BBS CANADA

A Newsletter for Cooperators in the Breeding Bird Survey of Canada

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Canadian Wildlife Service, National Wildlife Research Centre, Gatineau, Québec K1A 0H3

WINTER 2002

Dear BBS Participants,

heck out our new revamped websites!! Both the USGS North
American BBS website and the CWS BBS site have been updated and include some new features.

A new data entry system and electronic database for stop descriptions (both written descriptions and a lat/long coordinate) is now available on the USGS website (see article). Work is underway to develop a system where observers can download stop location data directly from their GPS unit into the website database without having to re-type the information. Guidelines for collecting GPS locations for stops have been developed and are available on the web.

This year, at long last, the French language versions of the data entry program and data retrieval programs are available on the USGS website. Despite rigorous error testing there will

likely be the inevitable problems and inaccuracies in this first year. If you encounter any while you are using the system please send them along!

In CWS office news, Bev McBride, who has been with the BBS office for the last six years, spent the winter working as the CWS Bird Banding Biologist. We hope to lure her back to the BBS fold in April but meanwhile we struggle along without her expert and efficient help!

Best wishes for the upcoming BBS season!

Connie Downes

Breeding Bird Survey Coordinator National Wildlife Research Centre Canadian Wildlife Service 100 Blvd. Gamelin, Gatineau, QC K1A 0H3

phone: (819) 953-1425 fax: (819) 953-6612

email: Connie.Downes@ec.gc.ca

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Breeding Bird Survey Trends (1967-2000)

n this article we present trends for birds grouped by geographic region (Canada and Bird Conservation Region), by migratory pattern and by habitat use using data from 1967-2000. Some trends are not statistically significant, meaning that there was no consistent change in population. In the tables below, those trends that are statistically significant are marked as such. A more detailed analysis of these results will be published in the CWS Progress Note series (available on request to C.Downes).

Species were subdivided by migratory pattern and by habitat use in order to examine whether particular groups stood out as having major declines or increases over the entire period of the BBS. Consistent with results from the last several years, the grassland birds once again showed the largest and most persistent declines. Grassland birds showed statistically significant declines in Canada and in every Bird Conservation Region (BCR) except the Boreal Softwood Shield (where there are few grassland species). Trends for forest birds were not statistically significant in most of the BCRs except for a decline in the Great Basin (southern B.C.) and an

increase in the Boreal Taiga Plains. The overall trend for forest birds in Canada showed no change. Trends in scrubland birds varied, with significant declines and increases in each of two BCRs. The overall trend for scrubland birds in Canada was not significant. Urban birds declined in Canada but results for individual BCRs were not significant. Neotropical and temperate migrants both showed significant declines in Canada overall, while the trend for resident species was not significant.

Individual species with statistically significantly declines (p<0.15) over the entire survey period are shown in Table 2, grouped according to the persistence of the decline in the most recent three decades. The same information is shown for significantly increasing species in Table 3.

Table 1. Mean annual percent change for species grouped according to habitat use and migration pattern^a. Trends were calculated over the entire period of the survey. The symbol "s" denotes a trend significant at $P \le 0.15$

Geographic Area		Habita	t Group		Migration Group			
	Grass	Forest	Scrub	Urban	Neotropical	Temperate	Resident	
Canada ^b	-1.8 ^s	0.0	-0.2	-0.8 ^s	-0.4 ^s	-0.6 ^s	-0.2	
Bird Conservation Region ^b								
Northwestern Interior Forest	-16.2 ^s	2.6	3.5 ^s	0.5	0.1	3.0 ^s	-0.4	
Northern Pacific Rainforest	-3.8 ^s	-1.0	-0.9	-2.1	-0.9 ^s	-2.0 ^s	-0.6	
Boreal Taiga Plains	-1.5 ^s	1.2 ^s	-0.6	-1.2	8.0	-0.7	-0.8	
Boreal Softwood Shield	-5.1	0.7	-0.2	0.0	-0.3	0.1	2.6	
Great Basin	-2.2 ^s	-1.1 ^s	-1.0	-0.6	-1.4 ^s	-0.5	1.1	
Northern Rockies	1.5	-0.3	1.3 ^s	-0.9	-0.3	-0.4	1.0	
Prairie Potholes	-1.7 ^s	1.1	0.4	0.1	0.3	-0.7 ^s	-0.4	
Boreal Hardwood Transition	-2.5 ^s	-0.1	-1.1 ^s	-0.3	-0.8 ^s	-0.7 ^s	2.1 ^s	
Lower Great Lakes/St.	-1.8 ^s	1.4	0.3	-0.8	-0.5	-0.4	-0.7	
Lawrence Plain								
Atlantic Northern Forest	-2.1 ^s	-0.3	-1.0 ^s	-0.8	-0.8 ^s	-0.7 ^s	0.0	

^aSpecies assigned to habitat according to Peterjohn and Sauer (1993). A few additional species not covered by that paper were classified by the authors.

^b Trends are calculated for the period for 1969–2000, except for Canada and the Atlantic Northern Forest BCR (1967-2000), and for the Northwestern Interior Forest BCR (1986–2000).

Table 2. Species with significant declines over entire survey period, showing trends in each of the most recent three decades (sample size allowing).

