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





Nature NB

924 rue Prospect St., Suite 110, Fredericton, N.B. E3B 2T9, Canada. www.naturenb.ca

Nature NB is a non-profit, charitable organization whose mission is to celebrate, conserve and protect New Brunswick's natural heritage, through education, networking and collaboration. (The former name of Nature NB - New Brunswick Federation of Naturalists / Fédération des naturalistes du Nouveau-Brunswick is retained for legal purposes.)

Nature NB est un organisme de bienfaisance à but non-lucratif qui a comme mission la célébration, la conservation et la protection du patrimoine naturel du Nouveau-Brunswick par l'éducation, le réseautage et la collaboration. (L'ancien nom de Nature NB, soit « Fédération des naturalistes du Nouveau-Brunswick / New Brunswick Federation of Naturalists », demeurera le nom légal de l'organisme.)

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Association des Naturalistes de la Baie de Bouctouche, currently inactive.
Celebration of Birds Nature Club (Gagetown), c/o Bonnie Hamilton Bogart, 194 Tilley Road, Gagetown E5M 1H7, bonniehb@nb.sympatico.ca. Information evenings every 3rd Wednesday in February and March, and field trips in April and May.
Chignecto Naturalists' Club, c/o CWS, Box 6227, Sackville, E4L 1G6, 364-5047; meets Sackville Public Library, 7:30 pm, 3rd Mon., Sept.-June.

Club de Naturalistes de la Péninsule acadienne, 1521-4 chemin Cowan's Creek Pokemouche, E8P 2C6; emile.info@cnpa.ca, site web : www.cnpa.ca. réunions au Club de l'âge d'or Landry, 1^{er} mercredi, sept. à juin; *Le Gobe-mouche*, mensuel.

Club de Naturalistes Vallée de Memramcook, a/s Valmond Bourque, 12 rue Desbarres, Memramcook, E4K 1E7, 758-1095, www.natureacadie.ca; réunions 2^{ième} mardi du mois, sept. à juin, à l'amphithéâtre de l'école Abbey-Landry, rue Centrale, Memramcook.

Club d'ornithologie du Madawaska Ltée, a/s Musée historique du Madawaska, 195 boul. Hébert, Edmundston, E3V 2S8, 737-5282 (Bert Lavoie); www.umce.ca/com1; réunions à 19h00, 2^{ième} mercredi, sept. à juin, Musée du Madawaska; *Le Jaseur*, trimestriel.

Club les Ami(e)s de la Nature du sud-est Inc., a/s Normand Belliveau, 54 Malakoff Road, Scoudouc, E4P 1B5, 532-4583, ligne d'information : 532-Buse; réunions alternant entre Dieppe et Shédiac, 1^{er} mercredi du mois; excursions 3^{ième} samedi ou dimanche; *La plume verte*.

Fredericton Nature Club, Box 772, Station A, Fredericton, E3B 5B4, 366-3079; meets Stepping Stone Centre, 15 Saunders St., 7:00 pm, 1st Wed., Sept.-May; newsletter.

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

Moncton Naturalists' Club, Box 28036, Highfield Square P.O., Moncton, E1C 9N4, 384-6397; www.monctonnaturalistsclub.org; meets Church of the Nazarene, 21 Fieldcrest Drive, 7 pm, 3rd Tues., Sept.-June; monthly newsletter.

Restigouche Naturalists' Club, c/o Mike Lushington, 214 Rosebery Street, Campbellton, E3N 2H5, 684-3258; meets Village-Campbellton Nursing Home, 7 pm, 1st Monday; <http://members.tripod.com/~RestNatClub>

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

Miramichi Naturalist Club, President: Elizabeth Walsh, 836-7880; mailto@MiramichiNaturalistsClub.ca; www.miramichinaturalistsclub.ca; meets 7:00 pm, 2nd Mon. in the Friendly Neighbor Senior Citizen Centre.

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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. **Veillez faire parvenir toutes articles pour *Le Naturaliste du N.-B.* à : Gert Bishop, 16 Pitt St. Sussex N.-B., E4E 1J1, 433-4994, gartali@nbnet.nb.ca.** Demandez pour les détails de compatibilité d'ordinateur. Tarifs publicitaires sont disponibles sur demande.



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In This Issue / Dans ce numéro*Cover photo / photo sur la page de couverture :**Short-eared Owl, Tantramar Marsh, fall 2007, Roland Chiasson**Hibou des marais, marais de Tantramar, automne 2007, Roland Chiasson*

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Merci beaucoup à tous les bénévoles dévoués qui ont contribué à cette publication.

Please submit articles for the next issue by February 1st, 2008.
S.v.p. soumettre les articles pour le prochain numéro avant le 1 février, 2008.

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MOT DU PRÉSIDENT - PRESIDENT'S MESSAGE

Roland Chiasson

A Good Winter Book!

One of the many joys of the winter season for me is reading about the return of birds in spring. Dreaming about the first warm days on a cold winter day has a sense of devious pleasure. One of the best books that I know to create this mood is a book called "Mar, A Glimpse into the Natural Life of a Bird" by Louise de Kiriline Lawrence.

Originally from Sweden, she joined the Red Cross in 1927 and worked in various outposts in Northern Ontario. Mrs. Lawrence gained international fame for her nature writings and was the first Canadian woman to be given an Elective Membership in the American Ornithologists' Union. Here is a quote from the book that sets the mood of the story:

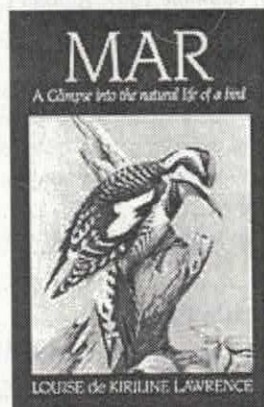
"It is mid-April. The morning dawns with the crisp chillness typical of this northern land around Pimisi Bay in the early spring. Ice and lingering patches of snow crunch underfoot. The sun rises brilliant through the breathless mists and directs its radiance warmly upon the land.

Low through the trees the sapsucker flies, drifting along the ridge and the shore of the lake. He lingers as if to test the accuracy of his homing sense, as if searching, and seems to edge his way ahead more slowly...."

The book narrates the story of a single bird, a Yellow-bellied Sapsucker called Mar. Her descriptions of the woodpecker's life make you feel as if you were there doing the observations. At times you feel as if you can understand the instinctive drive of this bird and how it interacts with other organisms and his environment.

Mar is a splendid read and I am sure I will enjoy her other book this winter just as much: "The Lovely and Wild"!

Happy winter reading!



Un bon livre pour l'hiver!

L'une de mes nombreuses joies hivernales est la lecture de textes à propos du retour des oiseaux au printemps. Rêver aux premières journées douces lors d'un jour froid d'hiver est comme un malin plaisir. L'un des meilleurs livres à ma connaissance qui évoque bien cet état d'esprit est l'ouvrage « Mar, A glimpse into the Natural Life of a Bird » de Louise de Kiriline Lawrence.

Originaire de Suède, elle joignit la Croix-Rouge en 1927 et travailla dans diverses localités du nord de l'Ontario. Madame Lawrence obtint une renommée internationale pour ses écrits sur la nature et devint la première Canadienne à être nommée dans la catégorie « elective membership » de l'American Ornithologist Union. Voici un extrait qui donne le ton de son livre :

« C'est la mi-avril. La matinée se lève avec la froidure mordante si coutumière en début de printemps dans cette terre nordique, autour de la baie Pimisi. La glace et les plaques de neige persistantes craquent sous les pieds. Le soleil s'élève, brillant, à travers par les brumes évanescences et diffuse ses chauds rayons sur le sol.

Le pic vole bas à travers les arbres, errant le long de la crête et la côte du lac. Il s'attarde comme s'il met à l'épreuve l'exactitude de son sens du retour; comme s'il recherche, et semble même parcourir sa voie en s'avancant plus lentement.. »

Le livre relate l'histoire d'un seul oiseau, le Pic maculé, surnommé Mar. Ses descriptions de la vie du pic nous donnent l'impression que nous faisons nous-mêmes les observations. Parfois, nous avons même le sentiment de comprendre l'impulsion instinctive de l'oiseau et comment il interagit avec d'autres organismes vivants de son milieu.

Mar est un livre magnifique et je suis sûr que je vais autant apprécier cet hiver son autre ouvrage intitulé « The Lovely and Wild »!

Bonne lecture hivernale!

NEWS - NOUVELLES

Le Film « Migrations » gagne un prix international au 23^{ème} Festival International du Film Ornithologique en France (voir : <http://www.menigoute-festival.org/>)

« Migrations » : par Roger Leblanc, Bellefeuille Production Ltée

« Les migrations aviaires fascinent l'être humain depuis toujours. Zachary Richard, le célèbre chanteur cajun, a franchi ce pas il y a quelques années. Lorsque Zachary a rencontré Alain Clavette, c'est en quelque sorte l'Acadie du Sud et celle du Nord qui se rencontraient par le biais des oiseaux. C'est une rencontre intime avec le monde aviaire et une connivence de deux amis qui partagent interrogations et découvertes. »

The Film 'Migrations' won an international prize at the 23rd international Ornithological film Festival in France (see: <http://www.menigoute-festival.org/>)

'Migrations': by Roger LeBlanc of Bellefeuille Production Ltd Canada.

"Bird migrations have always fascinated human beings. Zachary Richard, the famous cajun singer, crossed this step a few years ago. When Zachary met Alain Clavette, it is to some extent the Acadie of the South and that of the North that met "through the birds". It is a meeting with the world of birds, and of two friends who share interrogations and discoveries."

ASSEMBLÉE GÉNÉRALE ANNUELLE DE NATURE NB 2008

L'AGA 2008 sera tenue dans la Péninsule acadienne

Club hôte : le Club de Naturalistes de la Péninsule acadienne

Dates : les 20, 21 et 22 juin 2008.

Venez vous amuser avec nous et découvrir la faune et la flore de notre région. Nous allons vous faire découvrir notre région côtière.

NATURE NB ANNUAL GENERAL MEETING 2008

The 2007 AGM will be held in the Acadian Peninsula

Host Club: the Club de Naturalistes de la Péninsule acadienne

Dates: June 20, 21 and 22, 2008.

We'll explore our very special coastal region - come and have fun discovering the area's fauna and flora.

PECTORAL SANDPIPERS

Beverly Schneider

On September 20th at Saints' Rest Marsh, Merv Cormier and I witnessed a wonderful shorebird display. We walked out over the marsh and noticed a flock of about 30 shorebirds take off from the foot-high grass. The flock flew erratically over the marsh in wide circles around us. Flying in formation, it was amazing how well they kept together. It was like several squadrons all performing to the same instructions. When the leaders wheeled, all wheeled. When the leaders turned right, all turned right. When the leaders gained elevation, all rose. They were a joy to watch as they performed around us. We could see them so well we could identify them as Pectoral Sandpipers, with one lone peep behind. It was soon evident they wanted to land in the long grass just in front of us. After wheeling over the spot a couple of times they began dropping out of formation to take up their chosen spot in the grass. After about 3 go-arounds, they were all down. One bird apparently appointed itself to be the sentry as the rest disappeared in the grass, presumably feeding or sleeping. The sentry kept an eye on us and gave Merv ample photographic opportunity. We could see the dark, striped breast and its sharp demarcation from the white belly. The grayish, yellow legs were seen easily. From close range, the bill appears big on a Pectoral. We could see its grayish, pink base and darker tip. I have never seen about 30 Pectoral Sandpipers together before and thoroughly appreciated the show they gave us that day.



Pectoral Sandpiper
Merv Cormier



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EXOTIC AND INVASIVE PLANTS IN MARITIME CANADA

Sean Blaney

This article is slightly modified from an item published in the Blomidon (Nova Scotia) Field Naturalists' newsletter in 2001.

Exotic, or alien species are those species that have arrived at an area outside their natural range with deliberate or unintentional human assistance. Today few, if any, regions worldwide are free of alien species. The frequency of exotic introduction continues to increase with human alteration of natural ecosystems and with increasing opportunity for species' movement associated with greater global interdependence of economies. Vascular plant invaders are especially numerous. For example, Heywood (1989) estimates the introduced vascular flora of Australia at 1500 - 2000 species, Kent (1992) lists 1189 established exotic species in the British Isles and there are over 786 vascular plant species reported as exotic in at least one of the Maritime provinces (ACCDC database 2007). Exotic plants are not a new phenomenon in North America. The first alien species arrived with the earliest European settlement. Whitney (1994) cites early records showing that at least 40 species of European weeds were established around settlements in Massachusetts in 1672, with numbers rising to 140 species in the Boston area by 1840. Today, exotic species generally make up 25 to 35% of local floras in northeastern North America (Whitney 1994), with higher percentages in heavily urbanized areas. The proportion of exotics continues to increase as new invaders arrive.

Invading plant species can profoundly alter ecosystem processes, structure and composition, posing serious concerns for the conservation of native species and often costing millions of dollars in remediation and control efforts. In deserts of the southwestern USA, tamarind shrubs (*Tamarix* spp.) have been shown to lower water tables due to their dense growth and relatively inefficient water use. The nitrogen-fixing shrub *Myrica faya* (a relative of our Sweet Gale and Bayberry), permanently changes Hawaiian grasslands into shrubland and forest by enriching the nutrient poor soil. In open rangelands in the western USA, annual grasses (especially *Bromus* species) increase fire frequency because they mature and dry out very early in the growing season. Closer to home, we have the Glossy Buckthorn (*Rhamnus frangula*, also known as *Frangula alnus*), a shrub which reaches tremendous densities in a variety of habitats, sometimes shading out native vegetation almost entirely. These are just a few of the hundreds of examples of ecologically significant plant invaders worldwide.

It is very important to note, however, that the exotic species, which significantly alter ecosystems, are in a very small minority. Most arriving plant invaders never become established, or have no noticeable impact if they do (Williamson and Fitter 1996a, 1996b), especially in cooler northern regions like the Maritimes. We are very fortunate that among our many exotic plant species we have only a few which seem to have much negative effect on native biological diversity. Our exotic species are mostly restricted to open, human-disturbed situations such as agricultural lands, roadsides, and urban areas. Exotic species are relatively uncommon and insignificant in the more natural forests and wetlands of the Maritimes. Even at disturbed open sites, most of the exotic species would not survive were the land left to return to forest. This contrasts somewhat with more densely populated areas to the south and west of us such as southern Ontario and the eastern and midwest US. In these regions, many natural areas are heavily populated by alien species to the point where native species appear to be losing out. Why this difference? A number of factors are probably important. Our cooler climate reduces the number of invaders suited to our region, as does the prevalence of acidic soils in much of the Maritimes. Our much smaller and more thinly spread population results in less import and movement of exotic species. Perhaps most importantly, our Maritime landscape is comparatively much more intact. Where human-dominated habitats cover the majority of the landscape, small, fragmented natural areas are like islands in a sea of exotic-dominated communities. Native plant populations may become isolated and get eliminated by additional human disturbance or by random events. The dominant exotics meanwhile have a large and continuous numerical advantage in seed production that may swamp the native species.

