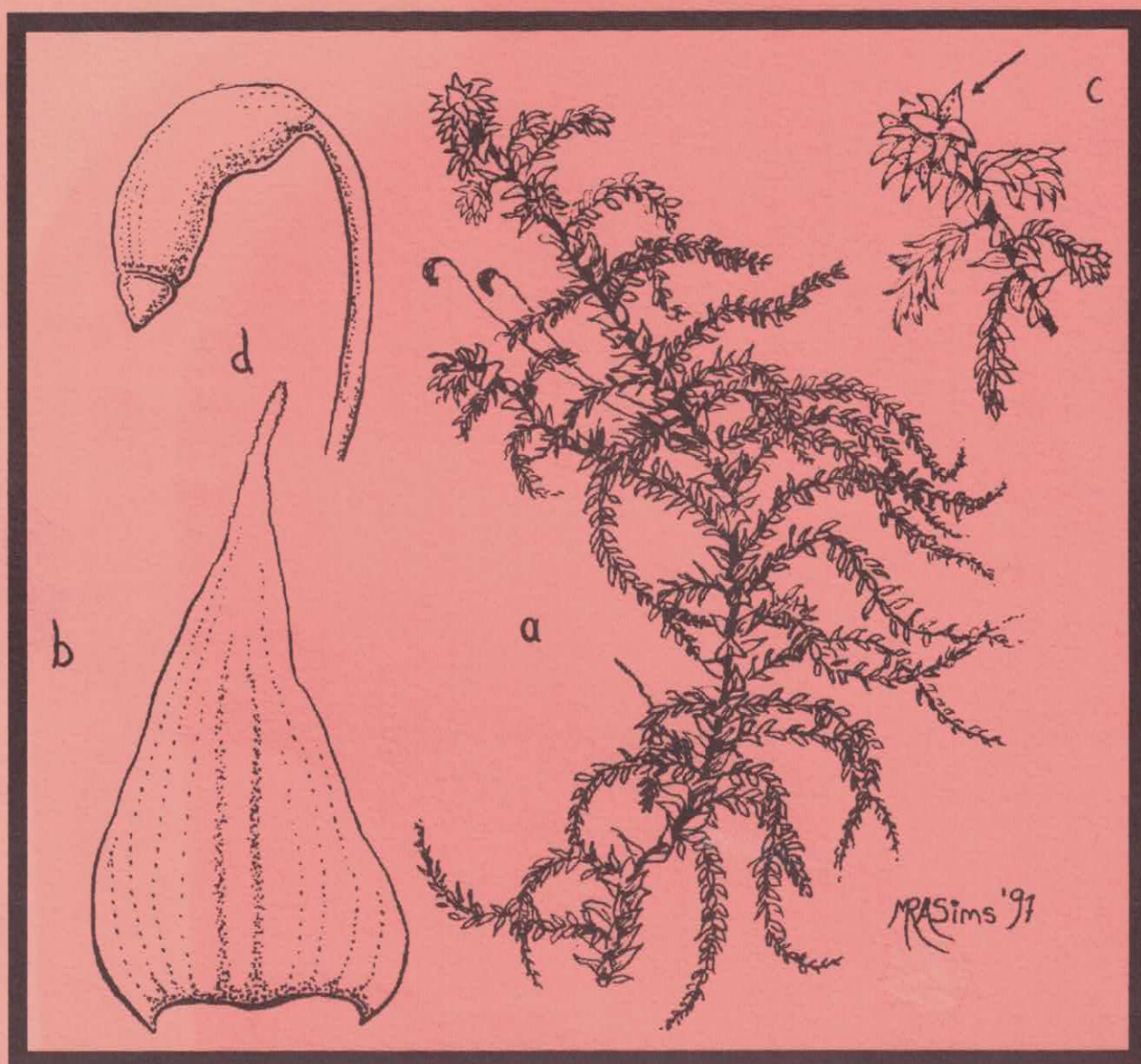




24(3) Autumn/Automne 1997

# ***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. E2K 1E5 Canada

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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**Moncton Naturalists' Club,** Box 28036, Highfield Square P.O., Moncton, NB E1C 9N4; 3863544 or 384-6937 (information line); meets Church of the Nazarene, 21 Fieldcrest Drive, 7 pm, 2nd Wed., Sept.-June; monthly newsletter.

**Restigouche Naturalists' Club,** Box 591, Campbellton, NB E3N 3G9; 789-0107 or 753-7261; meets Campbellton Centennial Library, 7 pm, 1st Monday

**Saint John Naturalists' Club,** 277 Douglas Avenue, Saint John, NB E2K 1E5; meets N.B. Museum at Market Square, 7:30pm 2nd Wed., Sept.-May, elsewhere in June; monthly *Bulletin*.

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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, 12 Woodward Cres., Gondola Point, NB E2E 1N5; tel. 849-6321. 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 toutes articles pour le Naturaliste du N.-B. à: Irene Doyle, 12 Woodward Cres., Gondola Point, NB E2E 1N5; tel. 849-6321. Demandez les détails de compatibilité d'ordinateur. Tarifs publicitaires disponibles sur demande.

Many thanks to our many kind Volunteers who contributed to this publication / Merci beaucoup à tous les bénévoles dédiés qui ont contribué à cette publication

Please submit articles for the next issue by Nov 1, 1997

S. v. p., soumettez les articles à l'intention du prochain numéro avant le 1<sup>er</sup> novembre, 1996.

Cover Illustration by Mary Sims - Scared Cat Moss, *Rhytidiadelphus triquetrus* (Hedw.) Warnst. a) - habit or general form (1.4 X); b) - stem leaf; c) - Close-up of shoot tip, resembling a scared cat's tail; d) - sporophyte (fruiting) capsule.

This common inhabitant of New Brunswick's conifer forests is one of the few mosses with a common name, in fact it has others besides that listed above including Rough Neck Moss and Shaggy Moss. This coarse, robust moss grows on humus, soil, wet or dry rotten logs in loose or dense mats of a bright or yellow green color. Its irregularly and unequally branched orange-red stems are mostly tapered and decurved at the tips.



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## LES ESPACES ET LES ESPECES MENACEES

(Message de la Présidente/President's message - Rose-Alma Mallet)

Depuis ma tendre enfance, mon paradis, mon bonheur de chaque jour est d'admirer les arbres, les fleurs, les oiseaux et de courir après les papillons et les libellules. Mais cela est devenu du romantisme car depuis quelques années mes objets d'admiration deviennent de plus en plus rares. Depuis 5 ans, plusieurs heures de mon temps ont été consacrées à la protection de l'environnement.

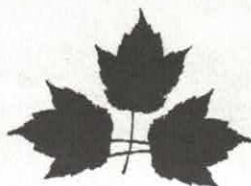
Mon terme de présidente vient tout juste de commencer et déjà des groupes cognent à la porte de la Fédération cherchant du support afin de protéger des marais, des colonies de hérons, des forêts matures et autres. J'ai continué les politiques de mes prédécesseurs et j'ai fait entendre la voix de la Fédération auprès de Petitcodiac 2000, de l'Institut Irving des découvertes sur la forêt, d'Eco-Cocagne, du Réseau environnemental du N.-B., et lors d'une rencontre avec Christine Stewart, nouvelle ministre de l'environnement au gouvernement fédéral.

The New Brunswick government's goal to create jobs, seems to have meant that every square centimetre of our provincial land is up for development. This means it is a busy time for naturalists.

During the summer, the NB Federation of Naturalists voiced its concern to conserve and protect our natural heritage at the Eco-Cocagne, the Petitcodiac 2000, and at the Irving Forest Discovery Institute. The Federation also participated with other environmental groups at a meeting with the new Federal Minister of Environment, Christine Stewart. As a group we opposed the Harmonization policy, a proposed federal Bill that would place the responsibility for many environmental matters with the provinces. As the Federation representative I raised the issue of habitat protection.

Lastly, this September the NBFN looks forward to co-hosting the Maritime Important Bird Areas Program with CNF.

Tous vos projets et vos idées sont les bienvenus, faites nous les parvenir.





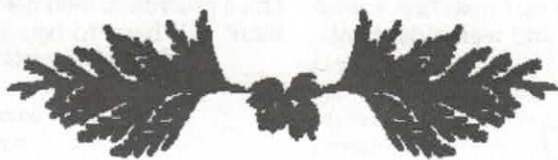
# NEW BRUNSWICK'S RARE AND THREATENED CALCAREOUS FENS

James P. Goltz

At a talk given to the Josselyn Botanical Society in April 1997 by Dr. Garrett E. Crow, an expert on aquatic vascular plants, I was astonished to learn that wetlands in northeastern North America have a greater diversity of vascular plant species than those in Central and South America. Imagine .... when it comes to wetlands and their plant diversity, we live in the Brazil of the north. But not all wetlands are equal in this regard. Dr. Crow has found that northeastern peatlands, one of my favourite habitats for natural history exploration, have the richest plant diversity of wetlands anywhere in the New World.

In my experience, the types of New Brunswick wetlands containing the greatest number of species of rare and endangered vascular plants are salt marshes, rocky or gravelly river shores, and White Cedar wetlands, especially calcareous fens. Of these wetlands, calcareous fens and their wildlife inhabitants are perhaps least known to New Brunswick's naturalists.

What is a calcareous fen? A **fen** is an open peatland that receives its water and nutrients from atmospheric sources (i.e., precipitation and atmospheric dust) as well as from seepage waters from adjacent upland soils, and has low vegetation dominated by sedges and grasses. Calcareous fens usually occur over a calcium-rich substrate, such as limestone or marble bedrock, and tend to have a neutral or basic pH. These types of fens typically have a rich flora, as opposed to more acid fens which are called poor fens. A fen is a stage in wetland succession and over time often develops into a bog. Unlike fens, **bogs** are peatlands that receive their water supply and nutrients solely from atmospheric sources (not from seepage or drainage from adjacent areas), have an acid pH, and are dominated by *Sphagnum* moss and acid-loving plant species, including ericaceous shrubs. The peat soil of fens is derived mostly from sedges and other higher plants, whereas that of bogs is derived mainly from *Sphagnum* moss. **Marshes** (wetlands dominated by non-woody grassy or grass-like vegetation) and swamps (wetlands usually dominated by woody vegetation) generally do not occur on



peat, but shrub swamps and wetland forests may.

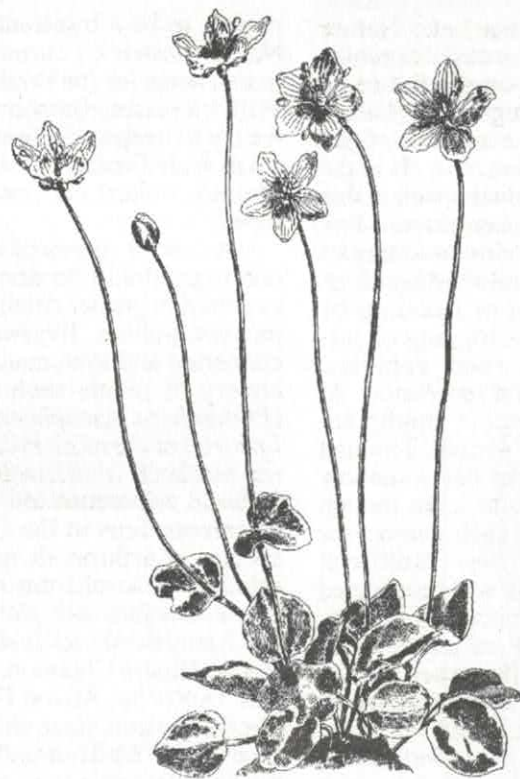
After careful consideration and consultation, my tally of known calcareous fens in New Brunswick is less than ten. Since all are rather

small, maybe ranging up to a maximum size of 10 acres, and could be easily damaged by overvisitation, I've decided that it's best not to provide specific locations. Suffice it to say that there are three known calcareous fens in the vicinity of Petit Rocher, three in the vicinity of Williamstown Lake, one near Arthurette, one near Renforth and one near Chance Harbour. Although these known fens have much in common with one another, each is quite unique in its assemblage of vascular plants.

Most of New Brunswick's calcareous fens are surrounded by wetland forests dominated by Eastern White Cedar. One fen in the Petit Rocher area and one near Williamstown Lake are very open with few shrubs. The two other fens in the Petit Rocher area and the fen near Arthurette consist of small linear to irregular openings interspersed

among stands of White Cedar. Two of the fens in the Williamstown Lake area and the Renforth area fen consist of small pockets of fen habitat within a poor fen or bog that is dominated by *Sphagnum* and ericaceous shrubs. The two fens in southern New Brunswick have a prominent component of shrub cover, including Shubby Cinquefoil. Most of our calcareous fens are well frequented by Moose, as is evidenced by the many game trails that create wet depressions which support concentrations of certain sedges and other fen plants.

A list of vascular plants that I've encountered during my forays in New Brunswick's calcareous fens has been provided for your interest. Please keep in mind that this list is not exhaustive and only includes the species that I've found in open fen habitats, not in the surrounding woodlands. My favourite calcareous fen indicators include Bog Bedstraw, both species of Arrow-grass, Grass-of-Parnassus, Sticky Tofieldia, Kalm's Lobelia, Northern Bog Violet, Shubby Cinquefoil, Northern Spikemoss, Livid Sedge and a wide assortment of native orchids and sedges. Apart from Bog Bedstraw (which I feel should more appropri-

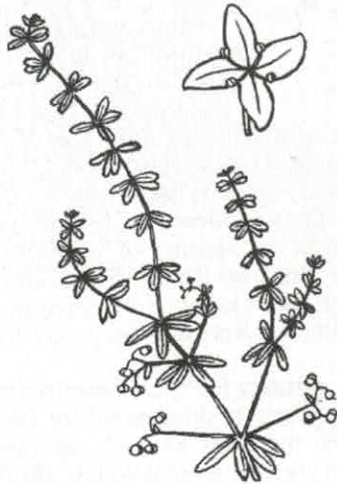


Grass of Parnassus  
Illustration by Marion Satterlee

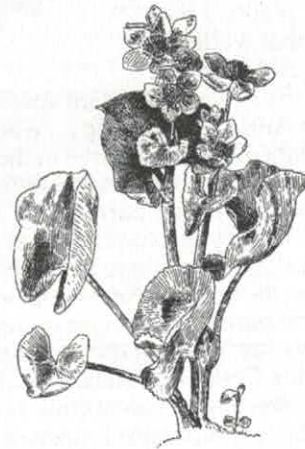


ately be called Fen Bedstraw), none of these species is strictly limited to calcareous fens. Grass-of-Parnassus, Sticky Tofieldia, Kalm's Lobelia, Northern Bog Violet and Shrubby Cinquefoil are well known to occur on calcareous shores; Shrubby Cinquefoil has also been found on calcareous cliffs and coastal headlands; Northern Spikemoss also occurs on mossy calcareous cliffs and ledges; both species of Arrow-grass are typically found in salt marshes; Livid Sedge is also known from poor fens; and wetlands domi-

tended 'to protect wetlands from degradation' but this policy has not yet been approved by the provincial government. At present, none of New Brunswick's calcareous fens has any type of protected status. Three are on crown land and the remainder on private land. There is a definite need to preserve and protect these very rare and threatened wetlands, and to monitor the rare flora that occurs there. Once protected, then the more difficult question of management will have to be addressed. Fens tend, by their very



Bog Bedstraw  
illustration from Britton & Brown



Marsh Marigold  
Illustration by Marion Satterlee

nated by Eastern White Cedar (e.g., Shea Lake Nature Preserve) host the greatest variety of species of wild orchids and sedges. Many of the other species on the list (e.g., Pitcher Plant, Sundews, Bog Rosemary, Bog Laurel, Labrador Tea, Rose Pogonia, Grass-pink and a number of the sedges) commonly occur in bogs and poor fens. It is the assemblages of plants, rather than individual species, that provide the best indication that you are in a calcareous fen.

