-feeding. For example:

- 1 - mourning doves, despite their sweet name, are actually highly aggressive while feeding;
- 2 - tree sparrows love weedy, untillied gardens;
- 3 - crows often post sentinels in feeding flocks to watch for danger; and
- 4 - the black-capped chickadee may stash food from your feeder as far as 100 feet away

The authors have been integral to the development of Project FeederWatch. Erica H. Dunn, currently a research scientist for the Canadian Wildlife Service, founded Project FeederWatch in 1976, when it was known as the Ontario Feeder Bird Survey. When the project was expanded to all of North America in 1987, Dr. Dunn served as coordinator until 1993. Diane L. Tessaglia-Hymes was the research coordinator and programmer/analyst for PFW from 1987 through 1998. Diane is now the Cornell Lab of Ornithology's graphic designer. This book is a tribute to the authors and to all FeederWatchers who contributed invaluable data over the years.

BIRDS AT YOUR FEEDER, published by W. W. Norton & Company, Inc., is available for purchase through Bird Studies Canada for the 30% discounted price of \$29.95 (plus \$5.00 shipping and handling). To order the book, send a cheque for \$34.95, made out to Bird Studies Canada, to: Anne Marie Ridout, Bird Studies Canada, P.O. Box 160, Port Rowan, ON N0E 1M0 (allow two weeks for shipping).

You can also order the book by credit card by calling Bird Studies Canada toll-free at 1-888-448-2473.

A Passion for Ospreys

Judson Cassidy

The osprey has been a favourite bird of mine to watch and this past summer was no exception. There's nothing like being at the right place at the right time. I've always been fascinated by the osprey's uncanny ability to glide and soar in the skies above. While watching these beautiful birds, I ponder at times as to how it would feel to be in its place for only a moment. Maybe I should take up hand gliding and find out for myself...not...too chicken (pardon the pun)! Being on the road a lot at work, lunch time provides me with some time to enjoy nature to the fullest. I park the car close to shore anywhere between Cap-Pele and Pointe-Sapin along the Northumberland Strait. I spot the occasional osprey around the Bay of Shediac, near the entrance of the Scoudouc River, or along the shores near Grand-Barachois. More often than not, the Bay of Bouctouche provides me with a sighting of this bird of prey.

While on vacation in early August 2000, our family went camping at Kouchibouguac National Park for which the symbol is the osprey. I found out some of the reasons why this was so during our week long stay. We camped at the more primitive site in Cote-à-Fabien on the other side of the Kouchibouguac River near Loggiecraft and met our good friends from Quebec. It is a quieter spot with lots of sites near the waters of the Kouchibouguac Bay which is protected by the large dunes. Within walking distance to the site, there is a nice hiking trail (5.1 km one way) called ...you guessed it ...The Osprey Trail.

Bird life is abundant on that trail, especially the osprey which has lots of nests in the area. Either on the trail or near the shore of your campsite, the osprey could be spotted around the bay often during the day. One cloudy morning, I woke up earlier than the others and sat on a log along the shore. I was admiring the beauty of the area. What happened that morning was truly inspiring.

I could see from a distance that an osprey was flying toward me as it followed the shore from west to east heading out toward the Northumberland Strait. It was hovering almost effortlessly over my head, angled to take advantage of the Northeastern wind. A few minutes later, another osprey came by at almost the same path as the first one. Then a third one came along

and I thought "Wow! What a sight!". But it was not over as two more ospreys flew along the same shores. It seemed as though they flew in sync at different time intervals. I had seen two, three or four ospreys on rare occasions but not five at one time, and especially in this manner.

Two weeks later, we went camping again in Kouchibouguac. This time we camped at the more crowded South Kouchibouguac camping site where our kids could be near the playgrounds and theatre. A friend, Stephane Babineau had two kayaks and asked me if I wanted to join him. I never refuse when I have a chance to go kayaking. We started at Ryan's and headed out around the Kouchibouguac Bay for a few hours at leisurely pace. We ran aground a couple of times as low tide was nearing. The water is mostly shallow except for the channels. We spotted ospreys from a distance at different areas of the bay. As our wonderful kayak journey was coming to an end near the starting point, we came directly upon a diving bird of prey at about thirty meters above and fifteen meters away from us. The osprey ignored our presence and went on with its business of catching its meal of the day. To see the gracefulness of the osprey dive, and to see it catch its fish at such a close distance, was truly an amazing experience. I will always admire and be very passionate about the osprey as it has given me hours of enjoyment and especially in the area of Kouchibouguac National Park.



Piping Plover News from Northeastern New Brunswick

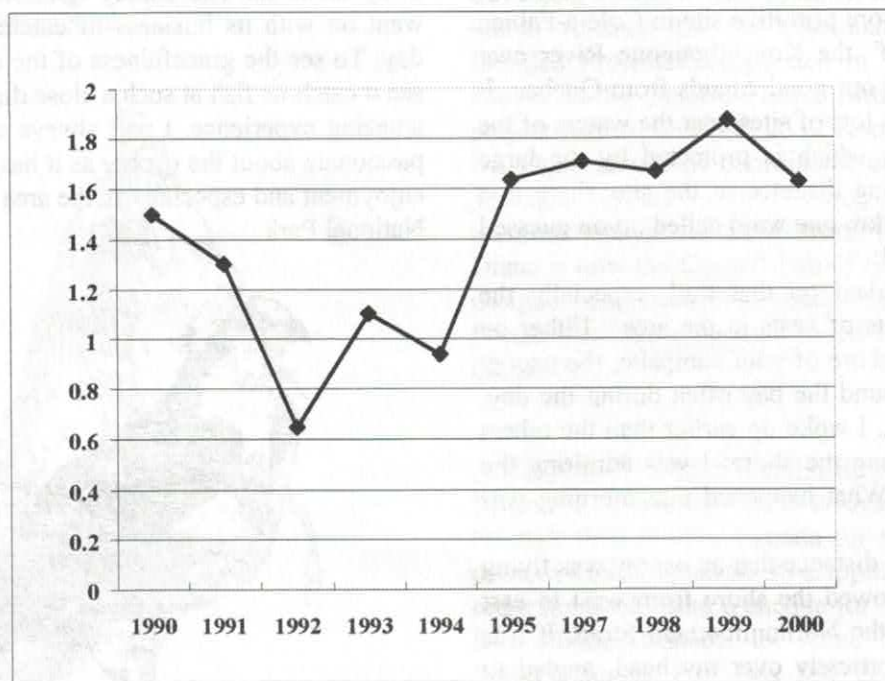
Roald Chiasson & Sabine Dietz

Our summer season 2000 was as busy as ever. Up to twenty people, all employed through various programs, watched over the plovers during the summer. Two of our youth continued into the fall to carry out educational programs in most of the Acadian Peninsula schools. The topic was endangered species of New Brunswick.

Despite our early June storm that washed out quite a number of nests, and a cool summer, the plovers did okay. With 139 birds we are holding quite steady, and our staff can feel proud of our overall fledging success of 1.6 (which indicates a lot of effort!). The birds gave us some surprises this year, shifting a bit to the south on our off-shore dunes, and giving us a harder time to try to figure out how many there really were, and where they were. Our contact with the public was extensive, and we are proud to say that very little of this contact is negative these days. Our partnerships extend to businesses and towns and in this, we have come a very long way in the last thirteen years.

We still have some trouble with vehicles: two of our staff were almost driven over by an ATV. Some of our more northern beaches look more like racetracks. Few if any nests or plover chicks survived this type of pressure.

On another beach, one adult plover from a family was picked off by a Merlin, leaving the male to look after the four very young babies in an extremely busy area. Despite great efforts from our staff, only one young survived. This was not a very good example on how plovers and people can coexist, but it shows the importance of a Guardian presence in having any positive impact at all. We are convinced that, without our Guardians, no young would have survived at all. On a side note: this might also show the importance of having two adults look after newly hatched young. We had four chicks fledged from the same beach in 1999, with two adults looking out for the babies. This year we also might have had a problem with an injured gull, which, attracted by the garbage and people, hung out all the time around the zone where the plovers were.



Fledging Success Rate – Average Young per Nest per Census Year

Human disturbance in our region appears to be our major cause of poor fledging success. Predators take a few eggs and young on our beaches but have minimum impact. Our beaches are so wide and long, predators have a harder time finding nests and young than on other shorter and narrower beaches elsewhere in the Maritimes.

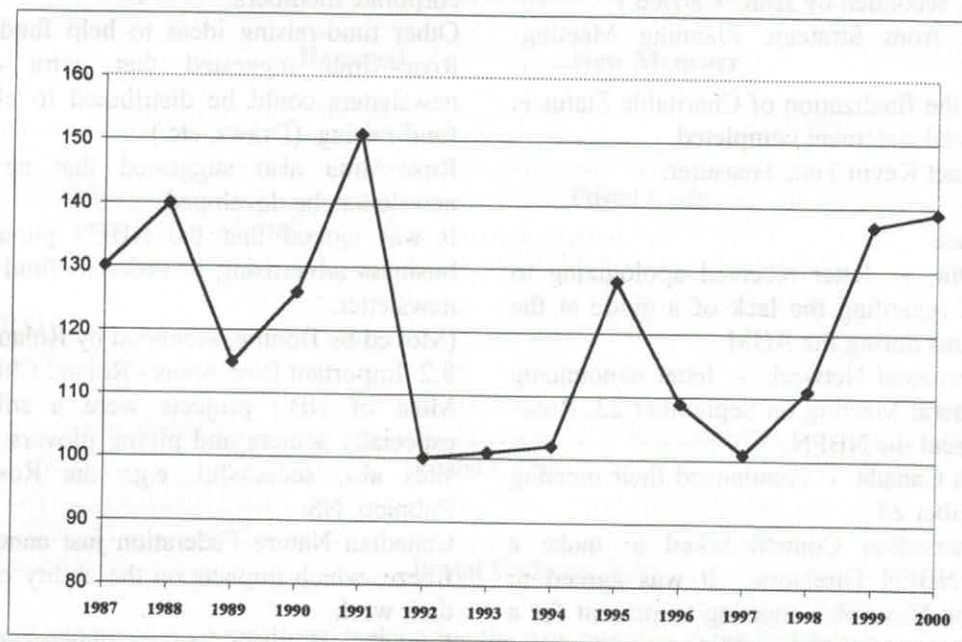
We are very fortunate in that we do receive sufficient funds and we do have the co-operation from some departments, both federal and provincial, that makes it possible for us to have Guardians on beaches. We strongly feel that we have enough proof to show that the Guardian is the only really effective tool to assist recovery of this endangered bird. We should not kid ourselves: it will be a long time, if ever at all, before the Piping Plovers of Atlantic Canada will not need our help anymore. The graphs below show that since 1995 when the Guardian Program began on the Acadian Peninsula fledging success and population levels have increased.

It is not only that the Guardian Program is a very non-confrontational, educational, and effective approach (from a biological point of view), it also has spin-offs that none of us should neglect. From the creation of employment for youth, sensitization on various coastal zone issues, raising awareness about endangered species in general, to raising the awareness of governments; these are all direct spin-offs. For the

future, we would like to see the program continue, with its regional and local differences. We encourage everybody to not look at this program as 'just protecting a bird' but as an effort, that goes way beyond the Piping Plover. In fact, it touches the coastal zone in general, and our values that we attach to our natural heritage and the species that share the earth with us.

We gratefully acknowledge both financial and in-kind support, we received. Without this support, our work would not have been possible. In particular we would like to thank Human Resources Canada for their support for the Protection and Monitoring Program for Pointe à Bouleau; the Endangered Species Recovery Fund through World Wildlife Fund and Environment Canada; the Canadian Wildlife Service for funding through the Habitat Stewardship Fund; the Wildlife Trust Fund of New Brunswick; the New Brunswick Department of Labour, the Town of Tracadie-Sheila; Roy Consultants Group; NB Tel Mobility & Radio Shack Tracadie-Sheila; the 'Club de naturalistes de la Péninsule acadienne'; and Hudson Design Ltd.

The Coastal Guardian Project is part of Natural Legacy 2000, a nation-wide initiative to conserve wildlife and habitats on private and public lands. We gratefully acknowledge the financial support of the Government of Canada's Millennium Partnership Program.



Census Results – Individuals per year on the Acadian Peninsula

NBFN DIRECTORS' MEETING, SEPTEMBER 9, 2000*Bonnie Hamilton Bogart*

Biology Building, UNB Fredericton Campus

Present:

Pierrette Mercier, President; Mike Leblanc, Pauline Morneau, Suzanne Morneau, Jean Wilson, Roland Chiasson, Gart Bishop, Rose-Alma Mallet, Janet Erskine, Bonnie Hamilton Bogart (recording secretary)

1. Agenda

The agenda was approved as circulated. (Moved by Gart, seconded by Rose-Alma. Carried.)

2. Minutes of Last Meeting (April 1)

The minutes were approved as circulated. (Moved by Gart, seconded by Rose-Alma. Carried.)

