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N. B. Naturalist

Le Naturaliste du N.-B.



New Brunswick Federation of Naturalists

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

La Fédération des naturalistes du Nouveau-Brunswick

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

The federation is a non-profit organization formed in 1972 to facilitate communication among naturalists and nature-oriented clubs, to encourage an understanding of nature and the environment, and to focus concern for the natural heritage of New Brunswick.

La fédération est une organisation sans buts lucratifs formée en 1972 pour faciliter la communication entre les naturalistes et entre les divers clubs axés sur l'étude de la nature, pour encourager une meilleure compréhension de l'environnement naturel, et pour éveiller le souci pour le patrimoine naturel du Nouveau-Brunswick.

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Club Les amis(e)s de la nature, a/s Raymonde Fortin, Bte 163, RR # 1, Scoudouc (N.-B.) E0A 1N0; réunions alternant entre Dieppe et Shediac, 1er lundi de chaque mois; excursions 3ième samedi ou dimanche.

Ford Alward Naturalist Association, c/o Ronald Fournier, RR # 1, Glassville, NB E0J 1L0; 246-5572; meets Wicklow Agricultural Centre, 7:30 pm, 2nd Mon., Oct.-June; semi-annual newsletter.

Fredericton Nature Club, Box 772, Station A, Fredericton, N.B. E3B 5B4; 459-8685 or 454-2117; meets N.B. Craft School, 7:30 pm, 1st Wed., Sept.-May; monthly *Newsletter*.

Kennebecasis Naturalists' Society, P.O. Box 12, Sussex, N.B. E0E 1P0; 433-1801 or 433-6473; meets St. Paul's United Church Hall, 8 pm, 4th Mon., Sept.-May.

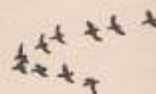
Moncton Naturalists' Club, P.O. Box 4327, Dieppe, N.B. E1A 6E9; 857-4271 or 384-5212; meets Moncton Public Library, 7 pm, 2nd Wed., Sept.-May; monthly newsletter.

Nepisiquit Naturalists' Club, P.O. Box 385, Bathurst, N.B. E2A 3Z3 Saint John Naturalists' Club, 277 Douglas Avenue, Saint John, N.B. E2K 1E5; meets N.B. Museum, 2nd Wed., Sept.-May, elsewhere in June; monthly *Bulletin*.

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Schoodic Chapter, Maine Audubon Society, c/o Sid Bahrt, Pembroke, ME 04666; meets Sunrise Apts., Calais, 7 pm, 3rd Tues., except Dec; bimonthly *Schoodic*.

Sunbury Shores Arts and Nature Centre, Inc., Box 100, St. Andrews, N.B. E0G 2X0; 529-3386; workshops, exhibits, semi-annual *Sunbury Notes*.



N.B. Naturalist

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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 dans français ou anglais pour être reproduits dans la langue d'origine seulement. Les opinions exprimées sont celles de leurs auteurs. Prière d'envoyer vos articles aux directeurs (voir «Comité de rédaction» au-dessus). Tarifs publicitaires disponibles sur demande.



Federation News

Annual Meeting Weekend

The weather was superb when more than 90 people converged on the island of Grand Manan for the Federation's annual meeting June 21-23. They weren't disappointed. The lovely Grand Manan archipelago abounds in features of special interest to naturalists.

Early Friday evening, islanders and Federation members packed the Grand Manan Museum for the launching of L. Keith Ingersoll's *Wings over the Sea* (Goose Lane Editions, Fredericton), a biography of Grand Manan naturalist Allan Moses. To launch the book in the island's museum was most appropriate: the author, autographing books, was flanked by exhibit cases of mounted birds that also testified to Moses' achievements and taxidermic skills.

The Federation's Annual General Meeting followed the book launch, with reports from the officers, committees, and federated clubs, and the election of officers. The treasurer reported

a general fund balance of \$12,078, which would be reduced to \$6,608 when the annual meeting expenses were paid, and a scholarship fund balance of \$591. Jim Wilson was re-appointed as auditor. David Smith reported on Canadian Nature Federation activities and announced that a new member of the C.N.F. board is being sought from New Brunswick because he had almost completed his maximum 6 years as a board member.

The new Federation executive was elected by acclamation. Jim Goltz of Fredericton moved up from vice-president to president, and Nelson Poirier of Moncton became vice-president. Elizabeth McIntosh and Cecil Johnston kindly agreed to continue their efficient handling of the demanding positions of secretary and treasurer, respectively. A special vote of thanks was conveyed to the outgoing president, Peter Pearce, for his diligent work on the Federation's behalf over the previous four years. Earlier in the evening, Peter also had been acknowledged for his efforts to ensure that *Wings over the Sea* was published.

The meeting concluded with the passage of a resolution asking the Provincial Government to adopt regulations that would prohibit lumbering in Provincial Parks.

The following day was filled with field trips. Because of space limitations, not everyone who wanted was able to take advantage of the boat trips to

Kent Island and Machias Seal Island. Those who could were treated to seashore plants and nesting storm-petrels, puffins, razorbills, guillemots, gulls, terns (but not the Fork-tailed Flycatcher which had been seen on Kent Island earlier in the week).

The overflow (and those who get queasy just thinking about boarding a fishing boat) took part in trips to explore the headlands and harbours, fishing villages, forest, marsh, and rocky intertidal shores of the main island. From sea slugs, sea-urchins, and hermit crabs to ospreys, eagles and the ever-present eiders with their flotillas of young there was lots to enjoy at Grand Manan.

At Saturday evening's banquet, Eric Allaby, the local M.L.A., welcomed us to Grand Manan, bringing wishes for a successful weekend from Premier Frank McKenna. His remarks were followed by the presentation to Keith Ingersoll of an honorary life membership

in the Federation "in recognition of his significant contributions to the preservation, documentation and interpretation of the natural and human history of the Grand Manan Archipelago, and in particular for his work towards establishment of the Grand Manan Museum and his study of the life and accomplishments of the Grand Manan naturalist, Allan L. Moses." Keith Ingersoll then traced the natural history of the Grand Manan archipelago from the earliest settlers to the present, concentrating on man's inter-relationship with nature. The evening concluded with a talk by Laurie Murison on the work of the Grand Manan Whale and Seabird Research Station. It featured

excellent colour slides of whales.

On Sunday morning there were botanizing and birding trips, after which most of the visitors reluctantly boarded the ferry to return to their mainland homes—a bit tired but very satisfied with a first-rate annual meeting weekend. DSC

You have chosen one of the most beautiful parts of the province for your meetings. Be sure to take some time to explore Grand Manan. The island is famous for its bird-watching opportunities, its hiking trails along rugged cliffs, its profusion of wild-flowers, its whale-watching tours, even its rockhounding possibilities.

In fact, Grand Manan is one of the reasons our tourism department chose the slogan, You'll Love our Good Nature. We know that people like yourselves understand the value of outdoor adventures. You appreciate the chance to "get away from it all," always treating our land and sea with the utmost respect.

I hope that... you will spread the word about our good nature and encourage others to visit New Brunswick—to share its beauty and excitement. Be proud of our province. Enjoy it.

Premier Frank McKenna.

Cover Illustration / Illustration de la couverture

Wood Thrush by Halton Dalzell /
Grive des bois par Halton Dalzell.

Bat Banter

Matthew Saunders

I sat on the roof and waited. Within minutes the air about my head whirled with activity. A burst of light from my camera's flash illuminated three bats, stopping them in mid-flight for an instant. I managed to take many bat photos as a result of my work that night.

For the past two years I have taken on the task of helping people deal with bats—whether evicting bats from homes or helping people employ bats in their fight against insects. On that particular night I sat atop the roof of a fishing camp to photograph bats as they returned from feeding. The swarming bats were beginning to realize that they had been evicted from their comfortable summer home of several years.

Educating people about bats has become a personal passion, and is the nucleus of my "profession". I frequently hear of bat problems being solved with brooms, shovels or tennis racquets. Bat-phobia is undeniably real in some people, but try to put things into perspective before annihilating the lone bat that flies through your living-room. Most bats that you will encounter weigh less than half as much as a house mouse, eat nothing but insects, and will only bite if handled roughly. Heck, even a white dove may shed its role as the international peace symbol to bite the fingers of a careless handler. Also, many of the bats that stumble into your living-room (when guests arrive, of course) are young bats that are just learning to fly. No, extermination is a tad harsh.

A close-up examination of a bat held in a gloved hand or watching one as it flies about in a room can help vanquish many bat fears. Once, after showing a bat to a group of elementary school children and then allowing it to fly around the room above their heads, I received dozens of letters stating that they wished that the bat had landed on them, or requesting information on how to get a bat for a pet—a quick about-face in philosophy!

Helping people recognize some of the connections between their own lives and the lives of bats also helps to alleviate fears. Persons who consume wild bananas, cashew nuts, figs, avocados, walnuts and allspice berries depend on bats indirectly, because the plants from which these products are obtained depend on bats—which either pollinate their flowers or disperse their seeds. And the relationships do not end

there. People who use balsa wood or hemp rope must resign themselves to the fact that these products are also bat dependent. Those who imbibe tequila should recognize that this drink originates from the root of the agave plant—a plant that depends on one bat species for pollination. Tequila production requires that the agave root is taken before the plant produces flowers. Consequently agave plants are declining in number, as are the bats which the plants nourish and depend on. Even those who chew gum may be gnawing on a plant material—chicle latex—produced by bat-pollinated plants.

Elementary school kids (and some adults!) shudder at the thought of using bat-dependent products. After all, seed dispersion by bats means that bats first eat the fruit, digest the pulp, and then crap out the seeds. This eye-opener proves too much for some listeners, and they pledge to quit using allspice, guava pears, carob, and so forth forever. Perhaps it is better to eat raspberries, blackberries, blueberries, and choke cherries (etc.) that are similarly dispersed by birds!

We must recognize that bats are helpful. We DO depend on them, often in ways we may not expect. For example, consider oxygen. Bats are the prime seed-dispersers in tropical areas, and are thus critically linked to plant regrowth there. Those bats generate oxygen. I do not wish to be viewed as an eccentric bat-lover, but one way or another, we all depend on bats.