The threats to our calcareous fens are similar to threats to other wetlands and include development, road building, alteration of water levels (i.e., draining or flooding by natural processes and by human activity), logging of surrounding woodlands, trampling, off-road vehicles, overcollection of vascular plants, and natural succession. At Petit Rocher, a large housing development is rapidly encroaching onto New Brunswick's richest known fen. Through some small miracle, Showy Lady's-slipper has somehow survived in and around the fen at Arthurette, even though plants of this species had been dug up there each summer for many years and shipped off to the United States. It's difficult to predict how the fen near Chance Harbour will be affected by logging activities that have recently occurred nearby. Some peat extraction has taken place in the Renforth wetlands complex and a developer is evidently trying to sell off the area. Who knows what fen habitats may have been lost as a result of the damming of Williamstown Lake?

Dr. Crow cautions that human society has unfortunately not realized how diverse our northeastern North American wetlands are from a global perspective, and he emphasizes that we need to take better stewardship and care of our precious wetlands. New Brunswick's Department of Natural Resources and Energy and Department of the Environment have drafted a provincial wetland policy that is in-

nature, to be a transient successional stage, even though New Brunswick's current calcareous fens have likely been in existence for hundreds, if not a few thousands, of years. With increasing human pressure on our landscape, should we try to keep some fens from evolving, perhaps by using small scale fires, as has been experimentally tried in one of Maine's richest calcareous fens, or by regulating water flow?

A careful survey of the province for additional calcareous fens should be done and our known fens should be explored in greater detail, not just for vascular plants but for mosses, lichens, liverworts, fungi and fauna. Perhaps a concerted and systematic exploration may lead to the discovery of plants such as Prairie White Fringed-orchid (*Platanthera leucophaea*), Linear-leaved Sundew (*Drosera linearis*) or the moss *Paludella squarrosa*, species that have not yet been found in New Brunswick but are known to occur in calcareous fens in nearby Maine. Exploration of calcareous fens in the Ottawa area has revealed not only species of arthropods new to Canada, but species new to science. I would not be surprised if New Brunswick's calcareous fens will yield similar natural history wonders.

Many thanks to Gert Bishop, Maureen Bourque, Darren Byers, Hilaire Chiasson, Stephen Clayden, Steve Crighton, Luc DeRoche, Alison Dibble, Pierre Duguay, Hal Hinds, Cecil Johnston, Rose-Alma Mallet, Mike Oldham, Shirley Sloat and Tony Thomas for helping me explore New Brunswick's calcareous fens, and/or for providing me with information about these interesting wetlands. I would be most grateful for any additional information on any of New Brunswick's calcareous fens (please contact me at: 126 Wilsey Road, Apt. 17, Fredericton, NB E3B 5J1; Phone: (506) 459-8685; E-mail: marph@nbnet.nb.ca).



## Vascular Plants Recorded from New Brunswick's Calcareous Fens

Scientific Name	Common Name	Scientific Name	Common Name
<i>Amerorchis rotundifolia</i>	Small Round-leaved Orchid	<i>Kalmia polifolia</i>	Bog Laurel
<i>Andromeda polifolia</i>	Bog Rosemary	<i>Liparis loeselii</i>	Bog Twayblade
<i>Arethusa bulbosa</i>	Arethusa, Dragon's-mouth	<i>Lobelia kalmii</i>	Kalm's Lobelia
<i>Aster borealis</i>	Rush Aster	<i>Lonicera villosa</i>	Mountain Fly Honeysuckle
<i>Aster radula</i>	Rough-leaved Aster	<i>Menyanthes trifoliata</i>	Bogbean, Buckbean
<i>Betula pumila</i>	Dwarf Birch	<i>Myrica gale</i>	Sweet Gale
<i>Calopogon tuberosus</i>	Grass-pink	<i>Parnassia glauca</i>	Grass-of-Parnassus
<i>Caltha palustris</i>	Marsh Marigold	<i>Pentaphragmoides floribunda</i>	
<i>Carex aurea</i>	Golden-fruited Sedge	(= <i>Potentilla fruticosa</i> )	Shrubby Cinquefoil
<i>Carex diandra</i>	Lesser Panicle Sedge	<i>Platanthera clavellata</i>	Club-spur Orchid
<i>Carex exilis</i>	Coast Sedge	<i>Platanthera dilatata</i>	Tall Leafy White Orchid (Bog Candle)
<i>Carex flava</i>	Yellow Sedge	<i>Platanthera hyperborea</i>	Tall Northern Green Orchid
<i>Carex gynocrates</i>	Northern Bog Sedge	<i>Pogonia ophioglossoides</i>	Rose Pogonia
<i>Carex interior</i>	Inland Sedge	<i>Pyrola asarifolia</i>	Pink Pyrola
<i>Carex lasiocarpa</i>	Slender Sedge	<i>Rhamnus alnifolia</i>	Alder-leaved Buckthorn
<i>Carex limosa</i>	Mud Sedge	<i>Rhododendron (=Ledum)</i>	
<i>Carex livida</i>	Livid Sedge	<i>groenlandicum</i>	Labrador Tea
<i>Carex magellanica</i>		<i>Salix candida</i>	Sage-leaved Willow
(= <i>paupercula</i> )	Bog Sedge	<i>Salix lucida</i>	Shining Willow
<i>Carex pauciflora</i>	Few-flowered Sedge	<i>Sarracenia purpurea</i>	Pitcher Plant
<i>Carex vaginata</i>	Sheathed Sedge	<i>Selaginella selaginoides</i>	Northern Spikemoss
<i>Carex viridula</i>		<i>Solidago uliginosa</i>	Bog Goldenrod
<i>subsp. brachyrrhyncha</i>		<i>Spiranthes romanoffiana</i>	Hooded Ladies'-tresses
(= <i>C. lepidocarpa</i> )	Small Yellow Sedge	<i>Thuja occidentalis</i>	Eastern White Cedar
<i>Cladium mariscoides</i>	Twig-rush	<i>Tofieldia glutinosa</i>	Sticky Tofieldia
<i>Conioselinum chinense</i>	Hemlock Parsley	<i>Trichophorum alpinum</i>	
<i>Cypripedium calceolus</i>		(= <i>Scirpus hudsonianus</i> )	Hudsonian Club-rush
<i>var. pubescens</i>	Large Yellow Lady's-slipper	<i>Trichophorum caespitosum</i>	
<i>Cypripedium reginae</i>	Showy Lady's-slipper	(= <i>Scirpus caespitosus</i> )	Tufted Club-rush
<i>Drosera intermedia</i>	Spatulate-leaved Sundew	<i>Triglochin maritimum</i>	Seaside Arrow-grass
<i>Drosera rotundifolia</i>	Round-leaved Sundew	<i>Triglochin palustre</i>	Marsh Arrow-grass
<i>Equisetum fluviatile</i>	Water Horsetail	<i>Utricularia cornuta</i>	Horned Bladderwort
<i>Eriophorum vaginatum</i>		<i>Utricularia intermedia</i>	Flat-leaved Bladderwort
(= <i>spissum</i> )	Early Cottongrass	<i>Valeriana uliginosa</i>	Swamp Valerian
<i>Galium labradoricum</i>	Bog Bedstraw	<i>Viola nephrophylla</i>	Northern Bog Violet
<i>Iris versicolor</i>	Blue Flag		

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**Editors' Note:** During late August, Bruce Bagnell undertook a brief visit of the Petit Rocher fen where he discovered two mosses of interest, *Paludella squarrosa* (mentioned in the above article) and another fen loving species, *Cinclidium stygium*. Both of these species are new records for New Brunswick.



## SECRET BIEN GARDÉ

Léo Martin

Une belle journée de la fin de juillet, je décidai d'aller marcher. Je montai dans ma voiture je suivis la route 134 sud, virai à droite à Gilbert's Corner, je m'engageai dans la première bretelle à droite pour suivre la 11 nord vers Miramichi. J'étais à deux kilomètres de chez moi (Shediac Cape). La curiosité me fit arrêter pour voir quelles plantes étaient en fleur dans le triangle que formaient la 11 et la bretelle. Des fleurs...ma gourmandise l'emporta quand je vis les bons gros bleuets murs pendant en grappes partout dans ce terrain vague. J'en mangeai, et j'en mangeai tout en regardant distraitemment les marguerites, les mélilots blancs, les rubeckies, les trèfles agraires.

Tout à coup au milieu de mes touffes de bleuets se dresse une plante faisant bien 30 à 40 cm de hauteur. Tout le tour de la tige centrale, elle étale des fleurs d'un jaune verdâtre dont le bout des pétales est finement ciselé en languettes. Les feuilles se déploient grandes et fermes entre les fleurs. Ça ressemble drôlement à une orchidée. Ça lui ressemble tellement que c'en est une. Je cours (presque) à ma voiture chercher mon Marie-Victorin, Flore laurentienne qui m'accompagne presque toujours avec mon Peterson. Eh bien! C'est une orchidée,

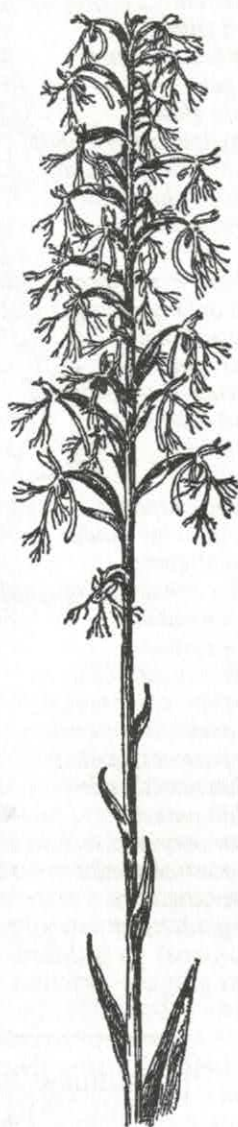


Fig. A *Habenaria lacera*  
Illustration by F.S.  
Mathews

Habénaire lacérée, (*Habenaria lacera*, Ragged Fringed Orchis). Figure A dans ce texte.

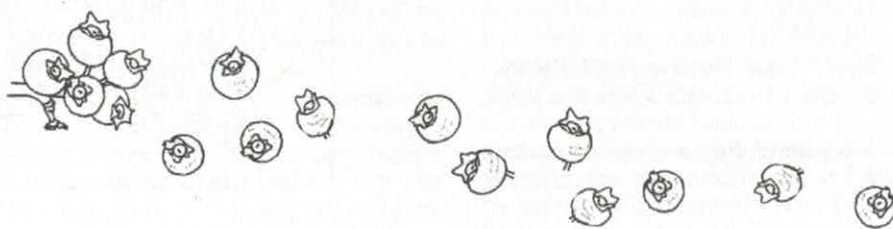
Puis à mesure que je cherche, j'en découvre une deuxième et une troisième. Je continue à manger des bleuets. Hum, hum, comme ils sont juteux et sucrés. Je n'aurai pas besoin de manger de dessert ce soir. ...Mais qu'est-ce que ce brin d'herbe fleuri, je n'ai jamais vu de fleurs blanches sur un brin d'herbe. Elles montent en spirale à l'entour de la tige menue. Marie-Victorin, dis-moi, -Serait-ce une petite orchidée? -Oui, Léo. Regarde à la page 836, figure 318: *Spiranthes lacera*, (*Spiranthe découpée*, Shining Ladies Tresses). (Figure B dans ce texte.) Sa description se lit en page précédente. J'en voulais plus. Je me suis dit que la bretelle 2A sur le début de route 11 nord quand je reviens de Moncton est toute proche de celle-ci et pourrait lui ressembler. Je m'y suis rendu quelques jours plus tard dans l'espoir de trouver des orchidées -les mêmes- ou d'autres. Je comptai, croyez-le ou pas, une centaine d'Habénaires lacérées mais pas une seule *Spiranthe* découpée.

Les *Spiranthes* m'avaient fasciné. Je voulais en voir d'autres. Je me mis sur la 11 nord, je laissai ma voiture en bordure de la route et je marchai environ un kilomètre et demi. Je revins en marchant dans le fossé. Je trouvai quelques Habénaires seulement mais je contemplai une soixantaine de *Spiranthes* découpées.

Un secret bien gardé? Je n'ai pas publié ma découverte ni par l'internet, ni sur le réseau téléphonique ou quelque autre média. J'avais peur du pillage, du vol et de la disparition de mes chères orchidées. Ce n'est pas gentil. Pardonnez-moi.



Fig. B *Spiranthes lacera*  
Illustration from *Flora of New Brunswick*





## BUTTERNUT RIDGE CONSERVATION AREA

John Candy, Kennebecasis Naturalists

I was asked to do a little write up on the grand opening of the Butternut Ridge Conservation Area which is located on Route 880, 5 kms west of Havelock. I had been invited, along with David Christie and Merv Cormier, to attend this event that was held on July 1 and help with the guided walks that had been planned.

I left Sussex around 7 am. It was a beautiful summer morning, so I took my time as I travelled to the site and enjoyed the scenery. I saw an assortment of birds and an abundance of snow shoe hares (rabbits) along the edge of the road.

The Conservation Area consists of a large parking lot, a picnic area and a gazebo. There are 2 kms of walking trails through different areas of the property which includes a

scenic cedar grove, a stand of red and white pines and an assortment of old growth forest. There are a number of sink holes along the pathways, each offering different things to see in and around them, including a large selection of wild flowers and plants.

Around 9 am a number of local people spoke about the area, and Brian Hicks welcomed the group to the grand opening. The 24 people from different areas around the province started the interesting walk led by David Christie, with six others joining us as we went along. We also met numerous other people coming in as we were coming out, around 11:30. After an enjoyable morning the group dispersed and went their different ways. If you have a couple of hours to spare, I would suggest you visit this easily accessible area.