3. Business Arising

3.1 Protocol for Annual General Meetings

The protocol was presented and changes noted: that the agenda, minutes, and reports all be available in both official languages at the AGMs. Also that profits and deficits were to be shared equally between the NBFN and the hosting region.

It was agreed to accept the protocol as written. (Moved by Mike, seconded by Jean. Carried.)

3.2 Follow-up from Strategic Planning Meeting: Charitable Status

The next step in the finalization of Charitable Status is to have the financial statement completed.

Pierrette will contact Kevin Tutt, Treasurer.

4. Correspondence

4.1 Chief Martin - letter received apologizing to NBFN members regarding the lack of a guide at the Aboriginal Gardens during the AGM.

4.2 NB Environmental Network - letter announcing their Annual General Meeting on September 23. Rose-Alma will represent the NBFN.

4.3 Bird Studies Canada - Announced their meeting in PEI on September 23.

4.4 The Conservation Council asked to make a presentation to NBFN Directors. It was agreed to invite them to the November meeting to present for a half hour.

4.5 Restigouche Naturalist Club - letter of thanks was sent, in appreciation for the work done on the AGM.

5. President's Report - Pierrette Mercier

The goal for this year is to complete the projects started last year. The AGM was a great success. The translation services were well-received and should continue at future Annual General Meetings.

6. Treasurer's Report - Kevin Tutt (absent) No report available.

7. Membership Secretary's Report - Jean Wilson

The letter of reminder went out and resulted in 73 renewals. Current membership at 242 members.

8. Committees and Projects

8.1 Newsletter

Spring issue, edited by Rob Walker, is delayed. The summer issue, edited by Don Gibson, is done. Ken MacIntosh has offered to do two newsletters per year.

Pierrette raised the idea of seeking corporate memberships in order to fund the newsletter, and plans to write up a letter to send to possible corporate members. Requested that any potential names of businesses be forwarded to her.

Jim Goltz is working on criteria to define appropriate corporate members.

Other fund-raising ideas to help fund the newsletter: Rose-Alma suggested that extra copies of old newsletters could be distributed to clubs, for use in fund-raising. (Draws, etc.)

Rose-Alma also suggested that an index of the newsletters be developed.

It was agreed that the NBFN pursue corporate or business advertising in order to fund the cost of the newsletter.

(Moved by Bonnie, seconded by Roland. Carried.)

8.2 Important Bird Areas - Roland Chiasson

Most of NB's projects were a smashing success, especially scoters and piping plovers. Other Atlantic sites also successful, e.g., the Roseate Terns off Pubnico, NS.

Canadian Nature Federation just announced a budget freeze, which impacts on the ability of the sites to do their work.

Canadian Wildlife Service suggests that IBA choose one large project per year, that is one with a large stakeholder group.

Roland expressed his hope that the IBA becomes one of the core projects of the NBFN.

8.3 Piper Project - Roland Chiasson

There is a project proposal that would produce an Endangered Species Education Kit in both official languages for the schools in NB. They are now looking for a committee to oversee the project. Funding was approved by the Environmental Trust Fund if certain conditions are met. There is a possibility that the project co-ordinator could assist with other tasks of the NBFN, e.g., creating an index of the newsletters.

8.4 Point Lepreau Project

The fall observation period at Point Lepreau has begun. Funding has been secured for observers from September 2 to November 4. Data from 4 1/2 years is being reviewed by Dr. Ian Cameron.

9. Reports from Clubs

Moncton, Vivian Beale: Have changed their dates to

the second Monday of the month at the Church of the Nazarene.

Bouctouche, Mike LeBlanc: This club still continues with approximately 35 members and an average attendance of 12.

Saint John, Jean Wilson: This club meets on the second Monday of the month, at the NB Museum. Plan to have speakers on the New Brunswick Salmon Federation, spiders, mushroom field trip with Nelson Poirier (Sept. 16).

Acadian Peninsula, Roland Chiasson: This club holds meetings on the 1st Wednesday of every month at the Centre de Landry. This past summer they took busloads of people to see the shorebirds, and held a corn boil / stargazing evening. They have launched a tourism project for Miscou Island at the lighthouse. Funding has been approved to develop interpretation panels.

Kennebecasis, Gart Bishop: This club meets on the 4th Wednesday of the month.

NEW BRUNSWICK FEDERATION OF NATURALISTS

HELP BUILD A STRONGER VOICE FOR NATURE

MEMBERSHIP FORM

Membership fee for the current year is \$16 annually in Canada and \$21 in other countries. Fees should be directed to the membership secretary, Jim Wilson, 2 Neck Road, Quispamsis, N.B., E2G-1L3

.....Renewal

.....New Member

Name.....

Address.....

.....Postal Code.....

Telephone.....e-mail.....

Federated Club.....

GIFT MEMBERSHIP

Recipient Name.....

Address.....

.....Postal Code.....

Donor Name.....

Address.....

.....Postal Code.....

A note will be sent announcing your gift and welcoming the new member to the Federation.

Thank you for your support!

Amies de la nature, Rose-Alma Mallet: This club meets on the 1st Wednesday of the month. Will have Neslon Poirier to conduct a walking tour looking for mushrooms on Sept 17th.

Club d'ornithologie du Madawaska, Pauline Morneau: This club meets on the second Wednesday of the month. They have secured funding for an educational project. Their lists of outings and membership are completed.

Chignecto, Janet Erskine: Held field trips over the summer, short evening trips attracting 20 - 25 people.

10. Unfinished Business

10.1 Insurance - Vivian Beale Should be completed by the end of September. The cost is \$500 / year to be covered by the NBFN. Shouldn't have to increase membership fees if the cost of the newsletter can be subsidized by corporate advertising.

10.2 Charitable Status - dealt with above.

10.3 Executive Director - Pierrette Mercier The job

description has been completed. Pierrette will be seeking funding.

10.4 Protected Areas - This work has been completed.

10.5 Species at Risk Act (SARA) - Vivian Beale September 14th is National Action Day, the date set for calls and e-mails to Members of Parliament. It is hoped that this bill will pass in the next session of Parliament.

11. Other Business

11.1 Hal Hinds Wilderness Area - Hovey Hills, a rare hardwood forest area, has been dedicated to Hal Hinds.

11.2 Director-at-Large - Pierrette will review the constitution on this matter.

11.3 Guidelines for Programs of the Federation - These guidelines were developed by Sabine Dietz.

11.4 Host of next year's AGM - Ford Alward Club is considering this. Will let us know by next month.

12. Adjournment. Next meeting on November 25th.

LA FEDERATION DES NATURALISTES DU NOUVEAU-BRUNSWICK

TOUS ENSEMBLE POUR LA SAUGARDE DE LA NATURE

Formulaire de Membre

La cotisation pour l'année 2000 est annuellement de \$16 au Canada et \$21 pour les autres pays. La cotisation doit être envoyée à la préposée aux abonnements: Jim Wilson, 2 Neck Road, Quispamsis, N.B., E2G-1L3

.....Réabonnement

.....Nouvelle Abonnement

Nom.....

Adresse.....

.....Code postale.....

Téléphone.....Courrier électronique

Club fédéré.....

Abonnement Cadeau

Nom de receveur.....

Adresse.....

.....Code postale.....

Nom de donneur.....

Adresse.....

.....Code postale.....

Une note de bienvenue et de souhait sera envoyée au nom ci-haut mentionné en votre nom et celui de la Fédération.

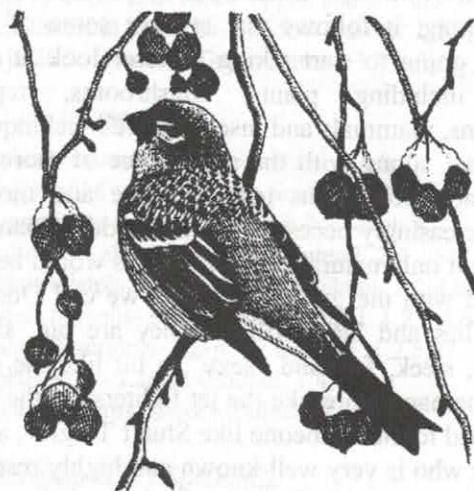
Merci pour votre appui!

What's New with Christmas Bird Counts?

Becky Whittam

This year, Bird Studies Canada is taking over the management of Christmas Bird Counts in Canada. This means that Canadian counts are no longer submitted directly to the National Audubon Society, but rather BSC will undertake all editing, processing and reporting for Canadian counts. New Brunswick count compilers are encouraged to submit their data to Bird Studies Canada, *even if they haven't submitted their data to Audubon in the past*. BSC will ensure the data are entered into the BirdSource database (www.birdsource.org), where they can be accessed by thousands of ornithologists and conservation biologists across the continent. BSC would like to see all Canadian counts on the Birdsource website so that all your hard-earned data (slogging through deep snow, freezing fingers and toes in search of every last chickadee...) is available for analysis in support of bird conservation. BSC will also produce regional newsletters summarizing the results from various regions. While a \$5 participant fee still applies, those 18 years of age and younger can participate for free starting this year, and BSC will provide a tax receipt to all fee-paying participants who request

one. Please contact Becky Whittam at 364-5047 for information on how your count can become involved.



Pine Grosbeak by Peter Burke

Bird Studies Canada Moves East

Becky Whittam



Bird Studies Canada (BSC), a non-profit organization dedicated to the study and conservation of wild birds and their habitats, has set up a new office in Atlantic Canada. Becky Whittam, a graduate of Dalhousie University and previously BSC's Volunteer Projects Biologist, is now BSC's Atlantic Canada Program Manager. Becky will be promoting the national programs of BSC, such as Project FeederWatch, the Canadian Lakes Loon Survey, and Christmas Bird Counts, and also hopes to develop some new volunteer bird surveys in Atlantic Canada over the next few years. Becky is happy to answer any questions you might have regarding these programs. She can be reached at the Canadian Wildlife Service Office in Sackville (phone: 364-5047, fax: 364-5062, email: becky.whittam@ec.gc.ca, website: www.bsc-eoc.org)

Interest in Odonates

Denis Doucet

It is a fact that interest in all things natural has been growing in leaps and bounds here in New Brunswick in the last decade as more and more people are trying to escape the hustle and bustle of everyday life and "returning to nature". As more and more people get into North America's most popular pastime, namely bird-watching, it follows that at least some of these folks are going to start taking a closer look at all of nature, including plants, mushrooms, reptiles, amphibians, mammals and insects as well.

That fact, along with the appearance of more field guides and publications making more and more of nature increasingly accessible to the budding naturalist has made it only natural that some folks would become enthralled with the group of insects we call Odonates (Dragonflies and Damselflies). They are big, showy, colourful, sleek, fast and "sexy", a bit like the sports cars (or perhaps more like the jet fighters) of the insect world. Add to that someone like Stuart Tingley, a local naturalist who is very well-known and highly respected in New Brunswick, getting completely hooked on these creatures and you have a recipe for a form of "naturalists' mass hysteria". In other words, many people have been influenced by Stuart's affliction (obsession, malady?) with regards to "odes" and he has infected them with this disease. In fact, he consciously (and shamelessly, I might add) shared it with them! As a consequence, many local naturalists and others all across the Maritimes have joined him in becoming hooked. I am sadly (or gladly?) one of those people.

More recently, I have become even more deeply enthralled with odes after having met Paul-Michael Brunelle. He is a Halifax odonatologist, graphic artist and all-round involved nature guy who discovered a brand new species of dragonfly (now known as the Broad-tailed Shadowdragon, *Neurocordulia michaeli*) as recently as 1993 quite literally in our own backyard: St-Stephen, New Brunswick. He recently (last November 10-12th) hosted a meeting of the Atlantic Dragonfly Inventory Project at the Irving Eco-centre in Bouctouche where I work as a staff naturalist. That weekend, many local naturalists including myself had a chance to discover how vast the world of odonatology can be. I now hope to further my obsession by becoming a full-fledged member of ADIP, the Atlantic Dragonfly Inventory Project, by collecting some specimens and adequately documenting them for

addition to the ADIP database. Although this may appear to some as a very "primitive" or archaic way of studying these beautiful creatures, believe me when I say that we still must do this in many cases to actually know what we have seen for certain.

There is an awful lot that we still have to learn about odonates in North America, especially right here in the Northeast. Paul feels strongly that there are potentially more new species out there, and the only way to be certain of what we have seen is to study the individual in question in detail under the microscope. To do this properly, the insect in question must be, sadly, deceased. However, it does not follow that one should ever attempt to net everything with four wings, a long abdomen and really big eyes out there. A conservative amount of collecting will go a long way into helping us all know a little bit more about these fascinating creatures that we used to call the "Devil's Darning Needles" without ever noticeably affecting their population dynamics. I hope I have made this quite clear, but I will gladly debate this issue with any one of you if the occasion presents itself (For example, we kill many hundreds of times more dragonflies in a single summer on our car grills than have been or will conceivably be collected by ADIP in the Maritimes in the foreseeable future). So, if you see me running around a marsh or a river near your home next summer, please come to see me to find out how I am making out. I may be able to pass on my "disease" to you as well.

