



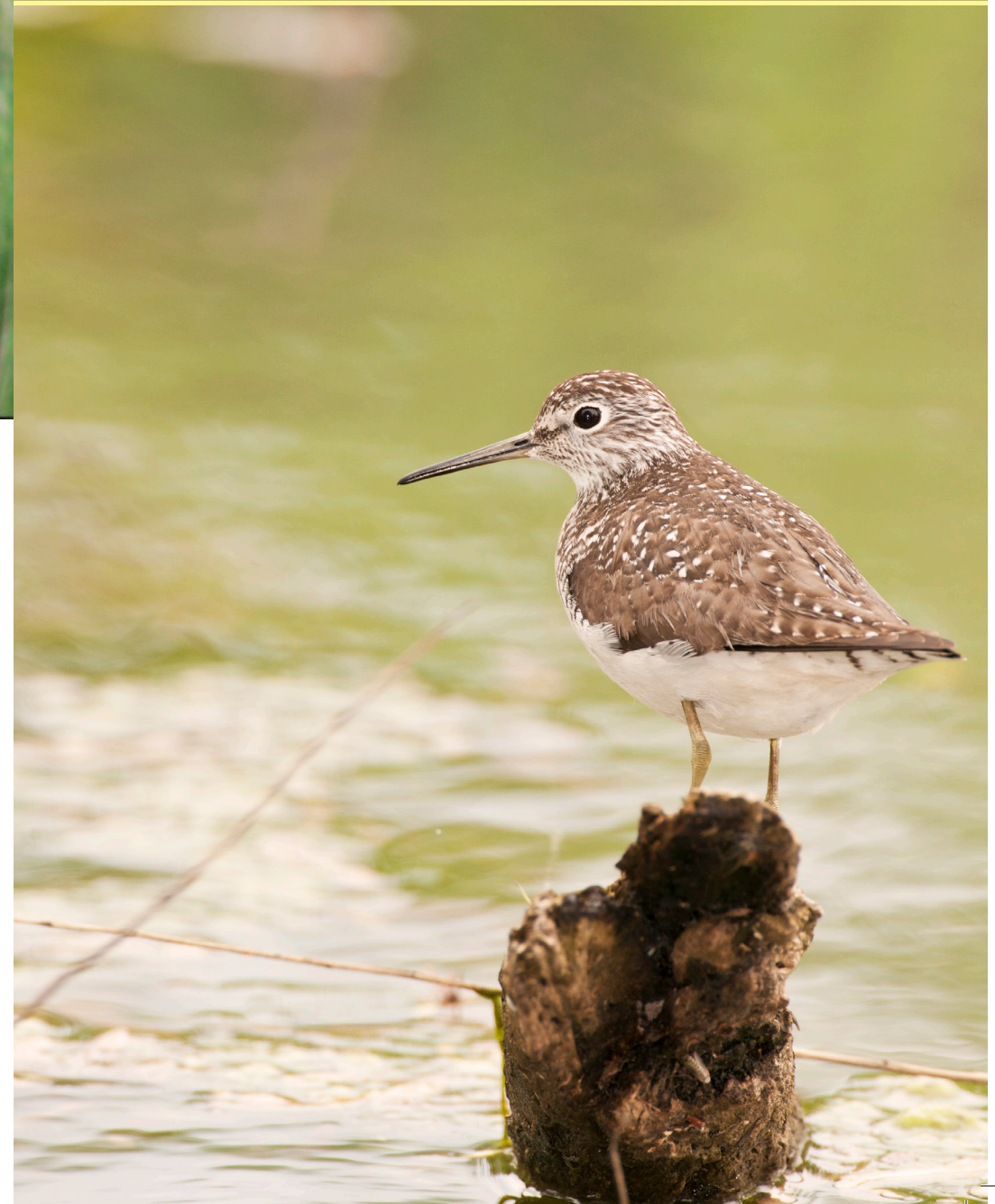
# BLUE JAY

Volume 70 Number 1

March 2012

*Nature*  
SASKATCHEWAN

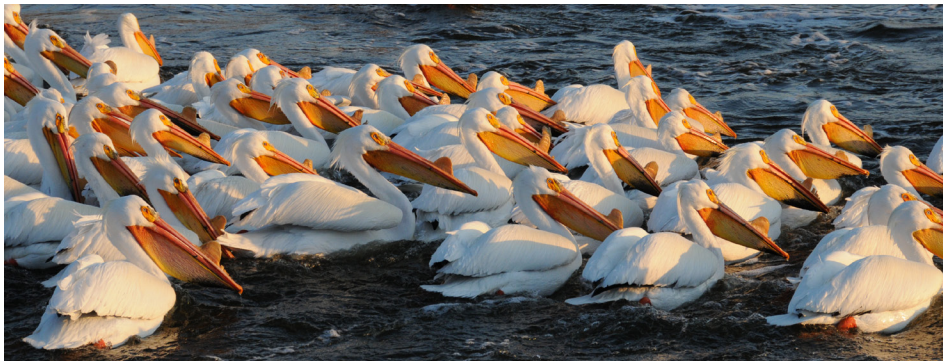
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Mourning Dove brooding two young

-S. Sealy



Solitary Sandpiper © Robin Arnold  
<http://www.robinarnoldphotography.com>

# Blue Jay

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**Front Cover:**

*Solitary Sandpiper - Robin Arnold* <http://www.robinarnoldphotography.com>

**Back Cover:**

*Short-eared Owl - © 2011 Environment Canada - Cody Osborne*

**Inside Front Cover:**

*top left: Red Squirrel - Vicky Kjoss*

*top right: Tracks in snow - Anna Kjoss*

*middle left: Red Fox - Christian Artuso*

*middle right: Band-tailed Pigeon - Trish Santo*

*bottom: American White Pelicans - Lowell Strauss*

**Inside Back Cover:**

*top: Mourning Dove - Spencer Sealy*

*bottom: Solitary Sandpiper - Robin Arnold*

<http://www.robinarnoldphotography.com>



*L. Strauss*

THIS ORGANIZATION RECEIVES FUNDING FROM:



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# Editors' Message

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We are very pleased to take on the responsibility of guiding and editing Blue Jay. This position has been filled previously by very competent and skilled people, and we hope that we can continue the standard of excellence. We hope to get to the Nature Saskatchewan Spring and Fall meets, to get acquainted with many of you in person. Until that time, and because we simply can't meet everyone, we thought to introduce ourselves.

Kerry and Lowell have a partnership going back quite a few years. We met in the Cypress Hills (West Block, Saskatchewan side) on a University of Regina biology field trip in the summer of 1994. After that auspicious beginning, we went off to do further education separately; Kerry earned an M. Sc. [Biology] from Carleton University studying damselflies and their parasites, while Lowell stayed at the University of Regina, and studied the forest fire history in the Cypress Hills West Block using dendrochronology and other methods. We got married part way through our graduate degrees and then proceeded to finish up and get "real jobs".

We both love Saskatchewan and have family here. Kerry grew up in Maple Creek and then Regina for her teens. Lowell grew up on a farm near Strasbourg. We both have had the privilege of working and living on a farm for part of our formative years. This seemed to lead easily into the observation and love of nature, even when we had no idea what we were looking at!

Currently, Kerry is the manager of the Last Mountain Lake National Wildlife Area and Migratory Bird Sanctuary (LML NWA/MBS). Part of this job is the requirement to live on-site. We both love the solitude, remoteness, and closeness