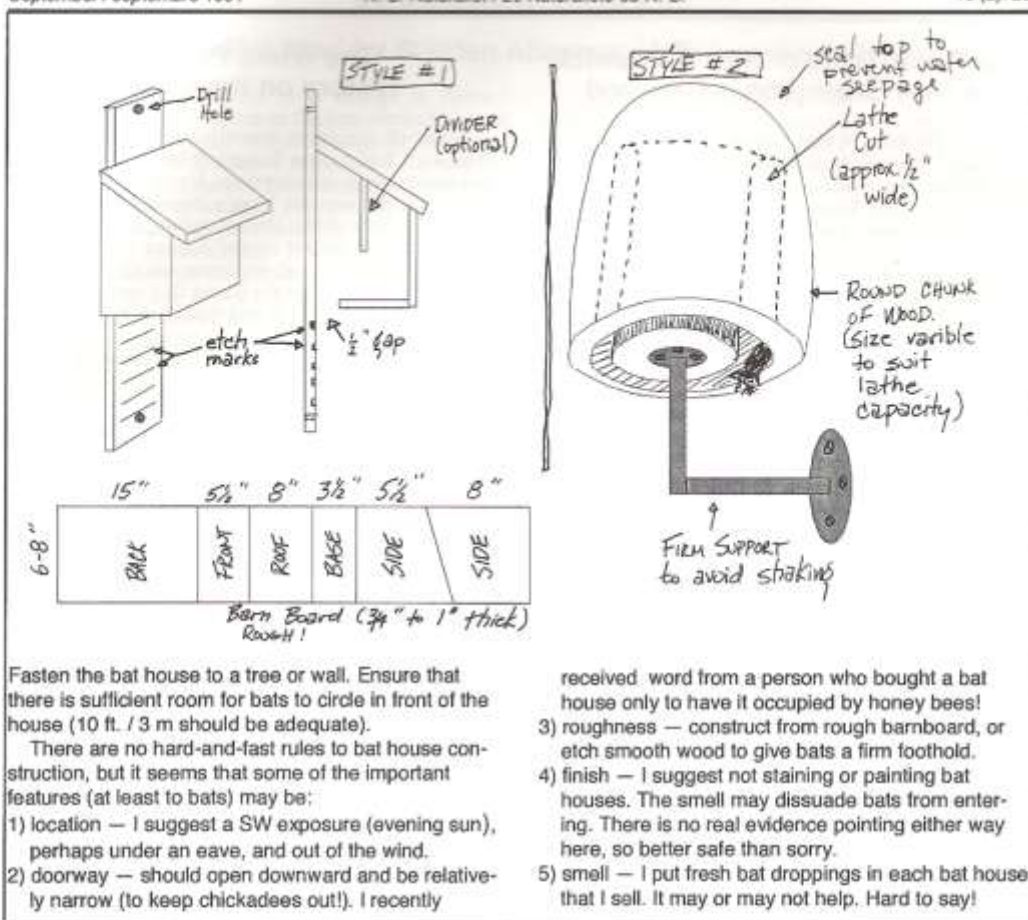
For the most part, an innate fear of bats is unwarranted. Yes, there ARE vampire bats which DO drink blood, but these bats make up only three tenths of one percent of all bats (3 species out of 1000). With the exception of some species which eat fish, one which eats scorpions, bats which eat bats, and an exotic array of flying-foxes (fruit and nectar bats), most bats battle insects. This is a task at which they excel. Insect-eating bats (70% of all species) are unsurpassed as insect hunters, consuming up to one-half of their weight in insects each night.

Several home-owners who were eager to evict bats from their attics have noticed a dramatic increase in the number of night-flying insects after the bats had moved. Bat houses, offering accommodation for 30 or more bats, are often an appealing alternative. In fact, the University of Florida is currently constructing a \$30,000 bat condominium in an attempt to entice bats out of the buildings on campus, and to help control insects. A couple of simple bat house designs are described on the following page.

Bat houses can be erected at virtually any time of year, but will remain unoccupied during the winter months. New Brunswick has seven species of bats, three of which are migratory (moving north in the spring and southward in the fall) and tree-roosters.



Matthew Saunders operates Bat Check, a service to help people with bat problems. Bat Check will evict unwanted bats without destroying them, construct bat houses for the relocated bats to live in, or provide you with more information about bats. Bat Check sells bat houses, plans for bat houses, and bat T-shirts. For more information contact Bat Check, c/o Matthew Saunders, RR #1, Truro, N.S. B2N 5A9; tel. (902) 895-0850.



These species (Hoary, Red and Silver-haired bats) are unlikely inhabitants of a bat house. The most likely species to move into a bat house are Little Brown Bats, Big Brown Bats, Northern Long-eared Bats and/or Eastern Pipistrelles. These are all hibernators and will roost in crevices in rocks or under tree bark as well as in buildings. Of these species, Little Brown Bats are by far the most commensal.

Little Brown Bats mate in the fall before hibernation. Females store the sperm until April when they ovulate, become pregnant and seek a warm roost where they often form maternity colonies. During this time, adult male Little Brown Bats are relatively nomadic, moving from roost to roost in sites such as under tree bark, in log piles or under shingles. They are rarely found in attics where the female and young bats reside. Young Little Brown Bats are usually born in early to mid-June and can fly by late July. Males, females and juveniles all begin to return to hibernacula in the fall and should be out of houses (people houses or bat houses) by the end of October depend-

ing on the weather and insect availability.

Bat houses serve several purposes. If located in a warm area they may house a maternity colony. If so, it will be relatively easy to know that the house is being used by watching for bats leaving at dusk. Bat houses may also be used as temporary roost sites by male bats. If so, the bats may not use the house every night, but may return on an irregular basis. Finally, the bat house may be occupied by juvenile bats that have just learned to fly. In any event, Little Brown Bats are very loyal, and may return to the same site for many years. One Little Brown Bat in Ontario was identified by its numbered tag as being at least 31 years old!

Thirty-one summers multiplied by 180 summer nights and 2000 to 20,000 insects per night... that's food for thought!

*Little Brown Bat drawing by Shannon Inman
Bat house diagrams by Matthew Saunders*

The Great Trees of New Brunswick: A New Champion is Crowned

It's official, a White Pine at Arroostook Junction, Victoria County, is New Brunswick's biggest tree.

A local resident, Justus Wright, nominated the tree for the Great Trees of New Brunswick program last fall. Since then, the Canadian Forestry Association of New Brunswick's official recorder of tree measurements, Geoffrey Ritchie, has visited the site and determined the tree's size to be: crown spread, 67 feet; height, 100 feet; circumference of trunk at breast height, 21 feet, 2 inches. Under the point system used in the Great Trees program these measurements gave the White Pine a total of 371 points.

Thus was another White Pine, at Northampton, Carleton County, dethroned as provincial grand champion. The Northampton pine has 313 points. Not far behind is an English White Oak at Perth-Andover with 294 points.

The Arroostook Junction tree will shortly appear on the cover of a new Department of Natural Resources and Energy publication being used in the New Brunswick school system. (From CFANB Newsletter, Vol. 6, No. 1, p. 2; spring 1991)

1991 Green Up Program a Success

Thanks to the efforts of many dedicated New Brunswickers (including numerous Federation members), the 1991 Green Up highway litter removal program has been deemed an outstanding success. Nearly 250 coordinators took part, and they in turn arranged for the participation of between 15,000 and 20,000 voluntary litter-pickers in all parts of the province—an unprecedented attack on the highway litter problem. The Canadian Forestry Association of New Brunswick thanks all who participated.

From the Editors

Yes, this issue of the *N.B. Naturalist / Le Naturaliste du N.-B.* is rather late; the pressure of our summer projects delayed it. But don't despair, another issue is well under way and will be out soon.

Won't you please share your nature interests by writing an article or news item for this magazine? We particularly need material about plants, insects, amphibians, mammals, etc. to broaden the coverage so often dominated by birds.

The White Pine — History on the Stump

One of the most beautiful trees in the New Brunswick forest is the Eastern White Pine, a tree that also stands tall in our provincial history.

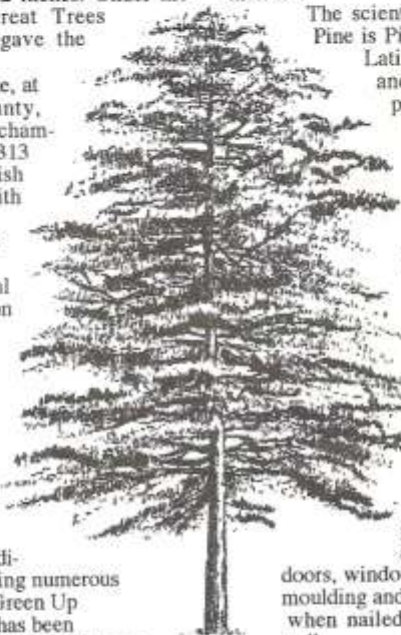
It was the tree the King's Surveyor claimed for the great masts of the British sailing fleet. Marking them with the "broad arrow"—three gashes in the tree's bark—the royal surveyor chose the tallest, straightest White Pines for masts that had to measure at least 108 feet in height and three feet in diameter at the base.

The scientific name for the Eastern White Pine is *Pinus strobus*, a combination of the Latin name for pine, and *strobus*, an ancient designation referring to the pine's qualities as an incense-bearer. It is the official tree of Ontario and Maine. In mythology, it symbolizes boldness, friendship (according to the Chinese), stability and strength (Japanese).

It's the tallest evergreen in eastern Canada, often growing to 130 feet, and it has been known to reach 200 feet. It's also one of the trees most frequently nominated in the Great Trees of New Brunswick program, a province-wide registry of outstanding individual trees and plantations.

The pine's light, straight-grained, soft wood is much valued as lumber, particularly for uses like doors, window frames, cabinetry, boat-building, moulding and trim. It is easy to work, won't split when nailed, and accepts finishes and paints well.

In addition to lumbermen with an eye for good wood, two virulent enemies also stalk the Eastern White Pine—a weevil and a fungal disease called blister rust. Both can kill the tree, but they can be at least partially controlled through careful protection and maintenance. (From *The Arbor Day Planter*, a publication of the CFANB, Vol. 4, p. 4; May, 1991.)