There are already over one hundred and twenty species of Odonata that have been observed in New Brunswick so far. I have included with this article a list of odes seen and/or photographed at eight sites in southeastern New Brunswick by myself since 1997, the year my dreaded sickness began in earnest. Incidentally, if I had collected a specimen for each of these species at the sites mentioned below, the official odonate species list for Kent County, N.B. (currently stands at 53 species) would have increased by 18 and the list for Westmorland County (currently stands at 45 species) would have increased by a whopping 31 species! (N.B. A photograph just doesn't cut it, especially if you have just photographed a species that has two extra nose hairs coming out of the lower left-hand corner of its meso-labia and would be a new species if you could see this unique feature under the

microscope). Several of us hope to partially remedy this situation next summer with a bit of judicious collecting and documenting. I hope you will join us too. Bye for now!

Odonates of Southeastern New Brunswick at Eight Distinct Sites

- 1) New Scotland Bog and Bailey Tract logging road
- 2) Lemenager Road and Shediak River, Shediak Bridge
- 3) Brook Pond and Ducks Unlimited Impoundment, Pelerin (Saint-Antoine) N.B.
- 4) Shaw Brook (Cocagne River) at Victoria Road
- 5) Bouctouche Dune Irving Eco-centre
- 6) Beaver Pond at St-Gabriel de Kent (Mike's Pond)
- 7) Lac à Camille (Gilles Martin's Lake), Richibouctou-Village
- 8) Kouchibouguac Nat'l Park

*-new for the site

?-probable for the site

Damselflies

Calopterygidae - Broad-winged Damselflies

- Calopteryx aequabilis*- River Jewelwing: 2,4
Calopteryx amata- Superb Jewelwing: 2,4
Calopteryx maculata- Ebony Jewelwing: 1,2,3,4,5,6,8

Lestidae - Spreadwings

- Lestes congener*- Spotted Spreadwing: 1,2,3,4,5,6,7,8,
Lestes disjunctus disjunctus- Common Spreadwing: 1,2,3,4,8
Lestes dryas- Emerald Spreadwing: 1,2,5,7,8
Lestes eurinus- Amber-winged Spreadwing: 1,7,8
Lestes forcipatus- Sweetflag Spreadwing: 1,5,8
Lestes unguiculatus- Lyre-tipped Spreadwing: 3,5,6,8*

Coenagrionidae - Pond Damselflies

- Argia fumipennis violacea*- Variable Dancer: 2,4
Argia moesta- Powdered Dancer: 2,4,8
Chromagrion conditum- Aurora Damselfly: 1,5,8
Amphiagrion saucium- Eastern Red Damselfly: 3
Nehalennia gracilis- Sphagnum Sprite: 1,8
Nehalennia irene- Sedge Sprite: 1,2,3,4,5,6,7,8
Coenagrion resolutum- Taiga Bluet: 1,2,8
Enallagma aspersum- Azure Bluet: 1,5,8*
Enallagma boreale- Boreal Bluet: 1,2,3,5,8
Enallagma civile- Familiar Bluet: 1,2,3
Enallagma cyathigerum- Northern Bluet: 1,2,8
Enallagma ebrium- Marsh Bluet: 1,2,5,8
Enallagma hageni- Hagen's Bluet: 1,2,5,8*
Ishnura verticalis- Eastern Forktail: 1,2,3,4,5,6,8

Dragonflies

- Boyeria vinosa*- Fawn Darner: 8*
Basiaeschna janata- Springtime Darner: 1,2,4,6,8
Aeshna canadensis- Canada Darner: 1,2,3,4,5,6,7,8
Aeshna eremita- Lake Darner: 1,7,8?
Aeshna interrupta interrupta- Variable Darner: 1,2,3,5,6,7,8
Aeshna sitchensis- Zigzag Darner: 1,8
Aeshna subarctica- Subarctic Darner: 1,8?
Aeshna tuberculifera- Black-tipped Darner: 2,8*
Aeshna umbrosa umbrosa- Shadow Darner: 1,2,3,5,6,7,8
Anax junius- Common Green Darner: 1,2,3,5,6,7,8?

Gomphidae- Clubtails

- Hagenius brevistylus*- Dragonhunter: 1,4,8?
Ophiogomphus carolus- Riffle Snaketail: 2,4,8
Ophiogomphus mainensis- Maine Snaketail: 4
Stylogomphus albistylus- Least Clubtail: 2,4
Gomphus adelphus- Moustached Clubtail: 1,2,4,8?
Gomphus borealis- Beaverpond Clubtail: 1,2,3,4,5,6,8
Gomphus desertus- Harpoon Clubtail: 1,2,5,8?
Gomphus exilis- Lancet Clubtail: 1,4,8?
Gomphus spicatus- Dusky Clubtail: 1,6,8?

Cordulegastridae - Spiketails

- Cordulegaster diastatops*- Delta-spotted Spiketail: 8
Cordulegaster maculata- Twin-spotted Spiketail: 1,2,3,4,5,6,8

Macromiidae - Cruisers

- Didymops transversa*- Stream Cruiser: 6
Macromia illinoensis- Illinois River Cruiser: 6

Corduliidae- Emeralds

- Epitheca canis*- Beaverpond Baskettail: 1,2,3,5,6,8
Helocordulia uhleri- Uhler's Sundragon: 6
Somatochlora elongata- Ski-tailed Emerald: 2,3,8
Somatochlora forcipata- Forcinate Emerald: 1,5,8
Somatochlora franklini- Delicate Emerald: 1,2,5,8
Somatochlora incurvata- Incurvate Emerald: 1,5
Somatochlora kennedyi- Kennedy's Emerald: 1,5,6,8*
Somatochlora minor- Ocellated Emerald: 1,2,6,8
Somatochlora walshii- Brush-tipped Emerald: 1,2,5,6,8
Somatochlora williamsoni- Williamson's Emerald: 1,2,5,8?
Cordulia shurtleffi- American Emerald: 1,2,3,5,7,8*
Dorocordulia libera- Racket-tailed Emerald: 1,2,6,8

Libellulidae- Skimmers

- Libellula julia*- Chalk-fronted Corporal: 1,2,5,6,7,8
Libellula lydi- Common Whitetail: 1,2,3,5,6,8
Libellula quadrimaculata- Four-spotted Skimmer: 1,2,3,4,5,6,7,8
Sympetrum costiferum- Saffron-winged Meadowhawk:

1,2,5,6,7,8

Sympetrum danae- Black Meadowhawk: 1,2,6,7,8

Sympetrum internum- Chery-faced Meadowhawk:

1,2,3,5,6,8

Sympetrum obtrusum- White-faced Meadowhawk:

1,2,3,4,5,6,7,8

Sympetrum semicinctum- Band-winged Meadowhawk:

1,2,3,5,6,8*

Leucorrhinia frigida- Frosted Whiteface: seen at Irishtown

Nature Park

Leucorrhinia glacialis- Crimson-ringed Whiteface: 1,7,8

Leucorrhinia intacta- Dot-tailed Whiteface: 2,3,5,6,8?

Leucorrhinia patricia- Canada Whiteface: 8

Leucorrhinia proxima- 1,2,3,5,6,7,8

Pantala flavescens- Wandering Glider: 1,2,5,8*

Pantala hymenaea- Spot-winged Glider: 2



Harris's Sparrow by Ken MacIntosh

The Canadian Migration Monitoring Network

Becky Whittam

Bird Banding in Atlantic Canada

If you've ever held a bird in your hand, especially a secretive warbler or canopy-dwelling kinglet that's particularly difficult to see with the naked eye (or even with binoculars!), you'll understand the thrill of *finally* seeing the orange crown on an Orange-crowned Warbler, or the white eye-crescent of the Northern Parula. You might also be amazed simply by how small the bird is, or how quickly its heart is beating. Hundreds of volunteers across Canada who spend time in the spring or fall at a migration monitoring station experience these sorts of thrills.

The Canadian Migration Monitoring Network (CMMN), managed by Bird Studies Canada, is a series of stations across the country that monitors bird migration through daily banding and censuses in the spring and fall (see Figure 1). The goal of the CMMN is to track national bird population trends, especially for northern species that are not adequately monitored by other surveys. Standardized methods for collecting and analyzing the data are used across the country, based on guidelines developed by leading ornithologists and bird banders. There are currently 15 official member stations across Canada, and at least eight other "pilot" stations.

CMMN Stations in Atlantic Canada

In Atlantic Canada, the Atlantic Bird Observatory (ABO), run by Acadia University, is the only official member station of the CMMN. The ABO consists of two coastal sites: Bon Portage Island and Seal Island, off the southwest coast of Nova Scotia. Other stations in Atlantic Canada include: 1) the Brier Island Bird Migration Research Station in Nova Scotia (also affiliated with Acadia University); 2) Point Lepreau, a peninsula on the Bay of Fundy about 50 km southwest of Saint John, where the Saint John Naturalists' Club monitors primarily seabird migration; 3) the Fundy Bird Observatory on Grand Manan, operated by the Grand Manan Whale & Seabird Research Station; and 4) the Gros Morne National Park Migration Monitoring Station in western Newfoundland. A fifth station was initiated this year by Dan Busby of the Canadian Wildlife Service, at the Cape Jourimain National Wildlife Area. Dan is attempting to determine the suitability of this site for migration monitoring, and is considering several other sites along the New Brunswick-Nova Scotia border as well. Information on these sites, including how to volunteer, can be found at the Canadian Migration Monitoring Network's website, at: www.bsc-eoc.org/national/cmmn.html, or by contacting site managers, listed in Table 1, below.

The story's in the feathers

Bird-banding can teach us many things: where birds spend the winter, whether young birds disperse from the area where they hatched, whether ranges are expanding, how individuals behave on territories, and what the life span and population turnover rates of particular species are. Because large numbers of birds are processed every day at these stations, there is also great potential for "side projects" - for example, studies of weight change during migration, plumage coloration (and sexual selection) in males and females of various species, morphology, and many others.

A recent article in *BirdWatch Canada*, the newsletter of Bird Studies Canada, discussed a study currently underway at three CMMN stations: the Atlantic Bird Observatory, Mackenzie Nature Observatory in BC, and Delta Marsh Bird Observatory in Manitoba. These stations are collecting tail feathers from four species of birds (Northern Waterthrush, American Redstart, Yellow-rumped Warbler and Blackpoll Warbler) in hopes of learning something about where these birds breed.

Feathers collected in the fall from young birds and adults that moulted on the breeding grounds contain deuterium, an isotope of hydrogen. The amount of deuterium in the feathers depends on where the bird was when its feathers grew in. Deuterium is found in varying proportions in rainfall across North America. As a result, different regions can be identified by different "isotopic fingerprints". The fingerprint is reflected in food webs, including insects eaten by breeding birds and their nestlings, and hence in feathers grown by these birds during the breeding season. By identifying the deuterium ratio in feathers, scientists can then determine where the birds nested or hatched.

Results from Blackpoll Warblers captured at the Atlantic Bird Observatory in the fall of 1999 suggest that birds banded at Seal and Bon Portage Islands come primarily from breeding locations in the Maritimes and Quebec, although there is a possibility that some individuals come from as far west as northern Manitoba and Ontario. While the origins of these birds cannot be fully understood from the deuterium ratio, the most important point to note is that birds banded at this site are coming from a wide range of breeding areas, and aren't simply local breeders or from a single breeding site. This is extremely important, as the CMMN is concerned with monitoring birds from all parts of Canada to as great an extent as possible. Furthermore, these preliminary results suggest that, when combined with

data from additional stations, it may be possible to identify the breeding origins of migrant birds simply by the chemicals in their feathers.

While the primary goal of the Canadian Migration Monitoring Network remains the tracking of bird population trends, many other questions can also be answered with little additional effort. By simply plucking feathers, or taking weight measurements, or photographing plumage variations, scientists and volunteers are able to answer questions about bird behaviour, distribution, morphology and migration.

Volunteers play a key role in Canadian migration monitoring research - please consider helping out at a station near you in the spring of 2001!

Table 1. Contact information for Atlantic Canada migration monitoring stations.

Station Contact	Phone & Email
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Atlantic Bird Observatory - Trina Fitzgerald	902-585-1313 trina.fitzgerald@acadiau.ca
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Point Lepreau Bird Observatory - Jim Wilson	506-847-4506 jgw@nbnet.nb.ca
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Fundy Bird Observatory - Brian Dalzell	506-662-8650 dalzell@nbnet.nb.ca
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Cape Jourimain - Dan Busby	506-364-5037 dan.busby@ec.gc.ca
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Gros Morne National Park - Stephen Flemming	709-458-2417 stephen_flemming@pch.gc.ca
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Brier Island Bird Migration Research Station	Lance Laviolette 613-874-2449
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Projet pour la sauvegarde des marais du comté de Madawaska

J. Denys Bourque

INTRODUCTION

Le Club d'ornithologie du Madawaska, ltée fut fondé en 1987, comme véhicule du réveil de la population aux questions environnementales et écologiques par l'observation et la connaissance de l'avifaune et de ses besoins en termes d'habitat. Le club a depuis créé et maintient des liens privilégiés avec d'autres groupements, organismes et institutions du comté, de la province et du Canada. Ses membres participent à divers programmes de cueillette de données ornithologiques, entre autres : le Recensement ornithologique du temps des Fêtes (Christmas Bird Count), le Recensement des oiseaux nicheurs (Breeding Bird Survey) et le Fichier de nidification des oiseaux des Maritimes (Maritimes Nest Records Scheme).