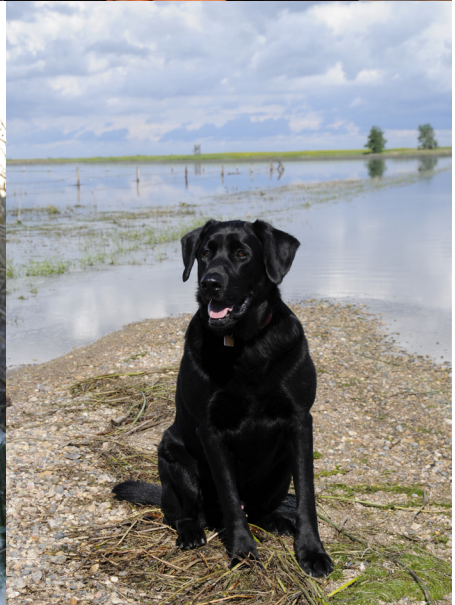
to nature. Lowell owns and operates his own biologist-for-hire business, Bird's Eye View Consulting. He is also an outdoor writer and photographer, with an active blog (for more, see [lowellstrauss.com](http://lowellstrauss.com)). We have a 2 1/2 year-old son who is great fun, and a black lab rounds out our family.

We are both generalists. While we have specialized for particular jobs or studies, we have a broad range of experience, including: Great Horned Owl banding [thank you Dr. Houston], working with bats, damselflies, parasites, dendrochronology, New Zealand fur seal populations, zooplankton and phytoplankton, water chemistry, amphibians, marsh birds, grassland songbirds, fish, remote sensing, airphoto interpretation, native prairie grasses and forbs, grassland restoration, small mammals, and big game. We have complimentary strengths; Kerry really enjoys meeting and interacting with a variety of people, and Lowell is a computer whiz who will be putting together Blue Jay digitally.

In fact, this March 2012 issue will be the first that the editors have put together digitally. This transition has taken a bit of time to accomplish, and hopefully it will lead to faster turnaround times in the future.

We would like to encourage Nature Saskatchewan members to contribute to Blue Jay. Whether you submit interesting photographs, nature observations, range extensions, or the more formal scientific articles, all are welcome. Blue Jay is the journal of Nature Saskatchewan, dedicated to publishing significant natural history events from Saskatchewan and the prairie provinces. We need your input to accomplish that!

*- Kerry Hecker and Lowell Strauss  
(photos on following page)*



*Clockwise from top left: Kerry Hecker with son, Lowell Strauss with son, their black lab sitting on the flooded road, the little boy checking out cattail fluff.*

**CALL FOR SUBMISSIONS:**

Nature is full of strange and wonderful plants and creatures.

We'd love to hear YOUR stories and see YOUR photos.

Please send your photos, articles, notes, letters, photo notes, or any interesting observations to the editors at <[bluejay@naturesask.ca](mailto:bluejay@naturesask.ca)>. We will happily work with you to polish them up for publication.

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# BIRDS

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## 70th ANNUAL SASKATCHEWAN CHRISTMAS BIRD COUNT - 2011

ALAN R. SMITH, *Box 154, Avonlea, SK, S0H 0C0, Email: <alanrandi@sasktel.net>*

**The Counts.** For the second consecutive year the number of counts conducted increased over the previous year with 91 counts compared to 86 last year and 83 in 2009. No doubt the warm winter weather prompted more observers to venture out. Nine new or revived counts more than offset the four that were conducted last year but not this year.

**The Weather.** This past winter was memorable for its warm temperatures and meagre snowfall. The average daytime temperatures for all counts ranged from a low of  $-7$  to a high of  $-2^{\circ}\text{C}$ , while snow depth ranged from 4 to 13cm. Comparable figures for 2010 were  $-16$  to  $-11^{\circ}\text{C}$ , and 18 to 32cm. As we shall see, these unusual conditions had a profound effect on the numbers and distribution of birds on the CBC.

**The Birds.** The 128,000 birds seen on the count were about average for the last 10 years, while the 102 species on count day was the highest since 2004 when 103 species were recorded.

Saskatoon with 48 species won for the 10<sup>th</sup> consecutive year; Gardiner Dam and the Qu'Appelle Dam were both a distant second with 37 species. Although Estevan had only 35 count day species, it had an impressive 42 count period species.

