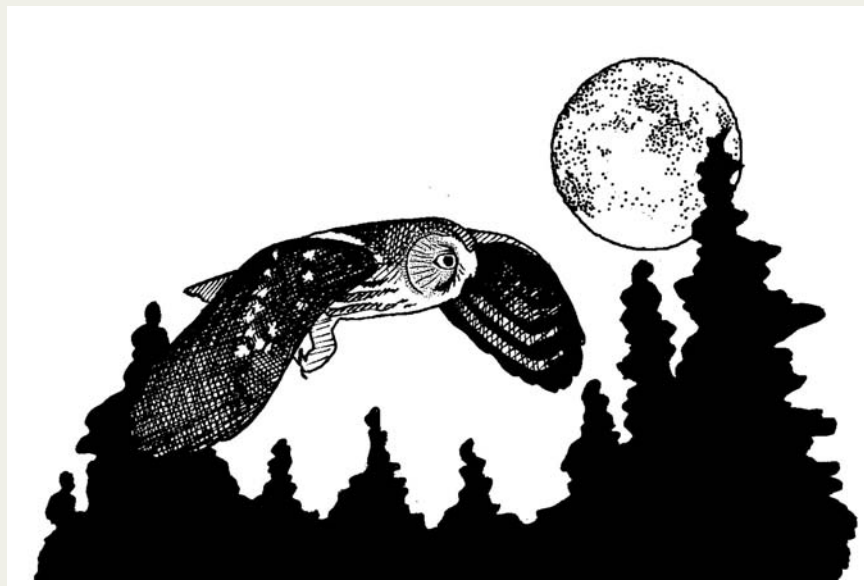


Atlantic Canada Nocturnal Owl Survey

2002 Report



December 2002

Becky Whittam
Atlantic Canada Program Manager



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2002 Report

Owlers of a feather flock together – especially when it comes to Bird Studies Canada’s Nocturnal Owl Survey! This year saw the expansion of the Atlantic Canada Survey to include 49 routes in Nova Scotia, as well as 3 pilot routes in Newfoundland & Labrador. These are in addition to the 110 routes in New Brunswick, and the 24 routes on Prince Edward Island, that were established in 2001.



Barred Owl by Denis Doucet

The primary goal of the owl survey is to determine population trends of various owl species across Atlantic Canada (Whittam 2001a and 2001b). In New Brunswick, the Department of Natural Resources and Energy is particularly interested in population trends of Barred Owls, which are considered an indicator of mature hardwood habitat, given this species’ preference for large trees with cavities. Bird Studies Canada is interested in determining population trends of all owl species across the country, and as such has developed a National Owl Monitoring Program that operates through a network of regional surveys that all contribute data to a national database. Each of these regional surveys follows the North American guidelines for Nocturnal Owl Monitoring (Takats et al. 2001), by including 2 minutes of silent listening at the start of the survey protocol. Owls detected during these two minutes can be compared across the country (see *BirdWatch Canada* Winter 2003).

Methods

The New Brunswick and Prince Edward Island Nocturnal Owl Surveys entered their second year of operation in 2002, allowing us to compare data from these two years. The NB and PE surveys both use the same survey protocol, which consists of 2 minutes of silent listening (as per the North American protocol), followed by one set of Boreal Owl calls, then four sets of Barred Owl Calls, interspersed with silent listening periods (see Whittam 2001a and 2001b for details). The mainland Nova Scotia survey, which was launched this year, uses a slightly different protocol, based on that which has been used for the Cape Breton Nocturnal Owl Survey for the last three years (Myers 2000, 2001). The NS protocol consists of 2 minutes of silent listening, followed by two sets of Boreal Owl calls, then 2 sets of Barred Owl calls, interspersed with silent listening periods. This protocol was chosen to allow greater detection of Northern Saw-whet and Boreal owls (both of which will respond to Boreal Owl calls; Francis and Whittam 2000), and to shorten the amount of time spent at each stop.

Like routes in NB and PE (Whittam 2001a, 2001b), routes in mainland NS were chosen randomly, except for routes #1-14 in the eastern mainland region which could not be randomized due to lack of roads. The remaining routes (#15-49) were chosen in a stratified random fashion, with one route placed



on each mapbook page (Nova Scotia Atlas 2001) with the starting point chosen randomly using an overlying grid.

How many hoots were heard? 2002 Results

Table 1 shows the survey results for all three provinces. In NB, 150 volunteers detected 261 owls of four species on 89 routes. Seventy-three routes (82%) had at least one owl. The number of Barred Owls per route was similar in 2002 and 2001, but there appeared to be fewer Northern Saw-whet, Great Horned, and Boreal owls per route in 2002 (Figure 1). In PE, 29 volunteers detected 54 owls of four species on 19 routes (Table 1). Fifteen routes (79%) had at least one owl. In contrast to NB, far fewer Barred and Great Horned Owls were recorded in PE in 2002 compared with 2001, but there were *more* Northern Saw-whet Owls in 2002 (Figure 2). In NS, 76 volunteers detected an incredible 219 owls of 5 species on 44 routes (Table 1). Thirty-eight routes (86%) had at least one owl. In NL, 3 pilot survey routes were run (2 in Labrador, 1 in Newfoundland). Ten owls of three species were detected (3 Boreal Owls, 6 Great Horned Owls, and 1 Northern Saw-whet Owl).



Northern Saw-whet Owl by Denis Doucet

All four provinces follow the National Owl Monitoring Guidelines by including an initial 2-minute period of silent listening. This allows us to compare the number of owls detected during that initial 2-minute period across the country, or, in this case, across the Maritimes (there were not enough routes run in NL for comparison). By examining data from only the 2-minute silent listening period (Figure 3), we see that NS had the highest number of Barred Owls detected, followed by NB and PE. On the other hand, PE had the highest number of Northern Saw-whet and Boreal owls detected. The number of Barred Owls detected in NS (3.54/route in total, or 1.54/route in the first two minutes) was quite phenomenal, and it will be interesting to see if this trend continues in future years.