				Decad	le Trends								
Species	1967-2		1971-1		1981-1		1991-2	000					
	Trend	P ^a	Trend	Р	Trend	Р	Trend	Р					
Consistently Negative													
Northern Harrier	-4.60	S	-0.90		-7.10	s	-2.90						
Lesser Yellowlegs	-7.20	S	-3.40		-15.30	S	-6.80						
Herring Gull	-1.90	S	-4.40		-4.40		-11.70						
Common Nighthawk	-7.40	S	-3.00		-4.20		-10.80						
Chimney Swift	-7.00	s	-6.80		-4.70		-7.50						
Olive-sided Flycatcher	-3.30	S	-3.80		-0.10		-3.20	S					
Eastern Wood-Pewee	-3.30	s	-5.00		-3.80		-5.50	s					
Veerv	-1.50	s	-0.40		-1.10	s	-2.10	s					
European Starling	-2.10	s	-1.90		-2.30		-0.90						
Sprague's Pipit	-3.50	s	-0.10		-5.90		-1.30						
Chestnut-sided Warbler	-1.60	s	-1.60		-1.10		-3.20	s					
Canada Warbler	-6.20	s	-0.80		-3.80		-2.40						
Chipping Sparrow	-1.00	s	-0.50		-0.60		-0.40						
Field Sparrow	-5.10	s	-3.90		-1.80		-8.80	S					
Eastern Meadowlark	-2.30	s	-2.10		-4.50	s	-1.70						
Western Meadowlark	-1.50	s	-1.70		-0.90		-1.90	s					
Rusty Blackbird	-14.70	s	-16.20	s	-11.70		-21.60						
Common Grackle	-1.80	s	-4.60	s	-3.10	s	-0.80						
Brown-headed Cowbird	-2.20	s	-0.30		-3.80	s	-4.30	s					
Purple Finch	-4.20	s	-2.10		-2.90		-6.10	s					
Pine Siskin	-2.60	s	-3.50		-1.20		-4.90	s					
Declining in most recent two deca	doe												
Killdeer	-1.80	s	2.10	s	-4.50	s	-1.60	s					
Spotted Sandpiper	-4.00	s	4.30	s	-1.00		-4.00	s					
Horned Lark	-3.30	s	1.80		-1.00		-4.00 -11.10	s					
Bank Swallow	-6.30	s	3.80		-0.70		-7.10	s					
Barn Swallow	-0.30 -2.80	s	0.90		-0.70 -4.10	s	-7.10 -5.10	s					
Swainson's Thrush	-2.80 -0.50	s	2.30	s	-4.10 -1.30		-5.10 -1.20	s					
Connecticut Warbler	-0.50 -8.90	s	2.30		-1.30 -7.90	s	-1.20 -6.70						
	-0.90 -2.00	s	3.50		-7.90 -5.60		-8.80	s					
Chestnut-collared Longspur		s		s		s		s					
Bobolink Bod winged Blockbird	-2.80 -1.00	s	2.50		-7.40 2.00	s	-4.30 1.20						
Red-winged Blackbird		s	1.90	S	-3.00		-1.20	s					
Pine Grosbeak	-8.50		2.90		-10.00		-14.30						
Declining in most recent decade				s									
Black Tern	-4.90	s	-6.50	5	8.40		-7.90	-					
Western Wood-Pewee	-2.70	s	-0.70		4.40	s	-4.20	s					
Cassin's Vireo	-1.70	S	-2.20		4.70		-5.80	s					
Gray Jay	-3.40	S	-3.50		0.20		-7.80	S					
Baird's Sparrow	-4.20	S	-4.40		2.90		-9.20	s					
Song Sparrow	-0.90	s	-2.80	S	0.30		-0.60						

^a Statistical significance: ^s indicates P < 0.15

Table 3. Species with significant or near-significant increases over entire survey period, showing trends in each of the most recent three decades (sample size allowing).

	Decade Trends								
	1967- 2	2000	1971-	980	1980-19	1980-1991		1991- 2000	
	Trend	P ^a	Trend	Р	Trend	Р	Trend	Р	
Consistently positive									
Canada Goose	12.40	S	12.90	s	7.30		9.70	S	
Downy Woodpecker	3.40	S	9.80	s	0.80		4.70	S	
Warbling Vireo	1.20	s	3.00	s	3.00	s	0.90		
Red-eyed Vireo	1.30	s	1.70		1.90	s	2.20	s	
Common Raven	3.60	s	6.20	s	1.00		0.50		
Black-capped Chickadee	3.00	s	1.00		4.60	s	3.70	s	
American Robin	0.90	S	0.50		1.30	S	0.80	S	
Magnolia Warbler	1.60	s	1.00		1.30		2.70	s	
Blackburnian Warbler	2.80	S	4.80		2.00		0.20		

Table cont'd

	Decade Trends								
	1967-	2000	1971- 980 1980-			-1991 1991- 200			
	Trend	P^a	Trend	Р	Trend	Р	Trend	Р	
Increasing in most recent two de	cades								
Ring-necked Duck	3.50	s	-4.00		3.30		3.60		
Ruddy Duck	3.00	S	-1.10		4.70		2.90		
Red-tailed Hawk	2.60	S	-5.10	S	1.40		1.50		
Blue Jay	1.80	S	-1.80		1.20		4.50	s	
Cape May Warbler	2.80	S	-9.50		0.40		8.40	s	
Western Tanager	1.60	S	-3.30		5.00		2.30		
Increasing in most recent decade	9								
Broad-winged Hawk	3.90	S	8.70		-6.50		7.20		
Mourning Dove	3.40	s	5.20	s	-0.80		2.60	S	
American Crow	0.70	S	0.70		-0.90		3.00	S	
Sedge Wren	8.20	S	-9.50	S	-7.40		12.10	S	
Marsh Wren	5.70	S	18.70	S	-7.20	S	3.80		
Nashville Warbler	1.20	S	-1.30		-0.70		1.00		
Cape May Warbler	2.80	S	-9.50		0.40		8.40	s	
Yellow-rumped Warbler	1.20	S	5.60	S	-0.30		0.50		
Apparent levelling off (negative t	rend in mos	t recen	t decade)						
Red-breasted Nuthatch	0.80	s	3.90		10.20	s	-4.80	S	
Black-and-white Warbler	2.50	S	0.80		4.50	S	-0.10		

^a Statistical significance: ^s indicates P < 0.15

STOP LOCATION DATABASE

since 1997 we've been storing bird data at the stop level, leaving many people asking, "When will we know exactly where these birds were detected? Where is the stop located?" With your help and the use of a Global Positioning System (GPS), we will soon have the answer to these questions. On the BBS web site we now have a program that will allow you to input the geographic coordinates of each stop on your route along with written stop descriptions. This information will then be stored in the BBS database. Follow the "Data Entry" link on the BBS web site to the "Stop Location Data" link to enter your stop location latitude and longitudes. Instructions for entering these data are also available at this site

Why go to this extra trouble? Well hopefully, it won't be much trouble especially if you already have a GPS unit and are familiar with how to use it. In fact, we have had numerous BBS participants write to us telling how easy it is to navigate to their stops using a GPS unit. This is especially true for routes in areas of the country with few landmarks. Additionally, it will give natural resource managers and researchers the information needed to explore other analyses of BBS data. For example, once the stop locations are georeferenced they can be grouped by habitat type using satellite data (i.e., MLRC) and then be used for generating trend estimates for species in specific habitats, instead of just for political units or broad physiographic regions. This information can also be helpful in answering other questions regarding the validity of BBS results. For example, to what extent is the habitat sampled by BBS routes representative of habitats at broader geographic scales? And, does habitat along BBS routes change at different rates than offroad? Again, knowing the locations of BBS stops will allow the use of remotely sensed habitat data to answer these questions.

-Excerpt from U.S. Memorandum to BBS Observers

WEST NILE VIRUS

lot of media attention in recent months, and is a new factor to consider for those of us who spend time in the field in summer. The following link from Health Canada gives a good review of the facts and current situation of the virus in North America, and particularly in Canada.

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(reprinted from the 2001 Ontario Forest Bird Monitoring Program Newsletter)

MURRAY SPEIRS 1909-2001

saddened to learn of the death of Murray Speirs in September of last year at the age of 92. Murray was a long-time participant in the Breeding Bird Survey, running some 63 routes over a period of 16 years and acting as the BBS coordinator in Ontario during the years 1972 to 1989. Tony Erskine, the national BBS coordinator



Photograph taken by Phill Holden in 1985

for many years, recalls that Murray went beyond the "normal" role of a provincial coordinator, in that for up to 10 years he paid expenses and honoraria, out of his own funds, to get various routes run in the northern hinterland of Ontario. "I don't know how many people were involved, or if anyone else knew of it." said Tony. "Murray did what he thought was necessary to get the job done, quietly and effectively."