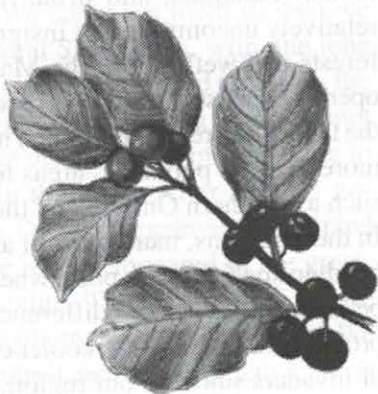
So: do we have reason to be complacent about the relative lack of invasive exotic species here in the Maritimes? Unfortunately not, I would say. First, new species will continue to be introduced to the continent and to spread from surrounding regions into the Maritimes. It is a virtual certainty that, over time, additional problematic invaders will arrive here. Second, the human impact on the landscape is increasing. The construction of new highways, pipelines and hydro rights-of-way are continuously creating new corridors for exotic plant spread. Urbanization and heavy forestry are also adding to the fragmentation and disturbance that tends to favour exotic species. Finally, we do already have some problematic invaders that are present and spreading.

In the section below, I look at a selection of the most important invasive exotics already present in the Maritimes, discussing their habitat, range and impacts. This is not meant to be a comprehensive list of the exotic species that do, or could, present problems for native species. I would be pleased to hear if readers have additional nominations.

Glossy Buckthorn (*Rhamnus frangula*)

Maritimes Range: Locally abundant near Fredericton and Miramichi in NB and Amherst, Pictou, Digby and Wolfville, NS. Scattered records elsewhere.

Habitat: moist or wet old field, thicket and forest. Considered by many botanists to present the greatest threat to native species among all current Canadian invasive species. It can form such a dense understory shrub layer in moist or wet forests that succession or regeneration is virtually halted and herb diversity is greatly reduced. It is capable of tolerating nutrient poor and nutrient rich habitats and unlike many other invasives, it seems capable of spread into otherwise undisturbed habitats. Near Fredericton it is threatening rare silver maple swamp habitats along the Saint John River. The Common Buckthorn (*Rhamnus cathartica*) is also invasive and locally established in the Maritimes, but it prefers somewhat drier habitats.



European Common Reed (*Phragmites australis* ssp. *australis*)

Maritimes Range: Uncertain, but present in New Brunswick and Nova Scotia at least.

Habitat: Moist, open areas including margins of brackish and freshwater marshes, dykelands and roadside ditches. In our region we have both a non-invasive native subspecies (ssp. *americanus*) which is typically found in the upper reaches of saltmarshes and occasionally inland, and the problematic invasive subspecies originating from Europe. It has only been in the last few years that botanists have begun to recognize the differences between the subspecies and confirm that both are present in our region (Clevering and Lissner 1999, Catling *et al.* 2003, 2006, Catling 2006). We do not yet have a full picture of the Maritimes



distribution of the exotic subspecies, which is known to be extremely invasive in marshes in the eastern United States' and in the Great Lakes-St. Lawrence region of Ontario and Quebec, where dense stands reaching 3m or more in height can almost entirely eliminate diverse native plant communities.

Scots Pine (*Pinus sylvestris*)

Maritimes Range: Throughout Maritimes near settlement.

Habitat: Moist and dry open areas. This species has been very widely planted and commonly escapes to the wild. It reproduces prolifically at a relatively young age for a tree and is capable of growing in very poor soils and dry conditions where many other trees have difficulty becoming established. It can threaten naturally open habitats such as shoreline dunes and bogs by shading out the native species adapted to open conditions.

Purple Loosestrife (*Lythrum salicaria*)

Range: Throughout most of Maritimes.

Habitat: Marshes, shorelines, moist fields, ditches. Although this species has had the most media coverage of any exotic, it appears less problematic in our region than elsewhere. In the Maritimes, it rarely reaches densities comparable to those to the south and west, and does not seem to spread well into undisturbed and nutrient poor wetlands. Biological control efforts using European leaf beetles to feed on the leaves and weevils to feed on seeds and roots appear to be having some success, including in some areas of New Brunswick.



Garlic Mustard (*Alliaria petiolata*)

Range: Abundant locally in the central Saint John River valley in NB, rare and restricted to Prince Edward Island National Park and Wolfville area in P.E.I and Nova Scotia.

Habitat: Rich, deciduous forest, especially floodplains and shaded urban yards. This forest biennial stores energy in its first year and then sends up tall shoots early the next year, which can shade out native perennial forest herbs. It is a major invasive species throughout the eastern US and southern Ontario and is locally problematic in very rich floodplain forests of the Saint John River, where it grows with a number of other



invasives of restricted Maritime range, i.e. Nipplewort (*Lapsana communis*); Town Aven (*Geum urbanum*); Celandine (*Chelidonium majus*) and the more common Dame's Rocket (*Hesperis matronalis*).

Japanese Bindweed (*Polygonum cuspidatum*)

Range: Essentially throughout Maritimes near settlement.

Habitat: Moist open areas.

This large, shrub-like herb forms dense patches from a massive, creeping root system which is almost impossible to eliminate. Elsewhere it is most problematic in floodplain habitats in river valleys, but it currently seems to be mostly restricted to roadsides in the Maritimes.

Eurasian Water-Milfoil (*Myriophyllum spicatum*)

Range: Only recently found at single locations in Prince Edward Island and Fundy National Parks.

Habitat: Aquatic; circumneutral or basic waters.

It may already be more widespread but unrecognized due to similarity to a native species (*M. sibiricum*). It can grow so densely that native aquatic plants may be reduced. Its dense growth also changes light conditions and causes reduced dissolved oxygen levels when it decays.



Finally, what can you do to reduce the impact of invasive species?

1) Become better informed about what species are potentially invasive. An excellent place to start a search for further information on invasive plants is the Invasive Plants Atlas of New England website, <http://www.lib.uconn.edu/webapps/ipane/search.cfm>, which includes profiles of almost all invasive species that are currently in the Maritimes as well as many others that are not yet established here but should be watched for. Information specific to Canada is available at the *Invasive Plants of Natural Habitats in Canada* website: http://www.cws-scf.ec.gc.ca/publications/inv/index_e.cfm. The number of invasive plants you have in your garden may surprise you!

2) Do not plant any non-native species known to be invasive in Canada or the northern US.

3) Avoid moving plant material or soil from areas that are likely to have invasive species present.

4) Eliminate invasive species from your property where possible and encourage others to do so as well.

Literature cited

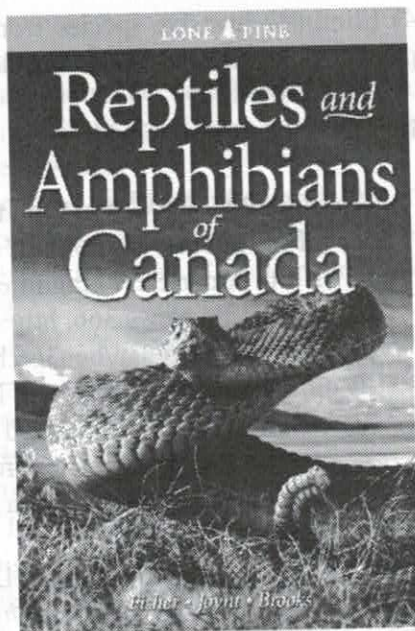
- Catling, P.M. 2006. Notes on the lectotypification of *Phragmites berlandieri* and identification of North American *Phragmites*. BEN - Botanical Electronic News 366. <http://www.ou.edu/cas/botany-micro/ben/ben366.html>
- Catling, P.M., G. Mitrow and L. Black. 2006. Analysis of stem color and correlated morphological characters for grouping *Phragmites* (Poaceae) taxa in eastern Ontario. Rhodora - In press
- Catling, P.M., F.W. Scheuler, L. Robichaud, and B. Blossey. 2003. More on *Phragmites* - native and introduced races. Bull. Can. Bot. Assoc. 36(1): 4-7.
- Clevering, O.A. and Lissner, J. 1999. Taxonomy, chromosome numbers, clonal diversity and population dynamics of *Phragmites australis*. Aquatic Botany 64: 185-208.
- Heywood, V.E. 1989. Patterns, extents and modes of invasion by terrestrial plants. In: J.A. Drake, H.A. Mooney, F. DiCasti, R.H. Groves, F.J. Kruger, M. Rejmánek and M. Williamson (eds.). Biological Invasions: A Global Perspective, pp. 369-388. John Wiley and Sons, Chichester.
- Kent, D.H. 1992. List of vascular plants of the British Isles. BSBI, London.
- Whitney, G.G. 1994. From Coastal Wilderness to Fruited Plain: A History of Environmental Change in Temperate North America from 1500 to the Present. Cambridge University Press, Cambridge, UK. 451 pp.
- Williamson, M. and A. Fitter. 1996a. The varying success of invaders. Ecology. 77: 1661-1666.
- Williamson, M. and A. Fitter. 1996b. The characteristics of successful invaders. Biological Conservation. 78: 163-170.

BOOK REVIEW

Ron Arsenault

Reptiles and Amphibians of Canada

By Chris Fisher, Amanda Joynt and Ronald J. Brooks. 2007. Lone Pine Publishing, Edmonton Alberta 208 pp., illustrated, range maps, \$18.95.



While not stated until the back cover, this book is obviously intended as a field guide. Following the usual preliminaries (title page, publication data, table of contents and acknowledgments) is an eight page "Species at a Glance" feature allowing the reader to quickly locate the information on a species of interest, or at least to narrow down the possibilities when one is attempting to identify an unknown specimen. The book is colour coded with a bar at the top of each page to allow one to quickly find a particular group of species. This colour coding is used in the table of contents, in the "Species at a Glance" section and in a reference chart on the back cover of the book.

Following a twelve-page introduction, are the species accounts covering ninety-four species of reptiles and amphibians occurring in Canada. These consist of eighty-four two-page (facing pages) accounts and ten abbreviated accounts describing introduced species, marine turtles and extirpated species. Setting this book apart from the more traditional field guides is the fact that each of the species accounts begins with an "introduction", although not labeled as such, where certain interesting aspects of the life history of the species are highlighted. This is followed by the information one more typically associates with field guides. In this book, the information has been organized under the following topics: ID, Length, Distribution, Habitat, Activity Patterns, Reproduction, Food, Call (for

frogs) and Similar Species. A relatively large picture (two in some instances) of the species being described, along with up to four smaller pictures of similar species, is intended to help confirm the identity of an unknown specimen. The French name, a range map and a side bar entitled "Did you know?" complete the species account.

A one page glossary and list of abbreviations, a three-page species index and an "about the authors" page complete the book.

Despite an attractive cover, an ingenious use of colour coding, some very good pictures and interesting pieces of information included in the introductions to the species accounts and in the "did you know" sidebars, I found the book disappointing in most other respects.

Let's first look at the physical aspects of the book. At 14 by 21.5 cm, it is simply too big to fit a pocket, continuing, perhaps exaggerating, the tendency of modern guides to become larger than their predecessors. In addition, I get the impression that the book will not last as it appears to be poorly put together. Already, the binding is starting to come apart in the copy I am using for this review, a book that has seen no other use.

The value of this book is diminished by the complete absence of certain features and the inconsistent quality of what is found in the book, leaving one with the impression that it was a "book designed by committee". The fact that the authors are thanked in the acknowledgements page certainly contributed to this impression.

As stated earlier, some of the pictures were very good (I particularly liked the one of the Painted Turtle on page 33), others, unfortunately, were not. For example, the picture of the Northern Leopard Frog on page 180 looks faded and grainy, while that of the Four-toed Salamander on page 146 displayed another all too frequent problem; pictures crossing over onto the facing page are, or at least appear to be, misaligned.

The range maps could also be much better. The colour used to denote the range of a species does not provide sufficient contrast with background colour. In addition, the same colour is not used for all maps. Even more annoying is the fact that the entire range of the species is not shown. It would be much preferable to include the entire range of the species. Leaving out a part of a species' range sometimes gives a false impression of a discontinuous range, as is the case for the Red-bellied Snake. Showing all of the species' range would have alleviated this problem.

The use of "parotid" where "paratoid" was intended, errors in the French translations, awkward wording in some instances and the lack of contact information to named groups such as CARCNET (Canadian Amphibian and Reptile Conservation Network) suggest that the work would have benefited from further editing. I found the use of coloured dots to indicate paragraphs to be annoying and the use of incomplete sentences in the species descriptions and in the glossary to reduce readability.

However, my biggest disappointment with the book was what it did not contain. There are no descriptions or illustrations of egg masses or tadpoles, and no keys to these. There are no references for further reading and no websites identified that would allow the reader to seek out further information. The lack of these severely limits the usefulness of this book as a field guide. Given the above, I am unable to recommend this book and suggest that readers leave it on the shelf.

FROM OUR PAST

Selected by Mary Sollows



The following article was taken from the 1899 Bulletin of the Natural History Society of New Brunswick: No. XVII, Volume IV. Part II. pp. 126-127.

ARTICLE V.

NOTES ON THE NATURAL HISTORY AND PHYSIOGRAPHY OF NEW BRUNSWICK

The best maps of New Brunswick show a branch of the lowermost Nepisiquit Lake running as a cul-de-sac half a mile or more to the southward. Last summer I went into this branch in a canoe, and found it nowhere more than a few inches deep, while in many places the bottom came above the surface. This bottom consisted everywhere of soft, grayish, flocculent mud, from which, as the canoe was forced with difficulty through it, arose in large bubbles an abundance of a gas smelling like hydrogen sulphide. A pole thrust several feet into it touched no hard bottom except near the shore, and the mud brought up by it from depths greater than a foot or two was of a reddish rather than a grayish color. I collected abundant samples, and a microscopic examination has shown that it consists almost entirely of minute Plants, Desmids, Diatoms and other unicellular and filamentous Algae, alive on the surface grayish layer and dead in the deeper reddish layers. The members of the Society will recognize these forms as among the most varied and beautiful in form and sculpturing of all living organisms. This mud then is all alive on the surface, and grows where it is found, thus filling up the lake; as the individuals die, their siliceous shells gradually sink and become compacted, thus forming the valuable siliceous deposits (infusorial earth) often dredged from lakes for economic use under the name of "Fossil Flour." It is thus no doubt the great beds of diatomaceous earth were formed in past geological periods.

Another lake of this kind appears to be the Fifth Green River Lake, which according to J.W. Bailey ("The Saint John River," page 53) is "very shallow with a soft bottom of white mud, which the men call 'paint,' from its quality of sticking to the canoe-poles, like white lead." Of course there are plenty of others, and the question at once arises, whether the brown mud which gives the name "Mud Lake" to dozens of small shallow lakes in Maine and New Brunswick may not be of essentially the same nature, the different color resulting from admixture of peaty matters or other impurities. In any case it is a problem to determine what favors the growth of these organisms in some lakes and not others, and why they are so much purer in some than in others. Here is a good place for the student of the freshwater Algae of New Brunswick to begin his labors upon the most attractive group of Plants yet unstudied in our Flora.

To the unaided vision, nothing could be more unattractive than the muddy bottoms of these lakes; but with the microscope to aid, they become replete with a beauty of form hardly to be matched elsewhere in Nature.