Figures 4-6 show the distribution of the most common owl species (Barred, Great Horned, Boreal and Northern Saw-whet) across routes in NB, PE and NS. In New Brunswick, Barred and Northern Saw-whet owls appeared to be distributed fairly evenly across the province, while Great Horned Owls were more prevalent in the south. In Prince Edward Island, most owl detections seemed to be concentrated in the eastern half of the island, although a large number of Boreal Owls (8) were found on a single route near West Point. In Nova Scotia, Barred, Great Horned and Northern Saw-whet owls were distributed across the province, and Boreal Owls were found on only a single route on the Chignecto Isthmus, near the NB border.

“Owl”ther Accomplishments in 2002

Data entry in 2002 was facilitated by scannable data forms that were sent to BSC’s Ontario headquarters for scanning and entry into a new Microsoft Access database that is now compatible with the developing National Owl Database. This database allows comparison of owl survey results from the 2-minute silent listening period from across North America, and may eventually facilitate online data entry for the various owl surveys across Canada.

Georeferencing of all New Brunswick surveys (10 stops/survey) is nearing completion, and all NS routes have been georeferenced. The NB Department of Natural Resources is beginning a habitat



analysis of NB owl survey routes, to determine whether or not they are representative of the habitat as a whole throughout the province. This work is being coordinated by Scott Makepeace of the NB-DNRE, with cooperation by Bird Studies Canada, and should help us to determine whether data from the NB Nocturnal Owl survey can be used to understand differences in habitat between crown and private land in NB. Mike Russell, a student at the Centre of Geographic Sciences (COGS), is conducting a similar project involving NS survey routes, and also hopes to look at the impact of playback on owl detection, to see if the use of playback (which tends to draw owls in from their regular territories) compromises the ability of the survey to assess appropriate habitat.

Thanks Volunteers and Partners!

This survey could not succeed without the hard work and dedication of hundreds of volunteers across the region. They are: Jay Albert, Roger Albert, Rick Allen, Susan Amos, Terry Amos, Marc Arseneault, Andrea Ashton, Bon Balsler, Bon Balsler, Gregory Barr, Danielle Batstone, Todd Beach, Bruce Beaton, Kathy Beaton, John Belbin, Gilles Belliveau, Normand Belliveau, E. Ross Bernard, Joey Bernard, Laurel Bernard, Bill and Eileen Billington, Clare Birch, Charlane Bishop, Bob Blake, Jason Blanch, Sean Blaney, Doug Bliss, Sydney Bliss, Arnold Boer, Suzanne Borkowski, Robert Boucher, J. Denys Bourque, Valmond Bourque, Frank Branch, Clark Brander, Mark A. Brennan, Dave Brideau, Remi Brisson, Jim Brown, William Caissy, Donald Chamberlain, Michel Chiasson, David Christie, James Clifford, Jim Clifford, Kim Cole, Jean-Marc Cormier, Jeff Cosgrove, Peter Cote, Brian Cowan, Carolann Crowther, Dan Crowther, Rosemary Curley, Graham Currier, Joan Czapalay, Jean Claude Daigle, Renée Daigle, Tracey Dean, Hank Deichmann, Joanne Deichmann, Reg Delorey, Randy Dibblee, Danny Donovan, Standston Donovan, Sheena and Trent Dougan Mosher, Irene Doyle, Blake Dressler, Carman Dubé, Tom Duffy, Roger Dumaresq, Ladd Dunfield, Jim and Betty Evans, Marcie Eynon, Margaret Flynn, Sylvia Fullerton, Margaret Gallant Doyle, Beth Flanigan, Gwen Geikie, Stephen Geikie, Derek Geldart, Jacklyn Geldart, Daniel Genesi, Ian Giberson, Ruth Giberson, Don Gibson, Gilles Godin, James Goltz, May Goring, Jean-Sébastien Guénette, Sandra Gulliver, Thomas Gulliver, Ross Hall, Jason Hallett, Gerald Hallihan, Richard Hamilton, John Hanson, Brian Hatch, Grant Hayden, Don Henry, Ellen Higgins, Verna Higgins, James Hirtle, Michael Hollins, Denise Honeyman, Kelly Honeyman, Jeff Hoyt, Karen Hudson, Marven A. Hudson, Anne Hughes, Eric Inch, Bradley Isles, Zabrina Isles, Lucy Jenkins, Roger Jenkins, Greg Johnson, Mary Johnson, Joe Kennedy, Susan Kennific, Leslie Klapstein, Marina LaBlanc, Mark LaForest, Oona Landry, Rosita Lanteigne, Charlotte LaPointe, Roy LaPointe, Randy Lauff, Isabelle Laurion, Fulton Lavender, Jack Lavender, Mike LeBlanc, Oscar LeBlanc, Peter LeBlanc, Roger Leblanc, Marsha Lemos, Lorraine Lester, Pierre Levesque, Paul Linegar, Mike Lushington, Gerald MacDonald, Monica MacDonald, Paul MacDonald, Daniel MacDougall, Gerald MacDougall, Rosie MacFarlane, Andrew MacInnis, Ken Macintosh, Fred MacKenzie, Paul MacKinnon, Stacy MacKinnon, Trevor MacKinnon, Wade MacKinnon, Carmen MacKnight, Angus MacLean, David MacNearney, Kathleen MacNearney, Mary Majka, Colleen Martin, Donna Martin, Shirley Martin, Bruce Matson, Chris McCarthy, Barry McClatchey, Bob McDonald, Dorothy McFarlane, Murray McFarlane, Greg McGuire, Ken McKenna, Don McLaughlin, Patrick McLaughlin, Alan McLennan, Dave McLeod, Karen Mifflin-Pierce, Gary Moore, Trent Mosher, Kerstin Mueller, David Myles, Bill Nelson, Charles Neveu, Dwaine Oakley, Rod O'Connell, Maureen Ohara Cowan, Peter Papoulidis, Julie Paquet, Tom Pettigrew, Nelson Poirier, Paul Porter, Brad Potter, Mark Pulsifer, Mike Rae, David Ramey, Linda Ramey, Frank Randall, Joyce Regan, Robert Reid, Francois Richard, Jacques Richard, Phil Riebel, Glenn K. Roberts, Ben Robertson, Sharon Robertson, Gérard Robichaud, Thelma and Eldon Rogers, Mike Russell, John Thomas, Juanita Thomas, Solanae Roy-Thompson, Dwayne and Mary Sabine, Daniel Sauvé, Susan Saville, Gary Schneider, Marco Scichilone, Isabelle Schmelzer, David Seeler, Gary Selig, Rosalyn Sellick, Inuk



Simard, George Sinclair, David Sisk, Debbie Sisk, Angela Slaunwhite, Art Smith, Bruce Smith, Chad Smith, Dave & Cathy Smith, Chris Somers, Sandra Soucy, Kathleen, Cindy and Sapphire Spicer, Richard Stern, Andrew Stewart, Harold Stewart, Larry Sweet, Angela Thibodeau, Georgette Thibodeau, Alicia Thompson, Hugh Thompson, Stuart Tingley, Grazyna Tokarczyk, Ryzard Tokarczyk, Mike Turnbull, Anne Turner, Robert Walsh, Greg Watling, Jane Watters, Murray Watters, Pam Watters, Jane Watts, Janet Whitehead, Becky Whittam, Jean Wilson, Jim Wilson.