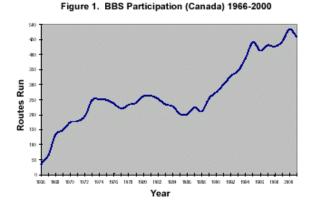
Murray began his Port Bolster, Ontario, route in 1968 making him among the first Canadian participants of the BBS. He was unable to continue his routes from 1983 for various personal reasons until 1991, when his granddaughter, Margaret Wilson, who was also an enthusiastic birder, agreed to accompany him so he could return to his favourite northern routes of Foleyet and Timmins. Margaret was the observer and Murray was the assistant until 1994 when Murray decided perhaps it was too much travel for him at age 85.

An avid naturalist and environmentalist, Murray began birding at the age of 6 when he identified his first Ruby-crowned Kinglet. His many accomplishments included publishing two large volumes entitled "Birds of Ontario" in 1985. He was a cofounding member of the Pickering Naturalists and founding member of the Federation of Ontario Naturalists, editing their bulletin (the forerunner of Seasons magazine) from 1953 to 1961. He has written numerous articles, including the account of the Lincoln's Sparrow in Bent's "Life Histories of North American Birds" in 1968 co-authored with his wife, Doris Huestis Speirs, an eminent naturalist herself. In 1995, he donated 2.8 hectares of his own property to the Toronto Region Conservation Authority in order to protect a significant portion of the Altona Forest in Pickering. In 2000, he was awarded the Order of Canada for his life's work and was also the recipient of the Ontario Field Ornithologists Distinguished Ornithologist Award

Participation in 2001!

ince 1996 we have gradually increased BBS coverage each year (see Figure 1). Last year we passed the previous high water mark set in 1995 and again in 1999, with 484 routes run. This year the total is down slightly, but this may be because we have not yet received all of the routes. In fact, last year we had received only 455 by this time, which is, coincidentally, almost the same number we have so far received for 2001. Table 1 shows the number of BBS routes run in each province or territory since 1995.

Table 1. Number of routes run per province/territory											
Province or Territory	2001	2000	1999	1998	1997	1996					
Yukon	11	16	11	12	14	13					
Northwest Territories	6	5	5	4	2	1					
Nunavut	1										
British Columbia	75	72	68	62	60	60					
Alberta	90	90	84	85	83	78					
Saskatchewan	40	40	34	27	27	23					
Manitoba	48	47	38	45	46	42					
Ontario	81	88	90	83	84	96					
Québec	51	60	56	57	62	58					
New Brunswick	22	30	18	17	17	14					
Nova Scotia	25	28	29	26	28	23					
Prince Edward Island	3	3	3	2	2	2					
Newfoundland	9	5	8	7	6	3					
Total	459	484	444	427	431	413					



Field Notes

We always enjoy hearing of the non-avian sightings seen on your routes. In Alberta, **Kevin Wingert** on the Killam route "watched in amazement as two cow moose ran across an open field with five horses following in hot pursuit! The horses all stopped and starred intently into the willow patch next to the road after the moose disappeared into it. As if on cue, the coyotes started singing." Also in Alberta, **Beth MacCallum** (Whitehorse Creek) saw a cow moose with calf and later on noted three mule deer.

Along the shores of Lac Mégantic in Quebec, **Claude Roy** (Megantic) saw a hare making off with one or our survey subjects in its mouth - a Red-eyed Vireo! The hare dropped the vireo when Claude approached it, but the bird died shortly after.

Gerry Lunn, with son and daughter assisting, came across a 30-40 cm diameter Snapping Turtle which they "encouraged" off the road on their Goffs, Nova Scotia route.

Jim Wilson, in the 36th year of the Hampton, New Brunswick route was surprised to be adding new birds. An adult Bald Eagle which he feels may be new, and a male Gadwall. While, in BC, **Carolyn McGhee** detected new birds in her 27th year of running a BBS: Sandhill Cranes, a Great Blue Heron and a pair of sapsuckers.

As usual some observers encountered unanticipated problems along the way. This year's winner of the Red Green award goes to **Dan Mills** (Three Creeks, Alberta), who reported that they had a radiator hose leak develop half way through the run. A patch fashioned from the handyman's secret weapon, *duct tape* got them through the day and even to his fishing hole at the end of the route, where he reports he caught (and released) many fish. Dan also reports that he has never had so many vehicles stop to offer assistance – but only when the count was on.

On his Minto, NB route, **Scott Makepeace** decided he would skip stop 31 as he didn't want to interrupt the local fire department who were putting out a house fire!

People are not the only ones who dream of escaping to warmer climes! **Dave Wilderspin** reported very chilly conditions on his Norman Wells route – even frost and ice forming on the puddles. In a technological glitch, his GPS unit, which he was using to record the stop locations, showed the location at stop 50 to be on a Caribbean Island!!

BC's **Allen Poynter** declined to count the residents of a wildlife recovery centre located along his route, which would have netted him Trumpeter Swans, Peacocks and Great Horned Owls, all of which "were in full voice" as he passed.

Many participants commented on the weather this year, which reminded us of a quote from Mark Twain: "Everybody talks about the weather, but nobody does anything about it".

From Environment Canada

- Charlottetown, P.E.I. and Moncton N.B.: driest July and August on record;
- •Southern Ontario: driest eight weeks on record in the middle of the growing season;
- •Saskatoon: driest year since records began in 1892;
- •Lethbridge and Medicine Hat, Alberta: virtually no rain in August and a record-low precipitation during the growing season.

Coordinators Report from the Provinces and Territories

Northwest Territories and Nunavut

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Sometimes you have to wonder what you are missing on your BBS route when one loud and common species is so ubiquitous. The Tennessee Warbler continues to dominate on the NWT routes this year, with 129 being counted on the Fort Liard route and around that many on several other routes. At the stops where the birds are close, I can only differentiate about five in the 3 minutes. But where they are not so close, it is apparent that the ones farther away are being missed!

Compared to the last few years TEWA numbers continue to increase or stay at highs recorded on the BBS routes up north. Remember to only record those individuals that you can distinguish.

Two years ago a new Canadian Territory was created – Nunavut. This year its first BBS route was born! Michael Setterington is a keen avian biologist now living in Arviat, a few hundred kilometers north of Manitoba on Hudson Bay's west shore. His new route follows a quad track along the ocean, then inland through tundra, boulder fields and past lakes. Thanks to some 339 Snow Geese, the route turned up 857 birds of 28 species. Very impressive! Other common species were Long-tailed Duck, Lapland Longspur, Herring Gull, Savannah Sparrow, and Semipalmated Sandpiper. Less common were Dunlin, Parasitic Jaeger, and Snow Bunting. Perhaps as more ornithologists find their way to Nunavut and more areas are accessible, more routes will be made.