NOUVEAU GROUPE DE BOTANIQUE DANS LA PÉNINSULE ACADIENNE

Lucille Landry, Club de Naturalistes de la Péninsule acadienne

Le Club de Naturalistes de la Péninsule acadienne (CNPA) a maintenant un Groupe de botanique actif qui a fêté, en octobre 2007, son premier anniversaire de formation. À ce jour, treize sessions de travail théorique et pratique à l'herbier de la Péninsule acadienne ont été tenues sans compter les excursions sur le terrain. Un dossier papier et sa version électronique ont été montés pour tenir à jour les données recueillies par le groupe. Ce dossier sera transmis sous peu aux personnes et aux groupes intéressés à notre travail.

Pendant l'hiver 2007, le Groupe de botanique du CNPA a ajouté 81 spécimens séchés à l'herbier des plantes de la Péninsule acadienne bâti par Hilaire Chiasson au cours des quarante dernières années. La collection contient maintenant des spécimens de 883 espèces différentes. Des 81 spécimens ajoutés, il y en a 14 qui sont de nouvelles espèces qui n'étaient pas présentes dans l'herbier de la péninsule (voir tableau) dont sept (*) n'avaient jamais été répertoriées pour le territoire de la Péninsule acadienne à notre connaissance.

Nouvelles acquisitions à l'herbier de la Péninsule acadienne :

# herbier	Nom français (Nom latin)	Localité	Date
870	Anémone à cinq folioles (<i>Anemone quinquefolia</i>)	Camp militaire, Tracadie-Sheila	14 mai 2006
871	Chèvrefeuille de Bell (<i>Lonicera xbella</i>)	Petit Paquetville	18 juin 2006
872	Ostryer de virginie (<i>Ostrya virginiana</i>) *	Paquetville	18 juin 2006
873	Carex dressé (<i>Carex recta</i>) *	Haut-Lamèque	14 juillet 2006
874	Agrostide des chiens (<i>Agrostis canina</i>)	Pte-Alexandre	14 juillet 2006
875	Carex verdâtre (<i>C. viridula</i> var. <i>viridula</i>)*	Haut-Lamèque	14 juillet 2006
876	Rumex à longues feuilles (<i>Rumex longifolius</i>)	Miscou	26 juillet 2006
877	Aster de Blake (<i>Aster x blakei</i>)	Miscou	3 août 2006
878	Prêle panachée (<i>Equisetum variegatum</i>) *	Rang St-Georges	26 août 2006
879	Panic capillaire (<i>Panicum capillare</i>)	Rang St-Georges	26 août 2006
880	Goodyérie à feuilles oblongues (<i>Goodyera oblongifolia</i>) *	Paquetville	27 août 2006
881	Épipactis petit-hellébore (<i>Epipactis helleborine</i>) *	Paquetville	27 août 2006
882	Diplotaxis à feuilles ténues (<i>Diplotaxis tenuifolia</i>)*	Petite-Lamèque	10 octobre 06
883	Butome à ombelle (<i>Butomus umbellatus</i>)	Miscou	26 juillet 2006

Les fiches d'information ont aussi été préparées pour le Cypripède royal (*Cypripedium reginae*), observé pour la première fois dans la Péninsule acadienne par Rodrigue Landry le 3 juillet 2005 à Grande Anse. Un deuxième site a été découvert en été 2006 par Réjean Laforge à Caraquet où deux spécimens ont pu être récoltés cet été car 125 plants y ont été dénombrés. Il manque encore, à l'herbier de la Péninsule acadienne, un spécimen séché pour le Polygala sanguin (*Polygala sanguinea*), nouvelle observation faite par Roland Chiasson à Rocheville, le 19 octobre 2006.

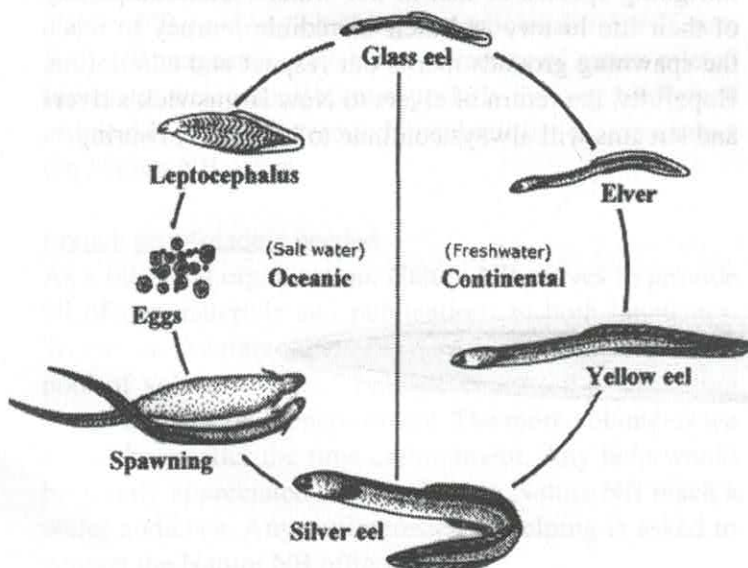
Les membres du Groupe de botanique qui travaillent sous la direction de Hilaire Chiasson sont : Réjean Laforge, Arthur-W. Landry, Rodrigue Landry, Agnès Thériault, Lewnanny Richardson et moi-même Lucille Landry. Ils se sont préparés, durant l'été 2007, un hiver 2008 plein d'étude, de recherche et de découvertes passionnantes.

THE MANY MYSTERIES OF THE AMERICAN EEL

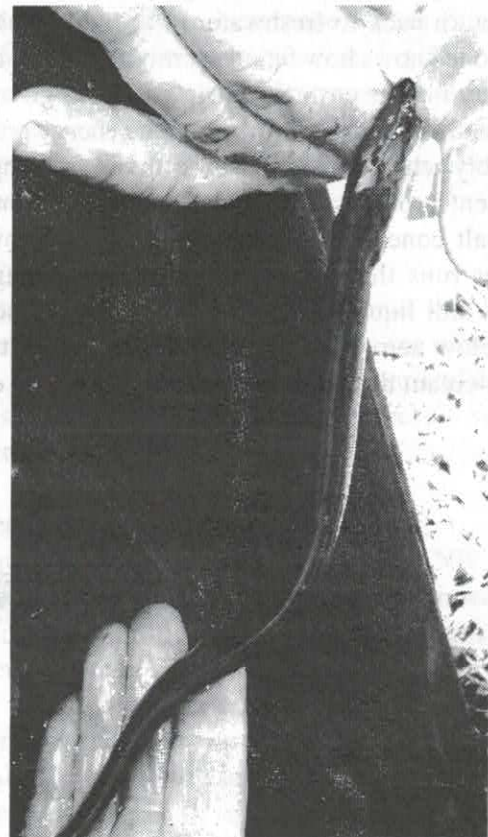
Dr. Alyre Chiasson

To many people the eel conjures up the image of a snake though the resemblance is purely superficial. Eels of course are fish and, as such, inhabit almost every accessible watercourse in the Atlantic Region. The discovery of where eels spawn is perhaps one of the greatest scientific discoveries of our time. Mysteriously each spring, the young eels known as elvers would show up at the mouths of streams and rivers in both Europe and North America. A Danish oceanographer by the name of Johannes Schmidt is credited with the discovery of the spawning site in the Sargasso Sea in 1922 after 16 years of research. He accomplished this remarkable feat by sampling the waters of the Atlantic for smaller and smaller eel larvae known as leptocephalus. The smallest occurred in the Sargasso Sea. However, no one has ever observed eels in the act of spawning, and it is assumed that it occurs at great depths and that the parents die soon afterwards. North American and European eels are genetically distinct species and there is some evidence to suggest their separation on the spawning grounds. However, the North American variety is considered panmictic, meaning that they all spawn randomly together with no particular selection of mating partners. Unlike Atlantic salmon, it is believed that eels show no site fidelity and do not home back to the waters where their parents were raised.

The young eels arrive in the Bay of Fundy each spring between April and July. Historically, runs could be as high as a quarter to a half a million. As they approach the coast having hitched a ride on the Gulf Stream, they transform from a willow-shaped and almost transparent larvae to a glass eel form that more closely resembles the adult. The glass eels become progressively more pigmented to finally become elvers once they enter freshwater. The pigmentation is an adaptation to living life along the bottom of rivers and lakes. The elver stage can last up to a year and then becomes what is known as a yellow eel. Yellow eels may remain in freshwater for up to 20 years before they head back home to the Sargasso Sea to spawn. Eels hunt at night and consume crustaceans, insects and fish. As they grow larger, fish become a more important item in their diet. The few studies conducted using radio tagging suggest that eels are homebodies and do not wander long distances during their time in freshwater.



Eel life cycle graphic from:
<http://www.mnr.gov.on.ca/MNR/sorr/eel.html>



Young eel
 Alyre Chiasson

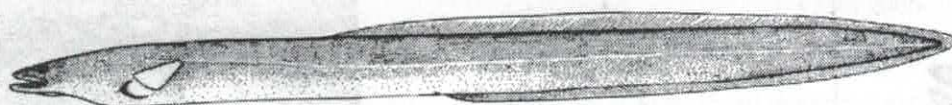
Adult eels return back to the Sargasso Sea in the fall at which time they are known as silver eels. They contain a large reserve of fat in preparation for the impending voyage. In preparation, their backs take on a greyish colour and their bellies become a creamy white, presumably to make them less visible to predators. Additionally, their eyes enlarge and the pigments in the retina change for a vision better suited to the sea. Even the pectoral fins become larger for the demanding swim back to their place of birth. Eels are predominantly harvested in the fall when their fat content is the highest. Historically, eels have been fished using special spears and weirs. Today, the gear of choice is the fyke net, a concentric series of small and smaller conical hoops that funnel the eels into a small sack at the end. With the arrival of winter, eels typically hibernate in mud.

Recently, the typical life cycle described above has been brought into question. Some eels may never enter freshwater, instead they reach maturity in the brackish waters of estuaries. Current efforts are underway to determine what portion of the population adopts this strategy. Since indexes of abundance are based on the freshwater life stages, the existence of a marine component could alter our picture of the present abundance of eels. Still other eels leave their streams and rivers to feed in the estuaries during the summer where prey is more abundant and then return back to freshwater in the fall to pass the winter. No one knows how far an eel might migrate to feed in the estuary but the cost of the trip is sure to go up with the distance, thereby consuming precious energy reserves. Eels probably return to freshwater to avoid freezing. The last statement probably merits further explanation. Any fish with salt concentrations in their tissues below that of seawater runs the risk of freezing even though the saltwater is still liquid. Salt lowers the freezing point of water to below zero. This explains the use of salt when making ice-cream the old fashioned way. Eels can escape

the formation of ice crystals in their tissues by entering freshwater and burrowing into the substrate in an area where water continues to flow under the ice. However, how eels that spent the winter in brackish or saltwater avoid freezing has not yet been discovered. Perhaps as in other species of fish we will discover the existence of special proteins in their blood that act as antifreeze.

Eels in Europe have declined up to 99% while the market demand has increased. North America is seen as a potential provider. The overseas market is not only for adults but also for elvers. This presents a potentially lucrative market but opens the door to overexploitation of the species. Currently, eels have been designated as a species of concerns by COSEWIC (Committee on the Status of Endangered Wildlife in Canada). In large part this has been prompted by significant declines of eels in the Great Lakes and Upper St. Lawrence area. Part of the problem in assessing the eel population is the lack of good data. Nevertheless, certain problems can already be identified when the population is looked at as a whole. Dams can block upstream passage and deprive eels of what was once available habitat. Adults migrating downstream can also be killed as they pass through turbines. Chemical contaminants are also suspect and may interfere with reproduction. Eels, because they are long lived and have a high fat content, may be particularly susceptible to bioaccumulation. Finally, climate change may be altering the course of the Gulf Stream, thereby altering the ability of the larvae to reach the coastline.

Eels, because of their visual resemblance to snakes, probably suffer from an image problem when compared to the Atlantic salmon. However, they are one of the most intriguing species of fish in our waters. The complexity of their life history and their incredible journey to reach the spawning grounds merits our respect and admiration. Hopefully, the return of elvers to New Brunswick's rivers and streams will always continue to be a sign of spring.



American Eel

KEEPING IN TOUCH / RESTEZ AU COURANT

Vanessa Roy-McDougall

News from the Nature NB Office

Climate Change and Citizen Science

This project is in full swing and we are currently looking for Naturalists that collect data regularly on a variety of species. Please see page 79 for more detailed information.

Young Naturalist Club

On October 20th, an ideas workshop was held in Moncton that brought together 15 volunteers and educators to discuss Nature NB's Young Naturalist Club. Those present discussed ways to find and keep volunteers and members, and developed the contents of our new leader's kit. The kit will include tips on how to organize and lead an outing, as well as contacts for a variety of outings. Feedback from the day was overwhelmingly positive and we hope to implement what was discussed within the next few months. Nature NB would like to thank all those who participated and gave their input.

Saint John Young Naturalist Club

Nature NB is happy to welcome Pam Emery and Joey Pratt as the new Saint John YNC leaders. Outings will begin in January and we look forward to some fun and educational activities! For information on outings please contact the Nature NB office (459-4209).

Nature Kids NB

Nature NB is always looking for articles for our Nature Kids NB magazine. Articles on a variety of nature related topics are welcome. We are especially looking for French articles! If you are interested in submitting please contact the Nature NB office.

French proofreaders needed

As a bilingual organization, Nature NB strives to provide all of our materials and publications in both languages. To ensure accurate translation, we are looking to form a pool of volunteers that would be interested in providing some feedback on French content. The more volunteers we have, the smaller the time commitment. Any help would be greatly appreciated and would help Nature NB reach a wider audience. Anyone interested in helping is asked to contact the Nature NB office.

Des nouvelles de Nature NB

Le Changement climatique et vous!

Notre projet est en plein marche et nous recherchons des individus qui collectent de l'information sur une variété d'espèces. Voir page 79 pour plus d'information.

Club de jeunes naturalistes

Le 20 octobre, une réunion a été tenue à Moncton afin de discuter du club des jeunes naturalistes (CJN). Quinze personnes ont participé à la réunion et ont discuté les différents moyens de trouver et garder des bénévoles et membres. Nous avons aussi développé le contenu du « leader kit ». Ce kit contiendra des conseils à propos : comment organiser et mener une sortie éducative ainsi que des contacts pour une variété de sorties. Les impressions de la journée ont été très positives et nous espérons mettre en œuvre les recommandations dans les prochains mois. Merci à tous ceux qui ont participé.

Club des jeunes naturalistes à Saint John

Nature NB souhaite la bienvenue à Pam Emery et Joey Pratt, qui vont être responsables pour le CJN à Saint John. Les sorties éducatives commenceront en janvier et nous attendons avec impatience des activités intéressantes. Contactez Nature NB pour l'information concernant les sorties (459-4209).

Nature Jeunesse N.-B.

Nature NB recherche des articles pour notre magazine Nature Jeunesse N.-B. Des articles sur une variété de sujets sont la bienvenue. Nous recherchons particulièrement des articles francophones. Tous ceux intéressés sont prié de contacter Nature NB.

À la recherche de réviseurs francophones!

