



N.B. NATURALIST

10 (1) MARCH, 1980

TREE SEEDS



Elm



Ash



Maple



Basswood

Do you know the flowers of these trees?

N. B. FEDERATION OF NATURALISTS / FEDERATION DES NATURALISTES DU N.-B.

277 Douglas Avenue, Saint John, N. B., Canada E2K 1E5 Tel. 693-1196

The federation was formed in 1972 in order to

- develop an understanding interest in nature among amateur naturalists
- serve as a means of communication and cooperation among nature-oriented groups and individuals
- promote ecologically sound policies and programs of resource management
- foster public awareness of the relationships between man and nature.

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NEW BRUNSWICK NATURALIST ISSN 0047-9551

Five numbers a year.

Editorial Committee

Barry King, *editor*
David Christie Mary Majka
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Advice to Contributors

Preferred articles are those from one-half to two pages in length, having relevance to the natural history of New Brunswick. Authors of potentially longer articles are invited to contact the editors. Drawings and cover illustrations should be in black ink and in the same size and proportions they would occupy in the N.B. Naturalist. Observations for "Nature News" should be submitted promptly after March 15, May 31, August 15 and November 15, or more frequently.

Aux Naturalistes Francophones

Nous avons besoin d'articles en français, aussi de volontaires qui voudraient écrire des résumés en français des articles en anglais.

Memberships - Subscriptions

Mail to Janice Dexter, 956 Dever Road, Saint John West, N.B. E2M 4J3. Annual fees: \$3 (individual or family), \$1 (students to age 18), \$3 (libraries).

Correspondence

Re the N.B. Naturalist to editor, N.B. Naturalist, 277 Douglas Ave., Saint John, N.B. E2K 1E5. Articles and reports are always welcome.

Re federation policies and programs to Harry Walker, 276 Heath Court, Newcastle, N.B. E1V 2Y5.

editorial.

Acidic Rain

Acidic precipitation falling from our skies threatens to become one of our greatest environmental problems. Scotland had a rain storm in 1974 which had a pH of 2.4 - as acidic as vinegar. This can cause malformation of leaf surfaces and inhibit plant growth.

The phenomenon is for the most part produced by the two pollutants, sulphur dioxide and nitrogen oxide. These products of ore smelting industries and coal-fired power generation are carried in the atmosphere for great distances reacting chemically with water vapour to fall as acidic precipitation. Sulphur dioxide and nitrogen oxide are carried from the industrial regions of Canada and the Northeastern U.S. into the maritimes where the soils have a low buffering capacity due to their low lime content.

The effects of acid precipitation are not clearly understood yet it is clear that both terrestrial and aquatic ecosystems suffer. Acid rain leaches toxic metals from the soil and from waterpipes, then deposits them into our drinking water. It decreases the productivity of our forest. A joint commission studying the problem has estimated that 50,000 lakes in North America will be biologically dead by 1995 and widespread destruction of plant and animal life will have occurred.

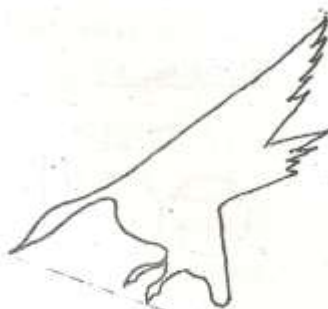
Can we afford to increase the use of coal-fired power generators when their by product is a major contributor to the acid rain problem? How is it affecting our salmon rivers and other fisheries? The problem is just recently being looked at in New Brunswick but the prospects are not good. We must decide, as with the spruce budworm spraying issue, whether we should consider the short term or the long term effects of our actions. I believe the answer is obvious.

Barry King



1979-80 CHRISTMAS BIRD COUNTS

David Christie



The lack of any really cold weather in late November and December helped this winter's Christmas Bird Counts (CBC) to record 105 species (plus 6 additional species in count period), a greater variety than during the last two years yet well below the 113 observed in mild 1973. Two species, Wood Duck (Sackville) and Gray Catbird (Cape Tormentine; also in count period on Campobello Island) were reported for the first time on New Brunswick counts, bringing the alltime list to 164 species (plus 7 more in count period). The total number of birds (63,692) was higher than any year but 1973 (67,692).

The number of counts reported here, 25, is less than the maximum 27 of previous years but the numbers of participants (358), of party-hours (705) and feeder reports (144) are the most ever reported. Technically only 24 areas should be listed, since the Hartland count was conducted on January 2, the day after the end of this winter's period.

Local abundance of food led to a couple of interesting concentrations. Thousands of dead squid in Northumberland Strait attracted over 8000 gulls to the Cape Tormentine area including a provincial record of 247 Ring-billed Gulls. And in Head Harbour Passage (Eastport-Campobello) 1000 Herring and 500 Great Black-backed Gulls, 130 Red-breasted Mergansers, 50 Great Cormorants, 10 Bald Eagles, three species of alcids and a school of

White-sided Dolphin gathered in a small area to feed on living squid. Bill Townsend reports "that adult eagles would snatch squid from the water and eat them on the wing" whereas immatures would "land on the water" and "carry their prey to a low rock" to feed.

The opposite phenomenon is noticeable at Saint John where, because the city dump has been relocated outside the count area, gull and Common Raven counts have been reduced the last two years. The 1979 numbers of Great Black-backed and Herring Gulls were the lowest since regular counts began there in 1957. In fact, more gulls were at Fredericton, where holding the count 10 days earlier than the traditional date and shifting the area to include more of the swiftly flowing water west of the city together with late freezing of the river produced unusual numbers of waterbirds.

Generally, Mallard, Black Duck, Common Eider and to a lesser extent Canada Goose were found in good numbers this year whereas no waterbirds were usually scarce. A record number of Brant (110) were at Grand Manan. All six species of alcids were reported which is a rare CBC event.