Aujourd'hui, le club compte parmi ses membres des environnementalistes, biologistes, des spécialistes de la gestion de ressources naturelles renouvelables et des éducateurs de carrière ainsi que des citoyens concernés par la qualité de vie. Lors de leurs sorties, des membres ont remarqué que dans le comté on procédait, souvent sans trop y penser, au remblayage et au drainage de marais et autres terres humides. Or, ces écosystèmes sont parmi les plus importants tant au plan environnemental (e.g. prévention des inondations) qu'écologiques (e.g. habitat de nombreuses espèces de plantes et insectes et lieu de reproduction d'oiseaux et autres animaux).

Considérant sa mission, le club a estimé que cette situation était associée à l'ignorance généralisée de l'importance des marais. En effet, d'aucuns considèrent les marais comme des flaques d'eau nauséabonde ou des « trous d'eau sale ». Les mini et micro marais sont les plus sensibles, car ils ne figurent sur aucune carte ou dans aucune base de données. Les propriétaires des terrains sur lesquels ils se trouvent les voient souvent comme bons pour étendre leurs pelouses après les avoir remblayés. Aussi, les municipalités, la commission régionale de l'urbanisme et les bureaux régionaux des ministères provinciaux de l'Environnement et des Ressources naturelles et de l'Énergie n'en connaissent pas toujours l'existence. Avec le démantèlement du Service de vulgarisation forestière au début de 2000, ce problème prend encore plus d'ampleur.

Projets déjà réalisés

En conséquence de ce qui précède, le club a dans un premier temps lancé un projet visant à corriger cette lacune. Un premier projet, mené à bien en 1995 grâce à une subvention de Développement des ressources humaines Canada, a consisté à produire une liste avifaunistique pour le comté (COML 1995. Liste d'identification des oiseaux / Bird Checklist).

Dans un deuxième temps, le club définit un projet à caractère scientifique, à réaliser en plusieurs étapes, ayant pour fin ultime la protection des marais du comté et la conservation des leurs ressources. La première étape fut réalisée en 1999-2000 grâce à une subvention du ministère du Travail du Nouveau-Brunswick dans le cadre de son programme Tandem initiative sectorielle et d'une assistance du Centre des ressources humaines Canada dans le cadre de son programme Jeunes stagiaires Canada.

Cette première étape permit d'identifier et de classer 127 marais en fonction d'un schéma adapté à partir de ceux de Golet (1973) et de Jacques et Hamel (1982). Ce schéma de classification est décrit dans le rapport de la première étape (COML 1999a.) Les résultats de cette première étape sont :

- un recueil des fiches d'inventaire des marais inventoriés (COML 1999b) ;
- un résumé des activités réalisées dans le cadre des programmes jeunes stagiaires Canada et Tandem initiative sectorielle (COML 1999c) ;
- un album de photographies (Anon. Sans indication de date) ;
- le rapport de la première étape (COML 1999a).

Les références précises de ces productions se trouvent dans la liste de documentation citée, à la fin de cette fiche-projet couvrant la deuxième étape.

Collaboration et activités connexes

Le COML est membre des organisations suivantes, entre autres :

- La Fédération des naturalistes du Nouveau-Brunswick ;
- Le Réseau environnemental du NB (RENB) ;
- Canards illimités Canada – secteur du nord-ouest du NB

Il maintient des relations privilégiées avec :

- Le Musée du Nouveau-Brunswick ;
- L'Université de Moncton Campus d'Edmundston ;
- L'École de sciences forestières de l'Université de Moncton ;
- La commission régionale d'urbanisme du Madawaska ;
- Le ministère des Ressources naturelles et de l'Énergie du Nouveau-Brunswick (région 5 – Nord-ouest du Nouveau-Brunswick) ;
- Le Programme d'action communautaire d'Environnement Canada ;
- L'Étude des populations des oiseaux du Québec (ÉPOQ) ;
- La Société d'aménagement du bassin de la rivière Madawaska et du lac Témiscouata ;
- Diverses organisations non gouvernementales qui se dévouent à la conservation au Nouveau-Brunswick, incluant, entre autres :
 - La Fondation pour la protection des sites naturels au Madawaska,
 - La Fondation Glazier, La Coalition Stillwater,
 - La Fondation pour la protection des sites naturels du Nouveau-Brunswick, inc.
 - La Coalition pour la protection d'aires naturelles au Nouveau-Brunswick.

Comme activités connexes, en 1999 le COML participa à un projet de recherche dirigé par un scientifique de l'Université de Moncton Campus d'Edmundston, le professeur René Blais visant à protéger les rapaces et ardéidés (oiseaux de la famille des hérons) qui fréquentent les étangs piscicoles dans le comté. Dans le cadre de ce projet le COML procéda pour le chercheur au recensement de l'avifaune des alentours des étangs choisis.

Une autre activité poursuivie depuis 1998 est la saisie de données d'observations d'oiseaux dans la base de données Étude des populations d'oiseaux du Madawaska (ÉPOM), mis sur pied en collaboration avec ÉPOQ voilà quelques années. En 2000, la saisie fut réalisée par une étudiante employée dans le cadre du programme Placement carrière-été de Développement des ressources humaines Canada, qui procéda également à des recensements de la faune aviaire dans quelques marais identifiés lors de la première étape de ce projet en 1999-2000.

Enfin, le COML rayonne dans son milieu par l'implication de ses membres dans d'autres regroupements qui se dévouent à un environnement sain : Trois de ses membres siègent au comité de direction du RENB.

Un autre de ses membres fait partie du groupe d'Action pro-forêts du RENB; en plus de faire partie des groupes d'action (« caucus ») du Réseau canadien environnemental (RCE) sur les Forêts, l'Éducation environnemental et les Impacts environnementaux. Il est également membre du Conseil d'intendance forestière (« Forest Stewardship Council »).

Une autre encore est depuis deux ans présidente de la La Fédération des naturalistes du Nouveau-Brunswick.

Plusieurs membres sont également membres d'autres organisations non gouvernementales (ONG) environnementales.

Objectifs spécifiques de cette deuxième étape

Cette deuxième étape du Projet pour la sauvegarde des marais du comté de Madawaska a pour objectifs spécifiques :

1) La poursuite et l'expansion de la cueillette de données

On poursuivra et l'on étendra la cueillette de données sur les marais identifiés lors de la première étape: photographies, coordonnées géo-référencées par triangulation par satellite – Global Positioning System (GPS). L'accent sera mis sur les mini et micro marais pour des raisons évidentes: a) les marais de grande étendue sont pour la plupart déjà connus des services techniques provinciaux concernés ; b) les mini et micro marais sont plus susceptibles à être remblayés ou drainés sans que ces autorités concernées le sachent. Les marais gérés par Canards illimités Canada seront inclus.

Les données – photos et coordonnées GPS – sur les marais ainsi répertoriés seront remises à la Commission régionale de l'urbanisme et au ministère des Ressources naturelles et de l'Énergie pour inclusion dans leurs bases de données respectives. Ainsi, lors de demandes de mise en valeur des propriétés sur lesquelles ils se trouvent, des conditions pourront être inscrites au permis selon ce qui est de mise.

Les appareils de captage de coordonnées GPS seront mis à la disposition du projet par les deux services mentionnés au paragraphe précédent.

2) Vulgarisation de l'importance des marais

Un programme de vulgarisation de l'importance des marais sera défini en consultation de spécialistes qui pourront comprendre, sans toutefois s'y limiter aux sources suivantes :

- L'Université de Moncton
- Canards illimités Canada
- Les services techniques d'Environnement Canada
- Les services compétents du ministère des Ressources naturelles et de l'Énergie du Nouveau-Brunswick
- Les services compétents du ministère de l'Environnement du Nouveau-Brunswick
- Le bureau de la Convention de Ramsar
- L'ONG Wetlands International
- Des éducateur(e)s de carrière.

« Clientèle » visée

Quatre groupes ont été identifiés par le COML en consultation avec diverses personnes-ressources :

- Les élèves de la sixième année primaire des écoles du comté, en complément du travail de vulgarisation mené par Canards illimités Canada auprès des élèves de la quatrième année.
- Les conseils municipaux de la zone d'intérêt.
- Les clubs sociaux de la zone d'intérêt.
- Les développeurs résidentiels et commerciaux.

Le programme de vulgarisation sera adapté à chaque groupe. Mais il est déjà acquis que celui visant les écoliers sera mis au point en consultation de Canards illimités Canada. Quant aux trois autres groupes-cibles, l'accent sera mis sur les fonctions écologiques des marais; les responsabilités morales des propriétaires, des élus et des industriels eu égard à la qualité de l'environnement; et les conséquences environnementales, écologiques et juridiques pouvant découler du remblayage et du drainage des marais. Bien que cela n'ait pas encore été décidé, ceci pourrait se faire par le biais d'une conférence ad hoc dans le cadre du Salon de la forêt 2001 ou sous l'égide de la Commission industrielle du Nord-ouest (qui n'est pas encore saisie du projet).

Documentation citée

Anonyme Sans indication de date. Album de photographies de marais inventoriés pendant l'été 1999, dans la région du Madawaska dans le cadre de la première étape du Projet pour la sauvegarde des marais du comté de Madawaska, réalisée grâce à des subventions accordées dans le cadre des programmes Jeunes stagiaires Canada et Tandem initiative sectoriel

(titre descriptif). Le Club d'ornithologie du Madawaska, Itée, Edmundston, Nouveau-Brunswick, Canada.

COML. 1995. Liste d'identification des oiseaux / Bird Checklist. Le Club d'ornithologie du Madawaska, Itée, Edmundston, Nouveau-Brunswick, Canada.

COML. 1999a. Rapport de l'inventaire des marais de la région du Madawaska 1999 (rapport rédigé par Natalie Ryckman, biologiste et coordonnatrice du projet). Le Club d'ornithologie du Madawaska, Itée, Edmundston, Nouveau-Brunswick, Canada.

COML. 1999b. Recueil des fiches d'inventaire des marais inventoriés pendant l'été 1999, dans la région du Madawaska (document préparé par J. Devost, M. Grondin, F. Hébert et N. Ryckman). Le Club d'ornithologie du Madawaska, Itée, Edmundston, Nouveau-Brunswick, Canada.

COML. 1999c. Résumé des activités réalisées dans le cadre des programmes Jeunes stagiaires Canada et Tandem initiative sectoriel (rapport rédigé par Natalie Ryckman, biologiste et coordonnatrice du projet). Le Club d'ornithologie du Madawaska, Itée, Edmundston, Nouveau-Brunswick, Canada.

Golet, E. C. 1973. Classification and evaluation of freshwater wetlands as wildlife habitats in the glaciated northeast. In *Compte rendu, Northeast Fish and Wildlife Conference*, Mount-Snow, Vermont, États unis d'Amérique. (Cité dans COML 1999.)

Jacques, D. et C. Hamel. 1982. Système de classification des terres humides du Québec. Laboratoire des études sur les macrophytes aquatiques, Département des sciences biologiques, Université du Québec à Montréal (rapport préparé pour la Direction générale de la faune, ministère du Loisir, de la Chasse et de la Pêche du Québec, Québec, Québec, Canada, 131 pp. (Cité dans COML 1999.)

Abréviations et sigles utilisés

COML – Le Club d'ornithologie du Madawaska, Itée
 ÉPOM – Étude des populations d'oiseaux du Madawaska
 ÉPOQ – Étude des populations des oiseaux du Québec
 GPS – Global Positioning System
 ONG – organisation(s) non gouvernementale(s)
 RENB – Le Réseau environnemental du Nouveau-

Salt Marsh Bird Surveys in the Shediac Bay Watershed

Valérie Godbout

Introduction

1. Coastal Wetlands

This project was undertaken in Atlantic Canada because the loss of coastal wetlands like salt marshes, barachois, ponds, and brackish marshes is one of the most severe and publicised cases of wetland loss in Canada. Indeed, it has been estimated that 90% of the salt marshes have been lost in the upper Bay of Fundy. There, loss of salt marsh has been mostly the result of historical conversion to agriculture.

Along the Northumberland Strait, the loss of salt marshes has been incremental and ongoing, primarily due to residential/cottage developments. Moreover, loss and fragmentation, which is the reduction of a large area into small, scattered remnants, is a major concern in this region. Where the loss of coastal wetlands has been severe, there may have also been concomitant declines in populations of birds that are dependent on them for their reproduction and feeding.