Mary and David

Scientists Mystified by Sudden Absence of Red-necked Phalarope

It's strange. Could it be a change in flyway pattern? A breeding failure in the low Arctic? Loss of food supply in the Gulf of Maine stopover? Only the Red-necked Phalaropes know at this point.

All sea-bird scientists know is that an estimated one-quarter of the world's Red-necked Phalaropes have disappeared almost overnight from their traditional feeding grounds in Head Harbour Passage.

Field studies on the phalarope mystery are being conducted by Dr. R.G.B. Brown, sea-bird research scientist at the Bedford Institute of Oceanography, and Dr. Charles Duncan, Director of the Institute for Field Ornithology at the University of Maine at Machias. Both observed the absence of phalaropes during their usual migration stopover in August 1990. "I felt like people must have felt after the Passenger Pigeon was gone," says Duncan.

Sea-birds often signal the first warning about the environmental well-being of the ocean. Back in the 1970s, according to Dr. Brown, "we had something like 100,000 Red-necked Phalaropes every August" on the tide rips between Deer Island and Campobello. Although he points out these figures are estimates rather than a measure of population change, "you can't miss the drop to zero."

For years, Brown has been sampling plankton—a major phalarope food source—on both sides of the Bay of Fundy. In the late summer of 1990 he found "absolutely nothing" in waters that were "stiff with tiny copepod shrimps in the '70s."

But, by mid-October, a month after Brown's sampling, Dr. Duncan found the "place thick with plankton, and we're in the same water—Head Harbour Passage. Maybe nobody ever tested for plankton in October before."

Dr. Brown says the birds feed at the surface, but when he took his samples, "the copepods were down there but not coming all the way to the surface." He suggests two possibilities—too much sunshine at the surface, or pollution below. "I'd be more comfortable with two summers to study." [In 1991, Dr. Brown found a similar near absence of copepods in Head Harbour Passage, but an abundance near Brier Island, N.S. Ed.]

Another player in the mystery is the Red Phalarope, that in the past had frequented Brier Island off Nova Scotia, 10,000 strong. Red-necked Phalaropes were "extreme rarities" there. These two species generally keep apart from each other.



In 1990, Brown found Red-necks had moved to Brier Island in great numbers, and the Reds had all but gone. Then he discovered a large feeding area for Reds on Brown's Bank. But, as yet, he doesn't know if this is new, or whether phalaropes have been there in September all along.

In a reversal of customary bird behaviour, female phalaropes return to the Arctic only to breed and lay their eggs. "These are women's lib birds," says Dr. Brown. "They leave two mates, each on a clutch of four eggs, and head south again." The males fly back with the chicks and usually are in the Fundy area on their way south by September.

Duncan and Brown plan to continue their research to unravel the mysterious pattern in the phalarope puzzle. Is global warming a contributor, or pollution in off-shore areas? Or are other factors involved? The results of their studies may tell us much about the environmental health of the Gulf of Maine.

(From *Turning the Tides*, Vol. 3, No. 3, June/July 1991, Gulf of Maine Council on the Marine Environment.)

Red-necked Phalaropes— Head Harbour Passage

Aug. 21, 1971: 100,000
Aug. 28, 1973: 500,000 to 1 million
Aug. 21-22, 1974: 500,000
Aug. 26 & 29, 1976: 2 million
1986: maximum 8000, and only in July
1987: maximum 2000
1988: very few, but 50,000+ reported early August.
1989: "entirely absent most days"

N.B. 450-DUCK vs. N.S. 852-CHAT

On June 1 a team of hotline birders out of Halifax challenged their Fredericton counterparts to a birdathon. It was to determine which party could put up the highest total of bird species seen or heard in their respective province on that day. The game was played according to American Birding Association rules. Final results: Nova Scotia 135, New Brunswick 124. P.A. Pearce

Nomenclature française des oiseaux d'Amérique du Nord / French Nomenclature of North American Birds

Cette publication [ISBN 0-660-55824-6] comprend environ 2 000 entrées. Les auteurs attribuent un nom français à chacune des espèces d'oiseaux de l'Amérique du Nord, de l'Amérique centrale, des Antilles et des îles Hawaï. Deux index séparés regroupent des synonymes des noms français et anglais. Numéro de catalogue S52-2-202; prix: 13,95 \$. Groupe Communication Canada-Édition, Ottawa (Ontario) K1A 0S9.

Endangered Species News

The 1991 list of species at risk in Canada was recently released by World Wildlife Fund Canada. The Committee on the Status of Endangered Wildlife in Canada has classified 211 species in 5 risk categories. 1991 additions are:

extirpated— Grizzly Bear (plains population) and Illinois Tick-Trefoil
 endangered— Blue Racer, Lake Erie Watersnake, Thread-leaved Sundew and White Prairie Gentian
 threatened— Eastern Massasauga Rattlesnake, Spiny Softshell Turtle and Golden-seal
 vulnerable— Grizzly Bear (all other populations), Polar Bear, Louisiana Waterthrush, Smallmouth Salamander, Spotted Turtle, Yellowbelly Racer (eastern population), Chestnut Lamprey and Northern Brook Lamprey

Moved up the list to endangered status are Peary Caribou (High arctic and Banks Island populations) and Loggerhead Shrike (eastern population).

Over the years there have been a few improvements. White Pelican, designated as threatened from 1976-1986, was removed from the list in 1987 because the committee felt it was no longer at risk. The Wood Bison and the Northwest Atlantic population of Humpback Whale both have been shifted to categories of lower risk.

Positive signs that recovery programs are working include the growing numbers of *anatum* Peregrine Falcons in eastern Canada (including 5 nesting pairs in New Brunswick in 1991), the production

of 44 young by 12 pairs of Swift Foxes in Alberta, and a population of 400 Sea Otters off Vancouver Island, where there were none 25 years ago.

As the World Wildlife Fund states, "Endangered species are not a cause for mourning; they're a call to action." To help support Canada's endangered species recovery programs send a donation to WWF, 90 Eglinton Avenue East, Suite 504, Toronto, Ont. M4P 2Z7. The fund can also send you a full list of Canada's species at risk.

1991 Piping Plover Survey Conducted

Over 500 Piping Plovers were counted in the Atlantic Provinces, the Magdalen Islands and St-Pierre et Miquelon during June surveys, slightly higher than the figure of 480 used as the adult population in the past. In New Brunswick, a record 203 adults were observed, but more beaches were covered than in past surveys. The 1991 census will serve as a benchmark to measure the success of management programs carried out by the

Atlantic Canada Piping Plover Recovery Team.

Storm waves at the time of June's spring tides destroyed the nests of practically all the Piping Plovers in New Brunswick, but those being closely monitored at Kouchibouguac National Park and on the Acadian Peninsula laid full 4-egg clutches when they re-nested. [Information from Bruce Johnson (CWS Sackville) and Roland Chiasson.]



Swift Fox

Committee Questions Proposed Site for Kings County Landfill

The thorny problem of finding suitable regional landfill sites for the disposal of garbage has aroused concerns for the fate of the Anagance River. The Kings County Solid Waste Commission has proposed a site on a slope 1 km north of that river and 5 km upstream from the community of Anagance.

The commission notes heavy clay deposits for preventing the escape of polluted water leaching from the dump, as well as the sparsely populated surroundings as points in favour of this location.



Local residents have formed the Anagance River Protection Committee (c/o Kate Kelly, Anagance, N.B. E0E 1A0) to publicize their concerns that the dump will ruin a currently unspoiled area for people and wildlife, including a marsh managed by Ducks Unlimited. Pointing out that many springs run from the site down to the river, they are skeptical that drainage can be controlled. Any pollution of the river in this area would affect the entire Anagance and subsequently the Petitcodiac. The committee held an information day May 11 during which they led interested persons through the woods to the proposed landfill site.

Final Guidelines for the Environmental Impact Assessment are available from the N.B. Department of the Environment. Public meetings will be held later in the year. DSC

From The Pages of the Journals

The Love Song of the Winter Wren

Christopher Majka

Few sounds bring as much joy to my heart as the song of the Winter Wren, with its exuberant, cascading warble ringing out in the springtime forest. As ornithologist Stanley Cramp (1988) wrote, it sings "as if [the] bird [were] trying to burst [its] lungs."

The Winter Wren (*Troglodytes troglodytes* from the Greek τρογλοδυτης meaning "one who creeps into holes") is one of fifty-nine species of wrens. Of these, fifty-eight are found exclusively in the New World. The one unusual member of the group, found from north-eastern Siberia through southern Asia, throughout Europe (including Iceland) and north Africa and in eastern and western North America, is the Winter Wren. This has over the years prompted some interesting speculation as to how and when and why this representative of a New World family travelled to the Old World. The departure point for this month's article is a recent paper by Donald Kroodsma and Hiroshi Momose in the *Condor* (1991, Vol 93: pp 424-432) entitled "Songs of the Japanese Population of the Winter Wren."

"Wait a minute—this is the *New Brunswick Naturalist*," I can hear you saying, "the Japanese population...?" but don't despair; you'll soon see the connection. Kroodsma and Momose have done some sophisticated analysis of Winter Wren songs from Nagano (about 150 km north-west of Tokyo). This little bird has what ornithologist C. Hartshorne (1973)¹ has called "the longest definitely reiterated" song pattern among North American birds. They examine the different song types each male employs, the length of his songs and their complexity as measured by internal microstructure.

Those of us who are birdwatchers, amateur or professional, know that bird songs are often useful in recognizing many species. As Robert Payne (1986)² has pointed out, for many birds, including all non-passerines, songs are learned not from other individuals but are in some unambiguous way encoded in their genes. Therefore they are excellent indicators of avian phylogeny and evolution. Even for passerines, whose songs are often influenced by imitation and cultural evolution, there are some aspects of their songs which

have a genetic basis. It is for this reason that the songs of the Japanese Winter Wrens provide a valuable clue which helps in unravelling the history of their distribution.