Among the hawks and upland game birds, Ruffed Grouse and Bald Eagles were seen in good numbers but Rough-legged Hawks were scarce. The two Gyrfalcons (Sackville and Riverside-Albert) are only the second and third CBC records. Other northern predatory birds were few with Northern Shrike more scarce than in any year since 1973 and Snowy Owl reported only in one area during count period. Osprey lingering in three areas is unprecedented. We have only one previous CBC record.

Of woodpeckers and songbirds most were found in about average numbers but several species were low: Hairy and Downy Woodpeckers, Gray Jay, Red-breasted Nuthatch, American Robin, Bohemian Waxwing, House Sparrow, Common Grackle, Pine Grosbeak (but numerous at high elevation) Common Red-

poll, Pine Siskin, White-winged Crossbill, Song Sparrow and Lapland Longspur. Only Black-backed Three-toed Woodpeckers, Evening Grosbeak and to a lesser extent Golden-crowned Kinglet and Snow Bunting were more common than usual.

Yellow-rumped Warbler, a straggler in most areas but a local winter bird near Northumberland Strait was found in incredible numbers at Cape Tormentine (179) where there was an exceptional abundance of bayberries; It was also seen on six other counts. Another bird at the edge of its winter range, the Mourning Dove was twice as common as in any previous year. There was apparently an influx of Cardinals last fall as ten were reported in six areas including Plaster Rock and Chatham-Newcastle in the north. A seventh area had a count period bird.

A good number of stragglers from fall will be noticed in the table of results, for example Great Heron, Brown Thrasher and Swamp Sparrow.

COUNT AREAS, CONDITIONS AND PARTICIPANTS

Mt. Carleton Provincial Park (MtC)

Clear. 5 to 15cm snow cover, running water open. Erwin Landauer (compiler), Jeff Landauer.

Edmundston (ETON)

Clear. 30cm snow cover; St. John River 60% open. Mae Hicklin, Peter Hicklin (compiler), Carrie MacMillan.

Grand Manan Channel (GMC)

Overcast. Good visibility. P.A. Pearce (compiler).

Grand Manan (GM)

A.M. overcast, p.m. mostly cloudy with intermittent light rain. Snow cover 0-5cm, fresh water, partly open, salt water open. Brian Dalzell (compiler), Joey Green, Lincoln Harvey, Lloyd Ingalls, Margaret Ingalls, Mildred Russell, Carl Small, Nancy Small, Mildred Small.

Eastport-Campobello (E-C)

Overcast. Fresh water partly open; salt water open; no snow cover. Sid Bahrt, Frances Collier, Thurlo Collier, Norm Famous, Ellen Johnson, Dwight Lee, Nellie Ross, Hubert Ross, William Townsend (compiler), Victoria Underwood.

St. Andrews (SA)

Overcast, mild. Ground bare some ice. Steve Adamowicz, Mrs. C.T. Ballantyne, Mrs. Hollis Bartlett, J.M. Dadswell, Mrs. Fred Gonya, Mrs. Donald Johnson, Mr. Kenneth Langnald, Mrs. Kenneth Langmaid, Daryl Linton (compiler), Mr. Talbot Mais, Mrs. Donald McLeese, Dr. & Mrs. Bev Scott, Mr. David Walker, Dr. & Mrs. V. Zitko.

Pennfield (PENN)

Sunny periods & overcast. Ground bare; low tide a.m. Mr. Ralph Eldridge, Mr. & Mrs. M.C. Morehouse (compiler), Mr. E.A. Nason,

Saint John (SJ)

Partly cloudy. 4cm snow cover; lakes frozen but much of Saint John River still open. Mike Bamford, Charles Belyea, Fred Brock, David Christie (compiler), Florence Christie, Shirley Colquette, Bud Crandall, Marjorie Duffy, Dick Filliter, Joyce Golden, Renie Gorham, Stan Gorham, Grace Hayes, Gayl Hipperson, Cecil Johnston, Win MacAndrews, Vivian MacDonald, Don McAlpine, Mrs. E.F. McIntosh, Mrs. Ken Melvin, Jessie Nagle, Tom Page, Bob Parke, Eleanor Parke, Don Patterson, Margaret Patterson, Mrs. Peacock, Albert Pearce, Joan Pearce, Allen Sellers, Joan Sellers, Marion Sherwood, David Smith, Evan Smith, Reg Smith, Allison Sollows, Mrs. Neil Sparks, Mr. & Mrs. Stan Winslow.

Fundy National Park (FNP)

Overcast. Dust of snow on coast, 1cm snow inland; Rivers open. Cathy Bone, Barbara Burke, Anne-Marie Burzynski, Michael Burzynski, David Christie, Geoffrey Clayden, Gerry Clayden, Stephen Clayden, Brian Dalzell, Henrick Deichmann (compiler), Joanne Deichmann, Jocelyn Deichmann, Barbara Sinclair, George Sinclair, Sedgewick Sinclair, Marion Smith, Michele Smith, Barry Spencer, Duane West.

Riverside - Albert (R-A)

Clear. Standing freshwater frozen, sea and brooks open; 2cm old snow cover. David Christie (compiler), Henrick Deichmann, Chris Majka, Mary Majka, Mike Majka, Flora White, Glenn White.

Sackville (SACK)

Clear and sunny all day. Negligible snow cover; fresh water mostly frozen, salt water open with numerous small ice flows. Peter Barkhouse, Myrtle Bateman, Paul Bogaard, Ian Cameron, Tony Erskine, Hinrich Harries, Frank Hennessey, Ron Hounsell, Bob Lambertson, Collim MacKinnon, Edith Miller, Michael Miller, Dale Morton, Bill Prescott, Al Smith (compiler), Francis Spalding, Stuart Tingley, Ian Walker.