## CLUB L'ENVOLEE CHALEUR

Luc De Roche

Crée à l'automne 1994 par un petit groupe de personnes concernées intéressées dans l'ornithologie en général, il se fixa comme objectif de:

- a) regrouper des gens intéressés à l'ornithologie et la nature en général dans la grande région Chaleur (la plupart du comté de Gloucester à l'exception de la péninsule acadienne)
- b) aider à préserver l'habitat naturel
- c) pratiquer des activités afin de conscientiser la population de la région Chaleur à l'importance de notre écosystème
- d) travailler de concert avec organismes et instances gouvernementales qui partagent nos intérêts

Nous nous rencontrons le premier lundi du mois (à l'exception des mois de juillet et août) à la salle d'activités de la Bibliothèque de Beresford au sous-sol. Lorsqu'il y a fête le lundi, la réunion est déplacée au mercredi de la même semaine. Les réunions débutent à 19:00 hrs.

Le club organise des sorties en nature sur une base régulière en plus de participer à des comptes d'oiseaux. Il organise également des conférences, présentations et fournit de la documentation à ses membres sur des sujets qui les touchent de près.

Toute personne intéressée à en connaître davantage peut communiquer avec:

Pierre Duguay au 783-0080 (adresse électronique: dpierre@nbnet.nb.ca) ou

Luc DeRoche au 783-4336 (adresse électronique: lderoche@nbnet.nb.ca)

Created in the fall of 1995 by a small group of people interested in ornithology, the club gave itself the following objectives:

- a) bring together individuals interested in ornithology and nature in the Chaleur Region (most of Gloucester County with the exception of the Acadian Peninsula)
- b) aid in preserving the natural state of our habitat
- c) practise activities to sensitize the population of the Chaleur Region to the importance of our ecosystem
- d) work jointly with organizations and government agencies who share our interests

We meet every first Monday of the month (except for July and August) in the Activity Room of the Beresford Library in the basement. Whenever a holiday falls on the first Monday, the meeting is automatically postponed to the Wednesday of the same week. Meetings begin at 19:00 hrs.

The club organizes excursions on a regular basis as well as participation in several bird counts. It also organizes conferences, presentations and distributes materials to its members.

Any person wishing to receive additional information can contact the following people:

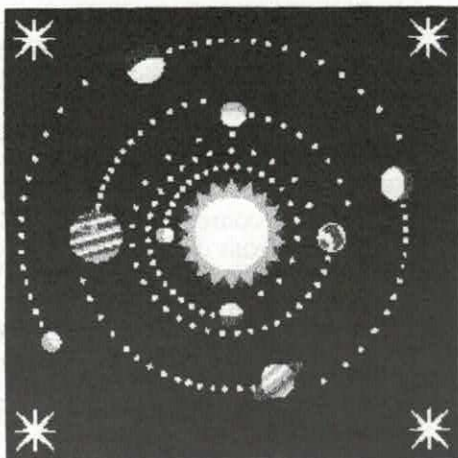
Pierre Duguay at 783-0080 (E-Mail address: dpierre@nbnet.nb.ca) or

Luc DeRoche at 783-4336 (E-Mail address: lderoche@nbnet.nb.ca)



## ALL HAIL, COMET HALE-BOPP

Brian Dalzell



This article originally appeared under the heading "Quoddy Nature Notes" in the Quoddy Tides newspaper, published bi-weekly in Eastport, Maine.

"You can't miss it. It looks like a comet," astronomer Paul Feldman of Johns Hopkins University was quoted as saying in a Reuters news article on March 10 after his first non-telescopic view of the comet Hale-Bopp. Typical understatement for a scientist type perhaps, but all too true in this case.

I finally dragged my carcass out of bed about 3 a.m. on the morning of March 3rd and looking into the northeast sky, I actually saw it without binoculars. All the hype was true, it really is a "spectacular object", according to astronomer Alan Hale, the comet's co-discoverer.

Ever since comet Hyakutake fizzled out last year, a lot of people, including myself, expected Hale-Bopp to do the same. Far from it. "This looks like a real comet, not like the last fuzzball," said John Stallings, a retired math professor from the University of California at Berkeley.

He was referring of course, to comet Hyakutake, which passed about nine million miles from earth last spring, much nearer than the 122 million miles Hale-Bopp will be at its closest point to earth on March 23rd. But Hyakutake, while close as comets go, was small.

Unless viewed on a very dark night far from artificial lights, it looked like a formless smudge. While Hale-Bopp's core is likely more than 13 times the size of Hyakutake, it is 13 times as far away as Hyakutake.

Although Hale-Bopp is whizzing along at about 100,000 miles per hour, its motion is not detectable to us. However, I have noticed that through binoculars, you can see the tail shimmering, in much the same manner that the northern lights appear to billow like a blanket on a clothesline.

The twin tail of gas and dust is quite interesting. Apparently, the one on the right, brighter and yellowish white, is composed of dust. The fainter blue tail on the left is composed of ions of gas -- molecules that have become electrically charged.

Here's another factoid I gleaned from the Internet, where I did a lot of surfing for this article. The tail of a comet might look substantial in the sky, but its substance is exceedingly thin -- a thimbleful of air has more molecules in it than a cubic mile of comet tail.

Like all comets, Hale-Bopp is believed to be leftover debris from the era of planet formation, about 4.6 billion years ago, shortly after the sun condensed from a large cloud of gas and dust. Astronomers calculate billions of comets orbit the sun, but earth-bound observers seldom see them.

This is because nearly all remain far outside the paths of the nine planets in our solar system. Most never get bright enough to be seen without binoculars or a telescope. But because Hale-Bopp is so immense, by cometary standards, astronomers are already calling it the comet of the century.

Just how large is it? The experts estimate Hale-Bopp's icy core is some 25 miles in diameter -- more than 10 times that of the average comet, and four times that of Halley's Comet in 1986. The glowing coma, or gas envelope around the core, is now about one million miles in diameter.

This probably explains why you don't need binoculars or a telescope to see it. As for glow, Hale-Bopp is "the brightest visitor to pass inside the Earth's orbit since the great comet seen by Tycho Brahe in 1577," says Sky & Telescope Magazine.

As I write, on March 21st, the comet is coming in for its closest approach to earth, but still 30 million miles further out than the sun, which is 93 million miles distant. On March 23rd, a partial eclipse of the moon was to darken the early evening sky, making it easier to see.

However, March 24-April 10 is predicted to be the peak of viewing, when moonlight will not interfere. Actually, the comet is in the sky 24 hours a day, you just can't see it during daylight. Beginning at dusk, it begins to trace a big happy smile in the night sky, starting in the northwest.

By midnight it has moved down close to the horizon where it may be lost for a couple of hours, but by early in the morning it is high in the northeastern sky. Hawk-eyed observers may be able to see until May 8th, but after April 10th the big show will definitely be over.

Besides being wonderful to look at, and a thing of subtle beauty in the night sky, astronomers and scientists are having a field day with the comet. A group from NASA has identified many carbon-based molecules in Hale-Bopp, including methane, acetylene and hydrogen cyanide.

Another consortium of astronomers has announced finding an electrically-charged chemical consisting of one atom each of hydrogen, carbon and oxygen -- the first such molecule they believe has ever been seen in a comet. NASA is also launching a series of sounding rockets that will rise above Earth's atmosphere to gauge the composition of the comet, then parachute back down.

Many earth-based telescopes have been able to get great views of Hale-Bopp, but not the Hubble Space Telescope. It must avoid Hale-Bopp altogether because of the danger that sunlight could shine into the instrument. Direct sunlight would destroy the Hubble's optical and electronic systems.



## BINOCULAR REPAIR

Marc H. Schneider, PhD



Today I was sitting on the beach contemplating my Bushnell Audubon 7X26 binoculars which had become impossible to balance. The two barrels could not be made to focus at the same plane. Normally, I would focus the right barrel and then adjust the

rotatable eyepiece on the left to make it come into focus. That setting should not change as long as my eyes do not change. However, lately I have found I have to keep changing the rotatable eyepiece, and then lately the adjustment would not go far enough to correct it.

David Christie had mentioned the same problem to me on a recent field trip, and he had sent his binoculars away to be repaired. I thought "something must be moving in the binoculars for it to change focus as it does. I wonder what it is?"

I looked the binoculars over and racked out the centre focus as far as it would go (focussing as close as possible). In the space thus formed between the front of the binocular frame and the moveable part of the objective lenses, lo and behold there was a lack of symmetry! A black collar visible in the space between the frame and the moveable portion

was solid on the left and on the right there was a recess and a little bit of thread showing near the frame. I reached in the space with a pair of needlenose pliers to which I had added black electrician's tape to avoid marking the collar, and turned the collar in until it was solid against the frame again. The right focus now worked in the middle of its range and it was easy to focus both eyepieces together! Success!

I mentioned this to my wife Bev and she said that the same problem had developed with her binoculars of the same model. We checked them, found the same thing, and fixed it the same way. We know of three pairs of the same model binocular with the same problem. Likely there are more among naturalists. I hope this discovery helps them.

An alternative way to fix them would be to turn out the little cover in the centre of the moveable objective lens carrier, turn out the little nut which holds it in place (a spanner wrench is needed), remove the carrier with its lens elements and then turn in the collar by hand. That is a bigger job, but may last longer because it may be possible to turn it in harder.

Marc H. Schneider, PhD  
President  
Woodtech Incorporated  
999 Clements Drive  
Fredericton, NB E3A 7J3

## VIVRE SON ORNITHOLOGIE

Luc DeRoche, Club l'Envolée Chaleur

Voilà deux années que je m'adonne à cette activité. Initié à la fois par mon intérêt de la nature et l'engouement de quelques amis, j'avais alors plongé à plein fond dans le piège.

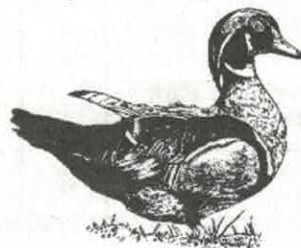
Je dis piège, puisque l'activité est hautement addictive et consomme une bonne partie de mon temps de loisirs. Aujourd'hui, lorsque je conduis ma voiture, il me semble ainsi qu'à mon épouse, que je sois plus préoccupé par ce qui se trouve dans le ciel que ce qu'il y a sur la route! Je me vois planifié mes temps libres non pas sur mes obligations personnelles mais sur les opportunités à aller dénicher l'oiseau. Une petite mise en garde, il faut faire attention à sa famille. Il ne faut pas passer trop de temps à l'activité au détriment de ses êtres proches. Idéalement, il faut les inclure dans ses plans.

Aspects organisationnels mis de côté, la sensation que l'on ressent lorsqu'on se retrouve en pleine nature est pour moi stimulante. Respirer l'air frais, observé la vie en nature est tout compte fait, un plaisir certain.

L'activité peut être à la fois stressante et relaxante. Laissez moi vous expliquer... Elle peut être stressante

lorsqu'on l'a pratiquée en vitesse. Vous savez, lorsque l'on n'a pas beaucoup de temps et on veut couvrir beaucoup de terrain. Bien sûr, c'est toujours du "birding", on sort en nature, mais je trouve ça trop "business". Un passe temps ne doit-il pas nous reposer? nous relaxer? alors pourquoi pas prendre son temps et en profiter pleinement? Je préfère donc et de loin, un horaire très flexible, une destination à peu près, un bon lunch et un bon partenaire. Là, on s'amuse, on s'énerve pas et on apprécie plus son expérience.

Le goût de la nature, le souci et le respect de son environnement, l'appréciation de l'oiseau et autres êtres vivants, les défis de l'observation, voilà ce que j'appelle "vivre son ornithologie".





## BAY OF FUNDY PERIGRINE FALCONS

Betty Learmouth



Reprinted with permission from Spring 1997 issue of The Northwind (Vol. 12 No. 2) the Newsletter of the Holiday Beach Migration Observatory.

A dream has been realized by those who have participated in the reintroduction of the Peregrine Falcon to the Canadian Maritime Provinces and specifically to the Bay of Fundy region. Fifteen years after the initial releases, Peregrine Falcons are nesting successfully. Visitors to the area

may encounter Peregrine Falcons along the Bay of Fundy shoreline at such locations as the New Brunswick's Fundy National Park or nearby Marys Point, a well known area for migrating shorebirds.

Peregrine Falcons are known to have nested at thirteen sites within the Maritime Provinces including the Bay of Fundy shorelines of two provinces, New Brunswick and Nova Scotia. Cliffs in this area have provided appropriate nesting sites. Abundant shorebird populations have ensured a ready food source.

Coinciding with organochlorine pesticide use after World War II, reproduction failed among Peregrine Falcons across North America with the result that traditional breeding areas lost their nesting populations. Within Canada's Bay of Fundy area in New Brunswick, the last nesting occurred near Matthews Head, Fundy National Park in 1948. The last nesting on the Nova Scotian shoreline occurred at Cape d'Or in 1955.

When Canada's National Peregrine Recovery Program was initially established, a mass release of young Peregrine Falcons in the Bay of Fundy area was the program's top priority. Peregrine Falcons destined for mass release were raised in a captive breeding program at a facility in Wainwright, Alberta. The Bay of Fundy mass release began in 1982 and continued through 1988 at Fundy National Park. Other releases continued until 1991. In 1993, two young captive bred Peregrine Falcons were fostered into a wild nest to supplement the two naturally produced young. The primary goal of this reintroduction program was, by 1997, to have ten or more pairs successfully rearing at least 15 young each year in the region extending from the Bay of Fundy, north to the Gulf of Saint Lawrence (including the Gaspé Peninsula in Quebec). The releases are summarized in the following table:

Location	1982	1983	1984	1985	1986	1987	1988	1989	1990	1991	Total
<b>New Brunswick</b>											
Fundy National Park	3	3	8	7	11	14	9	--	--	--	55
Quaco Head	--	--	--	--	--	--	4	5	5	--	14
<b>Nova Scotia</b>											
Cape D'Or	3	3	8	5	10	5	--	--	--	--	34
Blomidon Provincial Park	--	--	--	--	--	5	7	10	10	5	37
Five Islands Provincial Park	--	--	--	--	--	5	8	10	10	5	38
<b>Totals</b>	6	6	16	12	21	29	28	25	25	10	178



The Canadian Wildlife Service (CWS) coordinated the National Peregrine Recovery Program within Atlantic Canada. Primary funding was provided by the World Wildlife Fund Canada. Other sponsors were Denison Mines Ltd., the National Sportsman's Show and the Telecote Foundation. The Atlantic Canada program involved CWS Atlantic, Fundy National Park, Mount Allison University, the New Brunswick Department of Natural Resources, the Newfoundland Wildlife Division, and the Nova Scotia Department of Natural Resources.

Fundy National Park staff were elated in 1989 when a breeding pair of Peregrine Falcons established a nesting site on a remote sixty metre high cliff. The male Peregrine was a five year old that had returned faithfully to Fundy National Park following his release at the Park's hacking site. The female was of unknown origin.