In other research, Kroodsma (1980)³ has shown that Winter Wrens in North America fall into two groups. The eastern population, including those which are found here in New Brunswick, have songs of relatively simple organization with individual birds having a repertoire of only 1-3 songs. In the west Winter Wrens sing songs of greater complexity and each male may have a repertoire of 30 or more songs. One male in Oregon sang 66 different tunes! In Europe, by contrast, the birds sing 6-7 songs which are organized similarly to the eastern North American population but are slightly more complex. This pattern seems uniform from Iceland to Morocco. What, then, would the Japanese wrens show? Would they be similar to their European or western North American cousins?

The results of Kroodsma and Momose's analyses show that the Japanese wrens have songs almost indistinguishable from their European cousins: 6-7 song types of medium complexity. The conclusions they draw from this data are intriguing.

According to one of the great pioneers of avian zoogeography, Ernst Mayr (1946)⁴, the wren family originated some time during the Tertiary era (beginning 65 million years ago) in tropical regions of North America. Sometime in the mid-Tertiary this group spread to South America and then, perhaps in the late Tertiary or early Pleistocene (2 million years ago), the Winter Wren spread across the Bering Sea land bridge or across the Aleutian Islands to Eurasia. These birds then continued across the continent to reach Europe, finally ending up in Iceland—not that far from their ancestral North American home.

On the basis of songs as well as other information, Kroodsma and Momose propose that there was an "aboriginal" stock of Winter Wrens similar to the eastern North American group from which the Eurasian birds descended. Subsequently, during one of the Pleistocene glaciations (ice ages) the western North American birds became isolated from the rest of the species and evolved separately from their parent stock giving rise to the current population with its unusually complex songs.

Interestingly, neither Kroodsma and Momose nor Mayr believe that the spread could have occurred in the opposite direction, namely from eastern North America to Iceland, Europe and then across Asia.



¹ Hartshorne, C. 1973 *Born to sing. An interpretation and world survey of bird song*. Indiana University Press. Bloomington.

² Payne, R.B. 1986. Bird songs and avian systematics, p. 87-126. In R.J. Johnston [ed.], *Current Ornithology*. Plenum Publishing, New York.

³ Kroodsma, D.E. 1980 Winter Wren singing behaviour: a pinnacle of song complexity. *Condor* 82: 357-365.

⁴ Mayr, E. 1946. History of the North American fauna. *Wilson Bull.* 58:3-41.

From fossil evidence it seems that most of the zoogeographical traffic between New World and Old on the part of birds, mammals, plants, insects, etc. was across the Bering Sea. Amongst birds it appears that the Wheatear is one of the few to have come to North America via Iceland and Greenland.

There are still many unanswered questions. What selective advantage do the wide repertoire of songs of the western wrens confer to them? What is the exact relationship of the Winter Wren to the Central American Timberline Wren (*T. browni*)? On the basis of song there seems to be a close affinity. Could further research elucidate this? There are five other species in this genus—the House Wren (*T. aedon*), the Tepui Wren (*T. rufus*), the Mountain Wren (*T. solstitialis*), the Southern House Wren (*T. musculus*) and the Ochraceous Wren (*T. ochraceus*). What evolutionary relationships might their songs reveal?

All this is wonderful food for thought and yet another example of how evidence of ancient events is embedded in the humblest aspects of our natural surroundings. Next time you hear what Donald Kroodsma calls "the pinnacle of singing complexity," reflect for a moment not only on the poetic beauty of its love song, but also on the remarkable ancestry of its notes.

On a tree by a river a little tom tit
Sang "Willow, tit-willow, tit-willow."
And I said to him, "Dicky bird, why do you sit
Singing Willow, tit-willow, tit-willow?"

— W.S. Gilbert (*The Mikado*)

Field Trip to a Beaver Pond

All my attempts to catch a glimpse of the Canadian Beaver, that energetic, dam-constructing, tree-felling rodent with the razor-sharp teeth, had been fruitless. Thus, when I learned the next club outing was an excursion to an "active beaver pond", I scoffed in my heart at such unfounded optimism.

We headed up the hill to the UNB woodlot with Rod Cumberland, who specializes in fur-bearing animals with DNR. The surface of the pond was calm, with absolutely no ripples. After we had finished examining the skulls Rod had brought along, we met Earl Arnold who spends a great deal of his spare time observing the beaver colony. Earl had laid some poplar branches on the bank with the leafy ends extending into the water.

And then it happened! Quietly swimming towards us with just the top of his nose, eyes, and small ears showing, was the only mammal besides man capable of changing his environment. Our beaver swam to the poplar branches and, curving his long fingers with their strong, slender claws around one of the limbs, placidly and deliberately ate the succulent green leaves. Then, selecting another branch, he towed it back to the lodge and, with a hump of his back, disappeared beneath the water's surface.

As we were leaving, we glanced back and saw Earl throwing branches to the place where another beaver had been patching a hole in the dam. Man and Beaver—working together in an innate urge to mould and shape their universe. — Eva Wall

(Condensed from *Fredericton N.C. Newsletter* Aug. 1991)

Spring and Summer Bird Highlights

from the N.B. Bird Information Line

- Brown Pelican off White Head Island May 12
- Least Bitterns at Musquash, Mistake Intervale, Anagance, Mary's Pt., Red Head Marsh
- Little Blue Heron at Fox Creek Apr. 23 and Castalia Aug. 25
- Tricolored Herons at Castalia, Red Head Marsh, Saints Rest Marsh, and Waterside, May 14-20
- Yellow-crowned Night-Heron at Machias Seal Island Aug. 17
- Eurasian Wigeon at Cape Jourimain Apr. 28 and Grassy Island July 5
- Redhead at Fredericton Aug. 22
- Colony of Yellow Rails at Grand Lake Meadows July 15
- Northern Lapwing at Point de Bute May to August
- Marbled Godwit at Cape Jourimain Aug. 1
- Curlew Sandpiper at Long Pond, G. M., Aug. 25
- Ruff at Le Goulet May 24
- Little Gull at Deer Island Aug. 11
- Long-tailed Jaeger from Grand Manan ferry June 9
- Lesser Black-backed Gull at Mauderville, Cap Brulé, Robichaud and Machias Seal Island, May-August
- Sabine's Gull off White Head Island Aug. 26
- Gull-billed Tern at Castalia Aug. 20
- Royal Tern at Ingalls Head and Castalia, Aug. 20
- Sandwich Tern at Ingalls Head, G.M., Aug. 20
- Forster's Terns at Castalia Aug. 21
- Yellow-billed Cuckoo at Fredericton May 20
- Red-bellied Woodpecker at Fundy Park May 23
- Scissor-tailed Flycatcher at Fredericton May 9
- Fork-tailed Flycatcher at Kent Island June 14
- Golden-winged Warbler at Fredericton Aug. 16
- Yellow-throated Warbler at Upper Cape August 3
- 31 reports of Indigo Bunting in spring
- Blue Grosbeaks at Castalia, Mactaquac, Shediac, Mary's Pt. and Dieppe, during Apr. 24 to May 18
- Clay-coloured Sparrow at Grand-Digue June 7 into July and Aldouane July 20 or 25
- Seaside Sparrow at Machias Seal Island Aug. 23
- Yellow-headed Blackbird at Alma June 8

For current information on interesting bird observations in New Brunswick, call the Bird Information Line: 1-450-DUCK.



Club News / Nouvelles des clubs

Objectif 200 et Projet arbres

En octobre dernier, des certificats pour l'Objectif 200 fut remis à quatre membres du Club des naturalistes de la Péninsule acadienne. Marcel David, Robert Doiron, Ernest Ferguson et Jean-Yves Paulin ont observé 200 espèces d'oiseaux à la péninsule.

C'était la première fois que le club a décerné des certificats pour le Projet arbres qui a débuté il y a un an. Le projet consistait à collectionner et remplir une fiche pour plus de trente arbres de la Péninsule acadienne. La bonne première fut Rosita Lanteigne suivit de Gérard Benoit et de Robert Doiron. Félicitations à tous!

The Club des naturalistes de la Péninsule acadienne has two projects in which members work to earn certificates recognizing their natural history accomplishments. L'Objectif 200 rewards those who observe 200 species of birds on the Acadian Peninsula and Le Projet arbres is for members who prepare a mounted collection of over 30 tree species from the peninsula. At last October's meeting four members received L'Objectif 200 certificates, joining eight members who had already received that distinction. The first three certificates for completion of the Projet Arbres were also presented. DSC

Halls Creek Marsh—Going, Going...

Since 1988 the Moncton Naturalists' Club has been involved in a struggle to preserve what is left of Halls Creek Marsh. Most of it had already been destroyed by a former dump and the construction of shopping centre and highways. Over 150 species of birds have been observed in the remaining marsh and adjacent woodlands. It is also rich in plants and butterflies, and various mammals visit or live there. But most importantly it is a green and natural area close to the city.

The naturalists' club, Ecoaction and other groups have been fighting for the integrity of the marsh which is encroached by roads, dumping of fill, and other inappropriate developments. Alas, their plan to establish a nature trail and a Ducks Unlimited project, a petition signed by hundreds of people, and other representations by these groups were not successful in preventing the construction by the city of a ball park on the edge of the marsh. So much of the character of this peaceful last retreat of wildlife has been lost. MM



Ford Alward Honoured



In the spring, the Valley Naturalists adopted a new name, the Ford Alward Naturalist Association, in honour of its founder, first president, and guiding spirit, Rev. Ford Alward, who was retiring to the Grand Lake area. Ford has served Baptist churches at Florenceville, Nackawic, Albert, Glace Bay, and North River, Westmorland County. Besides ministering to his community's spiritual needs he has always also increased its awareness of the natural world. He has been a stalwart organizer for Christmas Bird Counts, the Maritime Nest Records Scheme, and the Breeding Bird Atlas.

Baillie Birdathon

The Moncton Naturalists' Club and the Chignecto Naturalists' Club participated in the Baillie Birdathon which raised over \$125,000 in 1990. Most of the money is used by the Long Point Bird Observatory (Ont.) and the James L. Baillie Memorial Fund to support bird research and education projects across the country. Participating organizations get 25% of the money they raise. The Moncton club used its 1990 share to provide and stock a bird feeder at a senior citizens' home.