**Population Trends.** The main beneficiaries of the warm weather were the waterbirds. Not only were new high counts set or tied for many species (Table 6), it is very likely that more species of waterbirds were on

this count than any previous count. Thanks to the lack of snow, numbers of the two common field-feeding waterfowl, Mallard and Canada Goose, rebounded nicely from last year's lows and were higher than the five year average (Table 7).

Results for landbirds were markedly different. Upland gamebirds, Horned Lark, and Snow Bunting declined substantially (Table 7), and the Lapland Longspur was totally absent. These results are undoubtedly more apparent than real as there was no snow to force these species to roadsides to feed - they could forage anywhere!

Regina established a record high count for Snowy Owl with 45 birds (Table 6). Province-wide numbers were up a staggering 272% over the previous five years. The large number of young-of-the-year observed leave little doubt that the species had a very good year on their Arctic breeding grounds. Their lemming prey must have been very abundant, and brood size of the owls must have been pushed to the limit!

The expansion of the Eurasian Collared-Dove continues apace with a record high of 333 birds on 17 counts (plus 2 during the count period at Kyle). New localities included Cabri, Gardiner Dam, Outlook and Yorkton. In contrast, the expansion of the House Finch has leveled off with only two new localities (Balgonie and Shamrock) reporting the species.

**Rarities.** No new species were added

to the all-time list of species seen on the CBC so the total remains at 184 species. Two species were, however, seen for the second time ever. These were a Winter Wren on the Fort Qu'Appelle count and an Orange-crowned Warbler on the Togo count. A Yellow-headed Blackbird on the Good Spirit Lake and two on the Indian Head count were the second and third records for the province. Also of note was our third record for Barrow's Goldeneye with one seen during the count period at Squaw Rapids. Northern Cardinals were seen at two localities: two during the count period at Prince Albert and one on count day at Yorkton.

Count areas and participants  
(Names of compilers are *in italics*).

1. ARCHERWILL. Gerald Hiron, Susan Hiron, Audrey Hnetka, *Elaine Hughes*, Dorothy Klettberg, Judy Revoy.
2. AVONLEA. *Alan Smith*, Blaine Sudom.
3. BALGONIE. Keith Barr, Jared Clarke, Laurie Koepke, Kim Mann, Val Mann, Kristen Martin, Moira McKinnon, *Brett Quiring*, Jordan Tholl, Jenna Tokaruk, Matthew Tokaruk, Duncan Willis
4. BANGOR. *Allan Bolton*, *Lynn Bolton*, Aileen Hayward, Alan Hayward, John Maddaford, Leslie Maddaford, Bev McLaren, Raye McLaren.
5. BIGGAR. Murray Newton, Mark Pickett, Linda Schnedar, Lorrie Sielski, Larry Sutherland, Rita Sutherland, *Guy Wapple*, Marguerite Wapple, Rob Wapple.
6. BIRCH HILLS. Doug Boivin, Carman Dodge, Margaret Mareschal, *Maurice Mareschal*, Don Weidl.
7. BROADVIEW. Doug Boivin, Barbara Weidl, *Don Weidl*.
8. CABRI. *Carman Dodge*, Ron Jensen, Don Weidl.
9. CANDLE LAKE. Carman Dodge, Margaret Mareschal, Maurice Mareschal, *Don Weidl*.
10. CATER. Beverly Beland, *Orval Beland*, Donna Long, Wally Long.
11. CHATSWORTH S.D. *George Murray*, Laurie Murray, Herb Rooke, Stewart Rooke, Carol Tangedal, Torrie Tangedal.
12. CHRISTOPHER LAKE. *Jeannie Walker*.
13. CHURCHBRIDGE. Cas Chyz, Verna Chyz, Elin Johnson, Ron Johnson, Phyllis Kaeding, Martha Karau, *Wally Karau*, Elaine Pollock, John Pollock, Denis Putland, Dianne Putland, Ed Wirth, Gloria Wirth.
14. CLARK'S CROSSING. Carol Blenkin, Lucille Bradatsch, Annemarie Buchmann-Gerber, Dave Cook, Louise Cook, Lorne Ducek, Terry Hams, Marilyn Haskins, Richard Hedley, Robert Johanson, Richard Kerbes, Henry Klypak, Gordon Koshinsky, Margaret Koshinsky, Audrey MacKenzie, Bill MacKenzie, Hilda Noton, Sylvia Raginski, Jan Shadick, Stan Shadick, Marten Stoffel, Mary Toews, Guy Wapple, *Michael Williams*.
15. CODETTE LAKE. *Doug Boivin*, Barb Weidl.
16. CORONACH. Ryan Dudragne, Dan Sawatzky, *Alan Smith*.
17. CRAVEN. Barbara Barnett, Lyn Brokofsky, Tina Campbell, Stephane Canevet, Jim Cummings, Amanda Douglas, Ryan Dudragne, Karen Eliot, Ruth Englund, Elaine Exelby, Gabriel Foley, Louise Holloway, *Phil Holloway*, Fran Kerbs, Laurie Koepke, Bob