1.1 What is a salt marsh?

Salt marshes are coastal wetlands where fresh water meets the salt water. Those wetlands occur around protected bays and estuaries. Along the Northumberland Strait, they are often behind dune spits like in Grande-Digue or more along a barachois like at the Cap Bimet. These habitats are under tidal influence and their wildlife and vegetation are adapted to quick change of salinity, temperature and pH.

Salt marshes can be subdivided in two parts: the low marsh and the high marsh according to the elevation. The low marsh is inundated twice daily by the high tides and is mostly covered by the Salt-water Cord Grass (*Spartina alterniflora*). The high salt marsh has a more diversified vegetation and includes: Salt-meadow Grass (*Spartina patens*), as well as Samphire (*Salicornia europaea*), Seaside Goldenrod (*Solidago sempervirens*) and many more. On high parts of salt marshes, flooding occurs only during monthly high tides or during storm surges.

This report has been excerpted due to space limitations.

1.2 Why are Salt Marshes Important?

Salt marshes are one of the most productive habitats on earth. Salt marshes convert the energy of the sun into plant material. This plant material is then slowly broken down and released back to the sea where it is an important part of the marine food chain.

The salt marsh vegetation acts like a filter against pollution.

Salt marsh plays an important role for shoreline stabilization against coastal erosion. Acting like a buffer zone, it protects against storms. The heavily rooted soil of the salt marsh is much more effective at resisting the erosive forces of storm surges compared to dunes or upland soils.

Salt marshes provide nesting, feeding, and staging (resting) areas for birds and wildlife.

Many species of commercially important fish use salt marshes as nursery areas.

Many species depend on that specific habitat for their survival.

Salt marshes can also be used for ecotourism, recreation (photography, birding, boating, hiking, hunting, fishing) and education (interpretation and research).

2. Wildlife

Two species of birds and two species of butterflies were identified as being salt marsh obligate, i.e., they can live in no other type of habitat. The Nelson's Sharp-tailed Sparrow and the Willet are the birds, whereas, the butterflies are the Short-tailed Swallowtail and the Salt-marsh Copper.

The Nelson's Sharp-tailed Sparrow (*Ammodramus nelsoni*) is a small sparrow about 13 cm long. Males and females look alike. The way to visually identify this secretive songbird is the bright buffy orange to dull yellow breast, sides and flanks and also the white abdomen. A gray triangle is visible behind the eyes. It's easier to identify them by ear because of their hissing buzz song: pschee-zipt.

The reason effort is being concentrated on this species is the low population in the Maritimes which may be only 2500 pairs.

The **Willet** (*Catoptrophorus semipalmatus*) is a large shorebird (38 cm). Male and female are identical. Their legs are gray and the abdomen is white. In flight, a wide white pattern can be seen on their wings. The species name came from the sound they produce: Wil-Willet.

The concern for the Willet is about the low number of reproductive pairs in the Maritimes, a total of 750 pairs in 1992.

The **Short-tailed Swallowtail** (STSW) (*Papilio brevicauda*) is a large butterfly which needs the Sea lovenge (*Ligusticum scoticum*) for its larval offspring to feed upon. It's easy to make a mistake with the Black Swallowtail (BSW) which is really similar. The distinction can be made based on the longer tail of the BSW and the STSW is more orange than the BSW.

The interest for this species is to note their presence or absence in salt marshes along the Northumberland Strait.

The **Salt-marsh Copper** (*Lyacena dospassosi*) is a small butterfly which needs Sea lavender (*Limonium nashii*) as an adult nectar plant.

The interest for this species is to determine how the range is scattered in New Brunswick.

Objectives

1. General objectives

The first objective of this research is to contribute to a larger study on the abundance and the diversity of birds that use salt marshes and coastal wetlands throughout the Maritimes. This data will also provide valuable information for population estimates that would be required if status reports for several species under the new federal endangered species legislation were needed. Identification of habitat factors explaining patterns of distribution in salt marshes will be an another part of this project.

2. SBW objectives

The objective of this first year of research was to identify reproduction sites for Willet and Nelson's Sharp-tailed Sparrow, as well as understanding the diversity and the abundance of birds using SBW salt marshes. The project also provides data to compare salt marshes in the Shediak Bay Watershed with salt marshes throughout the Northumberland Strait, the Maritimes and New England.

Methodology

1. Choice of sites

At the beginning of the project, trips were made along the coast with maps to find potential salt marshes. The first criteria was the accessibility of the salt marsh and the second was to determine if the status of the salt marsh had changed since the Wetland Inventory Maps were created (i.e., had the marsh been destroyed?). Salt marshes were selected that were at least 1.5 ha. There were few salt marshes in the study that were below this size minimum. Every salt marsh is eligible for that project.

Salt marshes were selected starting in Chockpish, Kent County going down to Pointe-à-Bouleaux, Westmorland County. I surveyed eighteen salt marsh during the bird breeding season.

In this report, I will discuss only those salt marshes inside the Shediak Bay watershed. Below is the list of salt marsh studied in this area.

Studied Salt marshes

In the Shediak Bay watershed, seven marshes were studied during summer 2000. Volunteers and naturalists from the Shediak Island Interpretation Center (SIIC) were also involved in doing the salt marsh bird survey (see map at the Figure 1).

Cap Brule – Normand Belliveau (Volunteer).

Cap Bimet – Rose-Alma Mallet (Volunteer).

Belliveau Beach – Dominique Maillet (SIIC).

Pointe-du-Chene – Valerie Godbout (SBWA).

Shediak Bridge – Valerie Godbout

Shediak Island – Dominique Maillet

Grande-Digue – Valerie Godbout

Results

1. Birds

Species recorded during the 10 minute point count are listed in Table 1. Species noted between point counts don't appear in that table to keep a standard format for the analysis. For complete details see data sheets; a copy of the data was given to the Shediak Bay Watershed Association Co-ordinator (Roger LeBlanc) and an another to Alan Hanson from Environment Canada in Sackville.

American Crow, Great Blue Heron, Nelson's Sharp-tailed Sparrow, Savannah Sparrow and Tree Swallow are species seen in every salt marsh of the Shediac Bay Watershed.

Some species such as American Black Duck and Ring-billed Gull are seen at six of the seven marshes sampled. The American Black Duck wasn't seen at the Shediac Bridge salt marsh.

Number of species per marsh starts with the lowest score of 9 species for the Shediac Bridge, with the highest score being recorded at Cap Bimet with 26 species. All other marshes ranged between 20 and 24 species.

Observations on reproductive activity indicate that Nelson's Sharp-tailed Sparrow may breed in every salt marsh surveyed in the Shediac Bay watershed (Table 2). Cap Brule got the most important reproductive scores for both Sharp-tailed Sparrows and Willets. In Shediac Bridge, Willets were observed but didn't seem to be breeding in this marsh. On Shediac Island and at Belliveau Beach no Willet was seen during surveys.

2. Butterflies

Neither species of butterfly was observed during bird surveys of salt marshes in the Shediac Bay watershed. Some Short-tailed Swallowtail were seen at the Bouctouche Dune and at the Pointe-aux-Bouleaux during surveys. The Salt-marsh Copper was also seen at the Bouctouche Dune during vegetation sampling.

3. Habitat

Almost every salt marsh surveyed had signs of degradation. The vegetation was destroyed because of the regular passage of ATVs in the salt marshes. People drive through to reach the shore during the summer. The date of bird surveys and vegetation sampling is given in Table 3

Discussion

During searching for potential salt marshes with aerial photos of 1982 and 1996, it was easy to observe that many salt marshes have disappeared in the area during the last 20 years. Many salt marshes were completely infilled and/or disappeared.

Birds

Bird species diversity seems to be higher on bigger salt marshes. The Shediac Bridge salt marsh is the smallest (~1.5 hectare) and only 9 species were observed instead of the approximately 20 species for other salt marshes. However, Nelson's Sharp-tailed Sparrow did use the Shediac Bridge salt marsh. It appears that this sparrow will use small salt marshes. In the case of the Willet, it is suspected that it doesn't utilise marshes if they have no shallow ponds on them. There is no apparent way to explain the absence of Willet on Shediac Island. Belliveau Beach salt marsh is surrounded by cottages and lots of paths pass through the salt marsh to reach the beach. This is probably the reason Willet didn't choose this area for nesting.

Butterflies

The absence of butterfly observations may reflect the timing of the bird surveys. Bird surveys are conducted early in the morning (sunrise) up to 11h00 and butterflies are mostly active between 10h00 to 15h00. Also the Maritime Copper emerges late in the season, from late July until mid-August after the bird surveys are completed. When vegetation surveys are conducted is when the best data on butterflies will be collected

Habitat

The correlation between the vegetation and bird population will be determined after another year of bird monitoring has been conducted and when larger spatial data on land use can be obtained. The numerous observations of vegetation destroyed by ATV means lots of disturbed area in salt marshes and probably causes a decline in bird reproductive success and population. Species such as Willets and Sharp-tailed Sparrows nest on the ground in dense vegetation and therefore the nest is susceptible to being destroyed or abandoned due to ATV traffic.

Below is a table showing dates of salt marsh bird surveys done by the author and by volunteers involved in Shediac Bay watershed, and dates of the vegetation sampling. The number of points per salt marsh is also noted to show their size.

Table 1: Bird species using salt marshes in Shediac Bay watershed during summer, 2000

	BB	Br	Bi	SI	GD	SB	PC		BB	Br	Bi	SI	GD	SB	PC
Alder Flycatcher					GD		PC	Great Egret	BB						
Am. Black Duck	BB	Br	Bi	SI	GD		PC	Gr. Yellowlegs	BB		Bi	SI			
Am. Crow	BB	Br	Bi	SI	GD	SB	PC	Gr.-w. Teal		Br		SI	GD		
Am. Goldfinch						SB	PC	Herring Gull	BB		Bi				
Am. Robin			Bi	SI				Le. Yellowlegs							PC
Am. Wigeon				SI				Mourning Dove	BB	Br					
Arctic Tern		Br						N. S.-t. Sparrow	BB	Br	Bi	SI	GD	SB	PC
Bank Swallow	BB		Bi	SI	GD			Northern Harrier			Bi				
Belted Kingfisher	BB	Br	Bi		GD			Osprey			Bi				
B.-c. Chickadee	BB							R.-b. Merganser		Br		SI		SB	PC
Bobolink		Br			GD			R.-w. Blackbird		Br			GD		
Bonaparte's Gull	BB	Br						R.-n. Pheasant		Br	Bi				
B.-h. Cowbird	BB							Ring-billed Gull	BB	Br		SI	GD	SB	PC
Cedar Waxwing				SI	GD			Rock Dove							PC
Common Grackle	BB	Br						Sav. Sparrow	BB	Br	Bi	SI	GD	SB	PC
Com. Merganser					GD			Semip. Plover				SI			
Common Raven	BB			SI				Song Sparrow	BB	Br	Bi	SI	GD		PC
Common Snipe	BB		Bi	SI				Spotted Sandpiper					GD		
Common Tern	BB	Br	Bi		GD		PC	Swamp Sparrow		Br	Bi		GD		
Com. Yellowthroat			Bi	SI	GD		PC	Tree Swallow	BB	Br	Bi	SI	GD	SB	PC
D.-c. Cormorant		Br						W.-t. Sparrow x	BB				GD		PC
Eastern Kingbird		Br						Willet		Br	Bi		GD	SB	PC
European Starling		Br						Northern (Y.-s) Flicker				SI			
Glaucous Gull	BB							Yellow Warbler		Br			GD		PC
Great B.-b. Gull	BB	Br	Bi	SI	GD										
Gr. Blue Heron	BB	Br	Bi	SI	GD	SB	PC	Species total	24	26	21	21	24	9	20

BB = Belliveau Bridge
GD = Grand Digue

Br = Cap Brule
SB = Shediac Bridge

Bi = Cap Bimet
PC = Pointe du Chene

SI = Shediac Island

Locations of salt marsh survey sites

Table 2: Abundance of breeding pairs in salt marshes of the Shédiac Bay watershed during summer, 2000

	<i>Nelson's Sharp-tailed Sparrow</i>	<i>Willet</i>
Grande-Digue	5 - 10	1 - 4
Shédiac Bridge	1 - 4	0
Pointe-du-Chêne	1 - 4	5 - 10
Shédiac Island	1 - 4	0
Belliveau Beach	1 - 4	0
Cap Bimet	5 - 10	5 - 10
Cap Brule	> 10	> 10