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Table 1. Total number of owls detected, number of routes on which owls were detected, and average number of owls detected per route in New Brunswick, Prince Edward Island and mainland Nova Scotia in 2002. The number of routes run in each province are given in brackets. These numbers do not account for differences in the survey protocol between NB & PE and mainland NS.

Species ¹	New Brunswick (89)			Prince Edward Island (19)			Mainland Nova Scotia (44)		
	Total Owls	Detected on # of Routes	Owls/Route	Total Owls	Detected on # of Routes	Owls/Route	Total Owls	Detected on # of Routes	Owls/Route
BARR	161	59	1.83	16	8	0.84	156	34	3.54
BOOW	8	5	0.09	10	2	0.53	2	1	0.05
NSWO	40	27	0.45	23	11	1.21	33	17	0.75
GHOW	36	23	0.41	4	3	0.21	20	14	0.45
LEOW	0	0	0	0	0	0	1	1	0.02
UNOW	13	10	0.15	1	1	0.05	7	4	0.16

¹ BARR = Barred Owl, BOOW = Boreal Owl, NSWO = Northern Saw-whet Owl, GHOW = Great Horned Owl, LEOW = Long-eared Owl, UNOW = Unknown Owl.



Great Horned Owl by Denis Doucet



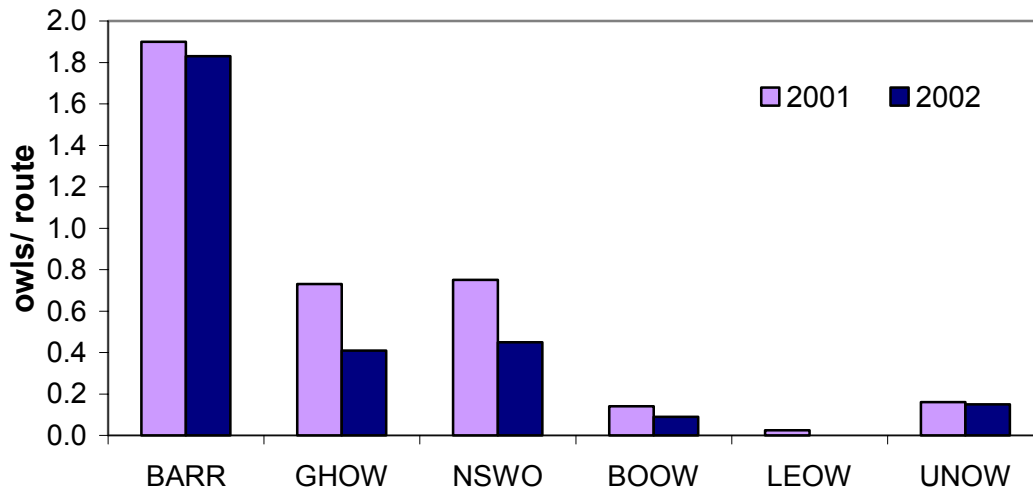


Figure 1. Number of owls of each species detected per route in New Brunswick in 2001 and 2002. Species codes are given in Table 1.

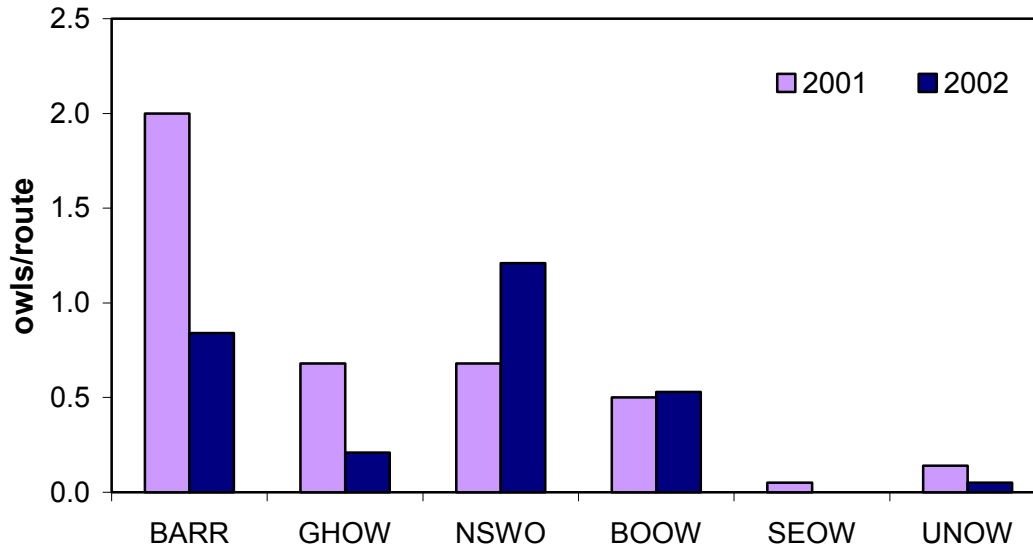


Figure 2. Number of owls of each species detected per route in Prince Edward Island in 2001 and 2002. Species codes are given in Table 1. SEOW = Short-eared Owl.