- Luterbach, Kent Lynn, Barbara Mader, Doug Mader, Lauren Mang, Kim Mann, Rocky Marchigiano, Jaret McDonald, Barry Mitschke, Valerie Mitschke, Kevin Moore, Jeff Nye, Shelley Nye, Mary Lynn Phillips, Curtis Pollock, Brett Quiring, Al Sumla, Jeannette Taylor, Robb Taylor, Mary Weber.
18. CREIGHTON. *Brenda Schmidt*, Harvey Schmidt.
19. CROOKED LAKE. *Boyd Metzler*.
20. CROOKED RIVER. Helen Carson, Lyle Carson, Burnice Lewis, Joyce Lewis, *Margaret Mehler*.
21. CYPRESS HILLS PROVINCIAL PARK (Centre Block). David Larson, Margarette Larson, Brynne Martin, Mimi Martin, *Melody Nagel-Hisey*, John Schock.
22. DENHOLM. Beverly Beland, Gerard Beland, *Orval Beland*.
23. DORINTOSH. *Joe Twidale*, *Lorraine Twidale*.
24. EASTEND. Roxie Binkley, Duane Bristow, Kevin Bristow, *Robert Gebhardt*, John Hanlin, June Higgins, Harvey Johnson, Keith Schwett.
25. ENDEAVOUR. *Norman Harris*.
26. ESTEVAN. Batty Dies, Marilyn Dies, Kathy Hedegard, Rose Walton, *Guy Wapple*.
27. ESTUARY NORTH. Cathy Cocks, *Dean Francis*.
28. FENTON. *Carman Dodge*, Maurice Mareschal, Don Weidl.
29. FORT QU'APPELLE. Jim Armstrong, Mark Gerema, Peter Heerschop, Shiela Heerschop, Alice Isfan, Jack Lowe, Jean McKenna, *Alan Mlazgar*, Vivian Morcom, Paul Paquin, Wendy Paquin, Brett Quiring, Janaye Starr, Keith Stevens, Kim Stevens, Ted Stevenson, Colette Stushnoff, Richard Stushnoff, David Sutherland, Rose Vernoy, Fred Warren, Bill Wendell.
30. GARDINER DAM. Ryan Dudragne, Greg Fenty, Maxine Forsberg, Jeff Jensen, Ron Jensen, Nick Saunders, Marten Stoffel, *Guy Wapple*.
31. GOOD SPIRIT LAKE. *Bill Anaka*, Dorothy Riesz, Ray Riesz, Lloyd Wilson, Ray Wilson.
32. GRANDORA. Danelle Messer, Mika Messer, *Verna Messer*.
33. GRASSLANDS NATIONAL PARK. Krista Bekker, Nick Cairns, Ervin Carlier, Eugene Dumont, Pat Fargey, Michael Fitzsimmons, Johane Janelle, Matthew Johnson, Kevin Moore, Wes Olson, Katherine Patterson, Taylor Roy, Colin Schmidt, *Robert Sissons*, Karin Smith-Fargey, Ashley Wruth.
34. GRAYSON. Carina Helm, *Charles Helm*, Daniel Helm, Linda Helm, Jeanette Zimmer, Karl Zimmer.
35. HARRIS. Nick Saunders, *Guy Wapple*.
36. HAZLET. Laurent Dudragne, *Ryan Dudragne*.
37. HUDSON BAY. Gloria Allchin, *John Daisley*, Ian Daisley, Joyce Hayes, Les Hayes, Agnes Lewellin, Peter Lewellin, Dennis Reimer, Ruth Reimer, Lee Smith, Delia Smith, Gloria Stang.
38. INDIAN HEAD. Jan Beatty, Mike Duran, Eileen Escott, *Irv Escott*, Mavis Jealous, Jim Jinks, Linda Jinks, Roy