For more information write Baillie Birdathon, c/o Long Point Bird Observatory, P.O. Box 160, Port Rowan, Ont. N0E 1M0. DSC

In Memoriam

With great sadness we report the death of Blair Wood, former treasurer of the Fredericton Nature Club and one of those who helped to resurrect that club in 1986. A dependable supporter whenever help was needed, Blair was perennial host of an "owl prow!" at his home in Lower Hainesville.

Wildflower Poster Published

Entitled "Uncommon Plants of New Brunswick / Plantes rares du Nouveau-Brunswick", a high quality, full colour poster has recently been published. Measuring 23 by 40 inches, the poster reproduces exceptionally fine 4 by 6 inch photographs of 25 of our less common wildflowers. The poster is the product of the work of a New Horizons committee with the aid of a grant from the New Horizons Program of Health and Welfare Canada. Distribution mechanisms are being worked out. Information can be obtained from Dr. Dorothy Farmer, Fredericton.

The members of this committee previously compiled and published *Critical Natural Areas in New Brunswick*. P.A. Pearce

Nature News

Winter 1990-91

David Christie

The middle and later parts of the winter were not so mild as December had been, but there was little severe weather to cause problems for species of wildlife that are well-adapted to New Brunswick winters. As usual their numbers of birds that should have moved south or had strayed here in the fall declined as the winter progressed.

Mammals

A *Telegraph-Journal* article on Feb. 15 about forest rangers Ken Johnstone and François Chiasson who had trapped about 30 **Coyotes** in three weeks in the area of the Southeast Upsalquitch River deer yards served to highlight the growing controversy about Coyotes in New Brunswick. A relative newcomer to our province, Coyotes have gradually expanded their range from areas farther west in response to changes caused by man, including the opening up of eastern forests for settlement, agriculture and forestry, and extermination of the Timber Wolf, the ecological role of which the coyote is now largely fulfilling. In New Brunswick wolves disappeared about 1900. Aside from stray domestic dogs, for the next 65 years foxes were our only canine predators.

One Coyote was reported in New Brunswick in 1958 and a few more during the 1960s. By the mid-1970s they were numerous in many parts of the province. (By 1987, this species had reached as far as Newfoundland.) The arrival of a predator that will kill prey as big as a sheep or a deer was not welcomed by many farmers and hunters. Ironically, as Coyotes were becoming common White-tailed Deer were also doing very well in New Brunswick, perhaps because of a succession of mild winters. In the last few years, however, deer populations have dropped and a clamour has arisen for the government to place a bounty on Coyotes.

Coyotes eat a great variety of foods, including fruits, insects, mice, Snowshoe Hare, and deer. Deer are mainly taken in mid and late winter when they are most vulnerable because of deep snow. To protect deer populations I feel it would be much better to institute programs to control Coyotes that threaten significant deer yards, rather than having an indiscriminate bounty.

In the Riverside-Albert area the population of Coyotes appears to have been significantly reduced in the last couple of years by heavy hunting pressure.



Red Foxes, which nearly disappeared there after the Coyotes arrived, have been reported more frequently again (*vide* Rob Walker). An increase in foxes may also be true in the Saint John area, where

Frank Withers reported a number of fox observations by SJNC members during February.

Birds

A **Double-crested Cormorant**, likely one of those seen on the Blacks Harbour CBC was reported at Greens Point Feb. 16 (SJNC trip), a very unusual late winter record. Linger **Great Blue Herons** remained until Jan. 6 at Waterside (Barbara Curlew) and Jan. 20 at Cocagne (standing on the ice near an opening—Oscar LeBlanc & Stu Tingley).

Opinions on the origin of three orange-billed **Greater White-fronted Geese** at Grand Manan varied as the winter progressed. The original CBC observation was made not far from the pens of an aviculturist who specializes in geese. A single White-front photographed at Sackville Jan. 5 by Gilles Daigle, reports of others on Prince Edward Island during the fall, and word that the aviculturist had never had White-fronted Geese suggested that the birds were not escapes. Then in March Brian Dalzell discovered that the three had wintered at Grand Manan in company with six escaped **Snow Geese**. As spring progressed and the White-fronts stayed, it became clear that they were not normal wild birds. One did disappear in mid-April just at the time that a single was observed about 50 km west, on the Machias River, Maine, Apr. 16. A flock of **Snow Geese** reported north of Fredericton Feb. 7 (450-DUCK) was unusual in that month. Almost all of the migrant **Canada Geese** found on the CBCs must have left soon afterwards. A late flock of 22 stopped at the mouth of the Shepody River Jan. 12 and a few were back there Mar. 6 (Michelle & Lars Larsen). Other spring arrivals were noted Mar. 15 at Washademoak Lake (450-DUCK) and Mar. 18 near Hardings Pt. (Allen & Janet Gorham) and at Browns Flat (Renie Gorham).

An early **Wood Duck** appeared at Saint John Mar. 13 (450-DUCK). The large number of **Am. Black Ducks** seen during the mild weather in early winter, included between 200 and 250 at Sussex, a lot more than the 30 found there on the CBC (*vide* John Candy). A wintering **Pintail** was found in Saint John Harbour Feb. 10 (450-DUCK). Spring arrivals were noted Mar. 17 at Westfield (A. Gorham) and Mary's Pt. (Larsen). Three very late **Northern Shovelers** flew past Mary's Point Dec. 6 (SIT). The **American Wigeon** seen during CBC period were 4 at Greens Point Dec. 23 (Ralph Eldridge). A female was still at Mary's Point Dec. 7 (SIT) and a pair back at Cocagne Mar. 3 (Brian & Halton Dalzell).

Some **Canvasbacks** reached us during the winter. The first, a male at Nauwigewauk about Dec. 26 (Jim Wilson), may have been the one that appeared Jan. 3 in Courtenay Bay, Saint John (Paul Clark), where there were later 3 males till about Feb. 10 (v.o.). Two females were noted at Castalia and Grand Harbour in late March (Wilson). The unusual CBC record of **Lesser Scaup** at Cape Tormentine was followed by one reported at Saint John Feb. 10 (450-DUCK).

St. Andrews seems to have one or two **King Elders** every winter, and Tracey Dean *et al.* reported a male there from Dec. 1 till about March 6. A second winter male was seen at Greens Point Jan. 27 and Feb. 9 (SIT & Yves Cormier), and 4 nearby from the Deer Island ferry Mar. 17 (SJNC). A migrant was at Waterside Mar. 18 (SIT). 30 or more **Harlequin Ducks** were seen Mar. 17 on a SJNC field trip to The Wolves, a group of islands off Blacks Harbour. It's the best place we know of in New Brunswick to see this colourful little sea duck that prefers wave-washed offshore ledges. In addition to the CBC reports, **Barrow's Goldeneye** reports included a male at St. Andrews Dec. 1 (Dean) and 13 at Val-Comeau Jan. 6 (Robert Doiron & Donald St-Pierre) and **Hooded Mergansers** included 5 at Mascarene, near St. George, Dec. 1 (SIT) and up to 5 at Courtenay Bay during January (v.o.).

Ann Lavoie writes that a pair of adults and an immature **Bald Eagle** were frequenting the lower Restigouche River in early winter. She last saw the immature at Mann Mountain December 19. Also missed on the CBC were an adult and an immature that had been feeding on a deer carcass at Kedgwick River (Pat Émond), and one feeding at smelt nets at Lamèque Dec. 5-21 (Hilaire Chiasson). There were four at Knightville, near Anagance, Jan. 25 (Jim Brown).

Additional reports of **Goshawks**, which were scarcer than usual this winter, were of one at St-Hilaire in January (Simon Bouchard), an immature near Hardings Pt. Jan 17 1 (A. Gorham), and an adult at Salisbury Feb. 2 (SIT). An adult **Golden Eagle** apparently again wintered at Shepody, near Riverside-Albert, but was little reported: Jan. 24 (Angus MacLean & David Clark) and March 22 (Charlie Doyle).

A **Merlin** was seen at Lincoln Feb. 18 (450-DUCK). This was the fourth consecutive winter that the male **Peregrine Falcon** of the Saint John Harbour Bridge breeding pair remained in the nesting area. It was seen frequently during February. The thousands of Starlings which roost under the bridge at night are undoubtedly the reason why this bird can overwinter. **Gyr Falcon** reports at Moncton and Riverview began just after Christmas and continued into early March (v.o.). Rob Walker believes that again there were two, possibly three, birds along the Petitcodiac where the dump attracts many pigeons and starlings, in addition to the ducks and gulls along the river.

The remains of a number of **Willow Ptarmigan** found on the ice of the Oromocto River, not far from Fredericton Junction, in the first week of March (*vide* Peter Pearce) were puzzling for a while. Three relatively intact specimens were sent to the New Brunswick Museum by the Dept. of Natural Resources. A substantial southward incursion of this species noted in Québec during the winter raised speculation that these birds might have reached New Brunswick on their own. Eventually, however, Don Gibson discovered that the birds had been shot and brought back from Newfoundland. The observations

near Tracadie two years ago remain the best evidence of the occurrence of ptarmigan in this province.

One **Dunlin** was recorded on the St. Andrews CBC and two, definitely wintering, were seen there Feb. 3 (Gibson). From 4 to 6 **Little Gulls** (2 first winter birds, the rest adults) at Deer Island Point Dec. 1, seem to be the largest number ever reported at one time in New Brunswick. An adult **Common Black-headed Gull** was also there, among 2000 **Bonaparte's Gulls** that day (SIT *et al.*).

Three **Dovekies** were found wrecked in the north-east, at Miscou Dec. 8 (Doiron), Lamèque Dec. 13 (brought to Rose-Aline Chiasson, died Dec. 16), and Shippegan Dec. 25 (recently dead in the woods, Grégoire Robichaud). Five were seen off Deer Island Dec. 1 (SIT *et al.*). A couple of **Thick-billed Murres** were at Greens Pt. Jan. 27 (SIT).