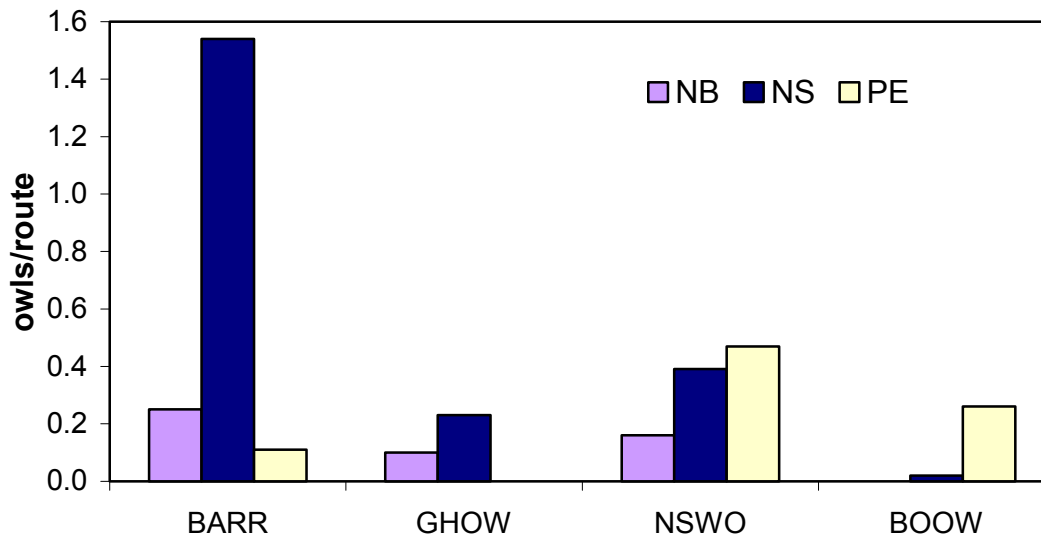


Figure 3. Number of owls detected per route in the 2-minute silent listening period in New Brunswick, mainland Nova Scotia and Prince Edward Island in 2002. Species codes are given in Table 1.



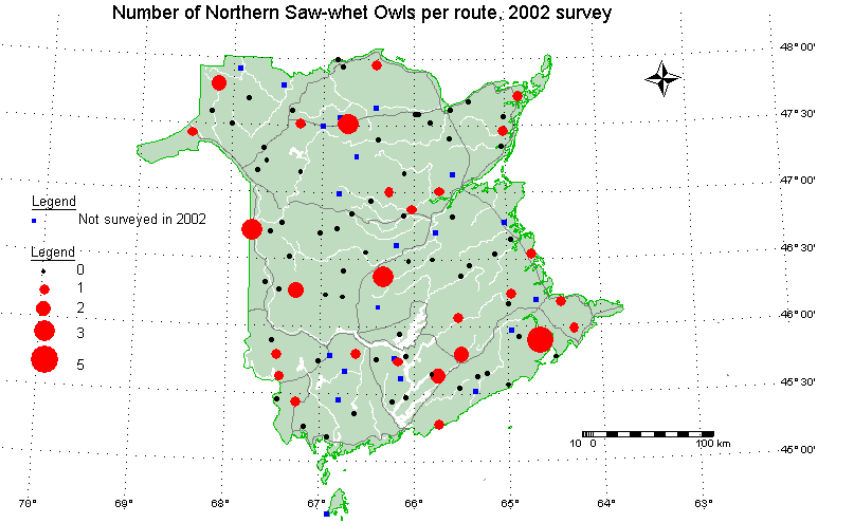
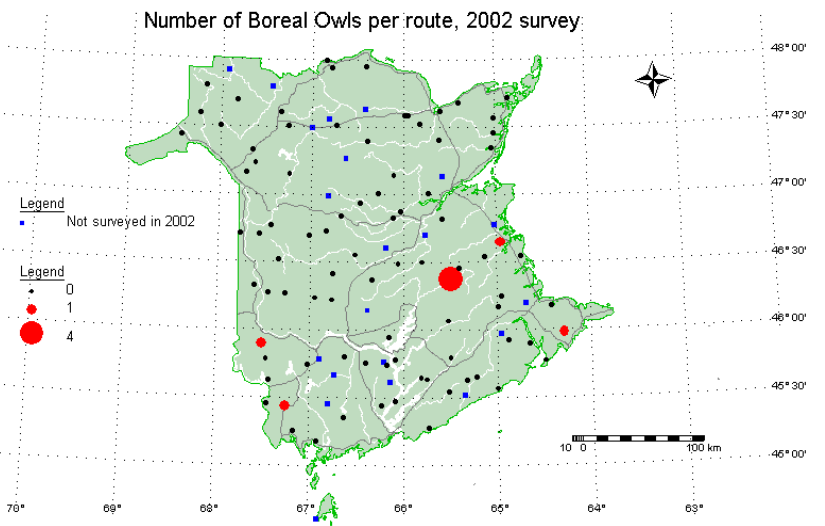
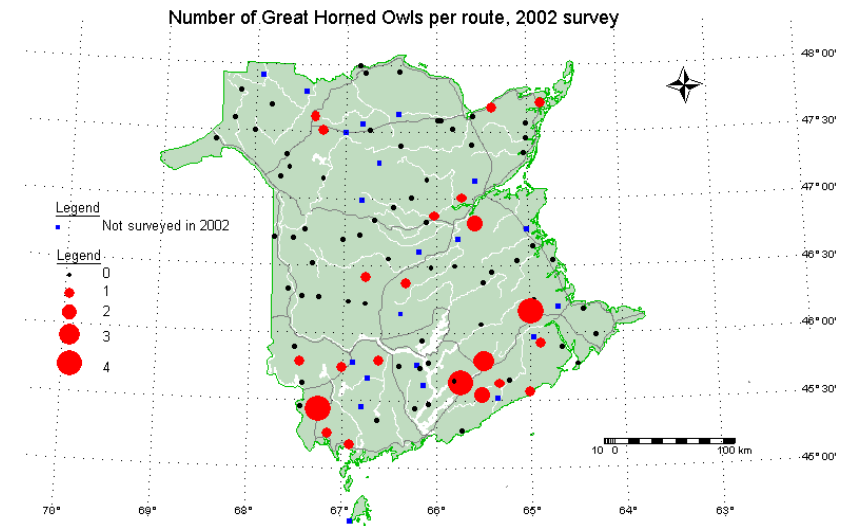
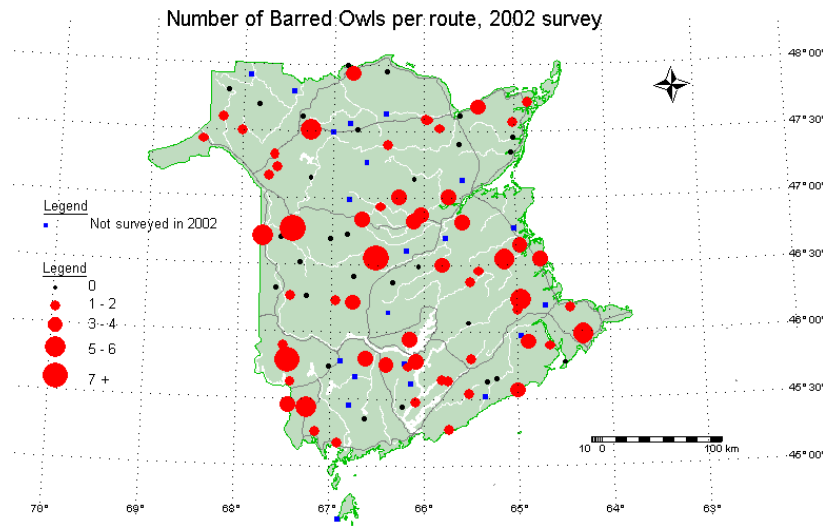