Through a contest, the Peregrine Falcons were given appropriate names for the locality in which they had established their nesting site. The male received the name of "Albert" after the county in which Fundy National Park is located and the female was named "Alma" after the small community which is found just beyond the park's boundaries.

Alma laid four eggs in her first nesting attempt. Four young birds were hatched with three surviving and fledging by July 23, 1989. All three young Peregrines had dispersed by September 10, 1989.

On April 17, 1990, Alma and Albert returned to the same ledge on which they had successfully raised their young in 1989. Three young were successfully fledged by August 4, 1990.

For the 1991 season, Alma and Albert chose a new nesting site which was not discovered until late in the nesting season. The three young fledged from their nest on July 13, 1991. Due to their age the young were not banded but photographs taken of the young and adults revealed that the adult female had been a release bird from Blomidon Provincial Park in Nova Scotia on July 29, 1987.

Alma and Albert returned to the old 1989/1990 nesting site in 1992 as the previous year's nesting site had collapsed. Four young were hatched with one young not surviving to fledge. During the 1993 season, Alma and Albert raised four young on the ledge that had been the nesting site during the 1989, 1990 and 1992. Three young were raised during the 1994 nesting season.

Alma and Albert returned to Albert County to re-nest in 1995 and to raise three young successfully. During the 1996 nesting season, Alma and Albert raised four young which successfully fledged. Alma and Albert are perhaps the best known of the Bay of Fundy Peregrine Falcons. These remarkable birds have raised twenty-six young over eight years, an average of 3.25 young per year.

Peregrine Falcons have established nesting sites beyond Fundy National Park in both New Brunswick and Nova Scotia as indicated in the table on the following page.

The Bay of Fundy is a perfect habitat for Peregrine Falcons with remote cliffs providing nesting sites. The area is a major migration route in the spring providing ample food for nesting Peregrine Falcons. In fact, Fundy National

Park retired interpreter Rob Walker describes the area as "the express lane of the Atlantic flyway" in terms of the migratory movement. By the fifteenth of July, a tremendous shorebird migration is underway in the region, coinciding with the fledging of young Peregrine Falcons which then prey almost exclusively on shorebirds.

Peregrine Falcons attend large shorebird roosts such as the one at Marys Point. The hunting Peregrine Falcons will divide a flock of shorebirds several times until they have fifty or so shorebirds to pursue. The chase can be quite a spectacle. As the migration urge is felt by these young falcons, they disperse and follow the shorebirds south, enabling them to utilize this food source over many months.

Bay of Fundy Peregrine Falcons' migration occurs along the Atlantic coast to Florida and throughout the Caribbean. The Cape May Banding Station in New Jersey caught a banded Bay of Fundy Peregrine Falcon on October 9, 1982. Several banded Fundy Peregrine Falcons have been observed in the Boston, Massachusetts area. A female Peregrine Falcon banded at Fundy National Park visited a tall building in Boston during the fall of 1985 but unfortunately had a fatal encounter with an aircraft at the Boston airport in December of that year. Another Fundy bird was found in a weakened condition on a Boston pier in 1988. This bird was treated and released. Still another Fundy National Park Peregrine Falcon was found in England during 1987.



Peregrine Falcon  
Illustration by L.A. Fuertes

The most recent reports of Bay of Fundy Peregrine Falcon recovery occurred this past fall. CWS Wildlife Biologist Diane Amirault banded downy young on June 12, 1996 at the Shepody Bay #2 site. One young female from this nest was recaptured at Wise Point, Virginia, on September 30, 1996 as part of a raptor banding program. This young

Peregrine Falcon was reportedly healthy and strong. Another young female from the same nest was recaptured at the Cape May Banding Station on October 21, 1996. This bird was reported as a large female with a wing chord of 361 and a weight of 992 grams.

As another nesting season approaches, Peregrine Falcon watchers will have an eye on the Fundy shoreline. Will Alma and Albert return to raise another family in Fundy National Park? Will the upcoming season bring new nesting Peregrine Falcons to the Nova Scotian shoreline? Stay tuned!

*The Northwind* wishes to acknowledge the assistance of the following Peregrine Falcon watchers. Rob Walker, retired interpreter from Fundy National Park, provided information concerning the nesting success of Fundy National Park's Peregrine Falcons. Diane Amirault, Wildlife Biologist at the Canadian Wildlife Service office in Sackville, New Brunswick provided nesting statistics and banding reports. Bill Clark, coordinator of the Cape May Banding Station, corresponded regarding the banded Bay of Fundy Peregrine Falcons recaptured at the Cape May Banding Station.

An article "Peregrine Falcon Recovery Under Way" which appeared in *NS Conservation*, Fall 1994, gave background information and a chart summary of the release of Peregrine Falcons in the Maritimes.



Year	Pairs	Fledglings	Locations
1989	3	6	Fundy National Park, Shepody Bay #1, Saint John
1990	3	6	Fundy National Park, Shepody Bay #1, Saint John
1991	5	10	Fundy National Park, Shepody Bay #1 and #2, Saint John, Grand Manan Island
1992	5	10	Fundy National Park, Shepody Bay #2, Saint John, Grand Manan Island (Shepody Bay #1 nest not censused)
1993	5	11	Fundy National Park, Shepody Bay #1 and #2, Saint John, Grand Manan Island
1994	5	9	Fundy National Park, Shepody Bay #1 and #2, Saint John, Grand Manan Island
1995	6	12	Fundy National Park, Shepody Bay #1 and #2, Saint John; Minas Basin, Nova Scotia (Grand Manan Island nest not censused)
1996	7	16	Fundy National Park, Shepody Bay #1 and #2, Saint John, Grand Manan Island, N. B. site #6 (Minas Basin site not censused)

## FAD PET AND PROBLEMS

Jane Tarn



Potbellied pigs and hedgehogs have been exotic "fad" pets in the last few years. Now a third yet much smaller creature, the sugar glider, has joined the exotic "fad" pet trade. But wait - please stop and think before you purchase one!

Potbellied pigs did not fare well as pets. Many people bought the cute little piglets at a big cost. When the babies reached their full

size, most urban pig owners had to give their pigs away. If no home could be found for their pet pig, it was killed. In the United States two sanctuaries were established to take in abused and abandoned potbellied pigs. The sanctuaries were quickly filled and are expanding.

The hedgehog, currently a very popular pet to buy, is very appealing. However, they too are suffering neglect and abandonment as owners find them boring. To quote a recent letter from a Kindness Club member - "I have a pet hedgehog named Suzy. I got her as a gift last year. I would like to find out what hedgehogs play with or if they play with anything at all? Suzy seems to have a very boring life, sleeping all day

when I want to play with her and then keeping me awake at night roaming around her cage when I am trying to sleep. Can you help me?"

Is it fair to keep an exotic pet even if it was bred in captivity for the pet trade? So often such a creature is bought on a whim when someone sees it in a pet store window at a mall. No thought is given to the life the animal will lead or if the purchaser actually has the time, space and money to care for the pet. Is this being kind to an animal?

Many fad animals suffer neglect and abandonment. Animal shelters are now being asked to take in hedgehogs people have become bored with and no longer want and they have had many requests to shelter unwanted pigs. Are sugar gliders next?

The sugar glider is a very small marsupial from New Guinea and Northeastern Australia. Cute, mouse size and furry, these adorable little creatures will win the hearts of many children who will plead to have one after seeing them in a pet store or at a friend's house.

Like acquiring any pet, please stop and think before you buy a sugar glider. While they are little and fit in a cage, they are nocturnal, cannot be housetrained and make noises. They coo, click, grunt and have another rather loud sound



that is half barking, half sneezing.

Sugar gliders have a membrane between their front and back feet. In their natural habitat, they glide from tree top to tree top where they eat tree sap. Do they deserve to be caged just for human pleasure? Being native to warm climates, they need to be kept in a place where the temperature is 21-27° to thrive. Can you provide such a place?

If you do plan on getting a sugar glider, be aware that they can be aggressive if they are mishandled or neglected. The more they are handled, the more they become accus-

tomed to you. They do become less aggressive once they know you. They are not ideal pets for very young children.

Presently, the price of a sugar glider is around \$250. However, like the potbellied pig that first sold for several thousands of dollars and now cost less than \$100, and the hedgehog that began around \$700 each and now can be purchased for around \$50, the price of sugar gliders will fall once the novelty of the latest fad pet to hit the market wears off.

Please do not buy any creature on a whim. Avoid buying exotic pets!

## BIRDS REACT TO AN UMBRELLA

A.J. (Tony) Erskine

An umbrella is not standard birding equipment, even in coastal British Columbia in winter. On rainy days I use an umbrella as I walk to the office, part of my way being along the boardwalks of the Sackville Waterfowl Park. Several years ago I noted that most ducks there, even the feral Mallards, flushed in alarm when I walked past with my umbrella spread, although most would remain close by or merely swim slowly away when a person without an umbrella passed along the boardwalk. Their "alarm" flight seemed an expectable (??) response to the umbrella that, to a duck, might be an unfamiliar and even intimidating spectacle.

Recently (17 June 1997) my umbrella provoked a different and, to me, more surprising response from a bird. As I walked, in drizzle with my umbrella spread, along the boardwalk through a marshy area, a Snipe dropped out of the sky into an opening in the tall grass a few metres from my path. It fluttered on the ground, partly concealed by the grass, and I got the impression it might be starting a "distraction display", as shorebirds commonly do when they have flightless young nearby (e.g. "broken-wing act" of killdeer). The snipe then began the "yak-yak-yak" call that forms part of its courtship ritual. It fluttered up and dropped into another opening a few metres farther along the track, and repeated the performance - while I stared. Again it fluttered over a grass barrier and landed,

this time less than two metres from where I stood, and in full view. With its wings and tail fully spread, boldly patterned in brown and rust and gold, and its beak directed towards me (and my umbrella), it repeated its "yak-yak-yak-yak" until I departed.

Tuck's (*The snipes: a study of the genus Capella*, C.W.S. Monogr. no.5, 1972) description of snipe behavior mentioned a ground-call, expressed by him as "cut-a-cut-a-cut-a-cut-a", that is made by both sexes during courtship, and used later in the season in a subdued form to call up lost chicks. A "flutter-leap" also occurs frequently during the courtship period. Distraction displays (with chicks nearby) take forms somewhat like those of other shorebirds, but sometimes include swivelling around to face the intruder.

My observations did not clearly point to courtship rather than

chick-defense rituals. The latter seemed somewhat more plausible in mid-June, as Snipes had been active in the area, using both aerial ("winnowing") and ground ("yakking") displays, for over six weeks - but never close to me.

It was worth carrying the umbrella through the marsh to see this Snipe strutting around conspicuously, and calling, within a few metres of me, whatever its motivation may have been!



Common Snipe

Illustration by L.A. Fuertes



## SURVEYING THE APPALACHIAN HARDWOOD FORESTS OF WESTERN NEW BRUNSWICK

Andrew MacDougall

The Appalachian Hardwood Forests (AHF) of western New Brunswick are a regionally distinct assemblage of vascular plants and bryophytes associated with the rich well-drained soils found in the central St. John River valley. The diversity of AHF understory vascular plant species is greater than most other provincial forest assemblages, with 64 commonly associated species. Most abundant are Trout Lily, Dutchman's-breeches, Yellow Violet, Spring Beauty, Sweet Cicely, Rattlesnake Fern, Silvery Glade-Fern, Hooked Buttercup, Red Trillium, and Zigzag Goldenrod. Some of these plants are spring ephemerals that flower in mid and late May. By the time the canopy has leafed out, many have finished their annual life cycle.

Less abundant AHF vascular plant species include Yellow Lady's-slipper, Blue Cohosh, Wild Ginger, Canada Violet, Wild Leek, Maidenhair Fern, and the Plantain-leaved Sedge. All these species are classified as uncommon, rare, or very rare within the Maritime Provinces. There are also AHF plant species that are unique to the central St. John River valley, occurring nowhere else in Atlantic Canada. Such species include Lopseed, Showy Orchis, and Cutleaf Toothwort.

Two centuries of land clearance have reduced once-continuous AHF forest into a limited number of small and highly fragmented patches, and many of the ground flora species and epiphytic bryophytes are threatened by habitat loss. Concern over the status of AHF in New Brunswick has been growing over the past two decades. Surveys were conducted by noted provincial botanists Hal Hinds, Jim Goltz, and Stephen Clayden, as well as others, to identify sites hosting species-rich AHF assemblages. Approximately 15 sites were found, mostly in the Woodstock area, but site discovery was largely restricted to stands visible from a moving vehicle. It was unclear whether AHF assemblages were only found near or whether they also occurred elsewhere.

The Appalachian Hardwood Forest Conservation Stewardship Project was initiated in the fall of 1996 to systematically survey the central St. John River valley for additional sites and to implement Conservation Stewardship measures leading to the protection of significant AHF sites. The project was divided into phases. Phase I would survey Carleton and Victoria Counties for new species-rich AHF sites. Phase II would develop and implement a Conservation

Stewardship program specific to the region.

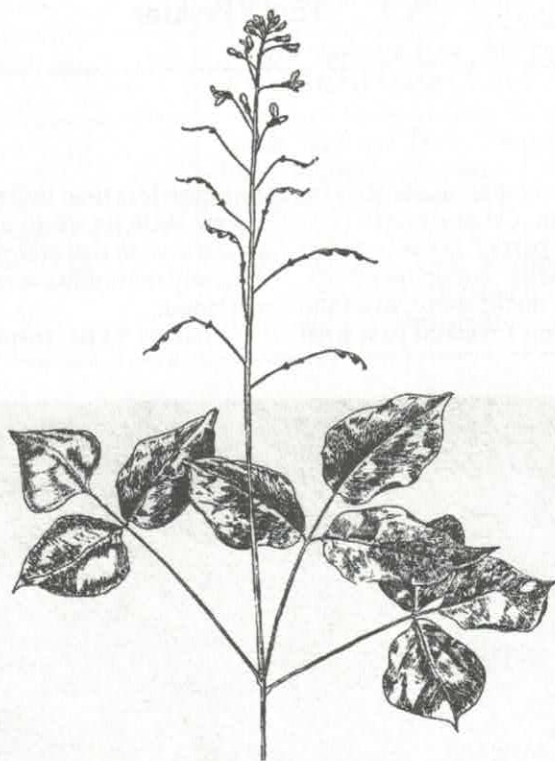
Phase I was recently completed, with over 120 sites visited by two survey teams (Andrew MacDougall and Samantha Hines, and Gert Bishop and Bruce Bagnell) at least once between the period of May 20 - July 15. The sites were identified by Vince Zelazny and Hilary Veen of the Department of Natural Resources and Energy using a combination of forest cover, soils, and topographic information. This information was used to pinpoint the location of mature forest patches occurring on calcareous soils within the study region.