En tant qu'organisation bilingue, Nature NB fait de son mieux afin d'offrir tous ces services et publications dans les deux langues officielles du Nouveau-Brunswick. Pour maintenir la qualité de nos textes français, nous aimerions établir un groupe de bénévoles qui seront disponibles à vérifier notre contenu francophone. Le plus grand qu'est le nombre de bénévoles, le plus petit sera l'engagement de chaque personne. Nous apprécions toute aide; ceci nous permettra à joindre un plus grand nombre de personnes. Tous ceux qui sont intéressés sont priés de contacter Nature NB.

BOTANY CORNER

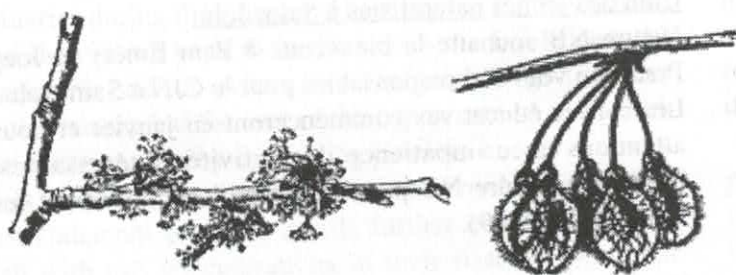
Gart Bishop

American Elm

[Orme blanc] (*Ulmus americana*)

Elm is a common tree found scattered throughout the province on the alluvial flood plains of big and small rivers and sometimes in wet upland sites. Its range extends from Nova Scotia west to Manitoba, south to central Florida and central Texas. It is absent from the Rocky Mountains. Fredericton was, until recently, known as the 'city of stately Elms' - a label which conjures up an image of numerous silhouettes of this majestic tree lining the city's downtown streets. As many of these trees have succumbed to the Dutch Elm disease, this title has been retired. The Elm is the state tree of Massachusetts.

The small clusters of wind pollinated flowers appear early in the spring, before the leaves, and often go unnoticed as naturalists search out the showy blooms of Bloodroot and Trout Lilies. The wafer-like fruits are almost ripe and ready to be distributed on the wind by the time the leaves open.



Drawings by M. Keffer

The coarse leaves are rough to the touch ... almost like fine sandpaper when rubbed between your fingers. The leaf margin is coarsely toothed, with finer teeth along the edge of the larger teeth. The prominent veins are parallel and straight and usually exhibit no branching. The leaf margins often do not meet at the same point on the leaf stem, making the leaf base appear off balance. The bark is brown gray, and on older trees runs in coarse flat-topped ridges up and down the tree trunk.

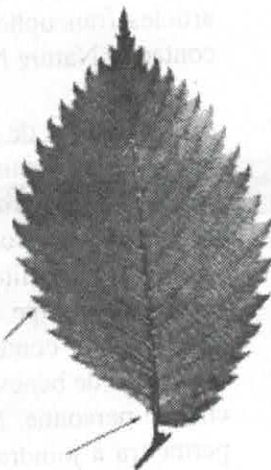
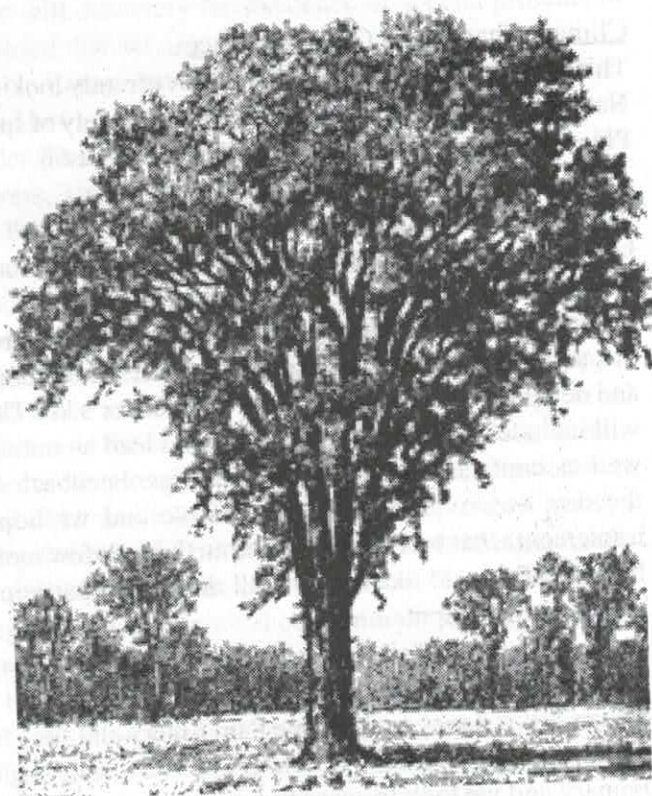


Photo by M. Biddal



Drawing by F.S. Mathews

Dutch Elm Disease (from Blouin 2001).

Dutch elm disease, named because the infecting fungus (*Graphium ulmi*) was first discovered in the elms on the dykes in Holland, originated in the Himalayas. It was introduced to North America in a load of European elm veneer logs shipped to Ohio in 1930. The minute sticky spores of the fungus are carried from diseased to healthy trees principally by two species of bark beetles - one a native species (*Hylurgopinus rufipes*), the other being the European Elm Bark beetle (*Scolytus multistriatus*) which was accidentally introduced from Europe in 1904. The beetles, carrying the fungus spores, can fly up to 5 kms, land on a new tree and inflict wound in the bark by boring small holes which become entry points for the fungus.

Unfortunately there is still no effective treatment to stop the spread of this fungus. Careful pruning and removal and burning of infected trees have saved many of the trees in Fredericton ... but it is an expensive and localized treatment. Although careful experimentation within horticulture have given rise to cultivars such as Liberty, Valley Forge and New Harmony, which have increased resistance to Dutch Elm disease; these new 'kids-on-the-block' are not totally immune to the fungus, and are often more vulnerable to attack from other insects and diseases. There does not appear to be a replacement for our 'stately elm' at this time.

As one of our tallest trees, Elms have been known to reach up to 40 m in height, with diameter of over 2 m at their base. One such tree in Jefferson Pennsylvania (harvested in the early lumbering days), when sawn up, yielded 8820 board feet of lumber. Such large giants are mostly gone from our landscape today as a result of harvesting and disease. While most of the extensive stands of large trees which lined waterways such as the St. John River no longer exist, extensive thickets of young saplings can be found, such as those along the old Trans Canada Highway (now Hwy 105) between Jemseg and Fredericton. The trees live from 175-225 years, and begin producing seed from the age of 15 to 20, which is often the age when they become susceptible to being infected with disease. On our property in downtown Sussex, we have a young Elm which, at over 30 years of age, still appears healthy. Luckily Elm is a prolific producer of seed, which will hopefully ensure the continuation of the species, and perhaps allowing it time to evolve an effective defence to the Dutch Elm disease.

The strong wood was used in shipbuilding, and is used in furniture building. Its resistance to splitting made it sought after for the making of hubs for wagon wheels.

Elm is a favoured nesting spot for many bird species such as Baltimore orioles and Warbling vireos. Old trees provide habitat for woodpeckers, chickadees, Nuthatches, and Wood Ducks. Many finches (Goldfinches, Pine Siskins, Purple Finches and Redpolls) capitalize on the early availability of elm seeds, as do squirrels and mice. The flower buds, flowers and fruit are eaten by gray squirrels.

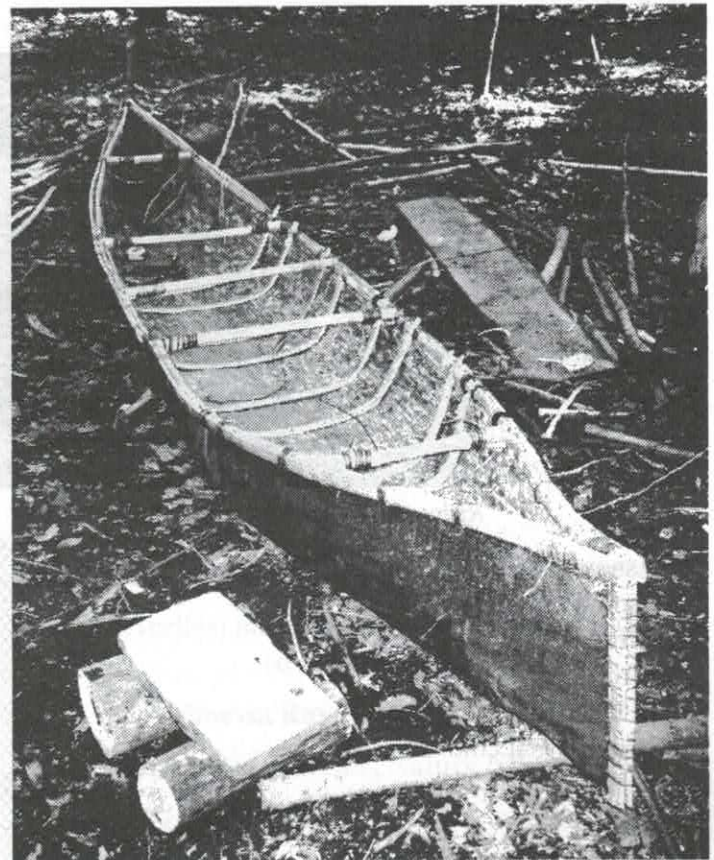
Elm bark was commonly used in the making of native canoes, especially where the bark was more available than Paper Birch (*Betula papyrifera*). Two fellows made an elm bark canoe in 2006 (see: <http://burntmud.com/canoe.htm>) which was a rather elegant looking craft and weighed only 65 lbs. However, the 20 foot piece of bark, when freshly taken off the tree, weighed 200 lbs!

The bark was also made into numerous containers similar to the way birch bark was used, while the bark of young trees was braided into rope and ox whips.

Elm was once prized for planting along urban streets. It is a fast growing tree that is easily transplanted and its shallow roots did not interfere with sewage and water pipes. The grand, arching canopy provided by mature trees planted on either side of the road would totally shade a street, protecting residents from a scorching summer's sun. A large tree is reported to have over 1 million leaves on it ... not that I've counted to check.

References

- Hinds, H.R. 2000. Flora of New Brunswick. 2nd Edition. Biology Department, University of New Brunswick, Fredericton, NB.
- Blouin, Glen. 2001. An eclectic guide to trees east of the Rockies. Boston Mills Press, Erin ON.
- Keeler, H.L. 1900. Our Native Trees and how to identify them. Charles Scribner's Sons, New York, NY.
- Hosie, R.C. 1969. Native Trees of Canada, Seventh Edition. Canadian Forestry Service, Department of Fisheries and Forestry. Ottawa, ON.
- Peattie, D.C. 1948. A Natural History of Trees of Eastern and Central North America. Houghton Mifflin Co., Boston MA.



Elm bark canoe

Courtesy of Kevin Finney and Erik Vosteen, www.burntmud.com

ATTENTION NEW BRUNSWICK NATURALISTS

Climate Change and Citizen Science - What we can Learn

Nature NB has received funding for a new initiative that will aim to compile the data naturalists have been collecting for over 30 years ... and we need your help!

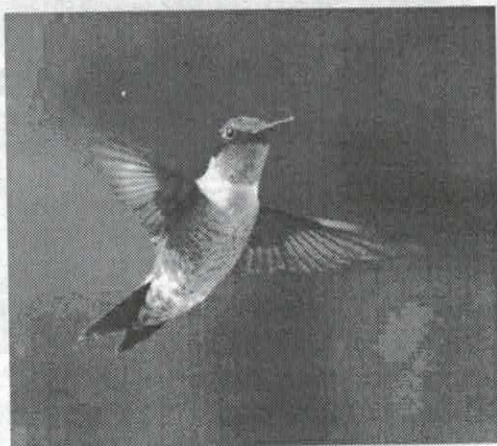
Objective: To evaluate the impacts of Climate Change on flora and fauna through a compilation of long-term survey data collected by individual citizen scientists. The project will compile 30 years' worth of data, which has been collected by citizen scientists across the province. We hope to be able to use this data to assess the long-term changes and trends in our natural ecosystems.

What we are looking for:

Individuals with First Sighting data for One or Several of the following species or events:

Species:

Spring Peeper
 Ruby Throated Hummingbird
 Song Sparrow
 Grackle
 Yellow Warbler
 Tree Swallow
 Osprey
 American Robin
 Tiger Swallowtail
 Morning Cloak
 Coltsfoot
 Trout Lily
 Shadbush
 Bunchberry
 Groundhog
 Chipmunk



Ruby-throated Hummingbird
 Patrice Caouette

Events:

First snow
 Last snow
 First frost
 Last frost
 Ice in lakes (freeze and melt)
 Fall leaves (first color change)

2 types of data sets:

- Historical data (+25 years)
- Smaller data sets from those naturalists that plan on continuing to collect data in the future.

Nature NB and the New Brunswick Museum are also looking for naturalists with historical data who may want to bequeath their field notes to the soon to be launched NB Museum Archives 'W. Austin Squires Natural History Notes Project', so that long-term care of important observations can be assured. Donation of field notes is not mandatory for participation in the above project.



Coltsfoot
 Roland Chiasson

If you are interested in participating in the project or have any questions, please contact:

Vanessa Roy-McDougall
 Executive Director, Nature NB
 nbfn@nb.aibn.com
 506-459-4209

ATTENTION AUX NATURALISTES DU NOUVEAU-BRUNSWIC

Changement climatique et vous – ce qu'on peut apprendre

Nature NB a reçu du financement pour une nouvelle initiative qui vise à compiler l'information recueillie par des naturalistes pour plus de 30 ans et nous avons besoin de votre aide!

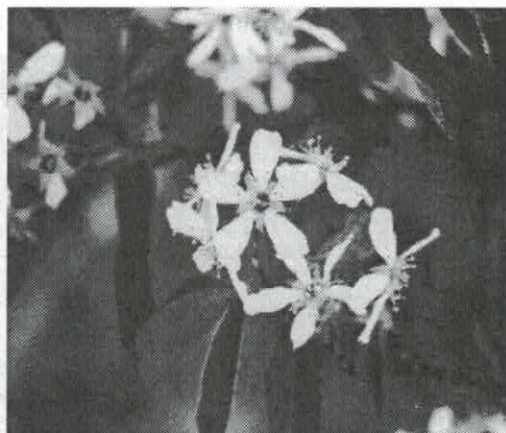
Objectif : Évaluer les impacts du changement climatique sur la flore et la faune par moyen d'une compilation des données recueillies par des citoyens de la science. Ce projet ramassera 30 ans de données et vise à évaluer les changements à long terme dans nos écosystèmes provinciaux.