Moncton (HTON)

A.M. mostly cloudy; p.m. flurries. 5-25cm snow cover, still water frozen, swift streams and tidal waters open. Hamilton Baird, Don Cormier, Brian Dalzell (compiler), Henrik Deichmann, Joanne Deichmann, Dr. Art Dobson, Louis Lapierre, Fred & Paul Lloyd, Dr. & Mrs. Majka, Leo Martin, Peggy McKinley, Winston Prince, Mrs. F.B. Proude, Mr. W.J. Quartmain, Barbara Swinamer.

Cape Tormentine (CT)

North-western section of the count zone was blanketed with near continuous snow flurry activity until 1100 hours, however, the remainder of the count zone was overcast with occasional sunny intervals and infrequent snow flurries. Ground mostly covered with 2.5-15cm of fresh powdery snow. Fresh water frozen and salt water mostly open with extensive slush inshore from Murray Corner to Cape Jourimain. Peter Barkhouse, Paul Bogaard, Tony Erskine, Paul Germain, Gay Hanson, Hinrich Harries, Peter Hicklin, Ron Hounsell, Bob Lambertson, Leslie Linkletter, Carrie MacMillan, Bill Prescott, Al Smith (compiler), Edgar Spalding, Ralph Stopps, Stuart Tingley.

Kouchibouguac National Park (KNP)

A.M. clear, P.M. mostly clear. Snow cover 2.5 to 10cm; fresh water mostly frozen, salt water open. Lucie Bosse, Alain Gros-Louis, Robert LeBlanc (compiler), Carmel Lévesque, Pierrette Robichaud, Michael Savoie.

Chatham-Newcastle (MIR)

Mostly cloudy. Average 5cm snow cover; a few small patches of open water. Sybil Anderson, Phillip Anson, Jane Arsenault, Mrs. Robert Bransfield, George Cadogan, Paul Clark, Timothy Clark, Graham Crocker, Phyllis Crowe, Steven Daniels, Thomas Flynn, Vernon Goodfellow, Pamela Hubbard, Mrs. Hazen Loban, Sara Lounsbury, Donna McDonald, Carl Perry, Norma Rodgers, Theresa Ross, Jack Scott, Mrs. Gordon Steeves, Doug Underhill, Mrs. Jac Canleewen, Bruce Walker, Elayne Walker, Harry Walker, Ian Walker (compiler), Lyle Walker.

Sussex (SUSS)

Cloudy. Snow cover with bare spots. Thomas Anderson (compiler), Eleanor Arnold, Gladys Bickford, Margaret Braohead, Harriet Folkins, George Freeze, Mrs. Walter MacLeod, John Nicholson, Mrs. Stephen Rideout, Mrs. Ralph Robinson, Mrs. Walton Robinson.

Hammond River - Hampton (HTON)

Sunny, cloudy patches, good visibility. 15cm snow, most water frozen, snow partially drifted. Robert Barton, Rick Blacquiére, David Christie, David Clark, Louis Darling, Roland Darling, Lindon Hodges, Russell Jamieson, Mrs. Paul Kelbaugh, Mr. & Mrs. Doug MacAndrews, Mr. & Mrs. Howard Mann, Kim Mann, Don McAlpine, Tom Page, Geoffrey Sayre, Millie Widdershoven, Charles Wilson, Jean Wilson, Jim Wilson (compiler).

Cambridge-Narrows (C-N)

Sunny. 5cm snow in open - 10cm in wooded areas, lakes frozen - brooks open. Mrs. Harold Belyea, Mrs. Donald Black, Mrs. Vernon Connell, D.G. Carpenter, Mrs. Kenneth Carpenter, Mr. & Mrs. Lawrence Carpenter, Michelle Farris, Rhoda Inch, Enid Inch (compiler), Douglas Jackson, Miss Sandy McConnachie, Mrs. William McConnachie, Mrs. Arthur Perry, Mrs. John Perry, Mr. & Mrs. Hazen Pugsley, Mr. & Mrs. Niven Thorne, Mrs. Walter Thorne, Carl Urquhart.

Jemseg (JEM)

Sunny periods in a.m., overcast in p.m. Most surface water frozen, widely scattered open leads: 3cm snow cover. Neville Garrity, Melvin Moore, David Noble, Marven Palmer, Robert Palmer, Peter Pearce (compiler), Ken Washburn, Owen Washburn, Susan Washburn.

Fredericton (FTON)

Overcast. Light drizzle by 5:00 p.m.: 2cm snow cover, most water (80%) surfaces frozen in a.m. but had opened up in p.m.: Mike Bamford, Bill Bauer, John Bennett, Dan Breen, Jean Brown, Rae Brown, Sandra Brown, Michael Burzynski, Dan Busby, Peter Cashion, David Caughey, Gerry Clayden, Mac Craig, Lucy Dyer, George Evans, Don Fowler, Ross Fowler, Cathy Fynn, Neville Garrity, Harold Hatheway, Harold Hines, Donald Kimball, Darrell Kitchen, Anne Marcea, Stephen McAllister, David McCrae, Melvin Moore, Nettie Moore, Albert Morais, Jean Noble, Jim Noble, Stephen Olive, Marven Palmer, Robert Palmer, Peter Pearce (compiler), Bob Randall, Gerry Redmond, Bear Rhineland, Tony Rhineland, Arlene Richards, Bev Schneider, Marc Schneider, Debbie Sharpe, Alison Sollows, Al Sosiak, Don Townsend, Bill Varty, Dorothy Varty, Owen Washburn.