By the end of field work, 46 sites were identified containing one or more new records of provincially uncommon, rare, or very rare vascular plant species (as classified by the Flora of New Brunswick). Some of the more significant finds include two new populations of Canada Violet, Black Snakeroot (*Sanicula trifoliata*), Bottlebrush Grass, and nodding fescue, and new single populations of *Desmodium glutinosum*, Black Snakeroot (*Sanicula odorata*), and *Botrychium minganense*.

Nineteen significant bryophyte species were identified by Bruce Bagnell during site assessment. Most notable was the discovery of *Entodon brevisetus*, a moss species known only from one other Canadian record collected in Canaan Forks, NB in 1889. Other significant bryophytic

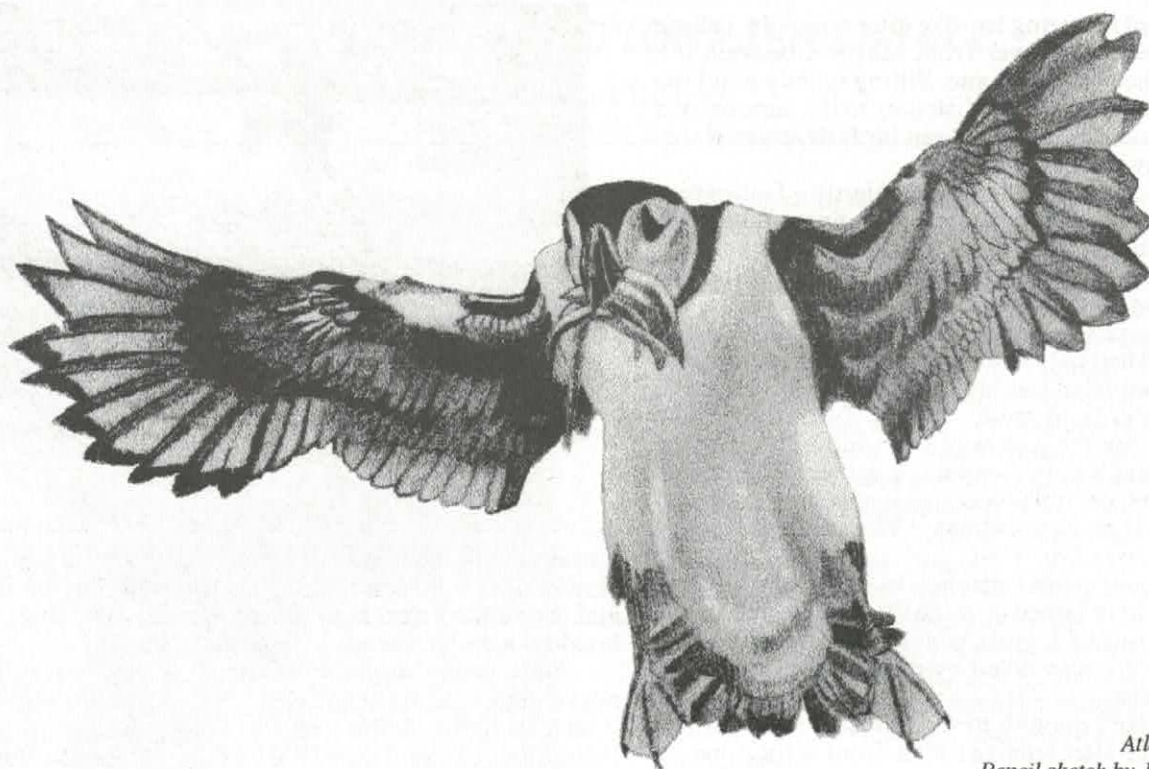
finds included *Anomodon minor*, *Ditrichum pallidum*, *Drummondia prorepens*, *Fissidens bushii*, *Fissidens taxifolius*, and *Taxiphyllum deplanatum*.

The survey work proved to quite successful in providing a portrait of the distribution of species-rich AHF forest patches in the study region. However, it also indicated that remnant patches of mature AHF are rapidly being eliminated by logging and by land clearance for agricultural purposes. 70% of the sites we visited showed evidence of recent selective harvesting, or partial or complete clearcutting. Given that many of these sites had already been high-graded for their best logs in the past (all sites but 7 showed some signs of past human disturbance), the suitability of these stands to serve as refuges for rare AHF species is lessening. It is hoped that Phase II of this project, conducted by the Nature Trust of New Brunswick and commencing on September 1 1997, will be successful in protecting in some way the most valued sites of this threatened ecosystem.



*Desmodium glutinosum*  
Illustration by F.S. Mathews





Atlantic Puffin  
Pencil sketch by Julie Paquet

## WHERE *FRATERCULA ARCTICA* BREEDS

Kenneth MacIntosh

When I was growing up in Halifax, MSI was to me an acronym for Medical Services Insurance, the Nova Scotia counterpart of New Brunswick Medicare. Thus, to be in need of MSI services was not an enviable state. Things have changed for me since MSI came to mean Machias Seal Island.

Through a combination of careful planning, luck, and lots of begging, I was stationed on Machias Seal Island for two weeks in August (1997). My purpose for being there was to assist UNB graduate students Krista Amey and Julie Paquet with their field studies of MSI's Common and Arctic Tern colonies.

My various duties required that I wander the island under sun and moon, which gave me plenty of opportunity to study the botany and zoology of the island. While I aspire to add familiarity with flowering plants and insects to my naturalist attributes, it is safe to say that the avifauna received most of my attention.

The star of the show on Machias Seal is of course the Atlantic Puffin, well known and admired for its harlequin appearance, gymnastic landings and Chaplinesque walk. It is almost certainly the Puffin that lures daily visits by boatloads of eager tourists. The official estimate suggests a breeding population of one thousand pairs on the island, but recent observations suggest the number might be closer to

twenty-five hundred pairs.

Fewer in number but nearly as photogenic are the island's breeding Razorbills, which are often seen roosting on the granite ledges or floating and diving amid the rafts of Puffins on the water. Common Murres sometimes share these spaces with Razorbills. One of my most cherished sightings of this trip was that of a "Bridled" Murre with a thin white highlight around each eye.

And while the Puffin is the most desired sighting, the breeding terns are not to be denied. They make their presence well known by continually calling KEE-ER day and night, and by dive bombing those who step out of line. I was merely white-washed; others, I am told, have been bloodied by these fierce protectors. The tern population is estimated at roughly twenty-five hundred pairs, of which three quarters are Arctic Terns.

Common Eiders also breed here. Creches of hens and their half-size offspring were seen daily, circling the island in search of mussels and that perfect roosting rock. Meanwhile, Savannah Sparrows are the most conspicuous passerine, usually seen perched atop Seaside Angelica which emerges from the sea of Timothy, Yarrow, Meadow-Rue and New York Aster which covers so much of the island.

Leach's Storm Petrel gets the prize for the least conspicuous resident bird species. Off at sea foraging by day,



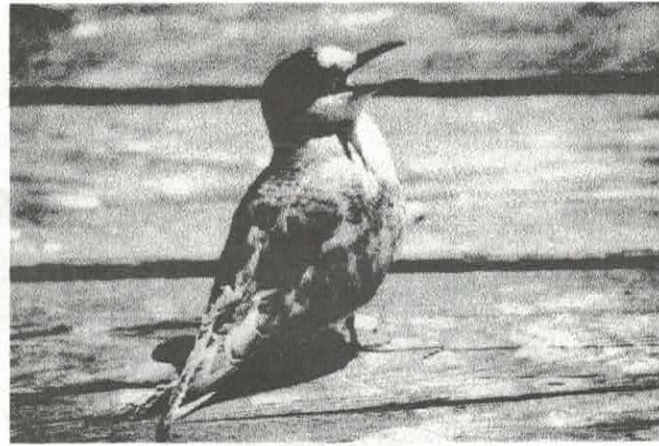
they may be heard fluttering bat-like after midnight, calling to their mates which answer from burrows beneath the rocks, guiding the foragers home. Sitting quietly amid the burrows on a moonlit night and listening to the curious, soft chortles and purrs of these little-seen birds deserves placement high on any birder's wish list.

Greater Black-Backed Gulls and Herring Gulls were also present, but are prevented from breeding on the main island by the terns. Up to five hundred Black Backs and a scant twenty Herring Gulls were seen regularly on the appropriately named Gull Rock.

When I felt overwhelmed with Puffins and Terns, Sparrows and Gulls, I had only to look to the North-east point of this sickle-shaped island at high tide to find a variety of migrating shorebirds to study. Ruddy Turnstones were present throughout my stay, as were Short-Billed Dowitchers, Spotted, Least and Semipalmated Sandpipers. Red Knots and Purple Sandpipers made occasional appearances, as did a Lesser Yellowlegs. Semipalmated Plovers began to appear toward the end of my visit.

Better skills and greater attention to surrounding waters would doubtless have turned up more than the single Greater Shearwater and pair of Jaegers which I managed. Visiting Roseate Terns were also noted by more experienced ears and eyes than mine.

And if that isn't enough to make a student of nature happy, the island also receives visit from a long list of



Arctic Tern (chick)  
Photo by K. MacIntosh

cower among the leaves of Blue-Flag Iris. Sharp-Shinned Hawks tried a different strategy. They would fly up among and above the screeching terns, but could not shake their hundred member escort.

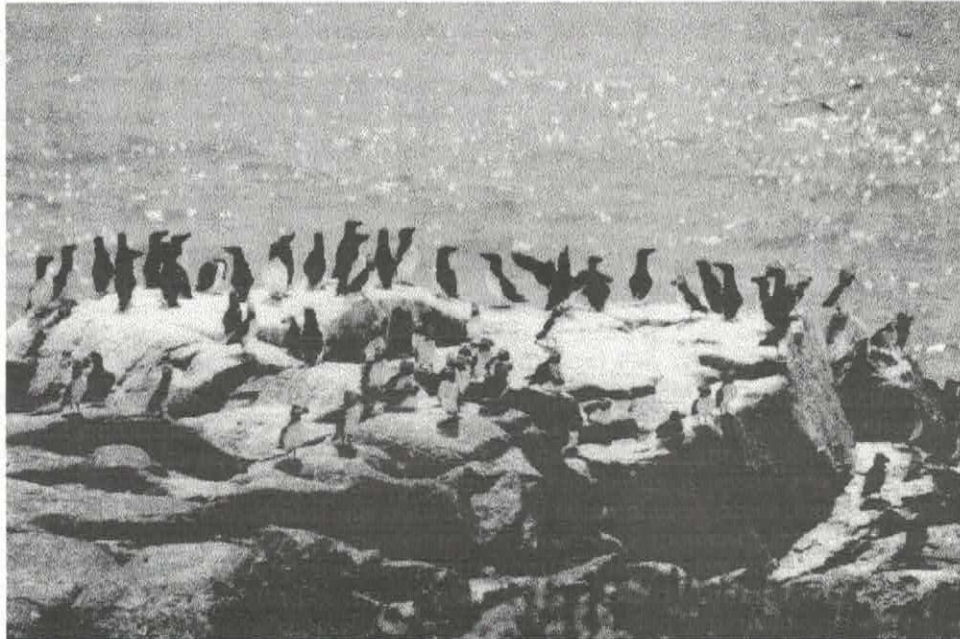
And a young Merlin sought refuge where the terns dared not venture, near the lightkeeper's house. Gasping for breath, it seemed all the Merlin could do to keep its eyes open after being chased around the island by the angry horde. But after ten minutes rest, during which time it was the subject of more amiable attention, it sneezed, shook its head and was on its way.

My most novel (though not entirely unexpected) sightings were of several Prairie Warblers, in mature and immature plumage. I studied them as closely as they would permit, to convince myself that I was not looking at some other yellow-breasted warbler with streaked flanks. After several botched efforts, I was careful to look not only at field marks which were present, but to note the absence of such features as white tail patches, conspicuous wing bars and yellow rump of the Magnolia Warbler. I hope to see a Prairie Warbler at closer quarters this fall to finally convince myself of the identification made at Machias Seal.

Better still would be a chance to return to Machias Seal and see these sights and more, which is why I sing this song (albeit off-key):

Oh please let me roam, near the surf and sea foam,  
Where *Fratercula arctica* breeds,  
Where seldom is heard Swainson's Thrush or Catbird,  
But you might hear a young Merlin sneeze.

Wind swept MSI, where the Murre and the Razorbill  
roost,  
'mid Aster and hay, Prairie Warblers play,  
Giving birders an adrenaline boost.



Razorbills and Puffins  
Photo by K. MacIntosh

migratory passerines and birds of prey. Awakening to the call of a Red-Breasted Nuthatch stands out in my mind, as it was such a welcome sound to ears overwhelmed by screeching terns and wailing gulls. The call announced the presence of a mixed flock of nuthatches, warblers, finches, flycatchers and icterids, which had been drawn by the lighthouse in the previous foggy night. Birds of prey were distinctly unwelcome on the island, as far as the terns were concerned. An immature Northern Harrier was driven to

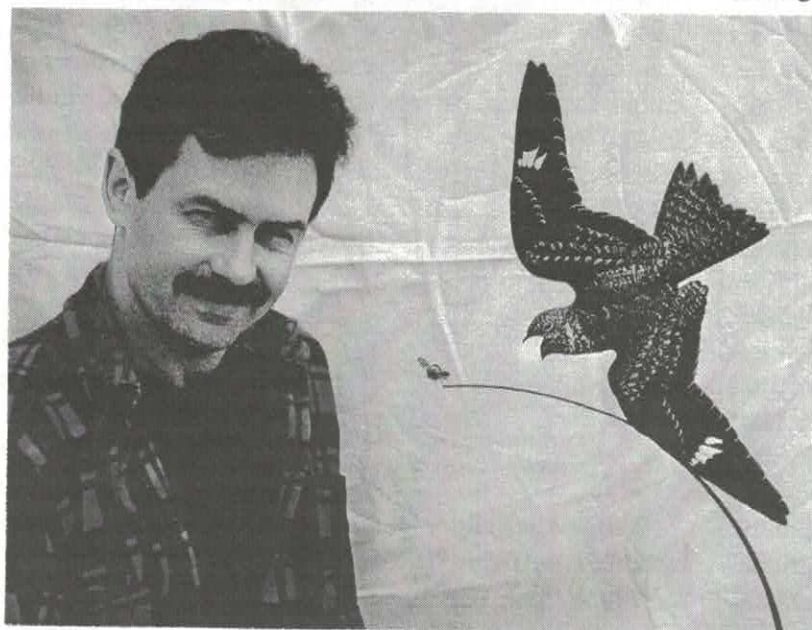


## WORLD CHAMPION - JIM EDSALL

Gart Bishop



*FLYING NIGHTHAWK - Made from Tupelo Gum Wood, painted with acrylics, moth made from brass  
Photo by Jim Wilson, digitally prepared by Don Vail*



*Jim Edsall and his sculpture -FLYING NIGHTHAWK  
Photo by Jim Wilson, digitally prepared by Don Vail*

Wood, paint and small bits of metal are common materials, yet in the hands of a master sculptor they become a master piece. I've heard it said that an artist looks at a block of wood and sees a creation peaking back at him. For the past eleven years Jim Edsall's eyes have been looking at blocks of Basswood and Tupelo Gum Wood and seeing ducks, owls and a variety of songbirds peaking out. Those of us who have been lucky enough to see some of his work (the NBFN was very fortunate to have a display of some of his creations this spring at their Annual General Meeting) can only marvel at his detailed and accurate perception.