Table 3: Dates of bird surveys conducted by the author during summer, 2000

Marsh Name	Number of points	First Visit	Second Visit	Third Visit	Marsh Name	Number of points	First Visit	Second Visit	Third Visit
Cap Bimet	10	6/12/00	6/30/00	7/13/00	La Passe	1	6/8/00	6/27/00	7/15/00
Cap Brule	7		6/28/00	7/12/00	Pays de la Sagouine	3	6/10/00	7/6/00	7/25/00
Shédiac Island	3	6/23/00	7/18/00	8/2/00	Plage du Soleil Levant	6	6/23/00	7/12/00	7/26/00
Bar de Cocagne	2	6/8/00	6/27/00	7/15/00	Pointe-a-Jerome	1	6/8/00	6/27/00	7/15/00
Chockpish	4	6/20/00	7/10/00	7/26/00	Pointe-aux-Bouleaux	6	6/12/00	7/3/00	7/18/00
Cocagne Cove	4	6/8/00	7/5/00	7/18/00	Pointe-du-Chêne	2	6/12/00	7/3/00	7/24/00
Cocagne Route 11	3	6/15/00	6/28/00	7/24/00	Rotary Park	2	6/27/00	7/6/00	7/25/00
Ruisseau Goguen	1	6/8/00	6/27/00	7/5/00	Surette Island	1	6/8/00	6/27/00	7/15/00
Dune de Bouctouche	46	6/14/00	6/26/00	7/13/00	Saint-Thomas	1	6/8/00	6/27/00	7/15/00
Dune de Bouctouche		6/17/00	6/27/00	7/14/00	Shédiac Bridge	1	6/12/00	7/3/00	7/24/00
Grande-Digue	4	6/10/00	7/5/00	7/24/00	Belliveau Beach	3	6/12/00	7/4/00	7/24/00
					Total Survey Points	111			

Activité des oiseaux de plage et des goélands à Cap-Bimet du 20 Juillet au 20 Novembre

Rose-Alma Mallet

Le Cap-Bimet, situé dans la région de Shédiac, est un site important pour les oiseaux de plage et les goélands. Environ cent cinquante chalets et une usine d'apprêtage de poisson occupent la presque totalité de l'espace et ces habitations sont entourées d'un grand marais. Les oiseaux de plage et les goélands se nourrissent du côté gauche de l'usine à partir du brise-lame jusqu'à l'arrière de l'usine. A chaque jour, il y a un nombre imposant

d'oiseaux qui se tiennent autour de l'usine d'apprêtage de homards: Paturel International.

Dans une journée, on peut observer jusqu'à 15 espèces d'oiseaux de plage et parfois jusqu'à 7 espèces de goélands. Cette saison, les observateurs ont dénombré 22 espèces d'oiseaux de plage, 10 espèces de goélands et 2 espèces de sternes.

Voici les espèces vues durant la période du 20 juillet au 20 novembre :

Espèce; Nombre observé pendant une période de 2 heures; Visite 4 fois par semaine

Pluvier argenté (Black-bellied Plover)	17+
Pluvier bronzé (Golden Plover)	3
Pluvier semipalmé (Semipalmated Plover)	50+
Chevalier semipalmé (Willet)	10+
Barge hudsonienne (Hudsonian Godwit)	30+
Barge marbrée (Marbled Godwit)	1
Courlis corlieu (Whimbrel)	4
Grand chevalier (Greater Yellowlegs)	30+
Petit chevalier (Lesser Yellowlegs)	20+
Bécasseau échasse (Stilt Sandpiper)	1
Chevalier grivelé (Spotted Sandpiper)	4+
Bécasseau à poitrine cendrée (Pectoral Sandpiper)	4
Bécasseau maubèche (Red Knot)	24+
Bécassin roux (Short-billed Dowitcher)	30+
Bécassine des marais (Common Snipe)	2
Bécasseau sandreling (Sandreling)	200+
Bécasseau variable (Dunlin)	10+
Tournepierré à collier (Ruddy Turnstone)	20+
Bécasseau violet (Purple Sandpiper)	2
Bécasseau minuscule (Least Sandpiper)	25+
Bécasseau semipalmé (Semipalmated Sandpiper)	200+
Bécasseau à croupion blanc (White-rumped Sandpiper)	20+
Goéland argenté (Herring Gull)	30+
Goéland marin (Black-backed Gull)	25+
Goéland à bec cerclé (Ring-billed Gull)	30+
Mouette pygmée (Little Gull)	2
Mouette rieuse (Black-headed Gull)	2
Mouette de Bonaparte (Bonaparte Gull)	20+
Mouette tridactyle (Black-legged Kittiwake)	2+
Mouette atricille (Laughing Gull)	1
Sterne pierregarin (Common Tern)	30+
Sterne caspienne (Caspian Tern)	4

En plus des oiseaux de plage, des goélands et des mouettes, une trentaine de Cormorants à aigrettes (Double-crested Cormorant) et quelques Grands cormorants (Great Cormorant) se font sécher les ailes sur les roches d'un ancien brise-lame. Des Grands hérons (Great Blue Heron) se nourrissent à cet endroit à marée basse. En tout temps, on peut observer des Eiders à duvet (Common eider), des Canards noirs et des Harles huppés. Le Balbuzard pêcheur (Osprey) et le Pygargue à tête blanche (Bald Eagle) viennent faire leur tour à chaque jour. Au mois de septembre on peut comparer les Grèbes jougris (Red-necked Grebe) et les Grèbes esclavon (Horned Grebe) car elles nagent très près du rivage. Je ne mentionne que les espèces que l'on aperçoit régulièrement. Vous pouvez consulter le rapport Salt Marsh Bird Surveys in the Shédiac Bay Watershed pour connaître les espèces qui utilisent le marais adjacent à l'usine Paturel International.

Après les tempêtes, ce site de Cap Bimet attire les observateurs d'oiseaux et les photographes à la recherche d'oiseaux peu commun le long des plages. En octobre, on a aperçu en outre des Mergules nains (Dovekie), des Pétrels (Storm Petrel), et une Phalarope à large bec (Red Phalarope).

Mais depuis 3 ans, je remarque que le nombre d'oiseaux de plage diminue. Je voyais parfois plus de 500 bécasseaux se nourrissant ou se reposant sur la plage derrière l'usine d'apprêtage de poisson. Cette année, je n'ai pas remarqué d'oiseaux au repos. Ce que je constate, c'est une augmentation de personnes utilisant la plage du brise-lame à l'arrière de l'usine Paturel International. Les gens se baignent ou font courir leurs chiens. Les chiens pourchassent les oiseaux. Au rite actuel du développement des côtes dans notre région, il n'y aura plus dans quelques années de plage disponible aux oiseaux de plage. Un relevé comme celui permit de discuter avec les propriétaires de l'usine et des agences gouvernementaux de la protection d'habitat pour des espèces qui ont besoin des plages pour suivre. Il y aura une certaine protection cet été.

Nature News, Late July to November 2000

David Christie

Weather highlight of the late summer and fall was the Oct. 29 storm which caused a lot of damage to shoreline areas in Northumberland Strait and blew seabirds close to shore there and elsewhere. Strong northeast winds and rainy periods continued for more than a week. Supplies of wild berries and seed were plentiful so that bird feeders were not well-attended.

Mammals

On Aug. 11, two biologists, employees of Kouchibouguac National Park were just outside the park, driving towards St-Louis, "when a **Cougar** jumped into the road and in two hops was back in the forest." (*vide* MLeB). About a month later, on Sep. 16, Kathie Smith had a very large cat bound across the road just in front of her in the coastal area of Fundy National Park. She described it as having a very long tail, estimated at about 3 feet in length with a darker tip. She reported it to the park wardens who told her that a similar sighting was reported in the same area two weeks earlier.

Mike LeBlanc, having seen a **Fisher** cross the road at night Aug. 7 near Buctouche, reports that Fishers have returned naturally to Kent county in the past few years. Right now the value of fur is low so there is an opportunity for these animals to increase and re-occupy some of their former range.

Birds

There's a new bird for New Brunswick this season, a Black-tailed Godwit. Other special highlights are a Mountain Bluebird, Fork-tailed Flycatcher, Harris's Sparrow, Western Meadowlark and American White Pelican.

This summer and fall there seemed to be fewer **Manx Shearwaters** than in recent years among the usual Greaters and Sooties at sea off Grand Manan. Gale-force winds brought a large number of **Greater Shearwaters** unusually close to shore at Point Lepreau Sep. 24 (MJC). A **Cory's Shearwater** was reported on the Southwest Bank, south of Grand Manan, August 14 (Russell Ingalls, *vide* BED). This warm-water species has not yet been confirmed in New Brunswick waters. In the northeast one Greater and one **Sooty Shearwater** were seen off the northern end of Miscou Aug. 8 (HC).

Strong northeasterly winds Oct. 29 to Nov. 9 were responsible for several observations of storm-petrels and other pelagic species in Northumberland Strait. Up to about a dozen **Leach's Storm-Petrels** were reported each day, mainly at Cap Bimet, the site most visited by birders, but some observers also reported a **Wilson's Storm-Petrel**, a species that generally leaves our area in late August and early September. A couple of phalaropes were seen too, a **Red-necked Phalarope** at Pte-du-Chêne Nov. 2 (NB, RAM+) and a **Red Phalarope** at Cap Bimet Nov. 2-8 (v.o.). A few **Dovekies** also came close to shore in the strait Nov. 2-9 (v.o.), as well as at Grand Manan Nov. 8+ (LM), Miscou Island Nov. 11 (RD+) and Le Goulet Nov. 14+ (FB, RR). For Robert Doiron, the excitement of watching a Dovekie swimming 50 feet from shore at Miscou was spoiled when an adult **Great Black-backed Gull** caught it and flew away with it. **Razorbills** were also seen near shore at Miscou, with a peak of 50 Oct. 26 (RD).

A highlight of the season was an adult **American White Pelican** at Sand Point, French Lake, near Lakeville Corner, Sep. 19-24 (Liz Simms+, *vide* DGG).

The last of the **Great Egrets** that summered in the Shediac area was seen at Cap Brûlé Aug. 24 (RAM). A record-late immature **Little Blue Heron** was discovered at Parlee Beach Nov. 30 (JP). The rarest heron of the season was an adult **Yellow-crowned Night-Heron** at Castalia Marsh, Oct. 21 (PAP).

Jim Wilson reports a considerable drop in **Turkey Vulture** activity at Hammond River, Quispamsis, during August; on Aug. 29, he and Jean located 15 of them about 20 km NE at Midland, where they likely had found a better food supply. First two, then only one, were present at Miscou Island from Sep. 7 to Oct. 15 (RR+) and individuals were also reported on Grand Manan Nov. 6 and 10 (BED+) and between Port Elgin and Cape Tormentine Nov. 17 (BJS).

Only a small number of **Snow Geese** were found, including four at Eel River Bar Oct. 1 (Jim Clifford), 24 in Madawaska County Oct. 4 (Gisèle Thibodeau), one at Castalia Oct. 5 (BED), four at Blacks Harbour Oct. 8 (Shirley Stewart), 18 flying past White Head Island, GM, Oct. 13 (Burton Franklin), and four there Oct. 15 (Barry Russell).

A few **Eurasian Wigeon** were noted during October: at Val-Comeau Oct. 1 (Nicole Benoit, Jollande St-Pierre), Calhoun Marsh, near Riverside-Albert, Oct. 13 (NB+), Hillsborough Oct. 14-18 (perhaps present all summer—RJW), and Cape Jourimain Oct. 27 (RAM+). A **Redhead** was at Eel River Bar Oct. 8 (Mike Lushington, Andy Watson) and two still at Calhoun Marsh, near Riverside-Albert, Oct. 13 (NB+).

Seven **Harlequin Duck** thrilled observers at Cap Bimet Nov. 1 (*fide* NP) and one or two were spotted there or at Robichaud into late November (v.o.). There were two at Wilsons Point, Miscou Island, Nov. 12 (RD), one at Le Goulet Nov. 14 (FB, RR) and at Bay of Fundy wintering sites: 12 at Gull Rock, White Head Island, Nov. 12 (RL) and three at Point Lepreau Nov. 20 (TD).

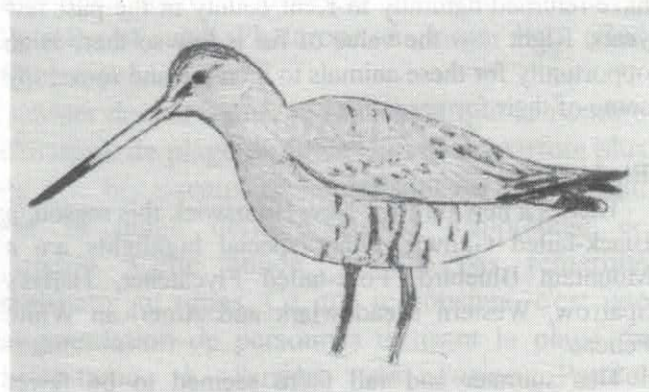
Up to three summering **Ruddy Ducks** were seen during August at each of the Lancaster (Saint John West) and Hillsborough sewage lagoons (v.o.). A flock of 13 on the river at Fredericton August 11 (Rick Brown, DGG) was a surprising number for that season, whereas numbers such as eight at the Lancaster lagoon Oct. 1 (RL), 20 at Hillsborough Oct. 14 (RJW) and six at Calhoun Marsh Nov. 7 (DSC) were normal later in fall. There were also two Ruddies at Black River, Kouchibouguac National Park, Oct. 19 (*fide* MLeB) and one at Tracadie-Sheila Oct. 21 (RD).