Seven routes were run in the NWT and Nunavut this year, edging our numbers up slightly. A route near Fort Simpson was resurrected after a nine-year hiatus. One route near Yellowknife was retired while the road is being rerouted. Thanks to **Bonnie Stout** for running two routes the last few years while doing research in the north. Your help will be missed!

- Craig Machtans

Yukon

2001 was another fine year for Alder Flycatcher on the Simpson Lake route (**Ted Murphy-Kelly**). The prize for number of species of Flycatcher (5 in total) goes to the Little Salmon River route (**Mary Whitley**). But if you want to include Say's Phoebe in your list, you will have to head west to the Klukshu and Jarvis River routes (**David Henry**). A lonely stretch of road in southern Yukon tops the list for number of species - 50 noted on the Jakes Corner route (**Pam Sinclair**). For those dedicated birders that have not yet submitted results for the 2001 BBS, we are all waiting with great anticipation.

- Wendy Nixon

British Columbia

A total of 77 routes were run in BC in 2001 and we have data in for 75 of them, another all time high, and up from 47 only a decade ago. **Madelon Schouten** again did six routes, adding the new Lower Nicola route to replace the Coquitlam route that had to be abandoned last year due to a dangerous level of traffic. **Krista de Groot** was a big factor in the increased coverage this year, completing five routes across the Chilcotin that either hadn't been done for years or never done at all. **Doug Leighton** is also to be commended for his total of four routes done in the Rocky Mountain Trench area.

We tallied a total of 208 species in British Columbia in 2001, down slightly from last year. American Robin was well out in front as usual with 4072 individuals heard on 2200 stops on all 75 routes; Swainson's Thrush was a distant second with 2614 individuals on 73 routes. This year Pine Siskin slipped ahead of European Starling for third spot in the individual totals with 1704, almost double their total of last year. Warbling Vireo was third in both number of counts (71) and stops (949).

Chris Siddle had the highest species total for any single route at Mabel Lake with 90 species, while Susan Walker was close behind at Grand Forks with 87 species. Susan is taking over the Grand Forks route from her father Ron, who ran it for many productive years. Thank you Ron! Thirty-three species were seen on only one route, with perhaps the most unusual sighting being a Northern Mockingbird spotted by Elsie Stanley in McBride.

- Dick Cannings

Alberta

Once again the observers in Alberta have come through with 90 routes completed, as was the case last year. The extreme dryness this summer prompted **Phil Horch** from Medicine Hat to write:

"The most unusual record for this year's survey was

the sighting of a Rock Wren. I believe this is a first for this route as there is no Rock Wren habitat on the route. However, because of this year's drought and the low water level on Forty Mile Reservoir, several feet of rip-rap have been exposed. It was among this rip-rap that I observed a Rock Wren hopping about at the base of the earth dam. It appears that this rip-rap is sufficiently identical to a cliff face that this bird decided to call it home. I have since learned that Rock Wrens have been found in similar locations among the rip-rap of Diefenbaker Dam in Saskatchewan.

The drought in this corner of the province is having a terrible impact on waterfowl breeding this year. Most sloughs, dugout and smaller reservoirs have dried up and waterfowl are becoming increasingly difficult to find across the southern prairies."

Don Watson also commented on the dryness this season along with more gas and oil well activity, possible reducing bird numbers. When compiling the results, it has been noticed that most of the routes run this year are down in numbers though the number of species remain much the same.

Barb Beck remarked on the extremely dry spring we had this year. The only advantage appears to have been total lack of mosquitoes and black flies. She wondered if fewer insects could have contributed to the smaller numbers of Ruby-Crowned Kinglets?

Our new observer from the Yukon Territories **Julie Lefebvre** had a wonderful time doing her two surveys and is looking forward to the Fall migration and the 2002 season.

Along the non-avian line, **Save Scobie** spotted a rattlesnake basking in the sun on his Steveville route in Southern Alberta; **Brenda Dobson** saw a Fisher, two Black Bears and a Moose on her mountain routes.

Sadly **Richard Troughton** has moved on to a new job in the USA. We also said good bye to **Lloyd Lohr** after 30 years of service, and to **Mark Oxamitny**, **Kevin Wingert** and **Bob Parsons**. Our thanks for you assistance for all your years of effort to this program.

Some observers are still having problems entering the BBS data over the internet, however, much less than last year. I hope they will persevere, the program is improved and getting easier.

Thanks to everyone who ran routes, your work is appreciated.

- Jack Park

Saskatchewan

The year 2001 was bittersweet. We were saddened to hear that **Robert Kreba**, who ran the Lumsden route for many years, passed away in early November. One of Saskatchewan's premier naturalists, and a mentor and friend to many, he will be greatly missed.

On the positive note Saskatchewan observers equalled last year's record of 40 routes run in a year. Numbers of some species of boreal forest birds were particularly high this year. Eighteen Connecticut Warblers were noted on the **Muriel Carlson's** Brightsand route and another 15 on the new Dorintosh route which was surveyed by **Mike Norton**. Also impressive were 28 Philadelphia Vireos and 38 Chestnut-sided warblers on **Rob Wapple's** Cumberland House route.

Every year there are a few species recorded out of their normal ranges, and this year was no exception. Although many of them were merely late migrants or strays, some may have been indicative of local breeding. Examples include a southerly Northern Goshawk on **Donna Bruce's** Aberdeen route, a Yellow-bellied Flycatcher on the southern fringe of its range on the **Don Weidl's** Paddockwood route and a easterly McCown's Longspur on **John Pollock's** Kenossee Lake route.

Although the BBS was not established or designed to survey nocturnal birds such as bitterns, rails, or owls, this year's survey did a creditable job on many of them. American Bitterns numbered a remarkable 23 on Wayne Pepper's Tyvan route. Soras were found on 17 routes, while a Yellow Rail was heard on Don Weidl's Park Valley route and a Virginia Rail was logged on the Kenossee Lake route. The most impressive showing, however, was with the Owls. The Great Horned Owl was present on 16 routes, while the declining Short-eared Owl was present on three routes. Three other owls species were also noted: a Barred Owl was recorded on Mike Norton's Dore Lake route, a Great Gray Owl graced the Park Valley route, while a Northern Sawwhet Owl was noted on the Lionel Bonneville's Theodore route.

Thanks to the observers who made the Saskatchewan BBS for 2001 such a success. Thanks also to those who attempted surveys, but who were unable, for various good reasons, to complete them. It is my fervent hope that no further misfortunes befall BBS observers in the coming years.