Ce que nous recherchons :

Les « premières observations annuelles » sur un ou plusieurs des espèces ou événements suivants :

Espèces:

Rainette crucifère (*Pseudacris crucifer*)
Merle d'Amérique (*Turdus migratorius*)
Colibri à gorge rubis (*Archilochus colubris*)
Papillon tigré (*Papilio glaucus*)
Le morio (*Nymphalis antiopa*)
Tussilage pas-d'âne (*Tussilago farfara*)
Érythrone d'Amérique (*Erythronium americanum*)
Amélanchier (*Amelanchier sp.*)
Cornouiller du Canada ou quatre-temps (*Cornus canadensis*)
Bruant chanteur (*Melospiza melodia*)
Quiscale bronzé (*Quiscalus quiscula*)



Amélanchier
Roland Chiasson

Paruline jaune (*Dendroica petechia*)
Hirondelle bicolore (*Tachycineta bicolor*)
Balbuzard pêcheur (*Pandion haliaetus*)
Marmotte commune (*Marmota monax*)
Tamia rayé (*Tamias striatus*)

Évènements :

Première neige

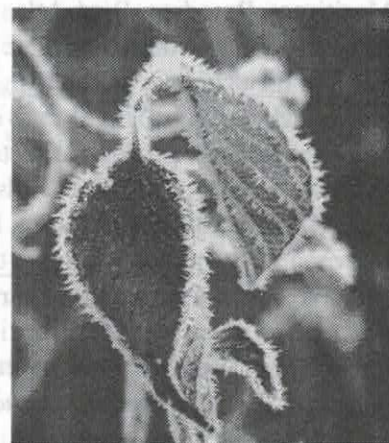
Dernière neige

Premier gel

Dernier gel

Glace sur les lacs (gel et dégel)

Feuille en automne
(premier changement de couleur)



Premier gel sur feuille
Roland Chiasson

2 types de données :

- Base de donnée historique (+ 25 ans)
- Base de données plus petite, mais dont le naturaliste a l'intention de continuer à recueillir des données.

Nature NB et le Musée du Nouveau-Brunswick sont aussi à la recherche de naturalistes qui possèdent des bases de donnée historique et qui aimeraient léguer leurs notes aux archives du musée du N.-B. au « *W. Austin Squires Natural History Notes Project* », qui sera bientôt établi afin d'assurer la préservation de ces observations importantes. Le don de ces notes n'est pas obligatoire afin de participer dans le projet ci-dessus.

Tous ceux (celles) intéressés (ées) sont priés (ées) de contacter :

Vanessa Roy-McDougall

Directrice générale, Nature NB

nbn@nb.aibn.com

506-459-4209

NB BIRDERS ARE PUTTING THEIR PASSION ON THE MAP!

Becky Stewart

Ask the average person what they did during their summer vacation this year and the response will be something like, "took the family to the beach" or "put in a new deck". However, ask a birder how they spent their summer and they'll likely tell you they, "worked on their square" and "got 33 possibles and 21 confirmed." What is this strange language you ask? It is the language of the Maritimes Breeding Bird Atlas volunteer and there are more than 700 of them out there, combing the Maritimes, looking for evidence of breeding birds.

The Maritimes Breeding Bird Atlas is a five-year, volunteer-based project to determine the distribution, abundance and status of all birds breeding in NB, NS and PEI. A first Maritimes Breeding Bird Atlas was conducted between 1986 and 1990, and the resulting publication (a book describing breeding bird distribution with maps and text) has been heavily relied on by environmental consultants, policy makers, researchers and wildlife managers to make effective conservation decisions. Today, the first Maritimes Breeding Bird Atlas is still the most comprehensive and up-to-date source of breeding bird distribution for most Maritimes breeding bird species. However, over the past twenty years, land-use patterns and other environmental factors have changed — these changes have inevitably affected bird distribution and abundance. Current information is needed to direct conservation policy and protect critical habitat for our Maritime bird species. Field work for the second Maritimes Breeding Bird Atlas began in the spring of 2006 and will continue through 2010. Already, volunteers have spent an astounding 15,000 hours surveying for breeding birds and more than 67,000 individual bird records have been submitted to the online database (32,000 of those are from NB volunteers!).

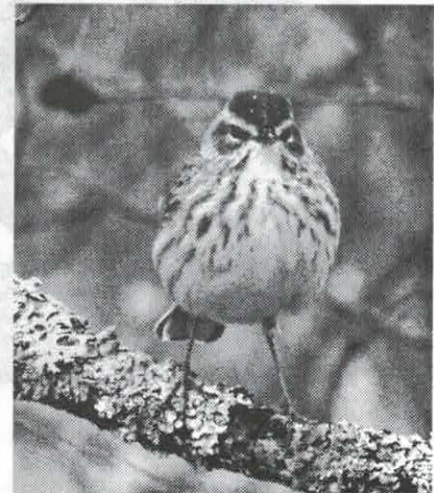
So how does the atlas work? The entire Maritimes have been divided into 1,682, 10 by 10 km squares which volunteers systematically survey, spending a minimum of 20 hours in each square. All bird species, as well as all breeding evidence observed are recorded. Breeding evidence ranges from a bird singing in suitable nesting habitat during the breeding season (considered evidence of "possible" breeding) to finding a nest with eggs or seeing an adult carrying food to young ("confirmed" breeding). "Clickable" species and effort maps, plus real-time data summaries, are available online (www.mba-aom.ca) to enable participants and all those interested to track the



Nest of an Eastern Kingbird
Becky Whittam

project's progress. Following the project's completion in 2010, the website will continue to be maintained and will serve as an extensive database of breeding bird information that can be queried for numerous research, conservation and educational purposes.

Already many stories are starting to unfold from new breeding records to distributional changes. The Yellow-throated Vireo, a species not recorded during the first Maritimes Atlas, was heard singing in both the Fredericton and Halifax regions and an active nest was found on PEI. Turkey Vultures which were only recorded as "possible" breeders in 7 squares during the first atlas have already been detected throughout NB and 3 Turkey Vulture nests were found in 2007 alone. Palm Warblers, which breed in bogs and other areas with low conifers, were absent from northwestern NB during the first Atlas. This time around, they've been found breeding in many northern NB squares. Other species are showing signs of population decreases.



Palm Warbler
Ivy Austin

Barn Swallows, for example, have been detected in about 42% less squares thus far in comparison with the first Atlas.

These stories are just the beginning and over the next three years many more will develop. During that time you can be sure that NB birders will continue "working on their squares" and increasing their "confirmations". The work they are doing will determine conservation priorities for twenty years to come.

The Maritimes Breeding Bird Atlas is a cooperative project of Bird Studies Canada, Environment Canada, the provincial governments of NB, NS and PE, the NS Bird

Society, Nature NB, the PE Natural History Society and hundreds of volunteer citizens. Current project supporters include: Environment Canada, NB Department of Natural Resources, NS Department of Natural Resources, Atlantic Industries Limited, NB Wildlife Trust Fund, NB Environmental Trust Fund, NS Habitat Conservation Fund, Jacques Whitford, Bird Studies Canada Baillie Fund, NS Bird Society, Shell Environmental Fund and several individual donors.

To join the atlas effort or for more information visit www.mba-aom.ca or call 1-866-5atlas5.

LES OBSERVATEURS DU NB METTENT LEUR PASSION POUR LES OISEAUX SUR LA CARTE!

Becky Stewart

Si on demandait à une personne quelconque ce qu'elle a fait pendant ses vacances d'été, on pourrait s'attendre à une réponse telle que « Je suis allé à la plage avec la famille » ou encore « J'ai construit un patio ». Posez la même question à un observateur d'oiseaux et celui-ci pourrait bien vous répondre « J'ai travaillé dans mon carré et j'ai eu 33 « possibles » et 21 « confirmés ». Quel est donc cet étrange vocabulaire? Et bien, c'est le langage des plus de 700 bénévoles de l'Atlas des Oiseaux Nicheurs des Maritimes qui sillonnent les trois provinces à la recherche d'indices de nidifications chez nos oiseaux.



Habitat au Nouveau-Brunswick
Becky Stewart

L'Atlas des Oiseaux Nicheurs des Maritimes, un projet basé sur la contribution de bénévoles et étalé sur une période de 5 ans, vise à déterminer la distribution, l'abondance et le statut de tous les oiseaux nicheurs du N.-B., de la N.-É. et de l'I. P.E. Un premier Atlas des Oiseaux Nicheurs des Maritimes fût réalisé entre 1986 et 1990, la publication qui en résulta (un livre décrivant la distribution des oiseaux nidificateurs à l'aide de cartes et de textes) fût grandement utilisée par les consultants environnementaux, les décideurs, les chercheurs et les gestionnaires de la faune afin de rendre des décisions éclairées en matière de conservation. Même aujourd'hui, le premier Atlas des Oiseaux Nicheurs des Maritimes demeure une des sources les plus complètes et à jour sur la distribution de la plupart des espèces aviaires nichant dans les Maritimes. Par contre, durant les vingt dernières années, l'utilisation des terres, ainsi que d'autres facteurs environnementaux, a bien changé – changements qui ont inévitablement influencé la distribution et l'abondance des oiseaux. Des données à jour, à partir desquelles on pourra développer des politiques sur la conservation et déterminer les habitats critiques pour les oiseaux des Maritimes afin de les protéger, sont nécessaires. Le travail de terrain du second Atlas des Oiseaux Nicheurs des Maritimes a débuté au printemps 2006 et se poursuivra jusqu'à la fin 2010. Nos bénévoles ont déjà accumulé un total phénoménal de 15 000 heures à chercher pour des indices de nidifications et ont soumis plus de 67 000 observations individuelles d'oiseaux à notre base de données en ligne (32 000 grâce aux bénévoles du N.-B!).

Alors, comment fonctionne l'atlas? Les Maritimes sont divisées en 1 682 carrés de 10 km par 10 km, lesquels sont recensés systématiquement par les bénévoles, passant un minimum de 20 heures dans chaque carré. Toutes les espèces d'oiseaux, ainsi que tous les indices de nidification observés, sont notés. Les indices de nidification varient d'un oiseau chantant dans un habitat propice à la nidification pendant la période reproduction (considéré comme un indice de nidification « possible ») jusqu'à la découverte d'un nid contenant des œufs ou même l'observation d'un adulte transportant de la nourriture à des jeunes (nidification « confirmée »). Des cartes interactives sur l'effort et les espèces, ainsi que des sommaires de données à jour, sont disponibles sur notre site Web (www.mba-aom.ca). Ceci permet aux participants et à tous les intéressés de suivre le progrès du projet. Le site Web restera en place après la fin du projet en 2010 et la base de données complète concernant la nidification des oiseaux pourra être utilisée de façon détaillée aux fins de recherches de conservation et d'éducation.

Déjà plusieurs découvertes ont été rapportées, allant de nouvelles mentions de nidification jusqu'à des changements dans la distribution de certaines espèces. Le Viréo à gorge jaune, une espèce non signalée lors du premier atlas, a été entendu chanter dans les régions de Fredericton et d'Halifax et un nid actif fût découvert à l'I.P.E.. L'Urubu à tête rouge, qui avait été noté comme nidificateur « possible » dans sept carrés lors du premier atlas, a déjà été détecté un peu partout au N.-B., et 3 nids furent découverts, et ceci, en 2007 seulement. La Paruline à couronne rousse, qui niche dans les tourbières et autres milieux constitués de petits conifères, était absente du nord-ouest du N.-B. lors du premier atlas. Pour ce deuxième atlas, elle a été observée nichant dans plusieurs carrés du nord du N.-B. D'autres espèces démontrent des signes de diminution de leur population. Jusqu'ici, l'Hirondelle Rustique par exemple, a été détectée dans environ 42% moins de carrés comparativement au premier atlas.

Ces observations ne sont qu'un début. Pendant les trois prochaines années, plusieurs autres se concrétiseront. Durant cette période, vous pouvez être certain que les observateurs d'oiseaux du N.-B. vont continuer à « travailler dans leurs carrés » et ainsi augmenter leur nombre de « confirmations ». Le travail qu'ils effectueront déterminera les priorités de conservation pour les vingt prochaines années.

L'Atlas des Oiseaux Nicheurs des Maritimes est un projet coopératif d'Études Oiseaux Canada, d'Environnement Canada, des gouvernements provinciaux du N.-B., de la N.-É. et de l'I.P.E., du N.S. Bird Society, Nature NB, le P.E.I. Natural History Society et des centaines de citoyens



Paruline jaune
Christopher Clunas

volontaires. Les agences et organismes qui appuient projet jusqu'ici : Environnement Canada, le Département des Ressources Naturelles du N.-B., le Département des Ressources Naturelles de la N.-É., les Industries Atlantiques Limitée, le Fonds de Fiducie de la Faune du N.-B., le Fonds en Fiducie pour l'Environnement du N.-B., le Fonds de Conservation des Habitats de la N.-É., Jacques Whitford, le Fonds Baillie d'Études Oiseaux Canada, le N.S. Bird Society, le Fond de l'Environnement de Shell et plusieurs donateurs individuels.

Pour vous joindre aux efforts de l'atlas ou pour plus d'informations, visitez (www.mba-aom.ca) ou composez le 1-866-5atlas5.

CURIOUS OBSERVATION / OBSERVATION CURIEUSE

Frank Branch

Frank Branch, on the road with his wife Éveline, reported the following curious observation during one of his usual birding afternoons on September 2nd:

“We finally end up at the Grande-Anse wharf... its little canteen is always a stop for a well-appreciated treat! Once there, I followed the same routine I adopted when I first started birding on January 5th 1999... I do a final tour with my scope of the top part of the cliff (3 to 5 feet from the top). This cliff situated in back of the church covers the whole length of the present cemetery. At 5:15PM, I spotted a big white blob, which was really contrasting with the reddish sandstone of the cliff. I then told my wife: “I think I’ve got my skull!” For a better view, I walked a few hundred feet at the foot of the cliff, and as I started to focus on the mystery object, I could see the big zigzag division between the front and back plate and the smaller one between the left and right plates. During my first birding years, having the luck to find an interesting bird, I would experience a “birding high” (many of you know what I mean). But seeing a human skull in your scope is a totally different feeling!!! To officially confirm my finding, I called a good friend, Denis Albert (a paramedic). He in turn contacted the RCMP. They took the case from there, and later transferred it to the Parish Committee. This gravesite is well behind the fence of the existing cemetery. People were buried there well over a hundred years ago, and the wooden crosses serving as markers have long gone missing.

My final thoughts on this matter...to all those who argue that global warming will not affect them during their own lifetime: “Think again!” It is already affecting those who died well over a hundred years ago.”

Frank Branch, sur la route avec son épouse le 2 septembre, pour sa journée d'observation d'oiseaux habituelle, a rapporté l'observation suivante :

« Au bout de ce chemin, nous continuons jusqu'à Anse Bleue, nous faisons un arrêt au quai et de là nous nous dirigeons vers notre destination finale au quai de Grande-Anse...sans oublier la petite cantine pour un goûter très apprécié! Depuis que je fais de l'observation (5 janvier 1999), chaque fois que je suis au quai de Grande-Anse, mon dernier tour avec ma jumelle d'approche se termine par la vérification de la falaise (hauteur de 30 mètres) à l'arrière de l'église et du cimetière. En scrutant le haut de la falaise, j'aperçois un objet blanc et rond qui contraste beaucoup avec la terre rougeâtre des alentours. Je dis alors à ma conjointe : « J'ai enfin trouvé mon crâne humain! » Pour confirmer ce que je venais de voir, j'ai marché plusieurs centaines de mètres le long de la plage; je me suis installé au pied de la falaise et en faisant la mise au point, je commençais à voir l'objet comme si il était à 2 mètres de moi. J'ai passé à travers des émotions très difficile à décrire...je voyais la petite ligne en zigzag qui sépare les 2 segments gauche/droite et la plus grosse ligne qui elle sépare le devant et l'arrière du crâne. Même si je pensais bien un jour voir quelque chose dans ces falaises, cet instant restera très clair et nette dans ma mémoire et ce pour longtemps!!! J'ai fait appel à un paramédical (mon ami Denis Albert) pour venir authentifier ma découverte. Il a contacté la GRC qui, après vérification, a remis le dossier au Comité Paroissial. L'endroit de cette découverte est en dehors de la clôture du cimetière actuel et date probablement de plus de 100 années. Les croix en bois de jadis sont depuis longtemps disparues.