Stanley (STAN)

2.5-5cm snow cover; ground and water frozen-open spots in fast water 50-75% cloud over. Harold Hatheway (compiler).

Woodstock (WSTK)

Light snow. 2-5cm snow cover; a little open water. Mrs. Blair Avery, Mrs. G.F. Clarke, Mrs. Gerald Demmings, Mrs. Hans Epstein, Mrs. David Fry, Mrs. Marjorie Gray, Eric & Jane Hadley, Ken Homer, Murray Hubbard, Donnie Kimball, Mrs. Charles MacDonald, Gwen MacKinnon, Mrs. Don Nixon, Mrs. G.A. Olmstead, Eric Randall, Mrs. Sexsmith, Robert & Donna Speer, Robert & Alma Speer, Mrs. Cecil Stewart, Mrs. Donald Stewart, Mrs. Charles Webb, Frank Withers.

Hartland (HART)

Overcast, windy. Ground bare; water open in places. Gregg Belyea, Mike Rigby, Bud Belyea, Ken Foster, Don Kimball (compiler), Lil & Carl Rigby.

Perth - Andover (P-A)

Overcast. 10cm snow cover; ice on river and streams. Fred W. Tribe, Murray Waters (compiler).

Plaster Rock (PR)

Overcast. Crusty snow, hard packed; considerable open water in river. Daphne Anderson, Charlotte & Erwin Brayball, Sally Davidson, Kate Finnamore, Laverne Rabatich (compiler), Diane Rabatich, Emmie Reed, Melissa & Harold Skinner.

G M CH	G E ST	P S	F N P	A A C K	M T O N	C N T P	M I R S	S H C N	J E M N	S T A N	W S T K	H P A	P R C N	E T O N	T o t a l
Common Loon	7 42 4	8 2				3									66
Red-throated Loon		1	2	4		1									8
Red-necked Grebe	1 45					2									48
Horned Grebe	15 12	1													18
Great Cormorant	6 53 276 3	6 1				2									367
Great Blue Heron	*		1												1
Canada Goose	2 5					75 20		*	45				15		187
Brant	110														110
Mallard	12 5	4 15 2				6		1							83
Black Duck	182 287 121	350 494 16		252 6 143		114	2	1	85						1793
Green-winged Teal	6														6
Wood Duck															1
Greater Scaup	* 57														57
Common Goldeneye	17 112 25	220 10		21	3	75 12		10	237		73				235
Barrow's Goldeneye		3													3
Bufflehead	33 117 41	620 49				3									845
Oldsquaw	41 251	6				204 293									775
Common Eider	23 155 46 654	6	4	52		109									1059
White-winged Scoter	19 42 33	3	1			8 2									108
Surf Scoter	4 9 237					8									258
Black Scoter	20	1	1			94									106
Hooded Merganser															1
Common Merganser	6 200 18			10 15 48	6 1				50		3 3			1	362
Red-breasted Merganser	45 178 2	16		17	135										415
Goshawk	1	1	1	1	1	*									5

	G M Ch	G E- St M C A N	P E N J	S S F N P	R- A S A C K	M T O N	C T P	K M R	S U S	H T O N	C N	J E M	F T O N	W S T K	H A R T	P R A	M T C O N	Total
Sharp-shinned Hawk					1	1	1	1			*	*	*					5
Red-tailed Hawk				1							1	1	1	2	1			7
Rough-legged Hawk		*	*?	*		6	1					3	2	1				13
Bald Eagle		2	10	1	3	2					2		3					23
Marsh Hawk		1																1
Osprey		*			3								1					4
Gyr Falcon						1	1											2
Merlin						1?	1		*									1+1?
Ruffed Grouse		1	6	1	28	2	10	2	5	2	3	5	4	8	1	10	3	97
Ring-necked Pheasant																		75
Purple Sandpiper		170	3	35			66	3	2					2	*	2		208
Glaucous Gull				1		1	9	5										16
Iceland Gull		7		25	3	7	76	113										231
Grt. Blk-backed Gull	103	747	27	1	59	2	12	41	468	502	51	*	13					3275
Herring Gull	152	28	104	76	700	15	207	63	198	532	116	2	38	65				20224
Ring-billed Gull				16		3	*	247					6					272
Black-headed Gull								1										1
Blk-leg. Kittiwake	160	127	23															310
Razorbill	2	*	49															51
Common Murre																		1
Thick-billed Murre		6	2															8
Dovekie																		2
Black Guillemot		5	26															31
Common Puffin	*																	*
Rock Dove		16	81	31	380	4	404	932	121	10	185	121	91	10	6	961	62	3545

G M Ch	G E-Sc	P E S	F N P	R A C K	S A C K	C T P	K M I R S	S H T C N	J F F	W S T A N	H P A	P R E	M E T O N	Total
Mourning Dove	4 40 20	10 39			7	22		1 33 4	*	16 1				197
Great Horned Owl		*	1						*	1				2
Snowy Owl														*
Barred Owl			*	1 1						1				3
Short-eared Owl				1 *										1
Belted Kingfisher	1													1
Pileated Woodpecker	1 2 1	* 3 13	2	3 10 1	1	2	6 1 4 7	1	1	* 2		3		10
Hairy Woodpecker	3 3 3	* 9 17		7 4	3		1 3 7 6	2 15	7 1	5 3 3	4 5 *	7		89
Downy Woodpecker								2 15	5 3 3	3 3	7			104
Blk-bk. 3-toed Wdpkr.	1		9	1 2	3			2		1	4			23
Horned Lark	2 2			14 *	4									22
Gray Jay	*	2	1 6	5 4 1	2 *	3	14	* 7		2	9 3			62
Blue Jay	17 29 42	3 61 31	4 216 76	117 7 143	59 70 88	42 153 4	67 27 12	20 4 17						1309
Common Raven	38 18 6	26 48	22 91 140	17 93 200	71 76 53	125 52	101 83 68	25 3 6						1484
Common Crow	73 121 55	13 109 28	12 108 45	121 19 9	55 39 31	15 194 1	12 16 8	24 9						1117
Blk-capped Chickadee	61 38 97	4 156 104	15 110 46	115 13 42	52 92 75	38 392 1	119 84 25	27 36 13						1805
Boreal Chickadee	9 18 2	1 4 27	35 37 4	40 11 5	6 2 2	3 3	7 1	43 2						259
White-br. Nuthatch		1	1	1	2		2 5			1 1				13
Red-br. Nuthatch	1 1	2 2	2 1	1	1	2	1 1 8			10 1	9			38
Brown Creeper	1 1	1 2	1 2	2	2	2	2 2 2			2				20
Winter Wren		1												1
N. Mockingbird	1	1	1	1	1		2							6
Brown Thrasher		1												2
Gray Catbird	*					1								1
American Robin	2 2 *	7 8	2 1 9	4	2 *	3	1 5							46