Al Smith

Manitoba

A total of 45 BBS routes were surveyed in Manitoba during 2001, including five routes (Churchill, Grass River, Cranberry Portage, McCreary & Gretna) where new observers were found to do routes that hadn't been done for several years. Welcome to observers who did routes in Manitoba for the first time this year (Richard DeMey, Ryan Porteous, Heidi den Haan, Joanne Tuckwell, Harvey Schmidt, Chris Higgs & Bonnie Chartier). Special thanks to Peter Taylor who did three BBS routes, and nine observers (Luc Blanchette, Dan Chranowski, Dennis Fast, Jean Horton, Bob Jones, Wayne Neily, Harvey Schmidt, Renee Will & Ken De Smet) who did two BBS routes during 2001. And we'll miss the contributions of Bill Koonz and Heather Hinam who have moved on to greener pastures.

Last year was a banner year for total number of species recorded on BBS routes in Manitoba. Although a final tally of species seen was not available when this report was prepared, I estimated that 220 species were found on BBS routes in Manitoba during 2001 (compared to 195-200 species during most other years). Much of this was due to the Churchill BBS route being done by **Bonnie Chartier** for the first time in many years; 24 unique species were noted on that route alone. Some of the more unusual species found on BBS routes in 2001 were Great Grey Owl on Grass River (**H. Schmidt**), Northern Mockingbird on Grand Clairiere (**K. De Smet**) and Great Egret on Camper (**Ken Gardner**).

Unique (*) or rare species (found on 2-3 routes) found on the Churchill route included Pacific Loon*, Snow Goose*, Tundra Swan*, American Black Duck*, Greater Scaup*, Common Eider*, White-winged Scoter*, Long-tailed Duck*, Red-breasted Merganser*, American Golden Plover*, Whimbrel*, Hudsonian Godwit*, Least Sandpiper*, Dunlin*, Short-billed Dowitcher, Parasitic Jaeger*, Bonaparte's Gull, Arctic Tern*, Gray-cheeked Thrush*, Blackpoll Warbler*, American Tree Sparrow*, Fox Sparrow*, White-crowned Sparrow*, Smith's Longspur*, Pine Grosbeak, Common Redpoll* & Hoary Redpoll*. Most of these species were relatively common; species which totaled less than five birds and were recorded at only 1-3 stops along the route included Tundra Swan, American Black Duck, White-winged Scoter, Long-tailed Duck, American Golden Plover, Least Sandpiper, Dunlin, Short-billed Dowitcher, Gray-cheeked Thrush, Smith's Longspur, Pine Grosbeak & Hoary Redpoll.

Rare and unique species found on two other "northern" routes done for the first time in years by **Harvey** Schmidt included Bald Eagle, Solitary Sandpiper & Goldencrowned Kinglet on Cranberry Portage and Common Merganser, Bonaparte's Gull, Philadelphia Vireo, Goldencrowned Kinglet, Brown Creeper*, Rusty Blackbird*, Wilson's Warbler & Pine Grosbeak on Grass River. Unusual species on other boreal forest routes in southeast Manitoba included Common Merganser, Bald Eagle, Common Tern & Ruby-throated Hummingbird (Hecla – **Bob Shettler**), Common Tern (Bissett – **Doug Barry**), Spruce Grouse* & Wilson's Warbler (Springer Lake – **P.Taylor**), Hooded Merganser*, Broad-winged Hawk, Canada Warbler & Whitewinged Crossbill (Bird River- P.Taylor), Northern Goshawk*, Philadelphia Vireo, Northern Rough-winged Swallow & Indigo Bunting (Beaconia – Brad Carey), Osprey* (Elma – Ward Christianson), Broad-winged Hawk (Braintree - Rob Parsons), Solitary Sandpiper & Red Crossbill* (Bedford Ridge – **D.Fast**). The boreal forest transition zone also yielded the two most diverse counts in Manitoba for 2001 -- Hecla with 86 species and Traverse Bay with 84.

Southwestern Manitoba's aspen parkland region yielded the only other routes with more than 80 species in 2001 – Grand Clairiere with 85 species and Ruthenia with 82. Rare or unique species recorded in the southwest included Ferruginous Hawk, Ring-necked Pheasant*, Willow Flycatcher, Say's Phoebe*, Loggerhead Shrike, Northern

Rough-winged Swallow, Sprague's Pipit, Grasshopper Sparrow, Baird's Sparrow* & Chestnut-collared Longspur (Elva - K. De Smet), Ferruginous Hawk, Short-eared Owl & Sprague's Pipit (Grand Clairiere - K. De Smet), Loggerhead Shrike (Mather - R. Porteous), Eared Grebe* & Sharpshinned Hawk (Brandon Hills - R. Will), and two migrant Short-billed Dowitchers (Holland - R.Demey). Southwestern routes north of Hwy # 1 produced Philadelphia Vireo & Grasshopper Sparrow (Lenswood - C. Higgs), Canada Warbler (Swan River - H. Hinam), Yellow Rail* (Crane River - B.Koonz), Sharp-shinned Hawk, Loggerhead Shrike & Chestnut-collared Longspur (Wattsview - D.Chranowski), and Short-eared Owl (McCreary - H. den Haan).

Unusual species recorded on routes in southcentral Manitoba included Red-headed Woodpecker* (Graysville – L. Blanchette), Willow Flycatcher (Minnewakan – George Holland), Wild Turkey* & Indigo Bunting (Grunthal – Paula Grieef), Chimney Swift* (Tyndall – Rudolf Koes), Ruby-throated Hummingbird & Whip-poor will* (Delta Marsh – **B. Jones**), Forster's Tern* & Loggerhead Shrike (Camper - K. Gardner) and White-winged Crossbill (Red Rose – W. Neily). This region also produced the highest total birds for any count in 2001 (Meleb with 2116 - Rob Berger), but nearly half of this total were Franklin's and Ring-billed Gulls. Holland (with 1975 birds) was the only other count that exceeded 1400 total birds; over a quarter of these were Canada Geese. Churchill's total of 1311 was also unusually high for a northern count; Canada Goose also made up over a quarter of the birds found on this route.

My thanks to all volunteers who contributed by observing or assisting on BBS routes in Manitoba during 2001. It was especially encouraging to see several new observers, routes run for the first time, and to have increased coverage of routes in northern & central Manitoba. There have also been several requests from new observers who would like to try a route in southern Manitoba. Since all routes are currently assigned, one more route will be set up in many southern blocks to accommodate these new requests.

- Ken De Smet

Ontario

In 2001 there were 122 BBS routes assigned in Ontario, and so far data have been submitted for 81 routes. A heartfelt welcome to eight surveyors that were either new to BBS or took on an additional route. They were: Howard Shapiro, Nick Escott, Karla Everard, Martin Arnett, Celia McLaren, Satu Pernanen, Linda Melnyk-Ferguson, and Todd Cairns. Todd took on two routes, in Ear Falls and Snake Falls (in northwestern Ontario) that had been inactive for some time. It's always great to have new BBS recruits from northern Ontario since there are still many more routes in need of a surveyor!

The mean number of species recorded per route in 2001 was 61, and **Ron Weir** once again recorded the greatest number of species (108) on his Roblin route near Kingston.

Second and third place honours go to **Anthony Bigg** for recording 85 species on his Birdsall route and 82 species on his Petroglyphs route.