Many New Brunswickers have watched Jim's hobby develop into an art of passion. Some of the birders in New Brunswick's "Three Hundred Club" have commissioned Jim to sculpt the very bird (the 300th) which entitled them to membership in this exclusive club.

In order to promote his work, Jim began displaying his work at various exhibitions (e.g., the Atlantic Waterfowl Festival in Sackville) and entering various competitions. In 1992 he won the Atlantic Championships with a carving of a Kingfisher.

He was given encouragement from world champion carver Pat Godin of Paris Ontario, to enter the Ward World Wildfowl Carving Competition which is held the last weekend in April in Ocean City, Maryland. This Championship regularly attracts over a thousand entrants from all over the world, with over 2000 pieces entered. He found the competition to be of extremely high calibre but was encouraged by his results and decided that with some effort he could be among the top carvers (many of whom sell their work for up to thirty thousand dollars a piece).

This year he set aside three months to work on one carving. After many sleepless nights and hundreds of hours he completed the Flying Nighthawk sculpture, and set off for Maryland. Competing in the professional class, he entered his piece in the Songbird Category. I am very proud to announce that he finished third, just behind two very well known and established carvers whose work Jim has admired for years.

The Flying Nighthawk went on to win the Atlantic Championships in Halifax in May and was purchased by the Bowater Mersey Paper Company for display in their head office in Liverpool, Nova Scotia.

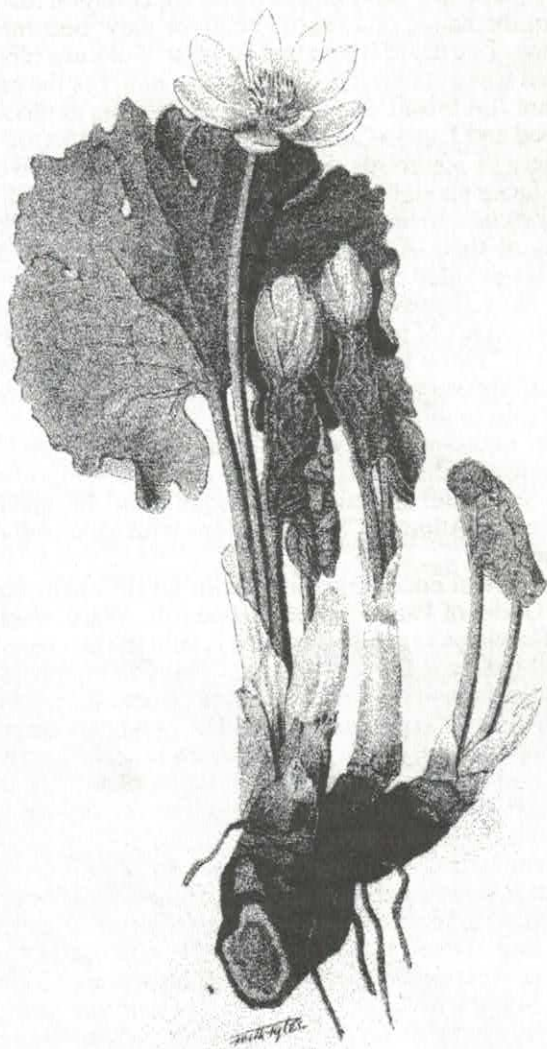
This year has been a thrilling and rewarding experience for Jim, stimulating him to continue to sculpting his feathered friends while striving to improve and further his artistic growth.

New Brunswick is so fortunate to have in residence such a world champion. The NBFN adds its encouragement to Jim to keep up his fine work which delights, inspires and educates not only naturalists but all people who are lovers of beauty and quality.



## NATURE NEWS: APRIL-JULY 1997

David Christie



Bloodroot  
Illustration by Faith Fyles

In 1997 New Brunswick experienced a generally cool spring and early summer. This particularly retarded the development of vegetation and emergence of insects. Intervals of favorable weather did bring the return of most migrant birds at about the usual time, so they were sometimes faced with food shortages. This apparently delayed the onset of nesting of some insectivorous species. By the beginning of July the weather was becoming hot and dry and general impressions suggested good nesting success for many species.

For upcoming columns, please send August-October observations to me by November 5, and November-January

observations by February 5. My address is RR 2, Albert, N.B. E0A 1A0 (e-mail: maryspt@nbnet.nb.ca; TalkMail: 882-2100).

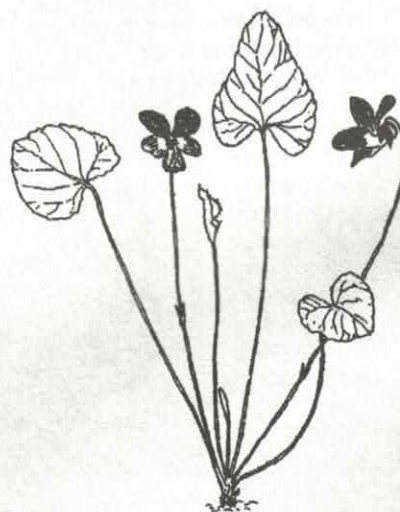
### Flora

**Coltsfoot** is usually seen flowering in late March at warm sites in urban Saint John, but the first I heard of this year were a few blooms along University Avenue Apr. 16 (PMo). At Fredericton the first Coltsfoot flowers were seen Apr. 17, when a number of **Silver Maple** and **Speckled Alder** were already in bloom (JPG). In snowy central Albert County Coltsfoot began blooming May 5 (AWi).

At Grand Manan, the first **Dandelion** was in full bloom along a south wall at North Head May 2. At Mary's Point it began blooming fairly generally on May 27, about two weeks later than normal (DSC).

The first of the spring woodland flowers are represented by a single **Trout Lily** at Fredericton Apr. 27, one plant of **Bloodroot** at Keswick Ridge May 1 (JPG); a few **Spring-Beauty** there May 3 (JPG+), the rare **Blunt-lobed Hepatica**

on Currie Mountain at Douglas May 5 (PAP, TP), **Red Trillium** at Keswick Ridge May 11; **Red Trillium**, **Spring-Beauty**, and **Trout Lily** near Waterford May 12 (PMA); a single **Northern Blue Violet** at Fredericton May 13 (JPG) and others around the helicopter pad at Long Eddy Light, GM, May 16 (LM)



Northern Blue Violet  
Illustration by G. Bishop

**Yellow Ladyslippers** and **Pink Ladyslippers** (including the white form) were "finally in bloom" in Rockwood Park, Saint John, June 10 (PMo).



### Insects

On the NatureNB mailing list, Luc DeRoche described a deluge of flying insects at Petit-Rocher June 20. "With one pair of wings and with the hind legs as well as the head red, they came tumbling down everywhere, kind of like 'black snow'. There were thousands. Windshields were covered with them, as were sidewalks and roads. People on foot or on bicycles were trying, in vain, to brush them off. It could have been a scene for a Hitchcock movie!" Ajo Wissink suggested they were **March flies**, small flies of the family Bibionidae that feed on decaying vegetation and are frequently very common.

### Amphibians & Reptiles

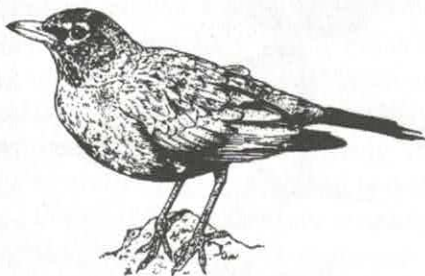
Beginning of the spring chorus of amphibians was delayed a week or two. Earliest **Wood Frogs** were at Bancroft Point, GM, Apr. 23 (BED); a few were calling at Fredericton, April 27 (JPG, AWT) at Mary's Point Apr. 28 ("during mixed rain and snow at 3° C" — DSC), and at Summerville May 5 (KHD); **Spring Peepers** at Mary's Point May 2 (DSC). An early **Am. Toad** was hopping along a side street in Saint Joseph May 1 (RGA); they began calling at Bancroft Pt. May 6 (BED).

Several **Painted Turtles** basked in the sun on logs despite some ice still present in a roadside pond on the floodplain at Lower Jemseg Apr. 27 (Jim Brown, MNC).

### Birds

Southern New Brunswick received its worst blizzard of the winter April 1-3. The southeastern corner of the province was especially heavily blanketed in snow. This made life difficult for early landbird migrants that had returned March 27-29. Many thronged to bird feeders. At Saint John Paul Mortimer was very sympathetic for the sparrows trying desperately to get something to eat at his feeders during the storm's strong winds. **Am. Robins** devoured any type of fruit available plus more unusual foods such as white millet (RJW), sunflower seed (BC, RE) and niger seed (Paul Bogaard).

Twenty-five were feeding in the wrack line at Battle Beach, White Head Island, Apr. 2 (BED). **American Woodcock** were seen frequently as they sought out bits of bare,

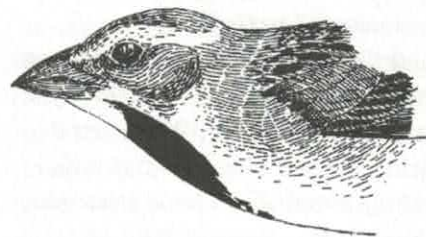


American Robin

thawed ground near homes and roads. At the height of the storm, David McCurdy saw woodcock sitting along roadsides and at foundations several places at Point Lepreau. Merv Cormier saw six of them as close as 10 feet at Anthony's Cove, Saint John, Apr. 3 (*fide* JGW).

The storm was followed by another influx of migrants. "Grand Manan island was knee-deep in migrating sparrows April 4-5. Many backyards had 250+ **Juncos**, 10+ **Fox Sparrows** and 50+ **Song Sparrows**" (BED). "Apr. 5 was definitely 'grackle' day in the Chaleur region, its seems that the **Common Grackles** were all over the place (less snow than south)" (PD).

Cool weather during May brought a lot of birds to feeders. Doreen Rossiter in Alma said that May 25 was her "most productive day of bird feeding ever!" She had a total



Dickcissel (male)  
Illustration by P.A. Taverner

of 36 species actively feeding, including a **Dickcissel**, an **Orchard Oriole**, and a female **Indigo Bunting**. May 25 was also a remarkable day at Dave Myles' feeder at Lower Prince

William, "a big rain and huge numbers of birds of 22 species, including an Indigo Bunting."

The influx of warblers, tanagers and orioles to feeders was a clear indication of a scarcity of food in woodlands, a result of the tardy spring and perhaps also of mortality of overwintering insects. Some people experimented with novel foods: Rob Walker, who fed 12 species of warblers through May 24, found melon slices attractive to orioles, warblers and even hummingbirds; Dwayne Biggar attracted several species of warblers by providing blueberry jam.

The weather of May 25 led to "a phenomenal two hours of warbling (1000+ individuals of 18 species) adjacent to the Hillsborough sewage lagoon... Most warblers were feeding very low due to the cool, wet weather and we frequently had birds feeding on the ground literally at our feet! There were many hundreds of swallows flying over the sewage lagoon. Chimney Swifts were also very much in evidence" (SIT, RAM, EP, RP).

The seabird migration monitoring begun at Point Lepreau in 1996 continued. Sea watches were also conducted at Waterside and Cape Enrage in Albert County and at Cape Jourimain, near Bayfield, and interest is developing in extending this activity to the Acadian Peninsula. Some days are slow, of course, but others are very busy.

Some of the larger movements (usually during a 4-hour



watch) I've learned of at Pt. Lepreau were: 1557 **Black Scoters** and 259 **Common Eiders** in 2 hours Apr. 6 (weather was deteriorating—JGW+); 1434 **Black Scoters**, 198 **Surf Scoters**, 148 **Common Eiders** Apr. 11 (JGW, JnW, PW); 3331 **Black Scoters**, 1635 **Surf Scoters**, 537 **Common Eiders** Apr. 18 (JnW); 3850 **Surf Scoters**, 2933 **Black Scoters**, 972 **Common Eiders**, 420 **scoter sp.**, 175 **Oldsquaw** Apr. 22 (JGW+); 1580 **Common Eiders**, 630 **scoter sp.**, 155 **Black Scoters** Apr. 26 (ID, MGD); 2220 **Surf Scoters**, 485 **Common Eider**, 422 **Black Scoters**, 299 **White-winged Scoter**, 269 **scoters sp.**, 194 **Double-crested Cormorants** Apr. 27 (JGW, JnW, Juliette and Bill Nowlan); 1398 **Surf Scoters**, 296 **Black Scoters**, 205 **Common Eider**, 170 **Red-throated Loon** Apr. 30 (JGW, JnW, PW); 649 **Red-throated Loons**, 504 **Surf Scoters**, 272 **Black Scoter** 86 **Common Loons** May 7, a.m. (JGW, PW); 246 **Surf Scoters**, 189 **Red-throated Loons**, 71 **Common Loons** May 7, p.m. (ID).

For comparison to the Apr. 6 numbers above were more than 5,000 **scoters** and **eiders** passing Cape Spencer, near Mispec, between 10 am and 12:30 p.m. (EP), and, later in the day, a very significant movement of 500 **Great Cormorants** past Quaco Head, near St. Martins (EP). Off Waterside that day there were many distant flocks of **eiders** and **scoters** totalling several thousand birds and about 3500 **Common Eiders** flew by New Horton Ridge, near Riverside-Albert (CC, RS, AC, *fide* SIT).

At Cape Enrage Apr. 27, Rob Walker saw 986 **Surf Scoters**, 98 **White-winged Scoters**, but only 2 **Black Scoters** (the main wave apparently having passed). Loon traffic increased in May when about 190 **Red-throated Loons** and 40 **Common Loons** passed there in 2.75 hours May 3 (SIT, RAM), and about 125 **Common Loons** and 15 or so **Red-throats** in 1.5 hours May 12 (SIT).

A 4-hour watch at Birch Pt, Miscou I., May 24 (BED, KM) produced: 25 **Red-throated Loon**, 125 **Common Loon**, 1200 **Northern Gannet**, 150 **Double-crested Cormorant**, 75 **Common Eider**, 140 **Oldsquaw**, 450 **Black Scoter**, 2 **Surf Scoter**, 25 **White-winged Scoter**, 20 **Red-breasted Merganser**, 9 **Red-necked Phalarope**, 10 **Ring-billed Gull**, 200 **Herring Gull**, 20 **Iceland Gull**, 2 **Glaucous Gull**, 100 **Great Black-backed Gull**, 80 **Black-legged Kittiwake**, 3 **Common Murre**, 13 **Razorbill**, 15 **Black Guillemot**.