RECENSEMENT DES OISEAUX A NOEL (1979-80)

David Christie



L'absence de température vraiment froide à la fin novembre et durant le mois de décembre nous a aidé dans le Recensement de Noël (RDN) de cette année. On a pu enregistrer 105 espèces (plus 6 espèces durant le temps d'observation); ce qui constitue une plus grande variété d'espèces que durant les deux années précédentes. Cependant, le nombre est bien au-dessous du total de 113 espèces observées pendant l'hiver tempéré de 1973. On souligne deux nouvelles espèces pour la province: le Canard puppé (Sackville) et le Moqueur-chat (Cap Tourmentin; également signalé durant la période du recensement à l'Île Campobello). En ajoutant ces deux-ci, la liste record de tous les temps est portée à 164 espèces (plus 7 espèces durant le temps d'observation). La totalité des oiseaux observés cette année (63,692) était supérieure à celle de toute autre année, sauf 1973 (67,692).

Le nombre record de participants (358), d'heures d'observation par équipe (705) et de rapports de mangeoires (144) ont compensés pour la réduction négligeable de dénombrements (25) au lieu de notre maximum habituel (27) des années passées. Techniquement, le dénombrement de Hartland ne devrait pas être inclus puisqu'il fut mené le 2 janvier, une journée après la fin de la période d'observation.

Une abondance de nourriture amena quelques intéressantes concentrations d'oiseaux. Des milliers de calmars morts du détroit de Northumberland ont attiré plus de 8000 Goélands à bec cerclé. D'autre part, dans le Passage Head Harbour (Eastport-Campobello), les oiseaux suivants, accompagnés d'une bande de Dauphin à flanc blanc, se rassemblèrent dans une zone restreinte pour se nourrir de calmars vivants. Parmi ceux-ci on compte: 1000 Goélands argentés et 500 Goélands à manteau noir, 130 Bec-scies à poitrine rousse, 50 Grands Cormorans, 10 Aigles à tête blanche et trois espèces de la famille des Alcidae. Bill Townsend nous raconte "que les aigles adultes se saisissaient des calmars dans l'eau et les mangeaient au vol sans s'arrêter" tandis que les juveniles, eux, "amerrissaient" puis "emportaient leur proie sur un petit rocher pour s'y nourrir.

Le phénomène contraire est apparent à Saint-Jean depuis que le dépotoir a été relogé en dehors de la région du dénombrement. La quantité de goélands et de Grands corbeaux y a diminuée durant les deux dernières années. En 1979, le nombre de Goélands à manteau noir et de Goélands argentés était à son plus bas ^{niveau} depuis les premiers dénombrements réguliers commencés à cet endroit en 1957. De fait, il y avait plus de goélands à Fredericton, où trois facteurs importants ont favorisé la présence d'un nombre inusité d'oiseaux aquatiques. Ces facteurs sont: la tenue du dénombrement dix jours avant la date habituelle, le rezonage de la région dénombrée pour y inclure une plus grande partie des courants de la rivière à l'ouest de la ville et enfin, le gel tardif de la rivière.

De façon générale, le Canard malard, le Canard noir, l'Eider à duvet (ancien nom: Eider commun) et, à un moindre degré, la Bernache du Canada ont été aperçus en bons nombres cette année, alors qu'aucun oiseau aquatique n'était plus rare que d'habitude. Un nombre record de Bernaches cravants (110) fut observé à Grand Manan. Les six espèces de la famille des Alcidae furent toutes rapportées; ce qui est un événement rare au cours d'un RDN.

Parmi les oiseaux rapaces et les oiseaux-gibiers terrestres, on observa un bon nombre de Gélinites huppées et d'Aigles à tête blanche. Quant à la Buse pattue, elle se fit plutôt rare. Les deux Gerfaux aperçus à Sackville et à Riverside, comté d'Albert, ne sont que le deuxième et le troisième enregistrement des RDN. Les autres

oiseaux prédateurs du Nord étaient peu nombreux, la Pie-grièche boréale se faisant plus rare que dans toute autre année depuis 1973 et le Harfang des neiges ayant été signalé qu'une seule fois durant la période de recensement. Le fait des Aigles-pêcheurs qui s'attardaient dans trois régions à la fois est sans précédent, alors qu'on ne retrouve dans les RDN passés qu'un seul autre enregistrement sur cet oiseau.