A **Cooper's Hawk** was seen Aug. 9 at the Sackville Waterfowl Park (Wayne Petersen+). Others were reported on the Anderson Road that runs from Midgic to Shemogue Sep. 11 (JP) and at Deer Island Nov. 11 (SJNC). An adult **Golden Eagle** was at Waterside Oct. 24 (DSC, EMM) and a couple of probables were noted in the woods NW of Kedgwick during Sep. 27-29 (MGD). A **Rough-legged Hawk** on the Tantramar Marsh Aug. 27 through September (RJW+) was thought to have possibly spent the summer, a similar bird having been seen at the end of May (*fide* Kathy Popma). However, a Rough-leg at the Inkerman-Four Roads Marsh Sep. 3 (MD) seemed a new arrival, the first there since spring.

A family of adults and eight young **American Coots** were at the Tantramar Wetland Centre during August (AMac+). A **Common Moorhen** was also seen there c. Aug. 10 and 20 (AMac+). Single coots were noted during September at Bayfield (EP+) and Long Pond, GM (JGW, JnW), at Calhoun Marsh in October (NB+), at Red Head Marsh Nov. 22 (JGW), and five in Madawaska County Oct. 17 (Nicole Rossignol).

The intriguing story of summer **Sandhill Cranes** continued when a pair appeared Sep. 19 in the same field on MacPherson Road, near Salisbury, where two had spent at least two weeks in June (Austin Smith, *fide* Connie Colpitts) and two were back in the Havelock area c. Sep. 21 (Weibe Dykstra, *fide* Jim Brown). Only one had been seen there a few weeks previously. Presumably these birds stayed somewhere (potential breeding habitat?) in southeastern New Brunswick during the summer. There was a breeding record in Maine this year so it may not be too long before they are found nesting here too. Later birds at other locations may have been migrants from afar: two at Granite Hill, Nackawic Oct. 4-15 (Ernie MacLean, *fide* DGG), one in flight at Mary's Point Oct. 17 (DSC), and one at Nauwigewauk from about Nov. 21 into winter (Stuart Fraser+).

The highlight of the season was a male **Black-tailed Godwit** discovered by Marcel David during a survey of the Pokemouche Bay salt marsh between Inkerman and Four Roads July 23. The first of this Eurasian species to be found in New Brunswick, this striking bird in breeding plumage was seen by numerous observers that day and the next. Marcel has been making very interesting regular surveys of the birds in that marsh and also of shorebirds at Maisonnnette Dune, Malbay North and Malbay South.



Black-tailed Godwit by David Christie

A **Marbled Godwit** at Cap Bimet Sep. 9 (Doug Whitman) paled in comparison to the Black-tailed. An adult **Western Sandpiper** at Marys Point Aug. 13 (DSC+) was the only one reported this fall. **Baird's Sandpipers** were all on the Acadian Peninsula: Aug. 26 to Sep. 9, at Lac Frye, Miscou Island (RD), Inkerman-Four Roads Marsh (MD), Malbay South and Malbay North, Miscou Island (MD), and Lamèque

(RD). **Stilt Sandpipers** were found frequently at the Inkerman-Four Roads Marsh from Jul. 29 to Sep. 2 (HC, MD) with a peak of 18 on Aug. 11 (MD). Elsewhere, there were singles at Saints Rest Marsh, Saint John (Aldei Robichaud, MJC), Lamèque (RD), Taylor Village, Memramcook (RL), and Cap Bimet (RAM) during Sep. 4-24. A nice showing of **Buff-breasted Sandpipers** were almost entirely at Grand Manan and Miscou islands, where they were found at Malbay North Aug. 31 (RD), Sep. 10 and 18 (2—MD) and at Malbay South Sep. 10 (MD); and at Long Pond Beach, GM Sep. 3 (LB, DM), Castalia Marsh Sep. 10 (SIT), and Red Point Beach Sep. 11 (*fide* Ken Edwards Sr.). Another was at Lamèque Sep. 1 (RD). A female **Ruff** was found at Malbay North Sep. 10 (MD).

Positively separating **Long-billed Dowitchers** from Short-bills is a challenge, the visual distinctions usually being difficult to see, and the distinctive call not easy to pick out in a group of shorebirds. However, a number were reported: Inkerman-Four Roads Marsh Jul. 28-31 (HC+) and Aug. 23 (2—MD), the Sackville Waterfowl Park and the Beauséjour Marsh (c. 6), Aulac, in the second week of August (Doug McCrae+), Marys Point Aug. 15 (McCrae+), and Malbay North Aug. 23 (MD). There likely were later observations at Sackville but no reports have come to me.

The Pennfield Ridge **Upland Sandpipers** apparently bred quite successfully, 30 being seen there Jul. 26 (KM, KRN). This species was present at the traditional Salisbury breeding site but no specific counts were reported (*fide* NP). A couple of migrants were running about the former landfill site by the river at Moncton Oct. 15 (Alma White).

No reports indicated breeding by **Wilson's Phalarope**, but migrants were noted at Miscou Island Jul. 26 (HC), Inkerman-Four Roads Marsh Aug. 11 (MD), Saints Rest Marsh, Sep. 8 (MJC) and Tracadie-Sheila sewage lagoon, Sep. 21 (2—RD).

Relatively few migrant shorebirds appear inland compared to numbers along the coast. Three **White-rumped Sandpipers**, especially unusual at Baker Brook in Madawaska County Aug. 27 (Gisèle Thibodeau), were near the date of the peak count, 639, at Malbay North Aug. 23 (MD).

Shorebirds in the Fredericton region included Least Sandpiper, Semipalmated Sandpiper, Sanderling, Dunlin, Short-billed Dowitcher, Ruddy Turnstone, and American Golden-Plover, these being seen mostly along the Saint John River and at Grand Lake (*fide* DGG).

There were four reports of skuas at the mouth of the Bay of Fundy, **Great Skua** east of The Wolves Sep. 17 (LM) and at the Grand Manan Basin Sep. 19 (LM) and a **South Polar Skua** on the Northeast Bank, south of GM, Sep. 29 (MNC+) and Oct. 2 (Carl Haycock). Of the numerous skuas that have been seen in New Brunswick waters, thus far only two Great Skuas have been accepted by the Bird Records Committee, with most being inadequately documented. A greater rarity in our waters is the **Long-tailed Jaeger** a juvenile of which was seen quite well in the Grand Manan Channel Sep. 2 (LB, DM). Possibly the same bird was seen there less well Sep. 9 (SIT) and 27 (JE). In addition an adult was reported east of The Wolves Sep. 9 (LM). **Pomarine Jaegers** and smaller numbers of **Parasitics** were reported off Grand Manan but there were also sightings at Miscou, e.g., three Pomarines Sep. 5 and 4-6 Parasitics Sep. 6 and 9 (RD).

Rarest gull of the season was a 1st-winter **Mew Gull (European race)** at Pointe-à-Bouveau, near Tracadie-Sheila, Nov. 14-18 (RD+). A **Laughing Gull** was seen between Seal Cove and White Head Island Sep. 23 (SJNC) and another at Cap Bimet Oct. 31 (RAM). There were three reports of **Sabine's Gull** in the Grand Manan area: Long Eddy Point Sep. 3 (ad.—LB, DM), near the northern edge of the Grand Manan Basin Sep. 14 (juv.—SIT+), and Long Pond Sep. 22 (DGG+).

A very cooperative juvenile **Little Gull** seen at Cap Bimet and Cap Brûlé from Sep. 9 through Oct. 14 (v. o.) was accompanied by a 2nd-year bird at Brûlé Oct. 3 (RJW). Other Little Gulls were at: Miscou Lighthouse during July and August (2nd-year—RAC+); Tracadie-Sheila Aug. 17-22 (imm.—RD) and Sep. 11-21 (ad.—RD); Head Harbour Passage (2 ad.) and Letete Passage (2nd-yr.) on Sep. 2 (LB, DM); Long Eddy Point, GM, and Grand Manan Channel Sep. 24 and 27 (ad.—AC+). Between Sep. 1 and Nov. 20 **Black-headed Gulls** were seen at various places along the coast from Miscou (RAC) to Cap Bimet (v.o.), single birds except for 2 at Bimet in the last week of September (*fide* John Tanner) and 2 at Point-à-Bouveau Nov. 18 (1st winters—RD). Considering the number of **Lesser Black-backed Gulls** seen earlier in the year it was surprising that only one was reported: at Long Eddy Point, GM, Nov. 18 (3rd yr—BED).

From ten to 20 **Caspian Terns** were seen at Cape Tormentine and nearby Cape Jourimain from Sep. 4 to Oct. 3 (v.o.). They were reported also at Cap Bimet and Buctouche Dune and, more unusually, at Sackville Waterfowl Park Aug. 16-17 (2—Amacf) and Sep. 2

(Dan Hoare) and Fredericton Oct. 7-8 (4—DGG). A very late **Common Tern** was inland at Mactaquac Nov. 17 (DGG, SS).

Three **White-Winged Doves** strayed to our province this fall: at White Head Island Sep. 12 (SIT+), Fredericton Sep. 13 (BJS) and Alma Oct. 23-24 (DR+).

Large southward incursions of **Snowy Owls** to Ontario and **Northern Hawk Owls** to Quebec this fall were not experienced to the same extent in New Brunswick but nevertheless were noticeable. Many of the Snowy Owls in Ontario and Manitoba were starving due to a crash of the northern lemming population. Our first report by a fisherman of a Snowy Owl at Pte-du-Chêne around the first week of November (*fide* JP) was followed by others at Bathurst (Réjeanne LeBreton) and Marysville (a weakened bird—Christelle Leger) on Nov. 14, Grande Rivière, Saint-Leonard, Nov. 19+ (Inuk Simard), Whistle Road, GM, Nov. 23 (BED), and Tantramar Marsh Nov. 26+ (RL, AC+). The first Northern Hawk Owl was an unlucky individual killed by a car on the outskirts of Dalhousie Oct. 14 (*fide* MGD). It was followed by one along Route 180, near Lucky Lake, in eastern Restigouche County, by November 10 (Pierre Duguay) and another at Lower Queensbury Nov. 26+ (MLeB+).

A particularly late **Ruby-throated Hummingbird** visited a Scoudouc feeder Oct. 23-25 (NB, Giséle Belliveau). Identity of a hummer at Lorneville Oct. 9-15 (Karen McCavour, *fide* JGW) is uncertain; it was reported to be of Ruby-throat size but grayer.

The peak movement of **Northern Flickers** at Grand Manan was exemplified by 300+ seen on the northern part of the island Sep. 30 (BED). The following day one of the flocks along the Whistle Road contained a flicker that had red wing linings (BJS). Because it was seen in flight there was no opportunity to assess whether other plumage characters also indicated that it was a "**Red-shafted**" Flicker from the west. I've only had one previous report of a flicker with red wing flash. A **Red-bellied Woodpecker** began visiting a Lake George feeder in mid-November and remained into winter (Joan & Keith Dore).

A **Fork-tailed Flycatcher** at North Head, had already been seen for 2-3 days by local residents when first discovered by birders Sep. 30 (MNC+); it remained in the area till Oct. 5 (*fide* BED). A couple of **Western Kingbirds** were found: at Point Escuminac Sep. 23 (RD) and Beaver Brook, W of Riverside-Albert, Oct. 15 (DSC, EMM).

A **Yellow-throated Vireo** at Long Pond Road, GM, Sep. 25 (JGW, JnW) was the sole rarity in its family this fall. A very late **Tree Swallow** appeared at Seal Cove Nov. 20 (BED).

Partly albinistic or leucistic **American Crows** have been reported recently near Cocagne (Marcel Couture), at Riverview (Bob Cotsworth) and at Blacks Harbour (KM). The latter two have white patches in their wings, but one of the Cocagne birds was wholly white and two had pale gray bodies but normal black wings. These remind me of the well-known brown crows seen for several years around St. Martins.

Northern New Brunswick's first **Carolina Wren** visited Jim Clifford's yard at Point La Nim Jul. 24 to Aug. 4. The very vocal bird was seen and heard by numerous local birders. Unfortunately it was found dead Aug. 6. A less unusual Carolina was seen irregularly at Fredericton for a few weeks beginning Oct. 13 (DGG). A **House Wren**, very rare in the north, was at Miscou Oct. 5-6 (RD, RR, FB). A **Marsh Wren** was unusual at Point Lepreau Oct. 26 (KM).

A flurry of **Blue-gray Gnatcatchers** was detected Sep. 22-30, at Marys Point (DSC), Stanley Beach, GM (AC), White Head Island (RL), Deep Cove, GM (JE), and Point Escuminac (RD).