Ma conclusion à cette aventure...à tous ceux et celles qui disent qu'ils ne verront pas de leur vivant l'effet des changements climatiques : « Révisez votre théorie! » Ces changements affectent déjà ceux et celles décédés depuis au-delà de 100 ans! »

CWS WINGS CLIPPED

Peter Pearce

Following is the text of a letter I wrote regarding the operational grounding of the Canadian Wildlife Service which was published in part by Fredericton's newspaper, The Daily Gleaner, on 29 September 2007.

It was with dismay that I became aware of the troubles recently visited by the federal government on one of its branches, the Canadian Wildlife Service. The news immediately elicited in me a strong feeling of "déjà vu all over again," as a certain famous baseball player would have phrased it. Your readers, too, may have experienced a sense of history repeating itself if they recalled the severe blow dealt to that agency by the newly-elected government in the mid-1980s when a number of vital programs were scrapped and dedicated scientists dismissed. Thanks to an overwhelming public outcry, my own terminated project having to do with migratory birds and toxic chemicals, two departmental priorities, was reinstated. However, the lesson that Canadians have a deep concern for the welfare of their country's wildlife, repeatedly shown by public opinion polls, has apparently still not been learned. One wonders why there is sometimes such a disconnect between government policy decisions affecting wildlife made by a few senior managers and the shared vision of so many people across this broad land. At a time when many of our migratory birds, especially songbirds, are in decline, one would have thought that conservation and protection

efforts might have been more fully supported rather than hamstrung. Migratory birds again need champions.

Migratory birds constitute a resource shared by the peoples of the many countries through which the birds undertake their marvelous travels each year and where some overwinter, even in the southernmost reaches of our western hemisphere. Most spend only a relatively short time during their breeding season in our country, where they might be considered as special guests. So it is that Canada has international treaty obligations and legal responsibilities to protect its migratory birds, the Canadian Wildlife Service being charged with the exercise of those mandates. Research and monitoring conducted in-house by that agency and supported externally identify problem areas and the management tools needed to ensure the maintenance of healthy bird populations. Continuity of those activities is critical to their success.

It is to be hoped, then, that Canadian Wildlife Service staff, as well as the legion of volunteers who also devote much time and energy to projects contributing to migratory bird conservation, may be assured that budgets will soon be restored. Our friends to the south can then look to Canada and know that such a precious resource is still in good hands, safeguarded for its value intrinsically, its value in contributing to ecosystem stability through diversity, in monitoring climate change, and in providing recreational opportunities to so many.

THE CANADIAN WILDLIFE SERVICE, COMPRESSED INTO A VERY SMALL NUTSHELL

Sandy Burnett

The Canadian Wildlife Service was established in 1947 to carry out Canada's obligations under the Migratory Birds Convention of 1916. Amalgamated within the new agency were the former Migratory Birds Unit, the former Forest and Wildlife Conservation Section, the former Wildlife Division of the National Parks Bureau, and the wildlife management component of the Bureau of the Northwest Territories and Yukon. To accomplish their tasks it employed fewer than 30 people across Canada. In the Maritimes, the legendary Robie Tufts was named as its first Dominion Wildlife Officer. On the research side, he was joined by ornithologist George F. (Joe) Boyer.

In the 1940s and 1950s, Canadians viewed wildlife

management largely in economic terms, concentrating primarily on three topics: waterfowl, game and fur-bearing mammals, and game fish in National Parks. Among these, waterfowl management was the foremost preoccupation, with annual surveys of birds in breeding and wintering areas generating the data on which revisions to migratory bird hunting regulations could be based.

The entry of Newfoundland into Canada in 1949 added a new complexity to this mix: how to curb the historically unregulated harvest of seabirds in the new province. It was an issue that would not be fully resolved until almost fifty years later by an amendment to the Migratory Birds Convention.

Throughout the '50s and '60s, CWS biologists were among Canada's foremost naturalist-explorers, developing a comprehensive inventory of the abundance, diversity, and distribution of wildlife across Canada and collaborating closely with provincial agencies in the development of wildlife management policies. At the same time, the agency was assuming an important role in habitat protection. By 1962, CWS was responsible for 108 Migratory Bird Sanctuaries across Canada, covering an area of more than 103,000 square kilometers.

Ornithological research initiatives with a particular regional interest during this period included the Maritime Nest Records Scheme and the Canadian Breeding Bird Survey, both launched by A.J. (Tony) Erskine. In the Maritimes, bird research grew through the 1970s and '80s, with a notable example being the extended shorebird banding program, which Peter Hicklin conducted for many years along the shores of Shepody Bay. Studies on the impact of forest spray programs on songbirds, conducted by Peter Pearce, Dan Busby and Nev Garrity constituted another important regional undertaking.

During the 1970s, CWS attained its widest range of direct action and influence. Operating in every province and territory, its programs included not only regulation and enforcement of migratory bird hunting and the operation of migratory bird sanctuaries and National Wildlife Areas, but also vital work in mammalogy, wildlife pathology, environmental toxicology, ecological interpretation and education, and a growing leadership role in the protection of endangered species.

The very same period, however, marked the beginning of a major shift in popular opinion with regard to public expenditures. New program and budget review procedures hampered proactive initiatives in many government agencies, including CWS. In addition, several provinces were expressing a desire to exercise greater autonomy in the management of wildlife, a field that they believed should be primarily under their jurisdiction. Driven by these two influences, a decade of financial cutbacks culminated in a major revision of CWS budgets and priorities in 1984.

Emerging from this experience, the agency was left with a radically reduced range of programs and activities. Gone was its active and growing national network of wildlife interpretation centers. Gone was its wildlife pathology and veterinary medicine section. Gone was most of its role in working with fish and mammals.

On the positive side, the challenging years of the early '80s resulted in a new appreciation of the importance of developing national and international partnerships to achieve goals that could no longer be met independently.

Out of this period grew programs such as the North American Waterfowl Management Plan and Wildlife Habitat Canada: two initiatives that have been very effective in promoting cooperation among the many government and voluntary stakeholders that share responsibility for wildlife and habitat conservation.

The 1990s added more cooperative alliances to the role of CWS. It became a leading Canadian participant in international commitments and protocols such as the Convention on the International Trade in Endangered Species (CITES), the International Biological Program (IBP) and the International Council for the Protection of Birds, to name a few. At the same time, within Canada, CWS played a leadership role in the work of the Committee on the Status of Endangered Wildlife in Canada (COSEWIC).

While there was growth and reorganization on one hand, the mid-'90s also ushered in another major round of budget cutting. Between 1994 and 1997, cumulative cuts to CWS programs amounted to \$9.5 million (24%) and 64 positions (18%). The same period saw certain portions of the CWS program migrate to other locations within government. For example, enforcement of migratory game bird regulations was transferred to a new Environmental Protection Branch within Environment Canada.

Over a 60-year history, during which change has been more nearly the norm than the exception, CWS has accumulated a rich store of data and expertise, helping Canadians to understand the importance of wildlife, and migratory birds in particular, as indicators of environmental health and biodiversity. As a pool of talented specialists and a repository of invaluable knowledge in this field, the agency is looked up to around the world.

As author and filmmaker Janet Foster wrote, in a personal appreciation:

"It is quite remarkable how an agency set up principally to administer migratory bird regulations came to assume so many different responsibilities and to handle them so well. ... Part of the reason for CWS's success is that it has always attracted the 'best and the brightest' of scientists, biologists, field researchers, and many others... it's their hard work and diligence that has made CWS the respected organization that it is today."

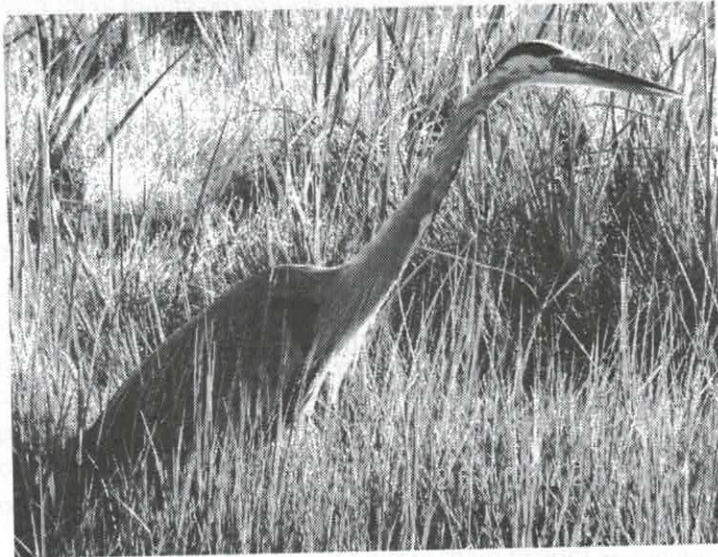
[The foregoing, very condensed outline of the history of CWS has been drawn from A Passion for Wildlife: the history of the Canadian Wildlife Service, 1947-1997, written by J. Alexander (Sandy) Burnett and published by UBC Press, 2003.]

THE "WHOLE" STORY?

Sabine Dietz

The case of the destroyed heron colony in Cambridge Narrows, 2006.

When news first broke in the summer of 2006, the heronry destruction made not only CBC news, but caused a lot of back and forth on the NatureNB listserv. Here are some of the news items and reports in CBC and Radio Canada: www.radio-canada.ca/regions/atlantique/2006/09/27/002-NB-heroniere.shtml; www.cbc.ca/canada/new-brunswick/story/2006/09/27/nb-heronnests.html; www.cbc.ca/canada/new-brunswick/story/2006/09/29/nb-loggingclose.html



Great Blue Heron
Roland Chiasson

Many naturalists weighed in on the discussion at the time:

"I would like to know the whole story here. It seems inconceivable that anyone working in the woods, owner or contractor, would knowingly destroy a habitat. I bet the Irvings themselves had no knowledge of this and are hoping we'll all go back to sleep." (excerpt from NB Listserv, Alex Macdonald, 2006, used with permission)

... "But anyone extracting resources in forested and other areas has a huge stewardship responsibility that goes along with the privilege, no matter who owns the land. This involves making sure all employees

are educated and aware before starting work and later working vigilantly at all times when they're out there. Woods work is done in remote and scattered locations and third parties aren't usually there to see what is going on. And they shouldn't be necessary if proper checks and balances are in place within a forestry company. But if someone is not properly educated and prepared, then someone higher up in the organization is responsible. If a mistake is made, someone is still accountable. Apparently, this heron colony was not difficult to see or identify." (excerpt from NB Listserv, Jim Wilson, 2006, used with permission)

J.D. Irving Limited and Jason Hiltz, a company foreman, were charged under the Migratory Birds Convention Act on February 5th, 2007. Under the Act and its regulations "no person shall (a) disturb, destroy or take a nest, or nest shelter, eider duck shelter or duck box of a migratory bird,..." (see: http://laws.justice.gc.ca/en/showdoc/cr/C.R.c.1035/bo-ga:s_5/en#anchorbo-ga:s_5; MB regulations 60). A conviction under the act could result in a maximum fine of \$1 million or six months in prison.

J.D. Irving Limited and Jason Hiltz pleaded not guilty on February 5th, 2007.

A number of court days were set, one in early June, second one in August, and the trial dates had been set for early October (two weeks were set aside). The June hearing was held, as was the August hearing. The purpose of the hearings was to evaluate whether certain documents were admissible during trial, and if search warrants had been issued correctly. On September 22nd, judge Cumming delivered her ruling at the Burton Court House:

A statement made by J. Hiltz was found inadmissible. The search warrants obtained on September 5th, 2006, at J.D. Irving Ltd. premises in Sussex were deemed proper and issued. A number of documents seized during the search that were sealed at that time, as well as items seized during the search were declared admissible for the trial.

On October 17th, another meeting was held and the parties agreed that the trial would be set for March 17th, 2008, 4 days set aside. On November 29th, the parties will meet again to see if the trial can be shortened further. The purpose of these meetings is to reduce the amount of time the case will be tied up with this case - a streamlining exercise.

All this information, including tapes (CD's) of the court hearings and the ruling of judge Cumming, are available from the Burton Court House (in Oromocto, 357-4020), or from the prosecution (Mr. Shernbrooker, 902-426-2285).

Generally regarding cases prosecuted under the Migratory Birds Convention Act:

There have been, over the years, approximately 6 cases under the statute (not dealing with hunting contraventions regarding migratory birds) that dealt with the destruction of nests or migratory birds, or the disturbance of migratory birds. The Act, as it reads today, has been in force since 1994. The Migratory Birds Convention was signed in 1916 between the US and Canada.

A few concerns regarding this case:

- 'Due diligence' is a defense that could be used in this case and could result in a 'not guilty' verdict.
- What does this case mean for other prosecutions under the Act? Since this is only the second case in the Acts history dealing with the destruction of habitat, nests or birds, or disturbance of nests or birds, what precedence might it set?
- What can reasonably be expected of any company that uses natural resources to ensure adequate measures are in place to avoid these kinds of incidences?
- Who is, ultimately, responsible if something does go wrong, and mistakes are made?

LE CONDYLURE ÉTOILÉ (TAUPE À NEZ ÉTOILÉ)

Mira Dietz Chiasson

Nombreux sont ceux qui ont maintes fois découvert des petits monticules de terre sur leur gazon. Ce sont les portes d'entrée ou de sortie des taupes, ces petits mammifères souterrains que l'on aperçoit si rarement. Mais qui se cache dans ces galeries souterraines, qui est-il vraiment, ce petit être mystérieux nommé « taupe »? Bien plus que l'on pense, comme l'ont constaté ma famille et moi cette semaine.

Puisqu'il s'agissait d'une longue fin de semaine, nous sommes allés à Tabusintac, où nous habitons, il y a près de trois ans. Notre ancienne maison est maintenant devenue un peu comme un chalet.

Lors de notre arrivée, le gazon était parsemé de petites piles de terre. Une taupe (ou bien plusieurs), nommée Condylure étoilé, ou encore, Taupe à nez étoilé, s'était construit un chez lui sous notre gazon.

Le Condylure étoilé habite surtout dans un sol meuble et humide, au bord de lacs, rivières, étangs ou marais, dans un territoire d'environ 0.5 hectares. Les nombreuses sorties du terrier débouchent à la surface du sol ou bien dans l'eau. C'est cela qui nous a le plus surpris ; une taupe, dans l'eau!

Et bien, il paraît que si! Car le condylure se nourrit aussi bien de petits poissons, de crustacés et de sangsues que de vers de terre. Il est un excellent nageur et plongeur et peut rester submergé plusieurs secondes. En synchronisant le mouvement de ses pattes et de sa queue, il peut aisément se déplacer dans l'eau.

Les tentacules de son nez (d'où le nom « taupe à nez étoilé ») servent à dénicher sa nourriture. Elles peuvent se replier sur ses narines pour l'empêcher de respirer de la poussière.