Hearn, Nick Kucharan, D. Loran, Dora Nichols, Adam Scott, Brian Scott, Bob Scott, Glenn Scott, Lorne Scott, Chad Skinner, Christine Skinner, Fred Skinner, Donna Tompson.

39. KENASTON. Doug Beckie, Drew Beckie, *P. Lawrence Beckie*, Tyler Beckie.

40. KENOSEE LAKE. Boyd Metzler, *John Pollock*.

41. KITCHEN NORTH. *Dallas Fairburn*.

42. KILWINNING. Ed Driver, *Gerry Threlfall*.

43. KINDERSLEY NORTH. *Jean Harris*, Keith Harris.

44. KINLOCH. *Don Forbes*, Doreen Forbes, Cliff Logan, Joyce Logan, Doreen Wickstrom.

45. KYLE. Greg Nelson, Glen Pederson, Ed Stepple, *Dan Zazelenchuk*.

46. LAC LAPLONGE. *Katherine Brewster*, Erin Conkin, John Conkin, Aislinn Petz.

47. LA RONGE. *John Schisler*.

48. LAST MOUNTAIN LAKE N.W.A. *Valeriana Harris*, Shiela Lamont.

49. LAST MOUNTAIN LAKE N.W.A.-NOKOMIS. *Ross Dickson*, Lois Vanthuyne.

50. LOVE - TORCH RIVER. Carol Blenkin, Hal Birkett, Joan Birkett, *Bert Dalziel*, Duke Dalziel, Joan Dalziel, Sara Dalziel, Jack Dewar, Lena Dewar, Scott Edwards, Ashley Gallon, Roseanne Kirkpatrick, Ron Knutson, Terry Knutson, Eilene L'Heureux, Jennette LeCuyer, Kyla LeCuyer, Bev Macauley, Dave Macauley, Lillian Nessel, Beatrice Runn, Jeanette

Runn, John Sinclair, Joshua Turtle, Leonard Turtle.

51. LUSELAND. *Kim Finley*, Estelle Finley, Graeme Finley, Liam Finley, Valerie Finley, Brent Honeker, Shirley Honeker.

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75. ROUND LAKE (Qu'Appelle Valley). *Boyd Metzler*, Mary Ward, Pat Ward.
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Brygadier, Gregor Farquharson, Joan Farquharson, Kaito Farquharson, Walter Farquharson, James Jowsey, *Shirley Jowsey*, Betty Michael, Herb Rooke, Stuart Rooke, Gloria Rathgeber, Valerie Trowell, Joan Wilson, Rob Wilson.

77. SASKATCHEWAN LANDING PROVINCIAL PARK. Dawn Odegard, Glen Pederson, Mike Redmond, Marten Stoffel, *Dan Zazelenchuk*.

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Mary Toews, Hilda Voth, Guy Wapple, George West, Bev Will, *Michael Williams*, Amy Wilson, Scott Wilson, Jim Wood, Sandy Woynarski, Stan Woynarski, Norman Zlotkin.