**Scoters**, principally **Black**, stage in the Restigouche estuary before crossing to the St. Lawrence and the north. Mike Lushington summarizes this spring, "The ice in the river essentially left on the outgoing tides of April 25. Within two days, **Black Scoters** had moved into the estuary in very substantial numbers. From the last week of April to the last week of May the birds can be seen, often in very large rafts anywhere in the river from a point just west of the upper government wharf in Dalhousie extending west upriver to a point just opposite MacLeod Siding, just east of Campbellton.

This is a stretch of about 10 km and the river is from 2 to 5 km wide along it. It features very extensive shallow mud beds with good populations of mussels, and I speculate that that is the main attraction for the birds.

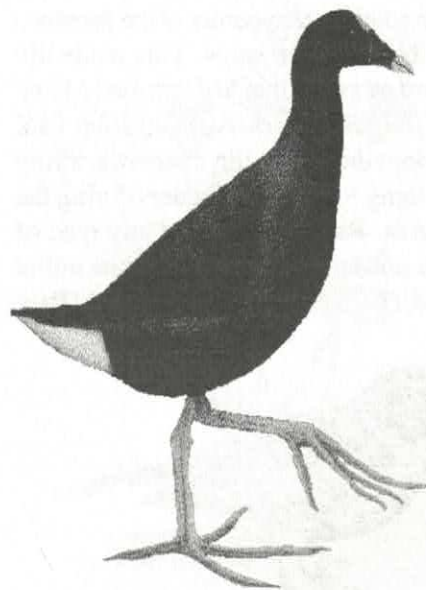
"I had the opportunity to make two population estimates—on the first weekend of May, I estimated in excess of 10,000 birds and on the second, on May 10, 11,500 birds... These were almost exclusively **Black Scoters**... My guess is that **Blacks** occupy the river and the shallower water, while **Surf Scoters**, as the name may imply, stay further off in the more open water of the Bay."

Hawk migration watchers at New Horton Ridge, near Riverside-Albert, had a particularly good day Apr. 5 (in 8.25 hours), a total of 151 **Red-tailed Hawks**, 4 immature **Bald Eagles**, 6 **Northern Harriers**, 17 **Sharp-shinned Hawks**, a **Northern Goshawk**, 6 **American Kestrels**, and a **Merlin**. Also passing were 1201 **Canada Geese**, 2160 **Common Eider**, and 328 **Great Cormorants** (SIT+). On Apr. 8 (in 6 hours): 21 **Northern Harrier** and 13 **American Kestrels** were the predominant hawks, and there were again a lot of **eiders**, 2175. On May 3 in a little more than an hour 13 adult **Broad-winged Hawks** passed, also 5 **Sharp-shinned Hawks** (SIT, RAM).

Birding highlights of this season were three strays from the south and one from the west: **Yellow-crowned Night-Heron**, **Purple Gallinule**, **Cerulean Warbler**, and **Western Tanager**, plus large numbers of colourful insectivorous birds at feeders during May and lots of **Turkey Vultures**. I'm

sorry there won't be room to give space to most of the common species.

The adult **Yellow-crowned Night-Heron**, our first to stay put cooperatively for numerous birders to see, was in the Hammond River area of Quispamsis May 5-25 and possibly into June (Mr. & Mrs. Ed Landry+). It was relocated 7 km away in Hampton (the Harts) about June 6-9 (NBBIL).

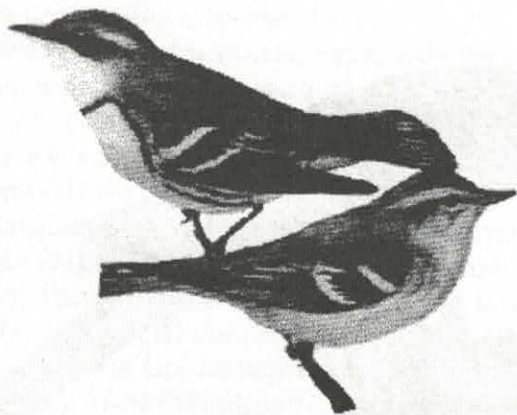


Purple Gallinule  
Illustration by L.A. Fuertes

An adult **Purple Gallinule** was discovered by Nancy MacDonald and Andrew MacInnis on the flats at Lower Jemseg May 3 a few hours before the road was closed by



floodwaters. Word spread quickly and a number of people saw that beautiful bird that evening or early on the 4th before its feeding habitat was completely covered by the rising waters.



Cerulean Warbler  
Illustration by L.A. Fuertes

An adult male **Cerulean Warbler** discovered at Great Pond, GM, by Merv Cormier May 19 stayed around through the 22nd, often feeding low where it was easily seen by numerous observers. A warbler seen elsewhere on Grand Manan May 18 also may have been a Cerulean (MGD, ID).

Two **Western Tanagers** were reported. A female-plumaged bird seen briefly at Woodward's Cove May 18 (RE, BC) was followed by a cooperative young male visiting feeders at Saint John West from about May 30 till June 10 (Wendy Lockett) or perhaps a day or two later (*fide* CLJ).

There was a good showing of southern herons. **Great Egrets** were noted at Taymouth, May 7 (John Baird, *fide* MP), near Bouctouche about May 12-13 (MLE), at Carron Pt., Bathurst, May 20-22 (LD), Cap-Brûlé, near Shediac, May 22 into mid June (Julie Pellerin+), and Gagetown, June 1 (*fide* Linda Caissie). In mid summer, an unprecedented number appeared at the St. Martins Marsh, 5 on July 29 (TS) and 6 on July 31 (MC+). **Snowy Egrets** were at Chance Harbour May 7-9 (KM+), Saints Rest Marsh, Saint John, May 16 (2—MNC) and July 31 (MC), Grand Manan on the May 16-19 weekend (*fide* BED), and Mary's Point May 24-29 (DSC+). A rare instance of them summering at one location (rarer still for northern N.B.) involved two at Eel River Bar from June 17 to July 5 (A&SN+) and sporadically later in July (*fide* ML). Their behaviour suggested they could be a pair, and there were reports of them visiting Heron Island, site of a Great Blue Heron colony, raising speculation they might attempt to nest. An adult **Tricolored Heron** was at Waterside Marsh May 13-15 (RJW+). A **Cattle Egret** at Bas-Caraquet May 3 (*fide* Guy Hébert)

probably later spent two weeks at Bertrand through May 26 (*fide* BH). Two were at Waterside May 12 (Sonny Dixon, *fide* DSC).

A very cooperative pair of **Green Herons** frequented Harry Wolverton's duck-fish pond at Lower Royalton, near Centerville, from about June 9 through the end of the month (GMI+). Very unusual for the Acadian Peninsula was an early **Least Bittern** found dead near Lamèque Apr. 12 (NBBIL).

Denis Doucet briefly observed a probable **Glossy Ibis** near Bouctouche about May 18. Denis wasn't quite sure that it wasn't a White-faced Ibis, a species never seen here.

Beginning May 25, Brian Dalzell received several reports of a swan (and one report of two) at different locations at Grand Manan. Eventually a **Whooper Swan** settled down on White Head Island from June 26 well into July (Allan MacDonald+). The bird is likely one of several that escaped a few years ago in the northeastern U.S.A.

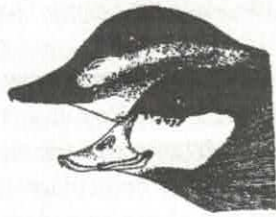
Status of a **Greylag Goose** (originally thought to be an immature Greater White-front) at Charlo May 10-13 (Don Mann, RGi, Denise Zyveniuk+) is being studied by the New Brunswick Bird Records Committee.

Numbers of **Snow Geese** were well above average. The larger groups were: 12 at Nauwigewauk by Apr. 12 (NBBIL); 22 (most subadults, one a blue phase) at Roachville Apr. 24-27 (JCa+); 53 near Hampstead Apr. 26 (Andrew MacInnis, Ann Slipp+); and 12 at Sugar Island just west of Fredericton Apr. 21 (DGG). Apr. 8 at Inkerman (André Robichaud) is the sole report received from northern N.B. A particularly late bird, a blue phase, was among a flock of Canada Geese that flew up the St. Croix River at St. Andrews June 8 (TD).

Male "**Eurasian**" **Green-winged Teal** were picked out from among the North American birds at Saint's Rest Marsh through Apr. 4 (JGW), Waterside Marsh Apr. 10-12 (RJW+), and East Bathurst May 10 (PD). There were numerous **Eurasian Wigeon** reports: Saints Rest Apr. 14-19 (CLJ+) and in June (NBBIL); Cap-Brûlé Apr. 24 (RAM); Shannonvale, near Eel River Crossing, May 7 (JCI+); Gagetown May 15 (pair—BB); Central Hampstead May 17 (JPG, DLM); St-Basile May 21 (GT+); Jemseg May 22 (pair—CLJ); Lower Coverdale, near Riverview May 23 (RL) and June 5 (RPC); and Bouctouche June 1-3 (MLE+). Two to three **Northern Shovelers** at the mouth of the Tetagouche River in Bathurst May 1-9 (LD+) were noteworthy there.

The Lancaster sewage lagoon at Saints Rest hosted two rare diving ducks: a male **Canvasback** Apr. 17-19 (Doris Johnston+) and a male **Redhead** Apr. 9-20 (Allen Gorham+). Both were reportedly present till late in the month (NBBIL). A pair of Redhead were on the Calhoun Marsh, near Riverside-Albert, May 10-14 (DJC, AB+). There was a report of a **Tufted Duck** at Waterside Apr. 7 (Jean Inglis,





Ruddy Duck (upper  
female, lower male)  
Illustration by P.A.  
Taverner

Elsie Gallant). A **Ruddy Duck** visited Saint's Rest sewage lagoon in the first week of May (NBBIL, May 4), and three to five were reported at Bell's Marsh, Moncton, from May 19 (NBBIL).

Sea watchers picked out a few male **King Eiders** among flocks of migrating

eiders: at New Horton Ridge Apr. 5 (SIT+), Cape Spencer Apr. 6 (2—EP), and Pt. Lepreau April 18-27 (total of 7—v.o.). As many as 4 **Harlequin Ducks** were seen regularly at Pt. Lepreau through Apr. 27 (v.o.) and there were 2 at Cape Jourimain Apr. 14 (KP). Birders saw 2 at Grand Manan during the May 16-19 weekend.

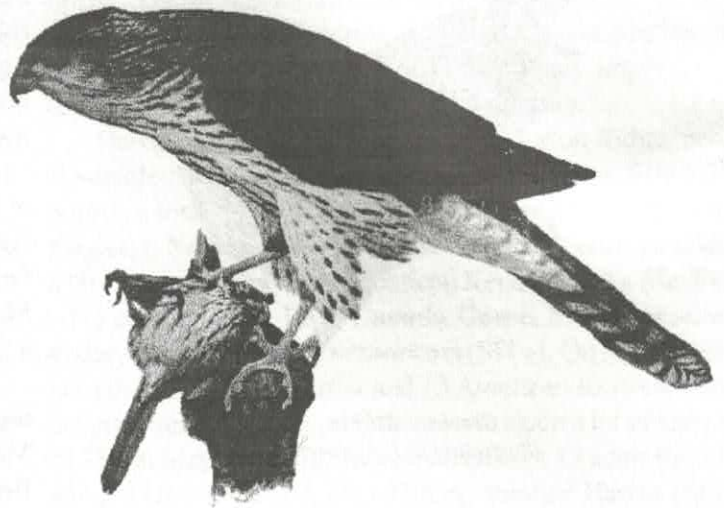
A few observations of **Harlequin Ducks** in northwestern N.B., near potential breeding grounds, raise hope that this species' population is increasing. A male was at St-Jacques May 2 (Eric Lajoie), a male beside the St. John River at Ste-Anne-de-Madawaska May 5 and a pair there May 10-11 (Vicky Lentz+). A female was seen on the Little Tobique near Nictau May 17 (SR, JB).

There's further good news, that a mother Harlequin and 8 ducklings appeared in mid July on the Charlo River estuary, which provided New Brunswick's first breeding record for this species last year (JCI, ML). They weren't seen for awhile later in the month, but on Aug. 2 a congregation of 13 Harlequin Ducks were there, suggesting the possibility that there were two females, one with a surviving clutch of seven, the other with four (ML).

A **Black Vulture** was at Seal Cove Jun. 24-29 (Howard Streight+, *fide* BED), and perhaps the same one at Wilson's Beach, Campobello, July 3 (Jon Dunn, CDD+)

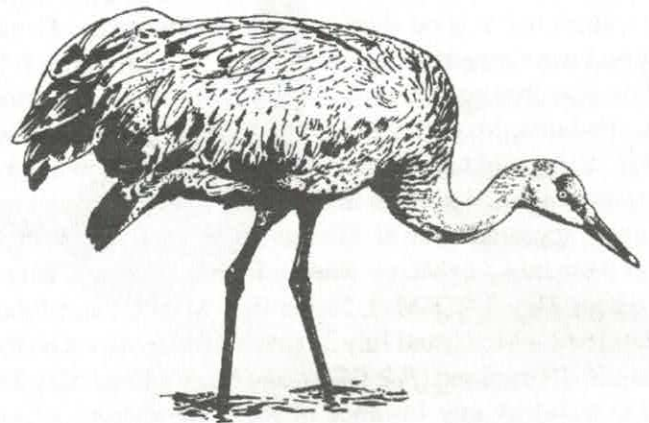
We still don't have any good evidence of **Turkey Vultures** breeding in New Brunswick, but so many are being seen that a few must be nesting. Here's a sample from the dozens of reports during the spring and early summer: an immature along the Saint John River between Woodstock and Hartland Apr. 18 (GMi), 3 headed east over Sussex Apr. 27 (MNC), 3 at Edgetts Landing, near Hillsborough, May 3 (Alma & Don White), one over the Falls Brook Center, Knowlesville, May 11 (Julie Abouchar, JPG), one over Fredericton May 13 (DGG), and an adult at Riley Brook May 29 (DM, JB); and within the species' south-central stronghold: 9 at Welsford May 14 (KM), 5 near Hampton June 2 (CC), 5 at Nauwigewauk July 11 (KHD), 14 around a dead calf at Hammond River July 1, and the peak! — 21 there July 3 (JGW).