Quant aux pics et aux oiseaux chanteurs, la plupart ont été vus en aussi grands nombres que d'habitude, bien que plusieurs espèces, dont les suivantes, étaient peu nombreuses: le Pic chevelu et le mineur, le Geai gris, la Sittelle à poitrine rousse, le Merle d'Amérique, le Jaseur de Bohême, le Moineau domestique, la Mainate bronzé, le Gros-bec des pins (nombreux dans les régions de hautes altitudes), le Sizerin à tête rouge, le Chardonneret des pins, le Bec-croisé à ailes blanches, le Pinson chanteur et le Bruant lapin. Seulement le Pic à dos noir, le Gros-bec errant, et à un degré moindre le Roitelet à couronne dorée et le Bruant des neiges (ancien nom: Plectrophane des neiges) furent plus communs que d'habitude.

Un deuxième cas d'abondance de nourriture occasionna un incident particulier. On observa à proximité du Cap Tourmentin un afflux de la Fauvette à croupion jaune - une espèce tardive dans la plupart des régions, mais un oiseau local et hivernal dans la région du détroit de Northumberland. 179 individus y furent signalés, se régaland du fruit de laurier qui s'y trouvait en une incroyable profusion. Cette fauvette fut également signalée au cours de six autres dénombrements. Une autre espèce qui se trouvait à la limite de son habitat hivernal, soit la Tourterelle triste, était deux fois plus nombreuse que lors de n'importe quelle autre année précédente. Il y eut apparemment un afflux de Cardinals dans le Nord l'automne dernier, étant donné que dix furent signalés dans six régions différentes, y inclus Plaster Rock et Chatham-Newcastle. Une septième région signala un individu de cette espèce dans la période de recensement, mais non au jour du dénombrement local.

On remarquera, dans le tableau des résultats, un bon nombre d'espèces tardives d'automne, telles : le Grand héron, le Moqueur roux et le Pinson des marais.

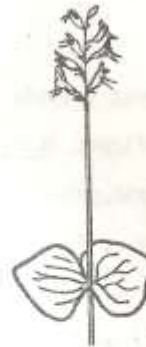
Translation by: Raymonde Belliveau

Leandre Goguen

field trips

The Orchids of Shea Lake

Erwin Landauer
Jeff Landauer



The seeking out, finding and studying of our native orchids is a very exhilarating and fascinating subject to those of us naturalists who like the study of wildflowers. Orchids are treasured by many but are seen by few. In the northwestern part of New Brunswick there is one area where no less than 26 species of these small flowers can be found growing in their natural setting.

Why do so many species of orchids grow in the lower Tobique River basin? The soil of this area is silt and sandstone deposits with a thin layer of gypsum from the Mississippian era, resulting in the neutral or alkaline soil preferred by orchids. The greatest concentration of orchids can be found at or adjacent to Shea Lake, where 17 species have been positively identified.

Shea Lake is located 3 miles south east of Plaster Rock, Victoria County. It is a site proposed for an ecological reserve, but to accomodate the orchids a much larger area than suggested is needed.

During the spring and summer of 1979, field trips consisting of two or three people were made into Shea Lake area to look for orchids.

In the last two weeks of May we found Early Coral-root (Corallorhiza trifida) in bloom. We also found large patches of the Hooker's Orchid (Platanthera hookeri) and saw a tiny uncommon orchid, Heart-leaved Twayblade (Listera cordata var. cordata).

The most satisfying find was the rare - but not to Shea Lake - Calypso or Fairy Slipper (Calypso bulbosa).

The last day of June turned out to be the best day for an orchid hunt. On that day we found 9 species of orchids in various stages of bloom. The more common orchids, small northern bog orchid (P. obtusata), Northern Green Orchid (P. hyperborea var. hyperborea), and Yellow Lady's-slipper (Cypripedium calceolus var. pubescens) were found. Yellow Lady's-slipper blooms later here at Shea Lake because of the shade. Interesting finds were the largest and possibly the most beautiful orchid, the Queen's Lady's-slipper (C. reginae) in various color forms, from magenta to various shades of pink and white and finally an albino color form (C. reginae var. album), a smaller number of Wild Pink or Dragon's Mouth (Arethusa bulbosa) and Spotted Coral-root (C. maculata). Two very interesting discoveries were the uncommon orchid Green Adder's Mouth (Malaxis unifolia), just beginning to flower, and the rare Small Round-leaved Orchis (Amerorchis rotundifolia). It is most interesting to note that this is perhaps the first official sighting of this orchid for New Brunswick. June 31, 1979 turned out to be a great day for finding orchids.

On subsequent visits during the last two weeks of July, four or possibly five new species for Shea Lake were found. Bog Candle (P. dilatata var. dilatata) was seen. For anyone who hasn't seen this tall white orchid, the strong clove-like fragrance is unmistakable. Two species of Tesselated Rattlesnake Plantain, (Goodyera repens and G. tessellata) were recognized. Quite possibly some of these plants were the rarer Menzies' Rattlesnake Plantain (G. oblongifolia). Distinguishing between species of the genus Goodyera is difficult because of hybridization. The final species recorded for Shea Lake for 1979 was the Large Round-leaved Orchid (P. orbiculata var. orbiculata).

All in all our trips to Shea Lake were an enjoyable experience in orchid study. For 1980 who knows what the shaded bogs, swamps and rich woods found near Shea Lake hold for anyone looking for orchids? Perhaps more species will be added to the list. I think it's worth trying.

For anyone interested, the Miller weekend is loosely scheduled for the final weekend in June. I am sure an orchid walk to Shea Lake will be on the agenda. Hope to see you there.



Moccasin-flower



Small round leaved orchid

ORCHID FIELD TRIP

A week-end field trip to see the orchids of Shea Lake

When: Week-end of June 27 to 29, 1980

Where: Pioneer camping and tenting at Bill and Wilma Miller's - at Nictau,
N. B., Route #385 - North of Plaster Rock - 30 miles

Weekend's Activities

Friday 27th - Arrive - Set up camp - get acquainted

Saturday 28th - 6:30 am - Early Bird Walk

9:30 am - (a) Going to Mt. Carleton

(b) Trip to see the orchids - with Erwin Landauer

(c) Canoe Tobique River (bring canoe)

5:00 pm - Bean Hole Beans

7:00 pm - Slide program - share 6-10 slides with us!