A number of nocturnal species showed were recorded on Ontario BBS routes this year. Great Horned Owls were recorded by **David Wake** (Stratford), **Peter Middleton** (Rock Mills), and **Ron Weir** (Roblin); and Barred Owls by **Allan Sinclair** (Port Carling), **Chris Bloome** (Massey), **Doug Smith** (Torrance) and **Todd Cairns** (Snake Falls). **Todd Cairns** was lucky enough to record both Barred Owl and Great Grey Owl on his Snake Falls route. It's pretty rare for two owl species to be recorded on the same BBS route. In addition to owls, the Common Nighthawk and Whip-poor-will also put in an appearance for a handful of BBS surveyors.

There were many other noteworthy sightings on Ontario BBS routes in 2001. **Darlene Salter** not only recorded an impressive diversity of warbler species (15) on her Barren Brook route, but also observed a Black Tern. **Hugh McArthur** had two out of range rarities on his Listowel route in southern Ontario: a Merlin, and a Western Meadowlark, and BBS newcomer **Linda Melynk-Fergson** hit the jackpot with respect to Connecticut Warblers, recording a total of eight individuals. **Peter Blancher** recorded a species that is very unusual on an Ontario BBS route – a Gray Partridge on his Sttittsville route.

Thanks to all Ontario BBS participants for taking time to complete their route. Your dedication is appreciated and I hope that all of you will continue to participate in 2002. If you would like to take on a new route or if you know of someone who may be interested in participating in the BBS, please contact me (1-888-448-BIRD, dbadzinski@bsc-eoc.org). Once again, Bird Studies Canada will post a list of available Ontario routes on our website well before the start of the season. I look forward to working with all of you in 2002. Happy birding!

- Debbie Badzinski

Québec

Once again, I welcome new participants and new assistants. I wish to thank everyone who has completed one or more routes. In 2001, a total of 51 routes were completed. **Jean Piuze** and **Claude Roy** have each completed three routes and at least six other participants have completed two routes each. This year, **Pierre Bannon** observed the largest number of species: 76 on the rivière Gagnon route.

The Canada Goose was observed on a considerable number of routes. This year, I am interested in certain species that appear to be less abundant in Quebec, according to what was reported on the routes. Only one Green Heron was reported on the Eardley route in the Outaouais (**Peter Blancher**), one Red-shouldered Hawk on the Bolton route (**Vincent Létourneau**), two Wild Turkeys in Châteauguay (**David Covino**), one Short-eared Owl in Luceville (**Jean-Louis Martel**), only one Purple Martin at Issoudun (**Jean Piuze**), 2 Black-backed Woodpeckers at lac Beauchêne in

Témiscamingue (Steve Wendt), only one Marsh Wren on the Eardley route (Peter Blancher), the Northern Mockingbird in Luceville (Jean-Louis Martel), the Pine Warbler on four routes—Gagnon River (Pierre Bannon), Dépôt de l'aigle (**Philippe Blain**), Pytonga Lake (**Daniel St-Hilaire**) and Drummondville (Philippe Blain), the Wilson's Warbler on four routes—Gaspésie Park (Denis Desjardins), Pellegrin (Daniel Mercier), Newport (Jean-Raymond Lepage) and Andou Lake in the La Vérendrye Reserve (Peter Blancher), the Field Sparrow in Maniwaki (Connie Downes) and in Deléage (Donald Dallaire), one Grasshopper Sparrow outside its range at Cap d'Espoir in Gaspésie (Michel Larrivée) (the bird, one male songbird, lived there for a good part of the summer) and the Rusty Blackbird on only two routes, at Ouareau Lake (Yves Gauthier) and at St-Urbain (Harvey Mead).

With respect to significant numbers, it is important to note: four Upland Sandpipers at St-Antoine de Tilly (Ronald Lepage), seven Willow Flycatchers at Verchère (Pierre Bannon), 13 Baltimore Orioles on Île d'Orléans (Alain Desrosiers) and 14 Fox Sparrows at Gaspésie Park (Denis Desjardins).

- Daniel St-Hilaire

Maritimes

Once again, I am pleased to say the Maritime provinces Breeding Bird Survey benefited from the enthusiasm of our volunteers. At least 50 routes were run this year. Last year I welcomed **Dorothy McFarlane** to the BBS. Little did I know that she would go on to run four BBS routes! **Gerry Lunn** also runs four routes while **Dave McCorquodale** and **Marcel David** run three routes each. With four people running fourteen routes, no wonder the BBS is so healthy.

Now, as a BBS coordinator, I hear a lot of great stories of adventures and amusement from volunteers. But the story I am about to share may be my best. And best of all it is 100% true! It begins with one of our new volunteers, Andrew Boyne, arriving at the starting point of his Peggy's Cove route at about 4:45am. Just as he was approaching his first stop he noticed the dark figure of a man standing on the roadside with his thumb in the air. About 50 meters beyond the man Andrew brings the car to a halt at his first stop. As he was getting out for his count, the man arrived at the car and, without a spoken word, jumps in to the back seat. Andrew opens the door of the car and politely tells the man that he did not stop to pick him up but was stopping to count birds. The man, somewhat taken aback pleaded with Andrew to drive him to a place ahead where he was to meet his father for a fishing trip. After lengthy explanations with considerable determination, the intruder finally accepted Andrew's assertion that the best he would get is a slow ride up the road with intermittent stops to count birds. Soon becoming bored with the process the man begins to make his best owl hoots, thinking that if birds are what Andrew wanted then his owl imitations would win considerable favor. Of course, this quickly wore thin with Andrew and just at the stop where the

man was about to be evicted the next surprise of the day was about to happen: a newspaper delivery car approached and stopped to deliver a paper to a house. Before anyone had time to anticipate what might happen, the intruder had hopped out of Andrew's car, jogged a speedy 50 meters up the road and jumped in to the back seat of the other car. A conversation occurred in the new car but it eventually pulled on to the road and disappeared around the next corner. With much relief, Andrew finished the stop and took off to the next one and the next one and the next one. Like two frogs playing leapfrog, the two cars passed each other along the route. Clearly visible in the back seat of the newspaper car was the man, slowly making his way to meet his father, and passing the time hooting like an owl to give Andrew something to count!

Another story, not intended to "one up" the first, was told to me by long-time volunteer **Peter Pearce**. He calls it the story of the "Dreaded Day". Now first you must appreciate that Peter is one of our leading birders, an experienced field biologist, and has trained many observers in the art of identifying birds by sound. But what you may not appreciate is how this passionate birder and naturalist felt at one of the stops along his Maquapit Lake route in central New Brunswick in June of 2001. For three long minutes he stood, with ears finely tuned and eyes wide and awake, and not one bird was seen or heard. Not one bird. Now Peter has seen good days and bad days in the 30 or more years of running BBS routes. But never before had he witnessed such an ornithological void as he did on that most dreaded of days.