Visiting the old Pennfield airstrip Nov. 25, Ken MacIntosh was rewarded with the observation of New Brunswick's second **Mountain Bluebird**, a female, feeding on insects and berries. He spread the word quickly and the bird was seen and photographed by several other observers Nov. 25-26 (KM+). It was then missed for a few days but was still there in the first week of December.

A surprising concentration of **Northern Mockingbirds** occurred at Cap Bimet. Frank and Rita Daigle reported three nesting pairs during the summer and at least 10 adult and young mockers were being seen there in late August (Bob Cotsworth). A **Brown Thrasher** strayed north to Miscou Lighthouse Oct. 14 (RD+).

The big crop of mountain-ash berries was feeding a lot of **American Robins** and **Cedar Waxwings** during November but very few **Bohemian Waxwings**, which presumably were feeding on a similar abundance of fruits farther west.

Among warblers, the highlights were **Connecticut Warblers** at Boudreau-Ouest, near Shediac, Aug. 14 (RAM) and Whale Cove Road, GM, Oct. 12 (Keith Taylor). The latter is a late record. **Blue-winged Warblers** were noted at Mary's Point Sep. 22 (Ron

Tozer+) and Dark Harbour, GM, Sep. 28 (JE+). There were few **Prairie Warblers** compared to most years, just Stanley Beach, GM, Sep. 25 (RS) and Southwest Head, GM, Sep. 29 (JE). **Yellow-breasted Chats** were seen at Long Eddy Point, GM, Sep. 12 (SIT+), Alma Oct. 27 (DR) and St. George Waterfowl Park Nov. 5 (KM).

Several **Orange-crowned Warblers** seen during Oct. 3-15 indicates the principal migration time for this species; records were all at coastal locations: Cape Jourimain (2—SIT), St. Andrews (TD), Buctouche Dune (Denis Doucet), Miscou Lighthouse (RD), Mary's Point (DSC), Irving Nature Park, Saint John (JGW) and Pt. Lepreau (JGW). A later one was seen at Deer Island Point Nov. 11 (SJNC). Most **Pine Warbler** reports were along the Bay of Fundy but it was also seen at Caraquet Oct. 1 (Rosita Lanteigne) and Port Elgin Oct. 22 (MLeB). A later one was an adult male in Alma Nov. 15&17 (RJW, DR). A very late **Black-and-White Warbler** was at Saint John West Nov. 17 (MJC).

Don Gibson hit the **Northern Cardinal** jackpot Oct. 22, when seven were visiting his Fredericton feeder at one time: three males, three females and a dark-billed immature; a few days later he had four males at once. There was no really obvious dispersal of Cardinals in the province this fall but there was a female in Campbellton in early November (Mrs Jim Katan).

Blue Grosbeaks made appearances at Douglas, Fredericton, Sep. 25 (BJS), St. Andrews Oct. 14 (Dedreic Grecian), and Fishers Pond, GM, Oct. 19&22 (BED, PAP). **Indigo Buntings** were confirmed breeding near Florenceville with the observation of a pair accompanied by three fledglings Aug. 12 (Sean Blaney+). There was the usual October concentration of reports of this species, including five at one feeder in Alma Oct. 13-15 (RJW). A northeastern representative was at Tracadie-Sheila Oct. 21 (RD).

Five **Dickcissels** were reported at Grand Manan and in Albert County Sep. 29 to Oct. 18 (v.o.) and others at Miscou Oct. 5 (1) and 15 (2—RD). Beginning Oct. 1, **Eastern Towhees** were seen at the Irving Nature Park (Ian & Heather Cameron), Mary's Point (DSC), Pennfield (Shirley Stewart) and Coteau Road, Lamèque Island (Oct. 17-18—Alexandre Lanteigne). A longer-staying bird was cooperative for numerous observers at Frank Kelly's feeder in Saint John West Oct. 28 to Nov. 4. One briefly at Cecil Johnston's Nov. 23 was about 8 km west of the Kelly feeder and just 1-2 km from the Irving Nature Park site.

Seldom seen here, the top sparrow was an immature **Harris's Sparrow** at White Head Island Oct. 20 (PAP). More regular yet rare were **Lark Sparrows** at Mary's Point Aug. 30 (DSC) and Bancroft Point, GM, Oct. 1 (BED), and **Clay-Colored Sparrows** at Alma Aug. 25 (DR) and Bancroft Point, GM, Oct. 13 (BED). A suspected "**Oregon**" **Dark-eyed Junco** was at Saint John West Nov. 4 (Frank Kelly).

A **Western Meadowlark** was seen by numerous observers at Inkerman Oct. 5-10 (André Robichaud, Jean-Guy Robichaud, Lucia Robichaud, Ginette Doucet+). Fall and winter meadowlarks are particularly difficult to identify to species, but this cooperative bird was quite vocal, including the distinctive 'chuck' call-note and even a few songs. This was the first definite Western for the Acadian Peninsula.

Errata

The report in the last issue of a **Rufous Hummingbird** at Lac Baker was the result of a mixup in communication. A Rufous was actually identified at Edmundston June 5 (Nicole Rossignol) and the Lac Baker bird in late May was suspected to be a **Broad-tailed Hummingbird**. No details have been received for that report.

Abbreviations

AC Alain Clavette; ad. adult; AMacf Andrew Macfarlane; BED Brian Dalzell; BJS Bev Schneider; DGG Don Gibson; DM Don Mairs; DR Doreen Rossiter; DSC David Christie; EMM Mary Majka; EP Eileen Pike; FB Frank Branch; GM Grand Manan; HC Hilaire Chiasson; imm. immature; juv. juvenile; JE Jim Edsall; JGW Jim Wilson; JnW Jean Wilson; JP Juliette Pellerin; KM Ken MacIntosh; KRN Kenneth Neilsen; LB, Lysle Brinker; LM Laurie Murison; MD Marcel David; MGD Margaret Gallant Doyle; MJC Merv Cormier; MLeB Mike LeBlanc; MNC Moncton Naturalists' Club; NB Norm Belliveau; NP Nelson Poirier; PAP Peter Pearce; RAC Rose-Aline Chiasson; RAM Rose-Alma Mallet; RD Robert Doiron; RJW Rob Walker; RL Roger LeBlanc; RR Roland Robichaud; SIT Stu Tingley; SJNC Saint John Naturalists' Club; TD Tracey Dean; v.o. various observers.

Toward a Gulf of Maine International Ocean Wilderness

Brian Dalzell

During the summer of 2000, scientists and conservationists from Canada and the United States wrote to Prime Minister Jean Chrétien and President Bill Clinton, calling on them to establish the Gulf of Maine International Ocean Wilderness, which each has the authority to do. Chrétien under the Canada Oceans Act, and the president with the Marine Protected Areas Proclamation.

So, why should we protect our marine public lands? Well, designating the Gulf of Maine International Ocean Wilderness would be a good first step in protecting and conserving the extraordinary wildlife that inhabits the canyons, plateaus, plains and dune complexes of the tens of thousands of square kilometers of undersea public lands in the Gulf of Maine.

The Ocean Wilderness proposal would allow a 32 by 286-kilometer public land area along the offshore Canada-U.S. border to return to a natural state. Because of heavy industrial extraction activities (i.e. fishing in all its many forms) that take place in the Gulf of Maine, there is little, if any, live bottom or other types of emergent habitat remaining.

Allowed to regrow to maturity, the live bottom ecosystem of this 5730-square kilometer area would act as a veritable cornucopia (or 'larval export reserve') out of which a steady supply of larval and juvenile fish and shellfish would continually re-seed the 95 per cent of the Georges Bank Plateau and Gulf of Maine which would lie outside of the natural area.

The plateau, for instance, has been scraped over by hundreds of dredge and trawl ships more than once per year, until very recently. Deprived of habitat and food, the larval and juvenile cod, flounder and haddock have had sharply reduced survival. With few new fish and shellfish arriving on the scene, the population of spawning-aged fish and shellfish has dropped to dismal levels.

Take Atlantic Sea Scallops for example. Most are captured when they are between two and four years of age. But a scallop can live for 20 years, with their time of highest fertility being around 12 years of age. A Gulf of Maine International Ocean Wilderness would allow a very large number of scallops to grow to full maturity, creating a scallop replenishment zone.

The recovery of large areas of complex live bottom and other three-dimensional habitat within the wilderness area will create a large protected refugia for juvenile groundfish and their benthic prey, and would greatly improve juvenile groundfish survival. These fishes will inevitably leave the area of the wilderness, improving yields elsewhere in the Gulf of Maine, such as the Bay of Fundy.

The ocean wilderness would begin about 35 kilometers south of Machias Seal Island and 60 kilometers from Grand Manan, meaning there would be no impact on the small-boat inshore herring and lobster fisheries of downeast Maine and Grand Manan -- which rarely set gear more than 35 kilometers offshore. While local herring seiners do go to Northeast Bank, the proposed ocean wilderness preserve would begin even further south, at the Southwest (Grand Manan) Bank.

As well, there would be no additional costs to 'run' the offshore wilderness, because it is located along the Hague Line (the U.S.-Canada offshore border). This border area is regularly patrolled from the air and sea by both the U.S. and Canadian Coast Guards. During the commercial fishing seasons, the number of air and sea patrols is increased.

Because management of the International Ocean Wilderness would be a simple "no disturbance - no removals" program, no additional regulatory staff is needed to manage and regulate the impacts of different "users". Being confined to waters already subject to intense patrolling by agencies trained to look for offshore poaching, no additional security personnel are required.

Yet another benefit of such a large marine protected area would be for scientific experimentation and research. Basically, no research is considered credible unless there is a control or baseline area, against which to compare the results of an experiment. Currently, commercial fisheries exploitation is guided by decisions based on experimental models.

Because of the intensive fisheries exploitation of the Gulf of Maine and Georges Bank -- particularly by bottom draggers and otter trawls that scrape the sea floor -- there is no undisturbed control area remaining with known habitats for fishes and shellfishes. There needs

to be an absolutely undisturbed area for scientists and regulators to draw insights and conclusions from.

Did you know that 10,000 years ago human beings lived, fished and hunted on Georges Bank, which was then a 27,000 square kilometer island frequented by mammoths, mastodons, giant moose, musk ox, giant sloth and other now-vanished wildlife? Many animal bones from this distant era have been dragged up there since the late 1800s. A wilderness area would protect such pre-historic artifacts.

There are also numerous shipwrecks on the floor of the proposed international wilderness area. Designating the Hague Line border area as the International Ocean Wilderness will allow for the protection, investigation and maintenance of these priceless relics from our past, including at least 20 major wrecks that have been charted within the proposed protected area.

If you want to lend your voice to this historic effort to create the first international wilderness area under the sea, consider sending a letter to our next Prime Minister. By the time you read this, the Federal elec-

tion will be over, and in all likelihood, Mr. Chrétien will be returned to power. The address is: Prime Minister of Canada, House of Commons, Ottawa, ON K1A 0A6.

If you need some help getting started, a copy of a letter sent to the Prime Minister by the Gulf of Maine International Wilderness Coalition can be found at <www.atlantisforce.org/cangom.html> If you take off the last part of the address it will take you to a number of web sites with much more additional information on the ocean wilderness than I was able to summarize here.

Some of the groups that have thrown their wholehearted support behind this eminently worthy cause are: the Sierra Club of Canada, Canadian Parks and Wilderness Society, Greenpeace Canada, Canadian Ocean Habitat Protection Society and the Federation of Nova Scotia Naturalists. As far as I've been able to determine, the New Brunswick Federation of Naturalists has yet to come onboard, but I am sure this is a situation that will be remedied fairly quickly.

Greenland Geese visit Madawaska County

Reproduced from "Le Jaseur", Club d'Onithologie du Madawaska

Dr Charles Mallet a abattu le 9 octobre au Madawaska, une Bernache du Canada portant une bague en provenance du Danemark. La bague provenait du Danemark mais la Bernache provenait du Gröenland. La Bernache, un mâle, aurait été capturé à Isunnga au Gröenland en juillet 1997 et était un juvénile à ce moment. C'est la 5ième Bernache provenant du Gröenland rapporté au Nouveau-Brunswick. Les Bernaches du Canada ont commencé à coloniser le Gröenland il y a environ 10-15 ans et il y a déjà plus de 2,500 couples nicheurs. Leur voie migratrice vers le sud les amènent à survoler le Nouveau-Brunswick. Quatre Bernaches ont été capturé et été doté de transmetteurs. Vous pouvez suivre la migration de ces Bernaches sur le site web: <http://www.ducks.ca/geese/index.html>

Hunting in Madawaska County Oct. 9, Dr. Charles Mallet shot a Canada Goose that wore a Danish band. The bird was banded as a juvenile at Isunnga, Greenland, in July 1997. It's the fifth Canada Goose from Greenland that has been reported in New Brunswick. These geese began to colonize Greenland only 10-15 years ago and the population has already grown to 2500 breeding pairs! You can follow the migration of some Greenland geese that wear satellite transmitters at this Website:

<http://www.ducks.ca/geese/index.html>

(Translation courtesy David Christie)

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