Donc, s'il est aussi bien à l'aise dans l'eau, pourquoi s'est-il installé au-dessous de notre gazon? Nous avons un petit étang en avant de la maison qui regorge de larves, de grenouilles, de têtards et d'insectes aquatiques. Nous avons découvert un monticule de terre particulièrement grand près de l'étang. C'est peut-être la sortie principale...

Monticule d'un taupe
Mira Dietz Chiasson



Condylure étoilé
Charles Douglas (nature.ca/notebooks/english/starmole.htm)

NATURE NEWS: BIRDS

August 22 to October 23, 2007

Pierrette Mercier

A **Manx Shearwater** (Puffin des anglais) was spotted on the Bay of Fundy, off the GM Ferry on Aug. 23 (Roger Burrows). At least 15 were about a quarter mile from Seal Cove wharf on Sept 1 (Durlan Ingersoll). Two or three were off Southern Head Beach on Sept 7 and at least 10 were off Seal Cove on Sept 10th (Jim & Jean Wilson), 15 off GMI on Sept 29 (Stu Tingley and others).

A wayward **Leach's Storm Petrel** (Océanite cul-blanc) was seen on the Mactaquac head pond near King's Landing on Sept 17 (John Rankine).

A group of 4 **Snowy Egrets** (Aigrette neigeuse) was spotted at Castalia marsh on Aug 22 (Alain Clavette and others) and remained for most of the fall season. An adult **Little Blue Heron** (Aigrette bleue) was reported at Whale Cove Pond on Aug. 23 (fide Roger Burrows). There were 4 **Green Herons** (Héron vert) on the Rivière-à-la-Truite in St-Jacques on Aug 27 (Denys Bourque, Roy & Eileen Pike); another was at Gray Brook Marsh in Hillsborough on Sept 19 (Stu Tingley and others).

Peter Pearce identified a **Greater White-fronted Goose** (Oie rieuse) among the **Canada Geese** (Bernache du Canada) at Castalia Marsh on Sept 20 & 21. An early or lost **Snow Goose** (Oie des neiges) was spotted among the Canada Geese at St-Rest's Marsh in Saint John on Aug. 28 (David Seeler, Dwaine Oakley); it was still present on Sept 27 (Mark Pokorski). Another Snow Goose was with Canada Geese in Salisbury on Oct 16 (Ron Steeves). A male **Eurasian Widgeon** (Canard siffleur) was at the Sackville Waterfowl Park on Sept 24 (Al Hanson), 1 was at the Cap Brûlé lagoon on Oct 11 (Bev Schneider). A possible female **Canvasback** (Fulligule à dos blanc) was seen at the Lancaster Sewage lagoon on Oct 21 (Mark Pokorski). Dwayne Sabine reports a late brood of **Ring-necked Ducks** (Fulligule à collier) on Oct 1 in Hampton; the ducklings were not completely grown and feathered and accompanied by the hen.

A female **Cooper's Hawk** (Épervier de Cooper) was seen on Highland Roads in Indiantown on Sept 26 (Roger Burrows). Another was being chased by crows in Hammond River on Oct 8 (Jim Wilson) and Roy LaPointe still has his resident Cooper's hanging around his feeders.

A **Gyr Falcon** (Faucon Gerfaut) was identified on Miscou Island on Oct 19 (Steeve Mioussé).

There were many reports of **Turkey Vultures**; notably

Jim & Jean Wilson counted 65 in Midland on Sept 19, one was seen flying over Bathurst on Sept 27 (Pat McLaughlin) and 1 was seen at Miscou lighthouse on Oct 9 (Robert Doiron). A **Black Vulture** (Urubu noir) was spotted circling over Johnston's Point Road in the Shemogue area on Sept 1 (Stu Tingley and others). Another report of a Black Vulture was made on Sept 13 in the Hopewell Hill area (Norm & Gisèle Belliveau and others) and possibly another in Cape Spear on Oct 18 (Pamela Tenholm).

A **Wild Turkey** (Dindon sauvage) was spotted in Yolande LeBlanc's yard in Memramcook on August 21. This may be an escaped bird as it seems to be an immature or even a hybrid, Yolande noted a quite lot of white feathers on the bird.

An adult **Sandhill Crane** (Grue du Canada) was in Mundleville near Rexton on Sept 19 (Jean-Paul LeBlanc and others), it was still present on Sept 29. Other Sandhill Cranes: 1 was in Grand Digue on Oct 8 (Dennis King) and 1 was spotted on Route 10 near Sussex on Oct 10 (Doreen Rossiter).

An **American Golden Plover** (Pluvier bronzé) was at Anchorage Beach GMI on Aug 29 (David Seeler, Dwaine Oakley), there were 3 more at the College Street lagoon in Memramcook on Sept 6 (Ron Arsenault), another 3 at Saints Rest marsh on Sept 14 (Merv Cormier), 1 in Lorneville on Oct 13 (Merv Cormier, Gilles Belliveau). An **Upland Sandpiper** (Maubèche des champs) was near Seal Cove, GMI on Aug 27 (David Seeler). **Baird's Sandpipers** (Bécasseau de Baird) were observed: 2 at Malbaie Nord (Marcel David), 1 at Castalia Marsh on Aug 30 (Jane Hills), 1 immature at Mary's Point on 21 (David Christie). A **Stilt Sandpiper** (Bécasseau à échasses) was at the Ste-Anne de Madawaska sewage lagoon on Aug 28 (Roy & Charlotte LaPointe), many more were reported. Two **Buff-breasted Sandpipers** (Bécasseau roussâtre) were at Saint's Rest Beach on Sept 4 (Merv Cormier). A possible **Long-billed Dowitcher** (Bécassin à long bec) was at the Gray Brook marsh in Hillsborough on Sept 14 (Marc Chiasson and others); Stu Tingley and his group did identify one at the same spot on Sept 19, 1 juvenile was at Malbaie Nord on Sept 29 (Robert Doiron), and 1 at Malbaie Sud on Oct 21-22 (Robert Doiron, Frank Branch). **Wilson's Phalarope** (Phalarope de Wilson) reports: 1 at the Dune de Maissonnette on Aug 25 (Marcel David), 1 at the Rockland

Ducks Unlimited impoundment in Taylor Village on Aug 29 (Hank & Carolyn Scarth), and 1 at the Arthur Street lagoon in Memramcook on Sept 6 (Ron Arsenault).

A possible **Great Skua** (Grand Labbe) was seen off the GMI Ferry on Oct 5 (fide David Christie). A 2nd winter plumaged **Laughing Gull** (Mouette atricille) was at Carlton Park in Fredericton North on Aug 30 (Gilles Belliveau). A **Little Gull** (Mouette pigmée) was at the Cap Pelé Sewage lagoon on Aug 25 and on Sept 2 (Louis-Émile Cormier, Donald Pellerin, Stu Tingley and others), and 1 was of the Grand Manan Ferry on Sept 18 (Roger Burrows). A **Black-Headed Gull** (Mouette rieuse) was also at the Cap Pelé sewage lagoon on Aug 25 and Sept 2 (Paul-Émile Cormier, Donald Pellerin, Stu Tingley and others); another was off the Grand Manan ferry on Sept 18 (Roger Burrows). Bev Schneider saw a few **Black-Headed Gulls** on the Acadian Peninsula on Sept 1. There many reports of **Lesser Black-backed Gulls** (Goéland brun). An adult **Sabine's Gull** (Mouette de Sabine) was off North Head GMI on Aug 28 (Allan MacDonald, Roger Burrows). Four **Caspian Terns** (Sterne caspienne) were flying over the beach in Cape Tormentine on Sept 2 (Stu Tingley and others).

Jim & Jean Wilson spotted a **Thick-billed Murre** (Guillemot de Brünnich) in Seal Cove on Sept 10. Roger Burrows also reports a Thick-Billed Murre off the Grand-Manan ferry on Sept 25.

A **Black-billed Cuckoo** (Coulicou à bec noir) was seen at Johnston's Point on Sept 2 (Stu Tingley and others). Another Black-billed Cuckoo was on Sand Cove Road in Saint John on Sept 30 (Roger Burrows). A **Yellow-Billed Cuckoo** (Coulicou à bec jaune) was on MSI on Aug 28 (Ralph Eldridge). Many more were reported this fall.

David Christie heard 2 **Long-eared Owls** (Hibou moyen-duc) Sept 23 at Mary's Point.

The last report of the **Ruby-throated Hummingbird** (Colibri à gorge rubi) was on Oct 9 in Hampton (Richard Blaquiére).

There was an **American Three-toed Woodpecker** (Pic à dos rayé) on Burchill Road in Saint-John on Sept 26 (Merv Cormier). A **Black-backed Woodpecker** (Pic à dos noir) was seen in Fredericton on Sept 17 (Linda Kneebone). Another was on Jolicure Road near Rexton on Sept 20 (Dwayne Oakley and others), 1 male was at Malbaie Sud on Oct 22 (Robert Doiron, Frank Branch) and 1 at the Experimental Forest in Ste-Anne de Madawaska on Oct 22 (Richard Migneault).

An immature **Say's Phoebe** (Moucherolle à ventre roux) was observed at Lorneville on Aug 27 (Merv Cormier, Jim Wilson). An **Ash-throated Flycatcher** (Tyran à gorge cendrée) was identified at Jean-Guy Robichaud's home in

Inkerman on Sept 6 (Rosita Lanteigne and others); it was still present on Sept 20 (Irene Doyle). There was a possible **Western Kingbird** (Tyran de l'Ouest) at Point Lepreau on Aug 29 (Jim & Jean Wilson). Another Western Kingbird was found at the sewage lagoon in Hillsborough on Sept 9 (Norm Belliveau and others) and 1 outside Cape Tormentine on Oct 22 (Hank & Carolyn Scarth).

A late **Tree Swallow** (Hirondelle bicolor) was seen at Southwest Head on Oct 5 (Jim Wilson and others). Several **Carolina Wrens** (Troglodyte de Caroline) were reported: 1 on the Salamanca trail in Fredericton on Sept 13 (Gilles Belliveau), at least 3 more were seen on the same trail on Sept 21 (Gilles Belliveau), and 1 in St-Andrews on Oct 21 (Tracey Dean). A **House Wren** (Troglodyte familier) was on Black Harbor Road in Saint-John on Sept 16 (Merv Cormier), 1 was in St-Leonard on Sept 17 (Roy & Charlotte LaPointe), 1 at Long Eddy Point on Oct 1 (Jim Wilson and others), and 1 at Southwest Head on Oct 9 (Don and Catherine Gibson).

A **Blue-gray Gnatcatcher** (Gobemoucheron gris-bleu) was seen in the Black Beach area on Sept 3 (Stu Tingley and others). Another Blue-Grey Gnatcatcher was at the Old Airport on South Head on Sept 8 (Jim & Jean Wilson), 1 was in Inkerman on Sept 28 (Robert Doiron, Frank Branch), 1 at Ox Head on GMI on Oct 4 (Jim Wilson and others). Dale Gaskin had 11 **Eastern Bluebirds** (Merlebleu de l'Est) at one time in his yard on Dawson Settlement road on Aug. 24 and 16 on Oct 1. A probable **Grey-Cheeked Thrush** (Grives à joues grises) was on Whistle Road GMI on Sept 12 (Ken Edwards and others). Another Grey-cheeked Thrush was banded at the Huntsman Center in St-Andrews (fide Alain Clavette) Jim & Jean Wilson identified a **Wood Thrush** (Grive des bois) on GMI on Sept 10.

A **Brown Thrasher** (Moqueur roux) was at Eel Brook, GMI on Oct 1 (Jim Wilson and others). Another was at the PLBO on Oct 15 (Jim Wilson).

A first **Northern Shrike** (Pie-grièche grise) was reported at Malbaie Nord on Oct 7 (Robert Doiron, Frank Branch).

Two possible **Blue Grosbeaks** (Guiraca bleu) were reported by Jim Leslie on GMI on Aug 23 (fide Roger Burrows). Another Blue Grosbeak was observed near Wood Wards Cove on GMI on Aug 27 (David Seeler). There were many reports of **Indigo Buntings** (Passerin indigo) this year but Stu Tingley and his group reported the first one at the Whistle on GMI on Sept 29. A **Dickcissel** (Dickcissel d'Amérique) was on Whistle Road, GMI on Aug 29 (Roger Burrows). Other Dickcissels sightings were: 1 Swallow-tail GMI on Sept 12 (Ken Edwards and others), 1 in Alma on Sept 14 (Doreen Rossiter), 1 on Highland Road in Saint-

John on Sept 18 (Roger Burrows), 2 at Hopewell Hill on Sept 28 (David Christie, Mary Majka).

A good year for **White-eyed Vireos** (*Vireo aux yeux blancs*): 1 near South Head Lighthouse, GMI on Sept 29 (Gilles Belliveau and others), 1 in Lorneville on Sept 30 Merv Cormier, 1 at White Head Island and Deichman Woods on GMI on Oct 6 (Merv Cormier), 1 on Burchill Road in Saint John on Oct 6 (Merv Cormier), 1 at Red Point on Oct 6 (Durlan Ingersoll), 1 adult at Laingmaid Beach, GMI on Oct 2 and an immature at Pette's Cove on Oct 3 (Jim Wilson and others), 1 at the PLBO on Oct 15 (Jim Wilson). A **Yellow-Throated Vireo** (*Viréo à gorge jaune*) was at Deichman Woods on GMI on Oct 6 (Merv Cormier), 1 at Deep Cove on Oct 5 (David Christie and others), and 1 on Southhead Beach road on Oct 13 (Durlan Ingersoll). A male **Blue-Winged Warbler** (*Paruline à ailes bleues*) was seen on Burchill Road in Saint John on Aug 26 (Merv Cormier) and another 1 male was on White Head Island on Oct 2 (Jim Wilson and others). A female **Golden-winged Warbler** (*Paruline à ailes dorées*) was spotted on the Black Beach Road near Saint John on Sept 22 (Merv Cormier). **Orange-crowned Warbler** (*Paruline verdâtre*) was observed in St-Leonard on Sept 23 (Roy LaPointe); many more were seen afterwards especially on GMI. A **Pine Warbler** (*Paruline des pins*) was among other migrating warblers at the Sackville Water Fowl Park on Aug 29 (Ivy Austin). There were many reports of **Prairie Warblers** (*Paruline des prés*) this season. A **Connecticut Warbler** (*Paruline à gorge grise*) was seen on Whistle Road, GMI, on Sept 27 (Stu Tingley and others). There was a **Yellow-breasted Chat** (*Paruline polyglotte*) in Doreen Rossiter's yard in Alma on Sept 14, another was banded at the Huntsman Center in St-Andrews (fide Alain Clavette) and 1 was Southern Head, GMI on Oct 5 (Jim Wilson and others).

An **Eastern Towhee** (*Tohi à flanc roux*) was at a feeder in St-Paul on Oct 9 (fide NMIL) and a male was in St-Martins on Oct 21 (Ted Sears). A very tired **Clay-colored Sparrow** (*Bruant des plaines*) landed for a rest on Durlan Ingersoll's boat on the Bay of Fundy on Sept 25. A female Clay-colored sparrow was spotted in Shamrock Park in Indiantown on Sept 26 (Roger Burrows), 1 was in Doreen Rossiter's yard in Alma on Sept 27 and 1 on Whistle road on Oct 1 (Jim Edsall). There were many reports of **Lark Sparrows** (*Bruant à joue marron*) the province this year. Don Gibson and Peter Pearce had a possible **Grasshopper Sparrow** (*Bruant sauterelle*) near the Bear's Den Inn, GMI, on Oct 8. A **Swamp Sparrow** (*Bruant des marais*) was at North Head, GMI on Aug 26 (Roger Burrows) and another was at Cape Spear on Sept 16 (Norm Belliveau).