Once again I invite anyone with interest in joining the BBS to contact me - there are always a few routes either open or coming open as people retire or relocate. You can also get information on my regional web site located at BBS.Tantramar.com. Good birding everyone!

- Dan Busby

Newfoundland and Labrador

In 2001, I signed on as the co-ordinator of the BBS program in Newfoundland and Labrador. My goal was to assist Bill Montevecchi with his recruiting efforts for BBS volunteers across the Island, as well as into Labrador. We were marginally successful with the addition of a few new volunteers, but we have more recruiting plans for the winter months, and hope to add to our volunteer total for this area of the country.

Something worthy of attention in Newfoundland and Labrador is the construction of a new road in southern Labrador that will open up new areas that have received little or no avian monitoring in the past. As the road is expected to be completed by the autumn of 2002, our future challenge will be to find and recruit competent volunteers to tackle this previously unsurveyed part of our Province.

There are some exciting times ahead for the BBS program in Newfoundland as we work to increase our list of volunteers. Stay tuned!

-Peter Thomas

VOLUNTEER SUPPORT FOR SURVEYORS

any BBS volunteers have routes far from their homes. They drive long distances and sometimes must pay for overnight accommodation. Through Bird Studies Canada (BSC), surveyors can have the out-of-pocket expenses of running their routes treated as a charitable donation and thereby receive income tax receipts for them. BSC is a non-profit, non-governmental organization dedicated to the study and conservation of wild birds and their habitat in Canada.

Volunteers submit a record of their food, accommodation and mileage expenses directly to BSC, along with a cheque, payable to that organization, of an amount equaling the expenses. BSC then treats the cheque as a donation and issues the volunteer a tax receipt. Along with the tax receipt, BSC sends the

volunteer a cheque equaling the amount of the donation. BSC ensures that the volunteer's personal cheque is not cashed until two weeks after issuing a BSC cheque to the volunteer. Although cumbersome, this process is required by Revenue Canada. The deadline to apply for tax relief is **December 1st** each year. BBS participants will receive Voluntary Support forms in their survey packages in the spring.

If you have questions regarding the program please contact:

Debbie Badzinski, Bird Populations Biologist, Bird Studies Canada, PO Box 160, Port Rowan, Ontario NOE 1MO. phone: (888) 448-2473. fax: (519) 586-3532. email: dbadzinski@bsc-eoc.org

Visit the BBS Web Sites!

Canadian: www.ec.gc.ca/cws-scf/nwrc/bbs.htm

Maritimes: bbs.tantramar.com
Ontario: bsc-eoc.org/ontario.html

North American (US): www.mp2-pwrc.usgs.gov/bbs

NEW COMMENT FORM

he comment forms have been redesigned to enable us to store and track their contents electronically. Each form will be scanned and the subject matter indexed and stored in our database along with an image of the form. This will enable BBS managers and researchers in the future to easily find, for example, information about route changes, rare species, or species that were seen outside of the 3-minute counts when reported.

To make the new comment form tracking system work efficiently we need your cooperation in filling out the forms. First it is important to

know that you are not required to provide comments, unless you have had a problem (route or otherwise) that you need to advise the BBS office of, or need to document rare, uncommon or migrant species. But we do welcome all comments of a substantive nature, including stories about your BBS adventures. If you do provide comments, please complete the entire form especially the route number information, also fill in the appropriate bubble below each number.

-Excerpt from U.S. Memorandum to BBS Observers

PROVINCIAL AND TERRITORIAL COORDINATORS

Please contact your provincial or territorial coordinator when:

- you want to take on more BBS routes,
- you want to pass your route on to someone else,
- you will not be able to run your route in a given year,
- you need advice on how to deal with a physical problem on your route, such as a bridge that no longer exists, or road
- you have questions about the species found on your route.

Yukon

Wendy Nixon Canadian Wildlife Service 91782 Alaska Highway Whitehorse Y1A 5B7 (867) 667-3929 fax: (867) 667-7962

email: wendy.nixon@ec.gc.ca

Northwest Territories and Nunavut

Craig Machtans Canadian Wildlife Service 5204 50th Avenue Suite 301 Yellowknife X1A 1E2 (867) 669-4771 email: craig.machtans@ec.gc.ca

British Columbia

Dick Cannings Bird Studies Canada S11, C96, RR1 Naramata V0H 1N0 ph/fax: (250) 496-4049 email: dickcannings@shaw.ca

Alberta

Jack Park 10236-70 Street Edmonton T6A 2T4 (780) 469-8127 email: jlpark@oanet.com

Saskatchewan

Alan Smith Canadian Wildlife Service 115 Perimeter Road Saskatoon S7N 0X4 (306) 975-4091 fax: (306) 975-4089 email: alan.smith@ec.gc.ca

Manitoba

Ken De Smet Wildlife Branch, Manitoba Conservation Box 24, 200 Saulteaux Crescent Winnipeg, R3J 3W3 (204) 945-5439 Fax (204) 945-3077 email: kdesmet@gov.mb.ca

Ontario

Debbie Badzinksi Bird Studies Canada PO Box 160 Port Rowan N0E 1M0 (888) 448-2473 (toll free) fax: (519) 586-3532 email: dbadzinski@bsc-eoc.org

Québec (south of St. Lawrence River)

Daniel Jauvin 67 Grande-terre Saint-François-du-Lac, JOG 1M0 (450) 568-2872 fax: (450) 568-0333

email: djauvin@sorel-tracy.qc.ca

Québec (north of St. Lawrence River)

Daniel St-Hilaire 19 Connaught St. Gatineau J8Y 4C8 (819) 776-0860 fax: (819) 772-3974 email: daniel.st-hilaire@fapaq.gouv.qc.ca

Prince Edward Island, New Brunswick, Nova Scotia

Dan Busby Canadian Wildlife Service PO Box 6227. 17 Waterfowl Lane Sackville, NB, E4L 1G6 (506) 364-5037 fax: (506) 364-5062 email: dan.busby@ec.gc.ca

Newfoundland and Labrador Peter Thomas CWS - Environment Canada Centre 6 Bruce Street Donovans Industrial Park Mount Pearl, A1N 4T3 Tel: (709) 772-4297 Fax: (709)772-5097 email: peter.thomas@ec.gc.ca Bill Montevecchi Biopsychology Program

Memorial University St. John's A1B 3X7 (709) 737-7673 fax: (709) 737-4000

email: mont@morgan.ucs.mun.ca



The 2001 Team

Welcome to all first-year observers, farewell to retirees, and many thanks to everyone!