It was a winter of very few **Snowy Owls**. One was found dead at Miscou Island at the beginning of December (Émile Ferron). Birds that were likely on the way north were seen near Sackville Mar. 10-17 (SIT) and at Val-Comeau Mar. 24 (Doiron). Three **N. Hawk Owls** were discovered during the winter: one near Rogersville Dec. 21-24 (Cheryl Davis *et al.*), one at Inkerman from Dec. 8 till Mar. 2 (Doiron *et al.*), and one at Harvey, York Co., during February and March (450-DUCK). In addition to the Plaster Rock record of **Great Gray Owl** during CBC period, one reported at Rusagonis Dec. 19 (Noël Ireland, *vide* Pearce) could not be found by Fredericton area observers who rushed out looking for it. **Short-eared Owls** continued to be seen through the winter near Sackville (Chris Ellingwood *et al.*). The first-ever count day CBC record of **Boreal Owl** for the province (Miscou Island) in conjunction with three other observations made it an unusual season for this seldom-seen species. One tried to catch a goldfinch at a feeder at Ste-Anne-de-Madawaska Dec. 26 (Florida Lavoie), another was found in weakened condition near Shediac Cape Jan. 22 (bird shipped to Kay McKeever's owl rehabilitation centre in Ontario—Ed Wait) and one seen roosting for the day at Hurley Corner, near Cork, Feb. 13 (Mr. & Mrs. Mick Piercey *et al.*).



In addition to the 2 **Red-headed Woodpecker** on CBCs, one was at Ste-Marie-de-Kent from late November till Jan. 6 (*vide* Don Cormier) and one at Crystal Beach in December (A. Gorham). The **Red-bellied Woodpecker** recorded on the CBC was a bird that was visiting feeders sporadically in Fredericton North from November till at least Mar. 18 (v.o., 450-DUCK). Another came to a Hampton feeder from late November through the last week of January (Margaret Mills, *vide* Wilson). Two **Northern Flickers** were seen near Cocagne as late as Jan 20 (Moncton Naturalists' Club).

A few **Horned Lark** were at the Moncton dump throughout the winter (*vide* SIT), but 30 at Knightville Feb. 25 (450-DUCK) were likely returning migrants.



This winter was exceptional in that 5 **Carolina Wrens** were reported: 2 in Fredericton (the CBC bird at Muriel Smith's Dec. 16 into March, another at Jane Tarn's mid-December into March), 2 in Saint John (1 at Dorothy Peterson's mid-January into March, one in a different part

of the city about Feb. 10—*fide* Cecil Johnston) and one at Yoho Lake, York Co., (Tom Murray's, late January into March). These Carolinas coincide with a notable increase noted throughout the eastern United States by Project FeederWatch. A **Winter Wren** was seen at Quispamsis Jan. 28 (John Lavigne).

A **Townsend's Solitaire**, a western visitor, at Quispamsis Jan. 5 (Lavigne, *fide* Pearce) might have been the winter's rarest songbird had it not been for the **Fieldfare**—a Robin-like European thrush— attracted to Edith Robichaud's feeder in Caraquet daily from Jan. 23 till Apr. 6, and again Apr. 11-22 (many observers including Claude Ouellette who first identified it for Edith). Its total stay of 90 days is said to be a North American record. Many out-of-province birders came to see it, some from as far away as the U.S. Pacific coast. In the mid-1960s there was a report of a Fieldfare near Shediac in mid-winter, but the observer had no idea what the bird was until a few weeks later when he saw a European guide, by which time the trail was very cold.

The CBC **Brown Thrasher** survived at Stephen and Barbara Clayden's West Saint John feeder well into January at least. Rural **Mockingbirds** overwintered at Queenstown (Alistair Fox, *fide* Pearce) and Jemseg (*fide* Enid Inch). **Bohemian Waxwings** continued to be noted in very good numbers into March: for example, 60 at Shediac Bridge Mar. 3 (SIT); 250 at Fredericton Mar. 5 (Pearce), flock at Nictau Mar. 10 (Wilma Miller), and 160 at Moncton Mar. 19 (H. Dalzell).

A **Common Yellowthroat** and an **Orange-crowned Warbler** lingered at Mary's Point till Dec. 2 (SIT); it was the latest provincial record for the latter species. The CBC **Yellow Warbler**, well described by Stephen Clayden, was a bird at Rothesay Dec. 29, seen in trees near a home with a feeder. It is the first New Brunswick winter record. A **Yellow-rumped Warbler** was at Lincoln Dec. 8 (Jim Edsall), while in their Northumberland Strait wintering area 3 were doing quite well at Cap de Cocagne Jan. 30 (SIT). In addition to the CBC records, a **Pine Warbler** was seen at Shediac in first week of January (Davis). The bird on the Bathurst CBC was coming to a feeder Dec. 23-29 but was quite weak (Max Cater, Mary & Ron Gauthier).

Northern Cardinal seen in areas without CBC records were a pair at Clair in December/January (Marielle & Peter Clair), a female at St-Hilaire Dec. 29 into January (Bouchard), and one at Buctouche Bay Feb. 8 (Lynne LeBlanc). The lone **Dickcissel** was

one at Gérard Benoit's feeder at Lamèque Dec. 2-27. The **Rufous-sided Towhee** seen on the Fredericton CBC survived into March: a female at the Wetmore farm, Lower St. Marys (450-DUCK). One at a Ste-Anne-de-Madawaska feeder from November 24 was killed by a cat Dec. 15 (F. Lavoie), one was at Grande-Anse Dec. 17 (Robert Thériault), and another that had been at a Douglastown feeder for several days (Lede Patenaud) was confirmed by Harry Walker Jan. 14.

An "**Ipswich Sparrow**" (Sable Island race of the Savannah Sparrow) was at Waterside beach Dec. 2 (SIT & LeBlanc). **Fox Sparrows** were more numerous in winter during the '60s than they are now. One overwintered at a Cambridge-Narrows feeder (Helen Robinson). About 20 **Lapland Longspurs** were at the Moncton dump Feb. 2 (SIT). One with larks at Saints Rest Mar. 17 was likely moving north (450-DUCK).

Returning **Red-winged Blackbirds** were reported all along the Fundy coast (450-DUCK) and near Florenceville (Ansel & David Campbell), Mar. 17 as were **Common Grackles**. These species reached St-Hilaire Mar. 28 (Bouchard). In mid-February a **Rusty Blackbird** appeared at a feeder in St. Andrews (Dean), where it was not noted earlier in the winter.

Up to a dozen **House Finches** were reported in mid-February at David Smith's feeder at Saint John and in the Sunshine Gardens, Fredericton (450-DUCK). A pair were also seen in Rothesay Dec. 25 (Juliet Hickman). **Red Crossbills** were very scarce: an individual was seen at Mary's Point a few times in December and February (SIT & myself) and one was seen at Belledune Dec. 27 (Mrs. Talbot).

Abbreviations

450-DUCK N.B. Bird Information Line
CBC Christmas Bird Count
et al. and others
SIT Stuart Tingley
SJNC Saint John Naturalists' Club
v.o. various observers

FeederWatch in New Brunswick, 1990-91

Numbers of birds at bird feeders in New Brunswick over the whole winter, as sampled by participants in Project FeederWatch, agreed quite closely with the results of the Christmas Bird Counts in December. American Goldfinch (15.5 birds per feeder per week), Evening Grosbeak (15.0), Pine Siskin (2.8), Purple Finch (0.1), and American Crow (0.6) all showed major increases from the previous year. Ten other species showed modest increases and ten showed modest declines. Along with Goldfinch and Evening Grosbeak, Blue Jay (5.4) and Black-capped Chickadee (5.1) were reported by over 90% of the participants.

For information on Project FeederWatch, write Long Point Bird Observatory, P.O. Box 160, Port Rowan, Ont. N0E 1M0. DSC

One Hundred Years Ago

William Francis Ganong, outstanding New Brunswick naturalist, scientist and historical scholar, died 50 years ago on 7 September 1941. Over his long career, Ganong wrote more than 600 individual publications totalling several thousand pages.

For present day naturalists, the most interesting of his writings are undoubtedly the nearly 150 "Notes on the Natural History of New Brunswick" which appeared in the scientific bulletin of the provincial natural history society between 1896 and 1914. These were based on a first-hand knowledge of New Brunswick's rivers, mountains and forested wilderness gained during numerous marathon excursions through every part of the province.

Ganong was also an activist, with a keen interest in promoting the cultural and scientific development of the province. He wrote several articles discussing the need for books and research devoted to the native flora and fauna of the Maritime Provinces. In them he deplored the lack of accessible works which would serve as guides to the study of our animal and plant life, and rocks and minerals. Ganong was seeking not guides to anatomical or physiological study, but something more like *Gray's Manual* of the botany of the northeastern United States, which he recognized as having stimulated worthwhile interest in the flowering plants of the Maritimes. Already a hundred years ago, Ganong was looking for something which, spurred by popular interest in natural history, started to develop in earnest 50 years later with the publication of the Peterson field guide series, the Golden Guides, and subsequently many other excellent books.

Ganong pointed out the great lack of local books on nature. In these local natural histories he wanted more "of what men have learned of the habits, uses, relations to surroundings and each other of plants [or animals]—in a word, of their lives," and less of anatomy and classification. Late 19th and early 20th century naturalists often regarded those matters as separate subjects. Ganong, however, was a man of broad intellect, whose interests were by no means limited to natural history but ranged widely to all aspects of life in New Brunswick.

Following are some excerpts from an article in the *Educational Review* (Vol. V, No. 7, p. 141-142) of December 1891 which show us the modern ecological approach to nature this outstanding man had already taken. It is apparent from these excerpts that Ganong's approach is not of a dry scientific mind, but of a man of vision. One wonders, were he living today, how he would look upon our accomplishments and what his wishes would be for the future.

Much has been published during the past 50 years which would satisfy Ganong's desideratum. Much remains to be done.

Stephen Clayden and Mary Majka

Excerpts from W. F. Ganong: "Local Natural Histories—A Need"

It is not difficult to sketch the requisites of a good local natural history. For convenience, both of preparation and use, each natural division of the animal or vegetable kingdom should be treated in a separate volume. Each should be prepared by a specialist, though all should be upon the same plan and carefully edited by a competent naturalist to secure this desirable uniformity. Each should treat only our own species, and the work should be [combined] for all three [Maritime Provinces], for from a natural history standpoint the three are one.

The account of each species... [should include] the following topics:

(I.) *Names*. These, some people who should know better, pretend to despise the study of. But not only is the name a necessary preliminary to a further acquaintance with a plant or animal, or to communicate with others about it, or to finding out what men have discovered and written about it, but it is also to many a pleasure in itself. It is surely as legitimate a pleasure to have a wide speaking acquaintance among plants or animals as among men, and if the acquaintance ripens into some friendship, so much the better; but it is not a bad end in itself.