Figure 4 (a-d). Distribution of owl species in New Brunswick in 2002.



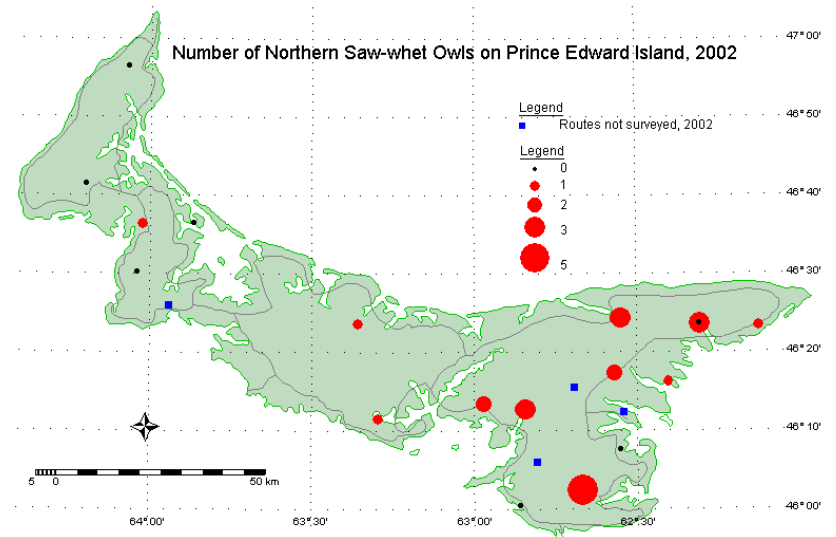
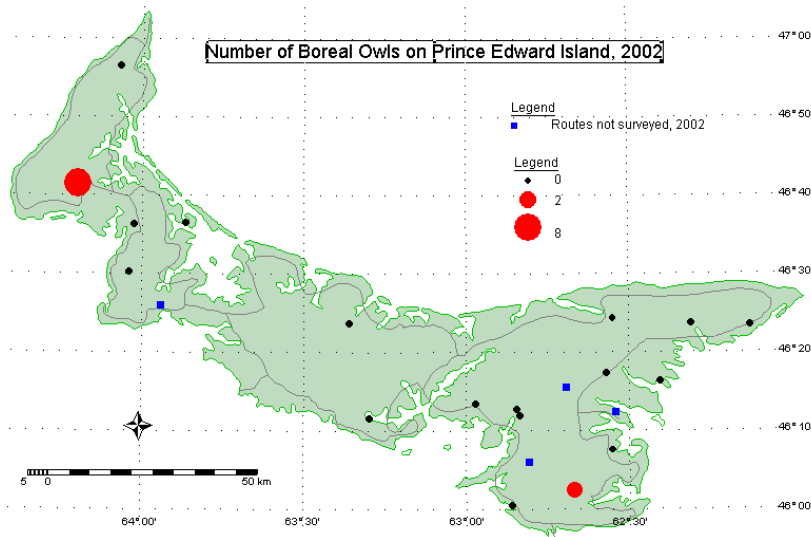
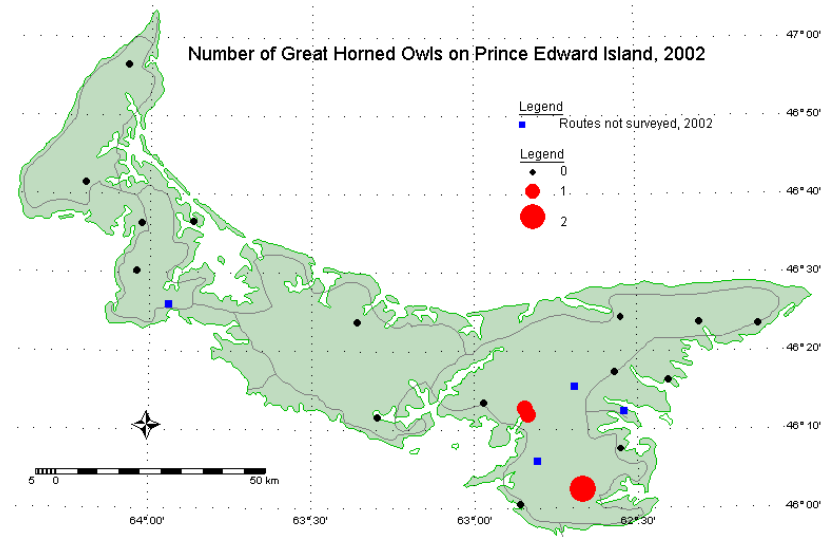
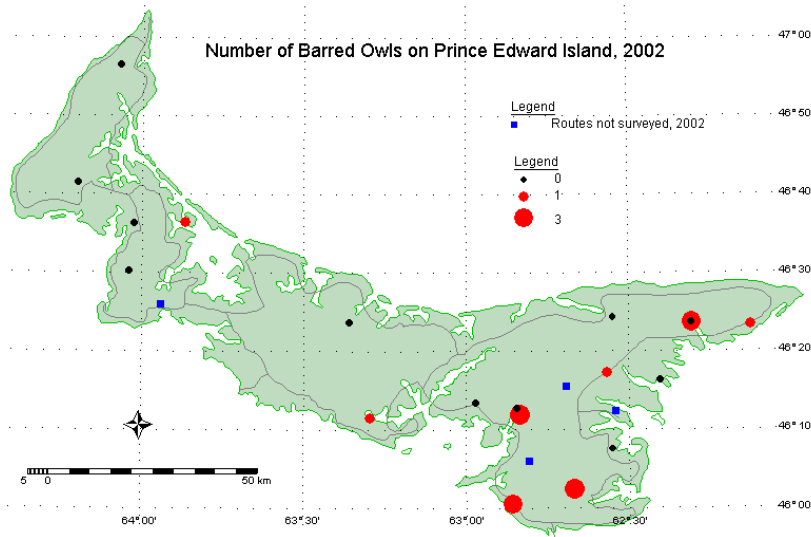