Newfoundland and Labrador: Lois Bateman, J. Kevin Butler, Holly Hogan, John Pratt, Francis Schwab, Jytte Selno, Neal Simon, Gregory Stroud

Prince Edward Island: Sean Blaney, Richard Elliot

Nova Scotia: Marc Adam, Andrew Boyne, Kathy Bunker-Popma, Dan Busby, David Colville, David Currie, Albert Dean, James Elliott, Rebecca Ellis, Bernard Forsythe, Sylvia Fullerton, June Graves, Gerry Lunn, Roslyn MacPhee, Blake Maybank, David McCorquodale, Ken McKenna, Richard Stern

New Brunswick: Christopher Adam, G.Marion Belyea, Roland Chiasson, Marcel David, Tracey Dean, Neville Garrity, Roy Lapointe, Michael Lushington, Ken Macintosh, Scott Makepeace, Dorothy McFarlane, Kent Orlando, Peter Pearce, Georgette Thibodeau, Becky Whittam, James Wilson

Québec: Margaret Arnaudin, Pierre Bannon, Olivier Barden, Philippe Blain, Monique Blais, Peter Blancher, Roger Caissy, Jean Couchouron, David Covino, Donald Dallaire, Marc Demers, Denis Desjardins, Alain Desrosiers, Constance Downes, Yves Gauthier, Bertrand Hamel, Daniel Jauvin, Michel Lalancette, Jacques Larivée, Michel Larrivée, Robert Lebrun, Serge Lehouiller, Jean-Raymond Lepage, Ronald Lepage, Vincent Létourneau, Hélène Lévesque, Suzanne Maillé, Jean-Louis Martel, Harvey Mead, Daniel Mercier, Reginald Ouellet, Desneige Perreault, Jean Piuze, Renaud Poulin, Claude Roy, Daniel St-Hilaire, Margo St-Louis, Christine Taylor, Claude Tremblay, Edith Vandewalle, Steve Wendt

Ontario: Marty Arnett, Lynda Bennett, Anthony Bigg, Peter Blancher, Chris Blomme, Albert Boisvert, Gerhard Bruins, Susan Bryan, Michael Cadman, Todd Cairns, Donald Cavin, Mark Chojnacki, Peter Coo, Floyd Cosby, Constance Downes, Larry Drew, Erica Dunn, Christopher Ellingwood, Christopher Escott, Nicholas Escott, Karla Everard, Kathy Evoy, Charles Francis, Peter Good, Christopher Harris, Diane Haselmayer, Kurt Hennige, Brian Henshaw, Joseph Johnson, Marc Johnson, Donald Kerr, William Lamond, Dan Lee, Simon Lunn, Peter Mansfield, Douglas Martin, Hugh McArthur, Beverly McBride, Celia McLaren, Linda Melnyk-Ferguson, Peter Middleton, Drew Monkman, James Mucklow, Jean Niskanen, Erica Nol, Lionel Normand, Mick Panesar, Sandra Parsons, Satu Pernanen, Steven Price, Peter Read, Sam Rosa, Darlene Salter, Mark Saunders, Ron Scovell, Don Shanahan, Howard Shapiro, Roger Simms, Allan Sinclair, Doug Smith, Richard Tafel, Steve Thorpe, Rohan Van Twest, David Wake, Daniel Weiler, Ron Weir, Steve Wendt, Robert Whittam, Angie Williams

Manitoba: Douglas Barry, Robert Berger, Luc Blanchette, Brad Carey, Bonnie Chartier, Daniel Chranowski, Andy Courcelles, Ken De Smet, Richard Demey, Heidi Den Haan, Dennis Fast, Kenneth Gardner, Paula Grieef, Chris Higgs, Heather Hinam, George Holland, Jean Horton, Crawford Jenkins, Robert Jones, Ken Kingdon, Rudolf Koes, William Koonz, Kurt Mazur, Wayne

Neily, Robert Parsons, Raymond Pettinger, Harvey Schmidt, Bob Shettler, Tim Sopuck, Peter Taylor, Adam Walleyn, Constance Will, Margaret Yorke

Saskatchewan: P.Lawrence Beckie, Lionel Bonneville, Donna Bruce, Muriel Carlson, Philip Curry, Brenda Dale, Stephen Davis, Bob Godwin, Dale Hjertaas, Ronald Hooper, Stuart Houston, Brian Johns, Harvey Johnson, Maurice Mareschal, Mike Norton, Wayne Pepper, John Pollock, J. Frank Roy, Alan Smith, Lowell Strauss, Guy Wapple, Rob Wapple, Don Weidl, Michael Williams

Alberta: Peter Balagus, Reid Barclay, Barbara Beck, James Beck, Jenise Bidulock, Ron Bjorge, John Bovell, Duncan Bradley, Robert Carroll, Linda Charest, Sheila Clark, David Cuthiell, Brenda Dale, Ross Dickson, Brenda Dobson, Teresa Dolman, Rodger Dunn, David Ealey, Gary Erickson, Ernest Ewaschuk, Janet Ficht, Joy Finlay, Lenora Flynn, Jennifer Gammon, Jim Goodwin, Stan Gosche, Graeme Greenlee, Robin Gutsell, Willis Hall, Ian Halladay, Edmond (Ted) Hindmarch, Cedric Hitchon, Philip Horch, Jocelyn Hudon, Glen Hvenegaard, Ted Johnson, Stefan Jungkind, Joan Kerr, Jessie Kinley, Steve Knight, William Korolyk, Leonard Kozlowski, Julie Lefebvre, Beth MacCallum, Mike McIvor, Gerald McKeating, Don Mills, Patricia Mitchell, Andrew Murphy, Mike Norton, Michael O'shea, Dan Osness, Jack Park, El Peterson, Jamey Podlubny, David Prescott, Richard Riddell, Blair Rippin, Michael Rogers, Glen Rowan, Irma Rowlands, Thomas Sadler, Andrew Slater, Ralph Smith, Milton Spitzer, Bill Taylor, Wayne Tedder, Donald Watson, Kevin Wingert

British Columbia: Catherine Aitchison, David Aldcroft, Steve Baillie, Bruce Bennett, Ed Beynon, Jack Bowling, Richard Cannings, Sydney Cannings, Kathleen Collins, Gary Davidson, Krista De Groot, Thomas Dickinson, Frank Doyle, Steve Gniadek, Phillip Henderson, Neil Hughes, Douglas Leighton, Wendy Marshall, Ed McDonald, Carolyn McGhee, Ed McMackin, John McRuer, Pearl Morgenstern, Shawna Pelech, Mark Phinney, Rosamund Pojar, Allen Poynter, Evan Pye, Keith Riding, Anna Roberts, I. Laurie Rockwell, Greg Ross, Warren Schaffer, Madelon Schouten, Chris Siddle, Darrell Smith, Elsie Stanley, Ray Sturney, Howard Telosky, Ruth Travers, William Tuck, Frances Vyse, Susan Walker, Michaela Waterhouse, Wayne Weber, Diane Weismiller, Allen Wiseley, John Woods, Ellen Zimmerman

NWT: Jamie Bastedo, Duncan Bradley, Craig Machtans, Michael Setterington, Bonnie Stout, David Wilderspin

Yukon: Helmut Grunberg, David Henry, Dave Mossop, Edward (Ted) Murphy-Kelly, Pamela Sinclair, Mary Whitley





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