(II.) *Distribution*....

(III.) *Description*....

(IV.) *Habits*. Very few indeed are the books anywhere which properly treat this division of the subject. Plants, as well as animals, should be treated as living beings, with needs like ourselves of adapting themselves to their surroundings. And with peculiarities of structure to enable them to do it. This is the keynote of our whole system of scientific natural history teaching, that structure and habit are inseparably linked, change but together, and mutually determine each other. The importance of this principle has only of late years been fully recognized.

(V.) *Illustration*.... Fortunately, good processes of reproducing pictures are becoming cheap....

(VI.) *Economics*.... the relation of a species to man's good or injury. Forms important for food, in medicine, in the arts, etc., should be fully treated with references to technical works on the subject; and so also should these that are poisonous or otherwise injurious.

(VII.) *Interesting historical or other local associations, etc.*

Natural histories upon this plan are not an experiment altogether, for England and other European countries have them, and not only are they of the very highest value to all scientific men, but they make possible among the people the study of nature in its most favorable aspect. In the Maritime Provinces, the series proposed above must have equally beneficial results.





The Mallards are Coming!

J.A. (Sandy) Burnett

Not long ago, a friend and I went canoeing along one of the marshy tributaries of the St. John River. It was a glorious mid-September day. Ragged clouds scudded across the sky. A brisk autumn wind bent the reeds and sedges and shook the acres of Wild Rice that grew on either side of our channel. Where there was Wild Rice, there were ducks. Around each bend in the meandering stream we launched more flocks skyward till the air resounded with the clapping of a thousand pair of wings.

Ring-necked Ducks flew up, Wood Ducks, Blue-winged and Green-winged Teal. The most abundant by far were Black Ducks, the big, dark-feathered drakes and hens of Atlantic Canada's dominant inland waterfowl species. But in almost every flock of blacks we flushed we noticed something else—the paler brown plumage of a few Mallards.

A generation ago, we would likely have seen no Mallards at all. They were western ducks of the prairie sloughs and potholes. Indeed, prior to the 1940s they were rarely observed in Ontario. Then something set the Mallards on the move eastward.

More than one factor contributed to this trend. Mallards were deliberately introduced to some locations by hunters and aviculturists. The depletion of forests and wetlands and the extension of larger scale agriculture in southern Ontario and Quebec diminished the amount of suitable Black Duck habitat while increasing the areas which favoured Mallards. Semi-domestic flocks of Mallards in urban areas moved readily into adjoining wild breeding locations. Mallards are more aggressive by nature, competing successfully for territory and nest sites. Furthermore, the two species are so closely related that they can interbreed to produce viable hybrid offspring in which the genetic characteristics of the Mallard are dominant. In the space of about 45 years, the ratio of Mallards to Black Ducks in Ontario has shifted from about 45:1000 to 4500:1000 at present.

Now, similar factors are contributing to an influx of Mallards into the Atlantic provinces, although the forest and coastal habitats of this region make a complete takeover improbable. The trend is most notice-

able in northwestern New Brunswick where the intrusion is a natural range extension for birds that are well-established in the St. Lawrence Valley. However hunter surveys indicate that a significant number of Mallards are shot throughout the region wherever semi-wild flocks are being sustained by aviculturists or nearby city parks.

All this would be merely an interesting example of how nature adapts to changing circumstances if it weren't that many naturalists and hunters view the shift from Black Ducks to Mallards with alarm. Their concerns focus on two main points. First, there is a general feeling that, when possible, conservation efforts should be aimed at supporting traditional, native species and discouraging interlopers. Second, among eastern waterfowl hunters the Black Duck has always been considered the most desirable quarry, admired for its size, its wariness, and the challenge that it offers to their shooting skills. On the other hand, there are a great many bird fanciers and urban dwellers who like the bold, colourful Mallards. In other words, a seemingly innocent shift in the distribution of ducks has the potential to become a hot political issue for federal, provincial and state conservation agencies.

Waterfowl management falls under the Convention for the Protection of Migratory Birds, signed by Canada and the USA in 1916. Therefore much of the responsibility on this side of the border belongs to a federal agency, the Canadian Wildlife Service. At present, its efforts with regard to the duck controversy focus on increased population research, habitat enhancement and information programs. The possibility of stricter controls on the raising and feeding of Mallards is being contemplated, too. However, as in any trans-boundary question, provincial and state authorities are concerned as well. To succeed, waterfowl management plans will have to try to integrate the interests of all. And that's no easy task.

Meanwhile, ready or not, the Mallards are coming.

(One of a series of articles by freelance writer and naturalist A. J. (Sandy) Burnett, under the sponsorship of the Canadian Wildlife Service.)

Management of Black Duck Populations

Mid-winter inventory counts show that Black Ducks have gradually declined over the past 30 years. Since about 1980 the rate of decline has levelled off. Surveys during the 1980s indicated that in most of northeastern Ontario, boreal Quebec, and the Atlantic Provinces Black Duck breeding populations were stable. The serious declines had already taken place in

the agricultural and industrialized areas of southern Ontario and Quebec.

Because of this decline, Canada joined the U.S. in 1984 in an attempt to reduce the harvest of Black Ducks through a period of increasingly restrictive hunting regulations. Since then, harvest in the U.S. has decreased to a greater degree than in Canada. (The

current daily bag limit for Black Ducks in New Brunswick is three.)

As part of the North American Waterfowl Management Plan a program called the Black Duck Joint Venture (BDJV) has been established to monitor trends in breeding populations of Black Ducks and to determine, through research, the important factors influencing its population status and dynamics.

The second year of the breeding population census was conducted in May 1991. It included surveys by helicopter in the Atlantic Provinces, boreal Quebec and Ontario, and the State of Maine and by fixed-wing aircraft (with ground crews to develop visibility rates) in southern Ontario, southern Quebec, the Saint John River valley of New Brunswick, and the State of New York.

Research projects of the BJDV also continued in 1991 to better understand factors affecting the recovery of Black Duck populations. Many factors, such as competition and hybridization with Mallards, habitat alterations due to land-use changes, and hunting disturbance, have been implicated in the decline. Work is needed to clarify future management actions and habitat restoration efforts that will benefit Black Ducks.

(From "1991 Migratory Game Bird Hunting in Canada," Canadian Wildlife Service, Ottawa, August 2, 1991.)



From my Window

Mary Gauthier

One question people often ask me is "What is that speckled bird in my yard? There's always 10 or 12 of them around."

I tell them it's a Starling, but "starlings are black," they'll say. At this time of year, starlings are salt and pepper coloured. After the breeding season, the birds have their annual moult and acquire their speckled feathers and dark bill. By spring, the white tips of their feathers have worn off leaving them dark and iridescent, especially on their head and neck. Their bill lightens in colour—a bright yellow in the male.

Starlings are clown birds. They will attempt any posture to get at food—hang upside down or flutter like a hummingbird in front of a feeder. They are very aggressive and eat everything.

Adding extra feeders to your yard can lessen the competition at your main feeder. A cheap treat is popcorn—they love it and there's lots.

This fall about 20 starlings were bathing in the bird bath. Water was splashing everywhere, birds were squawking, falling off the bath, flying back in—it was a real free-for-all. When they'd finished, the bath was empty. The starlings were perched on the wire, preening and quite happy with themselves.

(Column written for the Bathurst Northern Light.)



La nichée d'Arthur-William

L'Oiseleur

Arthur-William Landry

Cette espèce étend rapidement son aire de nidification depuis quelques années. On en compte plus de 60 millions rien qu'aux États-Unis. Son habitat comprend une très grande variété de sites. Vous le retrouverez en bordure des routes où il semble très peu méfiant à l'approche des voitures. Il affectionne particulièrement le côté gauche de chemin. On le rencontre fréquemment au bord de la mer et près des cours d'eau. J'en ai observé une trentaine dans une érablière à Val-Doucet. Puis, tôt le matin, ces oiseaux paraissent autant aimer les cours d'église que les Goélands à bec cerclé raffolent des terrains de stationnement chez McDonald. En hiver, on le rencontre sur les parterres, près des mangeoires et des niohirs.

Sous certains éclairages, il est assez difficile de distinguer la femelle du mâle. Pourtant, elle est toujours des plus intéressante. Les petits sont beaucoup plus bryants que le reste de l'attroupement, quoique les adultes font entendre des «Oh, la-la», des «Ah» et des «My, my» accompagnés d'une sorte de roucoule-

(Reproduit de la revue Le Ven' d'est, juillet/août 1987.)

ment nourri lorsqu'ils aperçoivent une Chouette rayée ou un Gros-bec des pins.

Cette espèce a l'ouïe remarquablement développée. Si l'un d'eux entend ce qui vous paraîtrait être un Merle américain qui chante particulièrement bien, il sait tout de suite qu'il s'agit d'un Cardinal à poitrine rose. Il en va de même pour la vue. Quand vous pensez voir des Bernaches volant en V, en direction de l'île de Pokeshaw, il reconnaît sans l'ombre d'un doute que ce sont des Cormorans à aigrettes.

On a calculé la valeur économique de l'oiseleur aux États-Unis à 14 milliards de dollars. Il faudrait donc faire tout en notre possible pour protéger ces bipèdes, même lorsque certains d'entre eux ralentissent la circulation.



Une courte histoire du Réseau environnemental du Nouveau-Brunswick

Ronald Fournier

Le Réseau environnemental du Nouveau-Brunswick (RENB) vient du Réseau environnemental des Maritimes auquel participaient déjà plusieurs néo-brunswickois. Depuis l'an dernier, nous avons décidé que chacune des provinces maritimes avaient suffisamment de «chats écologiques» à fouetter pour se permettre son propre réseau. C'est donc pourquoi un bureau de direction provisoire fut créé afin de continuer le travail d'acharnement pour la cause environnementale tout en ayant à se pencher sur les détails pour l'établissement et la reconnaissance formelle de notre réseau.