A **Cooper's Hawk** was reported eating a starling at Campbellton May 8 (Stewart McRae). **Red-shouldered Hawk** was seen near Porters Cove, Boiestown, Apr. 12 (DLM) and at Charlo May 11 (A&SN)



Cooper's Hawk  
Illustration by L.A. Fuytes

Highlight of a June 14 outing to check Wood Duck nest boxes at lac Meadows, near Nicholas-Denys, was a **Yellow Rail** that began calling and then responded to imitated calls (PD, LD). An adult **Sandhill Crane** stopped at Hammond River May 28 (CLJ).



Sandhill Crane

A probable **American Oystercatcher** was seen briefly at Castalia Marsh May 20 (BED). Two **Pectoral Sandpipers** there Apr. 17 (BED) were the first April record for Grand Manan.

There were several reports of **Wilson's Phalaropes** May 4-25, including 5 at Jemseg May 10 (Mike & Chris



Antle+) and 5 on the Middle Sackville sewage lagoon May 9 (KP). In the north, was a female at the Tracadie sewage lagoon May 25 (BED), and one on the May 24 Miscou count (*fide* PD). 10 **Red-necked Phalaropes** were on the Caraquet sewage lagoon May 26 (BH+). Four possibly returning phalaropes were already off Grand Manan June 29 but couldn't be identified to species (LM).

A **skua**, identified as a Great, was seen during a whale-watching trip off Grand Manan June 29 and the same or another was photographed July 29 (LM).

Strong winds in mid May blew several adult **Laughing Gulls** beyond their breeding range which extends as near as Petit Manan Island, Maine. The first was at Pettes Cove, GM, May 17 (DGG) and a possible at Woodward's Cove the same day. Then there were singles at Courtenay Bay, Saint John, May 19-23 (KM+), at Great Pond, GM, May 21 (*fide* BED), just north of Grand Manan May 21 (JGW+), Blacks Harbour May 21-22 (SIT+), and west of Jemseg May 22 (JGW). Four were found during a visit to Machias Seal Island, where they are more often seen, in the last week of June (EP+). A **Franklin's Gull** was a very rare visitor May 23 at Petit-Shippagan (*fide* MD).

Three **Little Gulls** (an adult and two 1st-summer birds) were discovered among hundreds of Bonaparte's Gulls at the mouth of the Tetagouche River July 28+ (AC, RG). **Black-headed Gulls** showed at Saint's Rest Marsh Apr. 9 (NBBIL), near McGowans Corner Apr. 30-May 1 (SS+), Black's Harbour into the first week of May (KM), Cap Bimet, near Shediac, May 31-June 1 (*fide* SIT) and, the same?, there July 20 & 27 (SIT, RAM).

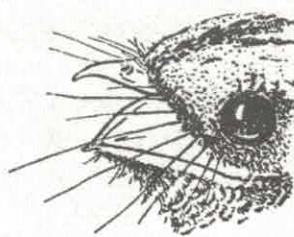
At Sheffield there was a beautiful adult **Lesser Black-backed Gull**, feeding on earthworms, May 1 (JGW). First-summer Lesser Black-backs were noted between Cap Brûlé and Cap Bimet May 1 (NBBIL), at Courtney Bay May 8 (NBBIL), Shediac May 9 & 13 (SIT) and Robichaud May 13 (SIT).

An immature **Ivory Gull** reported at White Head Apr. 2 could not be relocated, despite intense searching that day. That rarity apparently moved on to Machias Seal Island, where it was seen Apr. 3 (*fide* BED).

Three **Caspian Terns** flew up the bay past Cape Enrage May 1 (DSC, EMM). Others were at Shediac May 6 (SIT) and late in May (Bev Taylor), Robichaud May 13 (2—SIT), and Saints Rest Marsh May 16 (MNC).

An unusual summering **Dovekie**, in breeding plumage, was seen at The Wolves July 12 (KM) and 2 were off Grand Manan July 25 (LM). Brian Dalzell believes our summer Dovekies may have ingested oil and were unable to migrate north.

Some **Whip-poor-wills** were noted in the north, at the edge of their range: calling at Edmundston in mid-May (Gisèle Thibodeau, Benoit & Rita Clavette), on the Little



Whip-poor-will  
Illustration by P.A.  
Taverner

Tobique Road, NE of Nictau, May 29 (SR); and at Saint-Sauveur July 18 (LD, PD).

Christine Petitpas watched a family (2 young, 2 adults) of **Belted Kingfishers** living in a huge dead tree at Pointe-du-Chêne in July. Tree nests are known mainly from southern swampland where there are no sand or mud banks in which

the birds can excavate their normal burrow nest-site.

A female **Red-bellied Woodpecker** was present at North Head May 18-21 (NBBIL). A Mrs. Johnson reported a male in her yard at Saint John West May 25-26 (*fide* EP). A **Red-headed Woodpecker** was also at Grand Manan on the May 16-19 long weekend (*fide* BED).

A **Northern Rough-Winged Swallow** was investigating a potential nest-site at Fredericton Junction May 28 (SIT, CC) and a pair were seen there during June (NBBIL). One, possibly 2, were reported at Cornhill June 8 (Harriet Folkins).

A **Carolina Wren** appeared in a St. Martins yard July 27 (TLS). A lone male **House Wren**, loudly singing at Williamstown, near Lakeville, Carleton County, from mid June till July 1 (GMi), should have shown up at Silverwood, Fredericton, where a female appeared June 25, built a nest and was incubating eggs without a mate (SS+).



Carolina Wren  
Illustrated by L. A. Fuertes





House Wren  
Illustration by L. A. Fuertes

**Blue-gray Gnatcatchers** were reported at Harvey, Albert County, May 12 (DM), Bancroft Pt. May 14 (BED), Grand Manan over the May 16-19 weekend (total of 5—*fide* BED), St. Andrews May 16-17 (TD), and Cape Jourimain National Wildlife Area June 1 ("possibly two"—Andrew Macfarlane).

A couple of **Eastern Bluebirds** reports from

northern N.B. came from Nictau May 12 (2—Bill Miller) and Charlo May 23+ (2—*fide* ML). In southeastern N.B. there seemed to be fewer bluebirds this summer than in recent years.

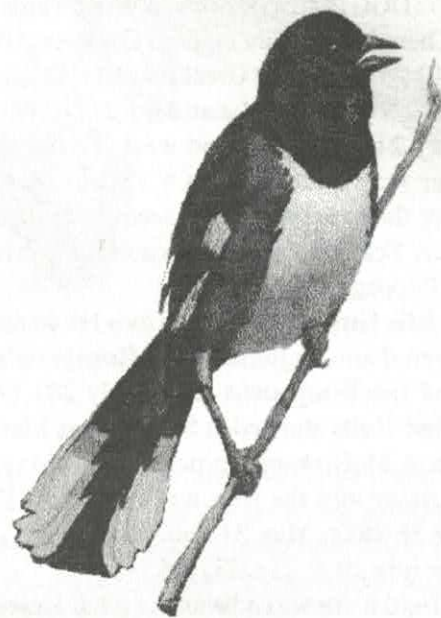
There were a good number of **Brown Thrasher** reports, the earliest Apr. 25 at a feeder in North Head and the most, 10+ at Machias Seal I. May 13 (*fide* BED). To the north they were found at Oakland, near Florenceville, May 9 (Ansel & David Campbell), Madawaska County May 15 (GT, GLT), Bathurst May 17 (PD), and Campbellton from about May 20 into late June (2—RC, CR+).

There were two reports of **Orange-crowned Warbler**, a very rare spring migrant: Riverview May 27 (SDW) and Atholville June 15-16 (ID, MGD). Rarer still, a **Yellow-throated Warbler** was at Grays Mills, near Kingston, May 25-26 (Jennifer Day-Elgee, Bette Day) and another identified at Charlo (CR, RC) in the last week of May (*fide* MGD). A **Yellow-breasted Chat** was reported at West Quaco by May 28 (Dennis Seeley, *fide* NS).

Four immature male **Summer Tanagers** appeared: North Head about May 12-19 (NBBIL), Castalia on the May 16-19 weekend (NBBIL), Alma May 20-23 (Gisela Downey+), and Baie Verte May 25-28 (Noreen Spence). More **Scarlet Tanagers** were seen than normal, partly because the weather brought them out into view, often at feeders. There was possibly one at Moncton Apr. 25 (MNC line); the next earliest was at North Head May 2 (*fide* BED); most were seen during May 13-28 and at southern locations.

An adult male **Blue Grosbeak** was picked up dead in Saint John May 13 (*fide* Don McAlpine), a female was

present at Andrew Sharkey's feeders on the Whistle Road, GM, on the May 16-19 weekend (v.o.) and a second bird was elsewhere on the island then (*fide* BED). **Indigo Buntings** were numerous, the earliest at Grand Harbour May 2 (*fide* BED) but most from May 12, when there were 10+ males at Grand Manan. In the north, a male and female were at Campbellton May 31-June 1 (Flora Kelly) and a male 8 km from Campbellton June 4-5 (MGD). A male **Painted Bunting** visited a St. Martins feeder for three days, exactly one week later this year than last (Debbie Henderson, *fide* NS), which would put it there around June 17-19.



Eastern Towhee  
Illustration by L. A. Fuertes

**Eastern Towhees** were reported at Keswick Ridge May 3 ("calling & singing"—JPG, GB, AMcA) and at Machias Seal I. May 6 (1) and May 13 (5—*fide* BED). A **Lark Sparrow** was seen at a North Head feeder about May 22 (OL+). An "**Ipswich**" **Savannah Sparrow** that had appeared in late March at Doreen Rossiter's feeder in Alma was present through Apr. 5, and another at Waterside Apr. 4 (SIT). A "very, very, pale Savannah" at Pt Lepreau Apr. 20, may have also been an Ipswich (EP+).

A **Clay-coloured Sparrow** visited an Alma feeder May 22-24 (RJW+) and one was at Bertrand June 5-6 (André Pinet, BH). Two **Field Sparrows** were seen in Alma between Apr. 29 and mid May (RJW+), there was one at a North Head feeder May 19 (AC) and one singing at Mary's Pt. May 25 (DSC).

**Eastern Meadowlarks**, more unusual in northern N.B. than in the south, were in the Campbellton area about Mar. 31 or Apr. 1 (A&SN, *fide* ID), at Inkerman Apr. 6 (Lucia Robichaud), and at Caron Pt. marsh July 14 (LD).



One **Yellow-headed Blackbird** is usually a spring's quota but this year there were 5 reports. A male was seen on Campobello Island Apr. 19 (J. Mitchell) and another, or the same?, at Alma Apr. 22 (RJW). A female was present in Woodward's Cove from at least May 11-16 (*fide* BED). One was reported at Grand-Digue June 16 (Audette Pellerin) and an adult male June 29 about 3 km west of Campbellton (RGI+).

More **Orchard Orioles** were seen than we've ever known. A female was at Bancroft Pt. May 12 (BED). The first of three in Alma appeared May 13 (RJW+). Most were on the Fundy coast but there were also one at Westfield May 15 (Jocelyn Steeves), one at Baie Verte about the last week of May (Noreen Spence), and possibly three adult males at Gagetown May 22 (Buddy Wilson, *fide* CLJ). Brian Dalzell figured there were about 20 at Grand Manan over the May 17-19 weekend, including as many as eight feeding on piles of rotting apples at a house on the Whale Cove Road. All seem to have disappeared by the end of the month.

For the second spring in a row **Baltimore Orioles** were very numerous and conspicuous. The first two appeared at feeders in Seal Cove May 8, with 50+ appearing on the island May 12 (*fide* BED). It was common for even inland feeders to have 4 to 7 orioles at a time, such as at Harvey Station, York County (Mike Larlee), Gagetown (Enid Inch), near Waterford (PMA), Fredericton (Angela Gloss), and Lower Prince William (DLM). Plumage differences indicated a change in individuals every few days and at Mary's Point there was a minimum of 30-40 individuals at the feeders through May 28 (DSC). This oriole bonanza seems to have missed the northern part of the province.

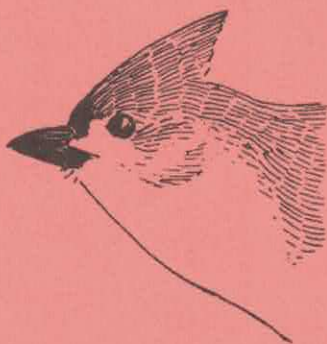
Finally, some unconfirmed reports: a **Fork-tailed Flycatcher** at Saint's Rest sewage lagoon June 7. (NBBIL); a **Sulphur-bellied Flycatcher** at Caissie Cape June 8 (Léona Cormier); a **Scissor-tailed Flycatcher** in Restigouche County the last weekend in May (*fide* ID); 5 **Tufted Titmice** at Edmundston Apr. 11 (Adeline Verret, Paul & Claire D'Amours); a **Loggerhead Shrike** at Baie-

du-Petit-Pokemouche Apr. 5 (Bernadette Hébert); and a male **Black-Headed Grosbeak** at Somerville, near Hartland, May 20 (Clarence Hendry, Patsy Culberson).

### Observers

A&SN André & Suzanne Nadeau; AB Anne Bardou; AC Alain Clavette; AMcA Alison McArthur; AWi Ajo Wissink; AWT Tony Thomas; BB Bonnie Bogart; BC Barb Curlew; CC Connie Colpitts; CDD Charles Duncan; CLJ Cecil Johnston; CR Claude Richard; DGG Don Gibson; DJC David Clark; DLM David Myles; DM Daniel Melanson; DSC David Christie; EMM Mary Majka; EP Eileen Pike; GB Gart Bishop; GLT Gisèle Thibodeau; GM Grand Manan; GMi Grant Milroy; GT Georgette Thibodeau; ID Irene Doyle; JB Julie Bourque; JCa John Candy; JCI Jim Clifford; JGW Jim Wilson; JnW Jean Wilson; JPG Jim Goltz; KHD Henrik Deichmann; KM Ken MacIntosh; KP Kathy Popma; LD Luc DeRoche; LM Laurie Murison; MC Merv Cormier; MD Marcel David; MGD Margaret Gallant Doyle; ML Mike Lushington; MLe Mike LeBlanc; MNC Moncton Naturalists' Club; MP Margie Pacey; NBBIL N.B. Bird Information Line; OL Oscar LeBlanc; PAP Peter Pearce; PD Pierre Duguay; PMA Paul Martin; PMo Paul Mortimer; PW Phil Withers; RAM Rose-Alma Mallet; RC

Raymond Chiasson; RE Rick Elliott; RG Roger Guitard; RGA Ron Arseneault; RGI Bob Gillis; RJW Rob Walker; RL Roger LeBlanc; RP Roy Pike; RPC Bob Cotsworth; RS Ron Steeves; SDW Doug Whitman; SIT Stuart Tingley; SR Serge Rhéaume; SS Shirley Sloat; TD Tracey Dean; TLS Ted Sears; TP Theresa Pearce; v.o. various observers.



Tufted Titmouse  
Illustration by P.A. Taverner



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