Figure 5 (a-d). Distribution of owl species in Prince Edward Island in 2002.



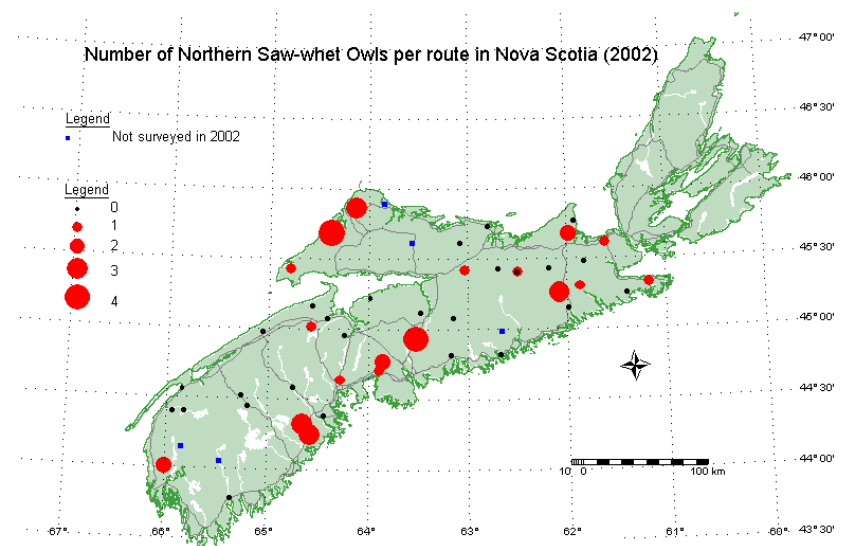
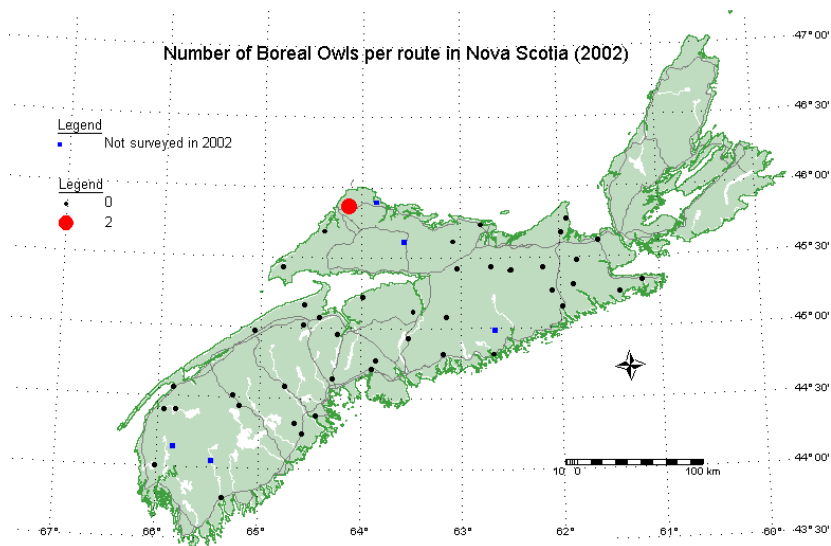
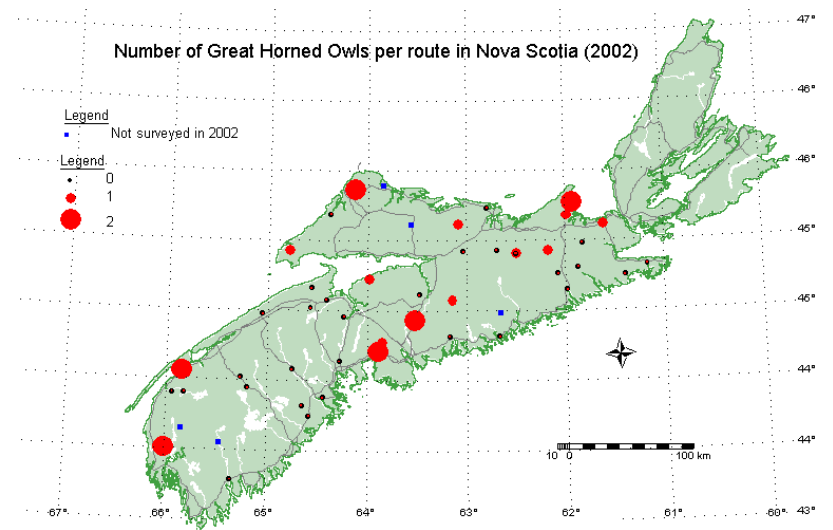
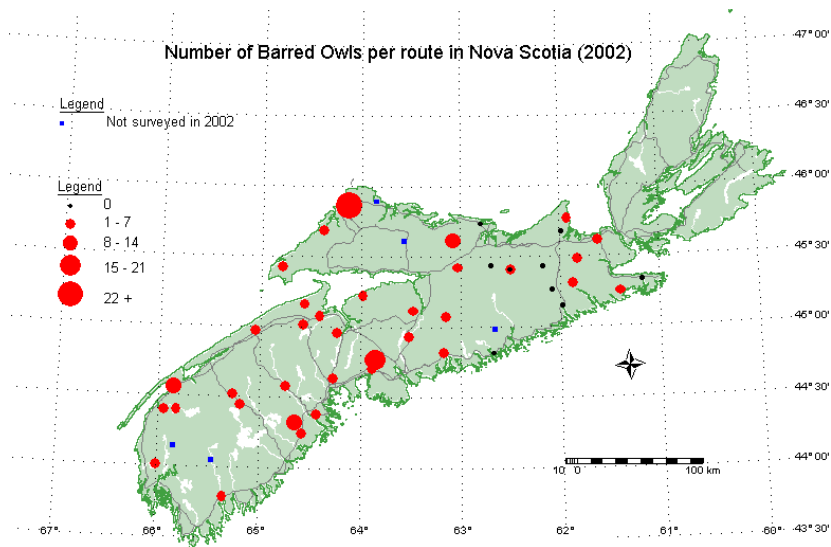