Avec les quelques sous qui ont percolés graduellement d'Ottawa à notre niveau, on a décidé d'embaucher une personne à temps-partiel pour effectuer le travail pressant du réseau. Mary Ann Coleman s'affaire maintenant avec l'organisation de notre première assemblée générale annuelle prévue pour la mi-novembre. La structure qui sera proposée lors de cette réunion de fondation prévoit un bureau de direction de sept personnes, dont deux représentants des groupes-membres anglophones, deux représentants des groupes-membres acadiens, deux représentants amérindiens (probablement un Micmac et un Malécite), ainsi que le/la représentant(e) du RENB auprès du Réseau canadien. C'est moi qui est le représentant intérimaire.

Le RENB vient de conclure un sondage à l'échelle de la province auprès de toutes les candidates aux élections provinciales. Les efforts de Vaughn Blaney pour l'environnement ont certainement été

remarqués, mais «l'atmosphère environnementale» de la province a peu changé et le besoin pour de grands changements et de nouvelles directions dans l'aménagement de notre environnement n'en est que d'autant plus urgent. Notre sondage a touché à dix sujets différents qui vont de la «bi-bitte nucléaire» à l'agriculture biologique, de la mauvaise gestion des terres de la couronne aux déchets toxiques, etc. Les résultats du sondage étaient communiqués aux journaux.

Environ dix organisations environnementales participent au direction provisoire du RENB. Ils représentent plusieurs régions de la province. Nous gardons pour plus tard, suite à notre réunion officielle de fondation, la suite de notre histoire.

The N. B. Environmental Network

The New Brunswick Environmental Network (NBEN), began about a year ago as an offspring of the Maritime Environmental Network. It is still in the process of developing its structure. Its aim is to bring together a wide range of organizations to work on the environmental issues that face our province. The Network includes representation from Acadians, anglophones, native peoples, and women's groups from across the province.

The first annual meeting is coming up in November. For more information, contact Ronald Fournier, RR # 1, Glassville, N.B. E0J 1L0; tel. 246-5572.

Rockweed Harvesting

A new and perhaps harmful development is planned for the Bay of Fundy—the harvesting of rockweed. As naturalists we should take note and ask some questions.

Seaweeds contain many desirable constituents such as vitamins, proteins and minerals which are used in food stuffs and medicines. Some seaweeds, such as Dulse and Irish Moss, have been harvested in our province's waters for a very long time. In the case of Irish Moss, which grows mainly in the warmer waters of the Gulf of St. Lawrence, the extent to which harvesting disturbs the sea bed and marine life has already been questioned.

All these seaweeds contain carrageenan, an emulsifier used in such diverse items as cough syrups, soups, puddings, lip sticks, and ice cream. Rockweeds (*Ascophyllum* and *Fucus*), which contain alginates, often are used as additives in pharmaceuticals and textiles as well as in the above mentioned uses. Alas, they contain only from 2 to 4% of alginate and so large



volumes of rockweed must be harvested to derive commercially significant quantities.

Rockweeds, as all who have scampered around our shores know, are not at first glance a pretty seaweed. They cover the rocks with a slippery brown surface and make walking difficult. However, a closer look reveals a plant of considerable interest. Their wet hanging fronds rise with the tides to form submerged forests that are a protective buffer and sheltering nursery for all sorts of marine creatures from fish fry and periwinkles to crabs, sea anemones, starfish and sea ravens. After decomposition, rockweed provides food for tiny organisms which in turn are food to higher animals.

Rockweeds are an integral part of our marine ecosystem. Indiscriminate harvesting could easily upset that fragile balance. Because no study or environmental impact assessment was envisioned to be conducted it seems irresponsible on the part of our provincial and federal governments to sign a "memorandum of understanding" with a Norwegian corporation which paves the way for commercial harvesting of rockweed in New Brunswick. MM



Coastal Convergence '91

A well-organized and well-attended conference at St. Andrews in September brought together a great many organizations and individuals, from the Maritimes and New England, who are concerned with environment, natural resources, and the future of coastal communities.

The conference theme was "managing coastal lands and marine habitat." Resource people presented such diverse topics as aquaculture, the inshore fishery, seaweed harvesting, clam beds, the pollution of urban harbours, shore cleanups, tidal rivers, salt marshes, ocean dumping, tourism, land-use, oil spills, and coastal zone management. Frequently, the sustainability of current practices was questioned.

This convergence of ideas should benefit people on both sides of the border by bringing into focus problems and concerns which apply to all coastal communities. Alas, what became too apparent was that tackling the continuing degradation of the coast will require a great amount of time, effort, and dedication. Never-the-less, this was a useful attempt at focussing resources to attack these problems.

A Coastal Convergence Network was established to continue the exchange of information and communication begun at the conference. For more information on the conference write The Bay of Fundy: A Case for Community Action, c/o Conservation Council of New Brunswick, 180 St. John St., Fredericton, N.B. E3B 4A9. MM

World Climate Conference

Environmentalists were disappointed that the week-long World Climate Conference held in Geneva last November failed to set firm goals or dates for reducing carbon dioxide emissions that scientists say are the principal cause of global warming.

The conference's final declaration did acknowledge the need to halt global warming but, due to strong U.S., Soviet and Saudi objections, it stopped short of setting firm targets for reducing CO₂ emissions. The Bush Administration argued that insufficient research has been done on the costs of reducing fossil fuel emissions. Others point to government studies that show emission reductions could save money.

Meanwhile, two European economic blocs signed binding agreements to freeze their CO₂ emissions at 1990 levels (European energy efficiency is keeping their emissions at roughly half of North American levels), and Canada and Japan went on record as being prepared to stabilize emissions. Stabilization, however, must be regarded as just a first-step not to make the problem worse than it now is. Australia and New Zealand are to be commended for their plans to reduce emissions by 20% over the next 10 to 15 years. DSC

Canadian Nature Federation

Conservation or Exploitation?



In February 1990, Bill C-29, creating the federal Department of Forestry, was passed by Parliament. Subsequently, the House of Commons sub-committee on forestry was authorized to examine the mandate and terms of reference of Forestry Canada. Many witnesses, ranging from forest industry representatives to conservation groups, appeared before the sub-committee. The evidence must have been as diverse as the groups that presented it.

The subcommittee sorted through voluminous submissions to prepare its report entitled *Forests of Canada: The Federal Role*, released in November, 1990. In it, the subcommittee purports to address and reconcile the two principal, often conflicting aspects of Canada's forests: their roles as producers of wood fibre to fuel the country's economy and as environments for wildlife. How well does it succeed?

Right off the bat, the report places a great deal of importance on sustainable forestry development. It states that the federal government will have to play a major role in achieving this goal even though the forests are primarily under provincial jurisdiction.

Among its 24 recommendations, it identifies the need for co-operation among the federal, provincial and territorial governments and other stakeholders to ensure that the principles of sustainable forestry development and stewardship are implemented in the management of Canada's forests. It calls for improved forest management and stewardship on federally owned lands, and the inclusion of management of all wildlife species, game and non-game. It also recognizes the need for development of a comprehensive database and inventory system, and the expansion of research.

Although the Canadian Nature Federation has reservations about some of the report's recommendations, particularly ones which call for the transfer of the Canadian Parks Service and Canadian Wildlife Service from Environment Canada to Forestry Canada, the general thrust of the report is very good. Given the limited jurisdiction of the federal government (80% of Canada's forests are under provincial control and 9% are privately owned), the report is quite far-reaching.

As a matter of fact, on December 17, a coalition of eight national groups (Canadian Forestry Association, Canadian Nature Federation, Wildlife Habitat Canada, Canadian Federation of Woodlot Owners, Canadian Pulp and Paper Association, Canadian Wildlife Federation, Canadian Institute of Forestry, and Ducks Unlimited (Canada)) held a joint press conference to support the report. Not all groups endorsed all of the recommendations, but all felt that, as a whole, the importance of the majority of the recommendations outweighed their individual concerns.

(From Canadian Nature Federation *Almanac*, Jan. 1991.)

Calendar of Events

Oct. 2, 7 p.m., Dieppe

Charlie McEwen: Purple Martins at Home. Charlie McEwen of Irishtown has made a pioneer film of the home life of a pair of Purple Martins. He prepared a special martin house with videocamera, lights and remote control to record an inside view, from the laying of the first straw of the nest to the flight of the young. The Purple Martin and Bird Society of Southeastern New Brunswick extends an invitation to attend the screening of a one-hour edited version of his tape. Dieppe Boys and Girls Club, 8 LeBlanc Ave., across from Moncton Airport administration building.

Nov. 6, 7:30 p.m., Fredericton

Brian Dalzell: Results of the Maritimes Breeding Bird Atlas Project. Fredericton Nature Club meeting, N.B. Craft School, Queen Street.

Nov. 13, 7 p.m., Moncton

Kevin Craig: Bears in New Brunswick. Moncton Naturalists' Club, Moncton Public Library.

Nov. 13, 8 p.m., Saint John

Steve Hickey: talk on the weather. Saint John Naturalists' Club, N.B. Museum.

Nov. 19, 7 p.m. EST, Calais

Sid Bahrt: Iceland—Fire and Ice. Schoodic Audubon meeting, Recreation Room, Sunrise Apartments.

Christmas Bird Counts

The National Audubon Society has designated the period from Saturday, December 14, 1991, through Tuesday, January 2, 1992, for this winter's Christmas Bird Counts. For CBC rules and forms for reporting counts in New Brunswick contact David Christie, RR 2, Albert, N.B. E0A 1A0, telephone 882-2100.

Full EIA for Fundy Trail Proposal

Last spring, New Brunswick's Minister of the Environment, Vaughn Blaney, decided to require a full Environmental Impact Assessment (EIA) of the proposed Fundy Trail (see last issue, p. 7). Primary objective of the EIA study is to predict the impacts which can be expected should the project proceed.

Final study guidelines were issued August 2. Copies are available at regional offices of the Department of the Environment. Public meetings will be held as part of the EIA process.

Have You Seen a Banded Bat?

Matthew Saunders (see p. 24) has been banding bats in the three Maritime Provinces with orange, light blue, dark blue, and yellow bands (left wrist for females, right wrist for males). If you see one please report your observation. If you catch a bat, read the band number with the bat's back up and its face away from you to avoid confusing 6's and 9's.

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