Sunday 29th - 6:30 am - Early Bird Walk

The schedule may be altered in case of inclement weather.

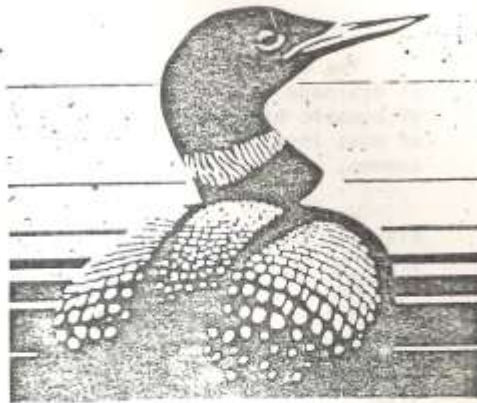
Bring appropriate foot gear as the orchid trip is approximately
eight miles return.

For more information call or write: Wilma Miller
Nictau, R. R. # 1
Plaster Rock, N. B.
Phone: 356-2409

Barry King
New Brunswick Museum
277 Douglas Avenue
Saint John, N. B.
Phone: 693-1196

NATIONAL WILDLIFE AREA
ESTABLISHED NEAR
CAPE TORMENTINE

Allan D. Smith
Reprinted from the Sackville
Tribune-Post, May 16, 1979



Residents of the Cape Tormentine area have undoubtedly noticed the bright blue and white signs being placed about the marshes near Bayfield during the past week. The signs, with the stylized picture of the Common Loon, mark the boundary of New Brunswick's newest National Wildlife Area. The area, to be officially known as the Cape Jourimain National Wildlife Area, is owned and managed by the Canadian Wildlife Service of the Government of Canada.

Canada's National Wildlife Area (NWA) program begun in 1966 with the acquisition of a large tract of prairie wetland in central Saskatchewan. Over its thirteen-year operation, the program has resulted in the establishment of 40 NWA'S across Canada to protect important wildlife habitat. Cape Jourimain is one of five NWA'S in the province of New Brunswick where at the present over 12,000 acres of habitat are protected.

The primary objective of the program is to preserve wetlands for migratory birds. The loon that you see on blue signs marking NWA'S was chosen because it is found throughout Canada and its cry is generally associated with our wilderness. The symbol also portrays the loon's aquatic habitat and thereby stresses the fact that Canada's wildlife depends on the protection of its habitat.

The 1,200 acre Cape Jourimain NWA has been under study by Canadian Wildlife Service Biologists since 1971. The area's outstanding feature is a 725 acre salt and brackish marsh complex. At Cape Jourimain, the marshes have been influenced by the work of man in just the opposite way from that which we would normally expect.

In 1966, an approach road to the then active Prince Edward Island Causeway project was constructed across the tidal marshes to Outer Jourimain Island, and thus interfered with the natural functioning of nature; but it has done so in such a way as to increase manyfold the productivity of the area.

The slightly brackish ponds created by the roadway through blockage of drainage in the upper half of the marsh are a haven for a wide variety of aquatic bird species. The spring and fall migration periods are times of most intensive use of the area by birds and the list of regular, uncommon, and rare bird species observed is extensive.

Waterfowl are especially abundant on the area. Besides Black Duck, Pintail, Shoveler, Blue-winged Teal, and Green-winged Teal that remain to breed on the marshes, migrants include Canada Geese, Mallard, Gadwall, American Wigeon, Ring-necked Duck, Greater Scaup, American Goldeneye, Bufflehead, Common Eider, Surf Scoter, Red-breasted Merganser, and Common Merganser.

Once the spring shorebird migration commences, the marsh is hardly without migrants until the last fall flock leaves. Breeding on the marsh are Killdeer, Willet, and Spotted Sandpiper. Mingling with those resident species is an interesting group of some 25 species which include common Atlantic migrants such as Semipalmated Sandpiper, Dowitcher, Dunlin, Red Knot, Hudsonian Godwit, and Black-bellied Plover as well as the less common Stilt Sandpiper, and Wilson's Phalarope and the rare Ruff.

Great Blue Heron are common summer residents, while other interesting long-legged waders that have visited the Cape Jourimain marshes include Green Heron, Cattle Egret, Snowy Egret, and Louisiana Heron.

The wooded islands and adjoining uplands afford breeding habitat for a number of upland songbird species including such species as Common Flicker, Black-billed Cuckoo, Yellow-rumped Warbler, and an interesting list of numerous others.

A wide variety of habitat types exist within the NWA in addition to the salt and brackish marshes that each have their own interesting aquatic plant species. A well-developed barrier beach dune forms the northwest boundary and has been stabilized by beach grass, beach pea, and bayberry.

Forested areas are mostly second growth softwood, however, several unique and rare forest stands occur on the area including a small island forest dominated by the red oak as well as a red maple and eastern white cedar forest-swamp. Discovery of a plant species known as the ground nut has led to a considerable range extension for that species in New Brunswick.

Obviously then, Cape Jourimain is no ordinary area. The large number of rich and diverse habitats in close association with each other attract large numbers of migratory birds of many species. The area is at present a paradise to naturalists and sportsmen, and use of the area by people, in pursuit of the many values of wildlife, has increased significantly over the past ten years.