Figure 6 (a-d). Distribution of owl species in mainland Nova Scotia in 2002.



Appendix 1. Route number, location of starting point and number of owls detected for all New Brunswick survey routes in 2002. Rows without data indicate routes that were not run or routes for which data could not be included. Species codes are given in Table 1.

ROUTE	latitude	longitude	BARR	BOOW	GHOW	NSWO	LEOW	UNOW
1	45.44894	-67.4424	4	0	0	0	0	0
2	45.42403	-67.2525	5	1	4	1	0	2
3	45.76347	-67.4709	7	0	1	1	0	0
4	45.62125	-67.4298	1	0	0	1	0	0
5	46.26414	-67.4476	1	0	0	0	0	0
6	46.25792	-67.2644	0	0	0	2	0	0
7	46.69828	-67.5548	0	0	0	0	0	0
8	46.51086	-67.347	0	0	0	0	0	0
9	47.15542	-67.7088	1	0	0	0	0	0
10	47.14494	-67.2428	0	0	0	0	0	0
11	47.50342	-67.2557	5	0	1	1	0	0
12	47.60472	-67.3443	0	0	1	0	0	0
13	47.58686	-68.2284	1	0	0	0	0	0
14	47.42175	-68.4376	2	0	0	1	0	0
15	47.99183	-66.8513	0	0	0	0	0	0
16	47.50717	-66.7308						
17	46.93119	-66.4709	0	0	0	3	0	0
18	46.982	-66.813						
19	46.93119	-66.4709	2	0	0	0	0	1
20	46.72017	-66.834	0	0	0	0	0	0
21	46.83775	-66.6755	4	0	0	0	0	0
22	46.21478	-66.7699	3	0	0	0	0	0
23	46.229	-66.9527	1	0	0	0	0	0
24	45.78567	-67.1605	0	0	1	0	0	0
25	45.66019	-66.7363						
26	45.77383	-66.8996						
27	45.44768	-66.7961						
28	45.17017	-66.9206	2	0	1	0	0	0
29	44.60088	-66.9054						
30	45.47067	-66.0889	2	0	0	0	0	0
31	45.43381	-66.2357	0	0	0	0	0	0
32	45.73353	-66.1745	1	0	0	1	0	0
33	45.94036	-66.1557	4	0	0	0	0	0
34	46.36592	-66.3328	0	0	1	2	0	0
35	46.4805	-66.0595	0	0	0	0	0	0
36	46.86875	-66.0269	3	0	1	1	0	1
37	46.82272	-66.1136	3	0	0	0	0	0
38	47.00164	-66.2731	3	0	0	1	0	0
39	47.39244	-66.3967	1	0	0	0	0	0
40	47.58033	-65.9509	2	0	0	0	0	0
41	47.58183	-65.9834	1	0	0	0	0	0
42	47.93056	-66.7908	4	0	0	0	0	2
43	47.94575	-66.4099	0	0	0	1	0	0
44	47.60894	-65.6025	0	0	0	0	0	0
45	47.51689	-65.8241	1	0	0	0	0	0
46	47.00311	-65.7297	4	0	1	1	0	0
47	47.13231	-65.5829						
48	46.68257	-65.7146						
49	46.81192	-65.5839	3	0	2	0	0	0
50	46.49381	-65.802	3	0	0	0	0	0
51	46.05914	-65.5237	0	0	0	1	0	1
52	45.64439	-65.2192	0	0	0	0	0	0
53	45.62778	-65.7457	1	0	4	2	0	1
54	45.63703	-65.8118	1	0	0	0	0	0
55	45.62223	-65.3278	0	0	1	0	0	0



56	45.26831	-65.7342	2	0	0	1	0	0
57	45.5345	-65.519	1	0	2	0	0	0
58	45.91942	-64.8822	4	0	1	0	0	0
59	45.96233	-64.9593						
60	46.23133	-64.9626	5	0	0	1	0	0
61	46.15819	-64.9914	1	0	4	0	0	0
62	46.18711	-64.6909						
63	46.53564	-64.7351	3	0	0	1	0	0
64	46.53508	-65.1274	5	0	0	0	0	0
65	47.3385	-65.0423	0	0	0	0	0	0
66	47.44978	-65.0209	0	0	0	1	0	0
67	47.56283	-65.0144	1	0	0	0	0	0
68	45.76489	-64.491	0	0	0	0	0	0
69	45.97733	-64.2931	5	1	0	1	0	0
70	46.17056	-64.4244	2	0	0	1	0	0
71	47.68806	-67.8239	0	0	0	0	0	0
72	47.79303	-68.168	0	0	0	2	0	0
73	47.14017	-66.1068	0	0	0	0	0	0
74	45.37486	-66.7131	0	0	0	0	0	0
75	46.36803	-65.4987	2	4	0	0	0	0
76	46.13147	-65.5239	1	0	0	0	0	0
77	47.39981	-65.6155	0	0	0	0	0	0
78	45.79808	-66.6263	4	0	1	1	0	0
79	46.31544	-67.6	0	0	0	0	0	0
80	45.77508	-66.0895	4	0	0	0	0	0
81	45.78889	-65.4965	2	0	3	2	0	0
82	45.88908	-64.6551	1	0	0	5	0	0
83	47.31808	-67.6491	2	0	0	0	0	2
84	46.64225	-64.9584	2	1	0	0	0	0
85	47.67717	-65.3959	3	0	1	0	0	0
86	47.71153	-64.8536	1	0	1	1	0	0
87	46.70361	-67.7594	5	0	0	3	0	0
88	45.75667	-66.2063						
89	45.74732	-66.4051	4	0	0	0	0	0
90	45.61053	-66.1437						
91	45.5615	-65.0048	4	0	1	0	0	0
92	46.76814	-65.0166						
93	47.91221	-67.9266						
94	47.49447	-68.0109	1	0	0	0	0	0
95	47.78997	-67.4414						
96	47.22306	-67.617	2	0	0	0	0	1
97	46.76166	-67.4323	7	0	0	0	0	0
98	46.4099	-66.7635	0	0	1	0	0	0
99	46.54772	-66.5249	7	0	0	0	0	0
100	47.25979	-66.6301						
101	47.5569	-66.815						
102	47.62697	-66.4139						
103	46.59844	-66.1917						
104	46.13871	-66.3876						
105	45.51138	-65.3507						
106	46.4484	-65.4043						
107	47.16907	-65.8618	0	0	1	0	0	0
108	46.68802	-67.0188	0	0	0	0	0	1
109	45.88925	-67.5142	2	1	0	0	0	1
110	45.25011	-67.1581	2	0	1	0	0	0