A very rare **Seaside Sparrow** (*Bruant maritime*) was at the Lorneville wharf on Sept 2 (Merv Cormier, Stu Tingley and others). There were many comments on the large number of migrating **White-crowned Sparrows** (*Bruant à couronne blanche*) this fall. The first reports of **Lapland Longspur** (*Bruant lapon*) and **Snow Bunting** (*Bruant des neiges*) was made by Merv Cormier and Gilles Belliveau on Oct 13, they saw one of each in Lorneville.

A **Rusty Blackbird** (*Quiscale rouilleux*) was in Fredericton on Oct 21 (Ron Wilson).

The first **Common Redpoll** (*Sizerin flamme*) arrived at Margaret Doyle's feeders on Oct 19.

Il y avait 4 **Hérons verts** (*Green Heron*) sur la Rivière-à-la-Truite à St-Jacques le 27 août (Denys Bourque, Roy & Eileen Pike).

Une **Buse à épaulette** (*Red-shouldered Hawk*) a été observée à Dugas (sur la Péninsule acadienne) le 21 août (Roger Guitard).

Steeve Miousse a identifié un **Faucon Gerfaut** (*Gyr Falcon*) près du phare sur l'île de Miscou le 19 oct.

Yolande LeBlanc a observé une **Dinde sauvage** (*Wild Turkey*) dans sa cour à Memramcook le 21 août. Ceci est possiblement un oiseau immature évadé ou même un hybride car Yolande a noté qu'il avait beaucoup de plumes blanches.

Marcel David rapport 2 **Bécasseaux de Baird** (*Baird's Sandpiper*) à Malbaie Nord le 25 août, une **Phalarope de Wilson** (*Wilson's Phalarope*) à la dune de Maisonnnette le 25 août. Roy et Charlotte LaPointe ont observé un **Bécasseau à échasses** (*Stilt Sandpiper*) à l'étang d'épuration de Ste-Anne de Madawaska le 28 août, Marcel David en rapport 3 à Malbaie Nord le 23 sept.

Un **Pic à dos noir** (*Black-backed Woodpecker*) était à la forêt expérimentale à Ste-Anne de Madawaska le 22 oct (Richard Migneault).

Rosita Lanteigne nous signale un **Tyrann à gorge cendrée** (*Ash-throated Flycatcher*) chez Jean-Guy Robichaud à Inkerman le 6 sept.

Ivy Austin a observé une **Paruline des pins** (*Pine Warbler*) au Waterfowl Park à Sackville le 29 août.

Abbreviations:

GMI: Grand Manan Island

MSI: Machias Seal Island

NMIL: Nature Moncton Information line

PLBO: Point Lepreau Bird Observatory

NATURE NEWS: INVERTEBRATES

June 1 to August 30, 2007

Dwayne L. Sabine

Lepidoptera (Butterflies and Moths)

For the second year in a row, New Brunswick had a stellar season for **Monarchs** (monarque; *Danaus plexippus*). Dozens of reports were received - most of adults, but there were also a number of observations of eggs, larvae, and pupae. Initial reports of migrants from the south were mainly of individual Monarchs, but they trickled in regularly throughout June. With the emergence of locally-produced generations in July and August, there were many reports of good numbers of Monarchs, especially in the south of the province. Among the early reports, Reggie Webster was surprised to find 5 or 6 full-grown Monarch larvae, perhaps a day or two from pupation, on milkweed along the Meduxnekeag River June 25. He figures the adult female(s) would have to have been present to lay eggs sometime in late May.

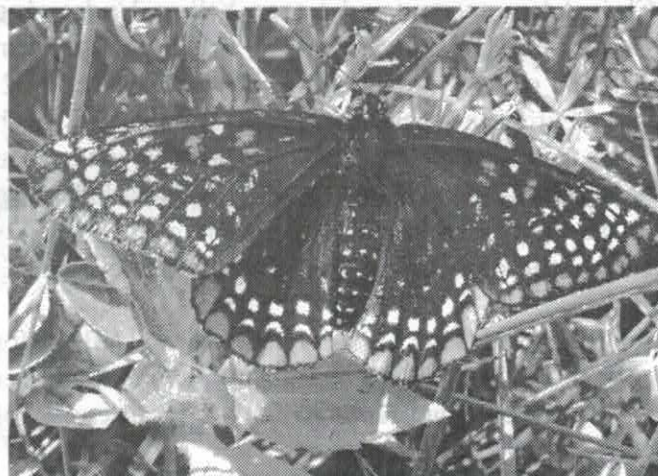
Another especially abundant migrant butterfly this summer was the **Red Admiral** (vulcain; *Vanessa atalanta*). The pulse of migrants noted in late May carried through into June and into July, with freshly-emerged individuals noted by mid-summer. This abundance of Red Admirals appeared consistent throughout the province: good numbers were even noted at sea off Grand Manan in late June (Laurie Murison).

Although the first reports of **Canadian Tiger Swallowtails** (papillon tigré du Canada; *Papilio canadensis*) were received back in late May, it was not until the second week of June when they seemed to be present in good numbers in most parts of the province (various observers). The less common **Black Swallowtail** (papillon du céleri; *Papilio polyxene asterius*) was noted several times this summer: Shepody Marsh, June 5 (Dave Christie, Mary Majka); Pokiok, June 19 (Tony Thomas); Fredericton, August 11 (Ron Wilson), Fredericton, August 27 (larvae) (Chris Adam); and Grand Manan, August 27 (Roger Burrows).

The diminutive **American Copper** (cuivre d'Amérique; *Lycaena phlaeas americana*), a widespread but uncommon species in the province, was noted by several observers this summer: Hammond River, June 23 (Jim Wilson); Grand Manan, June 29 and White Head Island, August 28 (Roger Burrows); and Point Lepreau, August 30 (Jim & Jean Wilson, Jane Smith). A related species, the **Saltmarsh Copper** (cuivre des marais salés; *Lycaena dospassosi*) was

reported from Tabusintac on August 12 by Bill Winsor. The Saltmarsh Copper is endemic to the Maritimes and the Gaspé, and is one of only two species of butterflies in Canada that strictly inhabits saltmarshes.

Julie Singleton reported finding about 200 **Baltimore** (Baltimore; *Euphydryas phaeton*) (aka Baltimore Checkerspot) larvae on Turtlehead (tête de tortue; *Chelone glabra*) plants at English Settlement on August 19. The only other report received of this species was an adult at a small marsh in Lincoln on June 20 (Chris Adam).



Baltimore Checkerspot
Chris Adam

Rosita Lanteigne reported finding **Silvery Checkerspots** (damier argenté; *Chlosyne nycteis*) and **Jutta Arctics** (nordique des tourbières; *Oeneis jutta*) in the Acadian Peninsula area in late June. These are thought to be the first records for the area.

The **Orange Sulphur** (coliaide du trèfle; *Colias philodice*) - least common of our three sulphur species - is most often reported from the Bay of Fundy coast. This pattern held true this summer, with reports from Grand Manan on July 4 and August 27 (Roger Burrows). There was a single inland report from Central Blissville on July 16 (Fredrica Givan).

While conducting Odonata surveys of the Miramichi River system this summer for the Atlantic Canada Conservation Data Centre, Denis Doucet and Jim Edsall also encountered a number of interesting butterflies. Among

their many finds were **Western-tailed Blues** (bleu porte-queue de l'Ouest; *Evers amyntula maritima*) at eight sites scattered throughout the Miramichi watershed: this species was previously known from only a few sites in the province. They also found a new site for the rare **Two-spotted Skipper** (hespérie des marais; *Euphyes bimacula*). Finally, they found three new sites for the **Striped Hairstreak** (porte-queue à bandes brisées; *Satyrium liparops*), at Juniper, Ludlow and Wayerton. Nelson Poirier also reported Striped Hairstreaks - from Rogersville on July 21.

An **Ailanthus Webworm Moth** (*Atteva punctella*), photographed by Alain Clavette on July 29, was apparently one of only three records for New Brunswick. This species occurs only as far north as New York and southern Ontario, and presumably occurs here as a wind-blown stray. The previous two records were on the southern coast of the province: Fundy National Park, 1994 (Tony Thomas) and Mary's Point, 1998 (Dave Christie).

Chris Adam encountered **Large Yellow Underwing Moth** (la fiancée; *Noctua pronuba*) at his porch light in Fredericton on several occasions between August 12-22. This is a European species that evidently colonized North America from an accidental introduction to Nova Scotia in 1979. According to Jim Edsall, the Large Yellow Underwing Moth was first found in New Brunswick in 1983, and has since become one of our most common summer moth species.

Jim Edsall and Denis Doucet found a second NB site for the **Milkweed Tiger Moth** (*Euchaetes egle*) this summer in the Benton area, not far from Jim's 2004 discovery of the species at Woodstock.

Chris Adam photographed the distinctive (and "un-mothlike") appearing **Geranium Plume Moth** (*Amblyptilia pica*) at Fredericton in June.



Geranium Plume Moth
Chris Adam

Odonata (Damselflies and Dragonflies)

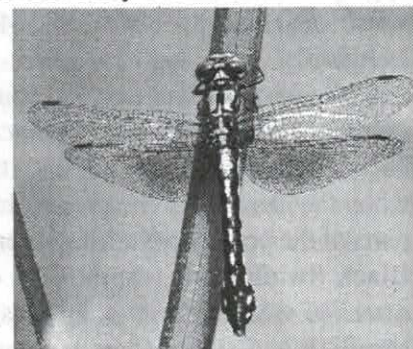
A **Subarctic Bluet** (agrion ponctué; *Coenagrion interrogatum*) found at Fredericton on June 2 was one of the first records in southern NB for this northern damselfly (Tony Thomas). Gilles Belliveau found the rare **Orange Bluet** (agrion orangé; *Enallagma signatum*) at Lakeville Corner on June 29 and at Jemseg on July 14. He also found another rare damselfly, the **Skimming Bluet** (agrion minuscule; *Enallagma geminatum*) at the latter site.

On July 1, Stu Tingley found a male **Lilypad Clubtail** (gomphe fourchu; *Arigomphus furcifer*) at Jemseg, one of only two known sites for the species in NB.

The tiny **Elfin Skimmer** (nannothème d'elfe; *Nannothemis bella*) was noted in the Lake Utopia area on June 16 (Gille Belliveau).

Normally seen in groups of up to perhaps a few dozen, there were thousands of recently-emerged **Calico Pennants** (céli thème indienne; *Celithemis elisa*) present in old fields in the Harvey Station area on June 20 (Dwayne Sabine) - an impressive sight.

The biggest Odonata news this year, by far, was the discovery of large numbers of **Pygmy Snaketails** (*Ohligomphus howei*) on the Miramichi River by Denis Doucet and Jim Edsall during their surveys for the Atlantic Canada Conservation Data Centre. They first found exuviae (the larval skins left behind by the emerging adults) of the species at two sites on the Southwest Miramichi on June 17, with Paul Brunelle. They later found additional exuviae, as well as the elusive adults at one other site on the main river, as well as at a site on the Cains River and another on the Salmon River (the tributary of Grand Lake/Saint John River). The Pygmy Snaketail was previously known from only two other sites in NB (& Canada!): the upper Saint John River (above Edmundston) and the Magaguadavic River.



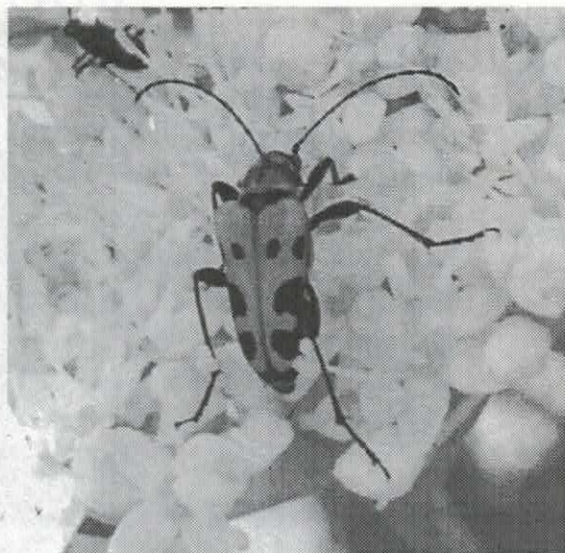
Pygmy Snaketail
Denis Doucet

Other discoveries during their Miramichi surveys included many new sites for the **Broad-tailed Shadowdragon** (épithèque à queue large; *Neurocordulia michaeli*), which was previously unknown from eastern NB, as well as a new site for **Clamp-tipped Emeralds** (cordulie ténébreuse; *Somatochlora tenebrosa*) - among our rarest dragonflies - from the Northwest Miramichi near Wayerton.

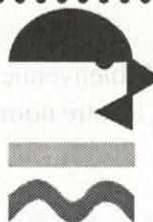
Miscellaneous species

A final discovery from Denis Doucet and Jim Edsall's Miramichi surveys: they found a population of the **White Mountain Tiger Beetle (Appalachian Tiger Beetle)** (cicindèle des Appalaches; *Cicindela ancocisconensis*) on the Cains River on June 13. This is only the second known NB population of this species, which was first reported here from the Saint John River by Reggie Webster in 2005.

Chris Adam reports a number of Longhorned Beetles, or Cerambycids, from the Fredericton Area this summer, including the **Flower Longhorn** (longicorne jaune; *Evodinus monticola*) on June 7, the **Elm Borer** (saperde de l'orme; *Saperda tridentata*) *Physocnemum brevilineum*; on June 22, the **Round-headed Apple Tree Borer** (saperde du pommier; *Saperda candida*) on June 28, the **Red-shouldered Pine Borer** (longicorne à epaulettes; *Stictoleptura canadensis*) on August 16, and the **Banded Longhorn** (*Typocerus velutinus*) on August 20. The Cerambycids are a large and interesting group of beetles that deserve further study in New Brunswick.



Flower Longhorn
Chris Adam



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Blister beetle of the genus Meloe (oil beetles)

Roland Chiasson

These blue-black, large beetles contain a chemical (cantharidin) that can cause painful blistering. This chemical poison can be used to remove warts. Historically, it has been used as aphrodisiac until its dangerous nature was discovered. The chemical is classified as a problem drug by dermatologists. Triungulin larvae can hitch rides to bee's nests and will kill bee's eggs and develop on the pollen in the nest (= kleptoparasitic beetle). Adults sometimes feed on flowers. The one depicted in the image was found in Tabusintac, in August, 2007.

Marshall, S.A. 2006. Insects. Their Natural History and Diversity. Forefly Books. Buffalo, NY, USA.

Wikipedia: http://en.wikipedia.org/wiki/Blister_beetle



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Nature News relies on Nature NB members to report their various nature finds. The following people work as a team to ensure that this section is as complete as possible. Please send your observations to the appropriate compiler.

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