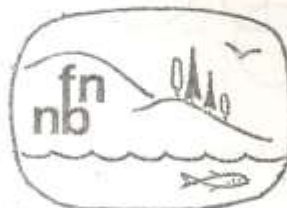
Through the establishment of the site as a NWA, the habitat has been secured and future generations of Canadians will be able to continue to enjoy the many and varied natural assets that the land has to offer.

THE N.B. FEDERATION OF NATURALISTS ANNUAL GENERAL MEETING

WHERE: Odell Park Centre
Rockwood Avenue
Fredericton, N. B.

WHEN: May 23, 24, 25 (Mark your calendar)

TOPIC: Forest Ecology of New Brunswick



You should have already received the details on the meeting.

If not, contact: Barry King
New Brunswick Museum
277 Douglas Avenue
Saint John, New Brunswick
Phone: 693-1196

See you there.

C.N.F. CAMP IN MINISTICK HILLS, ALBERTA

Mary Majka is pleased to announce that several excellent students applied to attend the camp. Philip Anson, Newcastle, was selected as the New Brunswick participant and Jenny Brigham, St. Stephen, as alternate. They and five other students have been awarded memberships in the N. B. Federation of Naturalists. Congratulations, Philip, and best wishes for an interesting visit to Alberta.

This is your newsletter. Anyone having articles, sightings or other contributions, send them to:

Barry King, Editor
New Brunswick Museum
277 Douglas Avenue
Saint John, N. B.
E2K 1E5



BOOKS

Review: Annotated Checklist of the Woody Plants of New Brunswick
by H. R. Hinds (1979)

Canadian Forestry Service, Information Report M-X-103, 59 pp., 180 maps.
(Available from Maritimes Forest Research Centre, C.F.S., P.O. Box 4000,
Fredericton, N. B., E3B 5P7).

Anyone interested in plants, trees and shrubs in particular, in our province will want to add Hal Hinds' "Checklist of Woody Plants" to their library. It includes 170 native and 44 introduced species, subspecies and varieties of woody plants found in New Brunswick. It excludes the raspberries and blackberries and many of the completely prostrate dwarf shrubs such as mayflower and twinflower. For each species a brief summary is given of the abundance, distribution and habitat as well as comments on its uses, e.g. "resin collected and used by New Brunswick Indians to treat wounds" (Balsam Fir), "infusion of the bark was a popular vermifuge used by the Acadians" (Trembling Aspen), and "lumber important for interior finish" (Yellow Birch). Maps show the provincial distribution of 180 of the forms, based on data from major plant collections. A very useful reference.

David Christie



back page

B. King

The woodchuck or groundhog is the best known of a group of large ground dwelling squirrels called marmots. Woodchuck's are diurnal and may live up to 10 years with some individuals reaching 14 pounds and 2 feet in length. They are often seen in New Brunswick being a relatively common and curious creature.

Woodchucks are very adaptable, surviving well in both agricultural and urban environments. In good habitat there may be as many as 100 individuals per square mile. Their diet consist almost entirely of green vegetation and their taste for cultivated crops has made them a target for the farmer. The fox is the woodchuck's greatest natural enemy.

These curious creatures will frequently sit at the entrance of their den to watch intruders, yet seldom venture further than 100 yards from their burrow. The den of an established adult may have up to 5 entrances with tunnels leading to several chambers 3-4 feet below the surface.

The woodchuck is thought to be a true hibernator with it's body temperature going down 8°C - 17°C in winter. They usually arouse from hibernation in April and breed soon after with the young being born about a month later.

This spring watch for the woodchuck as chances are he'll be watching you.



LAST MINUTE



TRIP TO MONTREAL BOTANICAL GARDENS AND INTERNATIONAL FLORALIES

2,3,4, August

A trip to Montreal is being planned to visit the 180 acre Botanical Gardens and to see the Florales, an international horticultural exposition hosted this year, for the first time, by Canada.

With some 20,000 species and varieties from all over the world displayed in 9 exhibition greenhouses and 30-odd gardens, the Montreal Botanical Gardens contains one of the world's richest collections of living plants. The International Florales will transform Ile Notre-Dame, an island built in the St. Lawrence River for Expo '67, into a floral parkland as some 20 countries participate in this major horticultural event. The botanical double feature makes this summer a particularly exciting time to visit Montreal.

The trip is planned for the August 2,3,4, long weekend. In early August the perennial gardens, the annuals test garden (for experimental varieties), the Marsh and Bog Garden, and many plants in the Alpine Garden will be blooming.

Departure is from Saint John, leaving Friday evening, 1 August, on the 7:05 PM train (arriving in Montreal Saturday morning) and returning Monday night (arriving back in Saint John at 8:25 AM Tuesday morning). Cost will be in the neighbourhood of \$120.00, including Via Rail coach transportation to and from Montreal, and two nights accommodation and breakfast at the downtown residences of McGill University (single occupancy).

The itinerary is shaping up to include an early morning birdwalk on Mount Royal, guided tours of both the Botanical Gardens and the horticultural exhibits on Ile Notre-Dame, and a bus tour of the city- coupled with time to independently explore further the botanical and other delights of the city.

At this stage, all arrangements are tentative; we need a show of interest to take things much further. If this proposed trip appeals to you (no firm commitment needed yet), contact Gayl Hipperson, Natural Science Department, New Brunswick Museum, 277 Douglas Avenue, Saint John, E2K 1E5, 693-1196.



Membership in the N.B. Federation of Naturalists is open to anyone interested in Natural History. Members are encouraged to renew their memberships and new members are always welcome. Our financial year is the calendar year and since we do not mail out separate reminders please take this notice as one for renewal if you have not already sent in your dues. Membership is 3 dollars annually.

Please mail memberships to:

N.B. Federation of Naturalists c/o Janice Dexter
956 Dever Road
Saint John West
N.B. E2M 4J3

Name: ----- new---- renewal-----

Address:-----