Appendix 2. Route number, location of starting point and number of owls detected for all mainland Nova Scotia survey routes in 2002. Rows without data indicate routes that were not run or routes for which data could not be included. Species codes are given in Table 1.

<i>route</i>	<i>latitude</i>	<i>longitude</i>	<i>BARR</i>	<i>BOOW</i>	<i>GHOW</i>	<i>NSWO</i>	<i>LEOW</i>	<i>UNOW</i>
1	-62.7948	45.7274	0	0	0	0	0	0
2	-61.9838	45.6719	0	0	0	0	0	0
3	-61.9264	45.7628	3	0	2	0	0	0
4	-62.7000	45.4268	0	0	0	0	0	0
5	-62.1779	45.4227	0	0	1	0	0	0
6	-61.8283	45.4727	2	0	0	0	0	0
7	-61.6131	45.6079	1	0	1	1	0	3
8	-61.1740	45.3174	0	0	0	1	0	0
9	-61.4000	45.2435	1	0	0	0	0	0
10	-61.8723	45.3000	1	0	0	1	0	0
11	-62.0787	45.2548	0	0	0	3	0	0
12	-61.9827	45.1425	0	0	0	0	0	0
13	-62.4962	45.4034	4	0	1	1	0	0
14	-62.5041	45.4016	0	0	0	0	0	0
15	-63.0824	45.6092	9	0	1	0	0	0
16	-63.0368	45.4167	1	0	0	1	0	0
17	-63.4813	45.1103	1	0	0	0	0	0
18	-62.6658	44.9781						
19	-62.6740	44.8107	0	0	0	0	0	0
20	-63.1767	44.8107	2	0	0	0	0	0
21	-63.1497	45.0707	1	0	1	0	0	0
22	-63.8488	45.8876						
23	-63.5669	45.6059						
24	-64.7895	45.4228	0	0	1	1	0	0
25	-64.1330	45.8614	28	2	2	3	0	2
26	-64.3806	45.6806	5	0	0	4	0	0
27	-63.8947	44.7024	3	0	2	1	0	0
28	-63.8561	44.7649	15	0	1	2	0	0
29	-63.5263	44.9255	5	0	2	4	0	0
30	-63.9855	45.2168	5	0	1	0	0	0
31	-64.4174	45.0692	1	0	0	0	0	0
32	-64.2391	44.9527	3	0	0	0	1	0
33	-64.2817	44.6329	4	0	0	1	0	0
34	-64.5822	44.2401	7	0	0	3	0	0
35	-64.6526	44.3165	11	0	0	3	0	0
36	-64.7518	44.5740	4	0	0	0	0	0
37	-64.5780	45.0111	3	0	0	1	0	0
38	-64.5683	45.1562	3	0	0	0	0	0
39	-65.0575	44.9666	1	0	0	0	0	0
40	-65.2669	44.5115	7	0	0	0	0	0
41	-65.1961	44.4364	2	0	0	0	0	0
42	-65.4656	44.0431						
43	-65.3491	43.7837	1	0	0	0	0	0
44	-66.0072	44.0000	4	0	2	2	0	1
45	-65.8398	44.1389						
46	-65.8231	44.3976	3	0	0	0	0	0
47	-65.8504	44.5531	9	0	2	0	0	1
48	-65.9413	44.3930	5	0	0	0	0	0
49	-64.4427	44.3737	1	0	0	0	0	0



Appendix 3. Route number, location of starting point and number of owls detected for all Prince Edward Island survey routes in 2002. Rows without data indicate routes that were not run or routes for which data could not be included. Species codes are given in Table 1.

<i>route</i>	<i>latitude</i>	<i>longitude</i>	<i>BARR</i>	<i>BOOW</i>	<i>GHOW</i>	<i>NSWO</i>	<i>UNOW</i>
1	46.939643	-64.0695	0	0	0	0	0
3	46.603611	-64.0236	0	0	0	1	0
4	46.6895	-64.2011	0	8	0	0	0
5	46.606056	-63.866	1	0	0	0	0
6	46.501833	-64.0385	0	0	0	0	0
7	46.430900	-63.9406					
8	46.388111	-62.1252	1	0	0	1	0
9	46.392028	-62.3063	3	0	0	3	0
10	46.392028	-62.3063	0	0	0	0	0
11	46.269250	-62.404	0	0	0	1	1
12	46.403444	-62.5491	0	0	0	3	0
13	46.286333	-62.5677	1	0	0	2	0
14	46.124417	-62.5508	0	0	0	0	0
15	46.098000	-62.8062					
16	46.190472	-63.2959	1	0	0	1	0
17	46.392083	-63.3578	0	0	0	1	0
18	46.197361	-62.8362	3	0	1	0	0
19	46.007100	-62.8582	3	0	0	0	0
20	46.257300	-62.6928					
21	46.222667	-62.9701	0	0	0	2	0
22	46.038917	-62.6691	3	2	2	5	0
23	46.203800	-62.5404					
24	46.210000	-62.8442	0	0	1	3	0



Great Horned Owl by Denis Doucet