80. SAWYER LAKE. Maureen Blight, Kathleen Pitt, Michael Pitt, *David Weiman*.

81. SHAMROCK. Mike Francis, *Hugh Henry*, Milton Knudsen, Sylvia Knudsen, Joel Priebe, Myrna Priebe, Lori Wilson.

82. SNOWDEN. Sylvia Debbler, Sonja Fidyk, Diane Friesen, Ed Hagel, *Irene Hagel*, Wayne McAuley, Linda Patton, Jack Pickett, Heather Priestley, Karen Priestley, Valerie Rein, Bill Thompson, Tim Thompson, Irene White.

83. SPINNEY HILL. *Ed Driver*, Margaret Driver.

84. SQUAW RAPIDS. *Ryan Dudragne*, Dan Sawtzky.

85. SWIFT CURRENT. Jim Beattie, Jacquie Bolton, Stacy Bolton, Laurent Dudragne, Mary Ann Dudragne, Ryan Dudragne, Dave Green, Esther Green, Katie Hagman, Norma Hain, Leonard Head, *Hugh Henry*, Leonard Howes, Lois Howes, Witt Howes, Stephanie Kaduck, Janet Payne, Harold Steppuhn, Irene Stinson, Kae Waters, Tom Waters.

86. TOGO. Kevin Chutskoff, Donna Dewores, Barb Elsasser, *Doug Elsasser*, Amanda Harper, Anita Huziak, Ed King, Louise King, William Koreliuk, Karen Leis.

87. WEYBURN. Cecil Burr, John Ferrier, Norm Flaten, Millie Fleming, Glen Fleming, Cyril Marcotte, Elma McCormick Charlotte Payak, Don Payak, Doyle Thomas, Val Thomas, Kim Thorson, Myrt Thorson, John Whitell.

88. WHITE BEAR. *Dan Zazelenchuk*, Sig Jordheim.

89. WHITEWOOD. Cindy Ashfield, Joe Ashfield, Paul Ashfield, Freda Ede, Tom Ede, Art Hinze, Joyce Kydd, Florence Luhtala, Sarah Mambourg, Ila Meszaros, *Boyd Metzler*, Harry Mitchell, Marilyn Mitchell, Donna Mohr, John Pollock, Dawn Vennard, Diane Veresh, Pat Ward.

90. WINGARD-FORT CARLTON. Myron Barton, Rebecca Beam, Laurel Jensen, Ruth Prosser, *Alan Smith*, Robert Zerebeski.

91. YORKTON. Bill Anaka, Bill Beck, Vern Brown, Jim Dicker, Pat Fletcher, Cheryl Fraser, Joyce Gardner, Bob Graham, Lorraine Harris, Lance Irvine, Ethel Krekiewetz, Sheldon Knoll, Joanne Loveridge, Joyce Muir, Kaarina Rahn, Gloria Rathgeber, Dorothy Riesz, Ray Riesz, Bonnie Rushowick, *Geoff Rushowick*, Patrick Rushowick Dale Sharpe, Gary Shury, Dorothy Skene, Stan Williams, John Young.



Top - Snow Bunting  
Bottom - Bohemian Waxwing

C. Artuso

Table 1-1. Weather and Snow Cover

Locality	Date	Minimum Temp (°C)	Maximum Temp (°C)	Minimum Wind (km/hr)	Maximum Wind (km/hr)	Minimum Snow (cm)	Maximum Snow (cm)	Sky A.M.	Sky P.M.
Archerwill	17 Dec 2011	-11	-5	5	5	10	10	partly cloudy	partly cloudy
Avonlea	4 Jan 2012	3	11	0	0	0	0	clear	clear
Balgonie	2 Jan 2012	-21	-5	30	45	0	10	mostly clear	mostly clear
Bangor	28 Dec 2011	-10	-1	5	10	4	10	mostly clear	partly cloudy
Biggar	27 Dec 2011	-4	0	20	30	0	10	overcast	partly cloudy
Birch Hills	20 Dec 2011	-2	2	1	4	3	6	cloudy	cloudy
Broadview	24 Dec 2011	-2	2	10	10	5	10	partly cloudy	mostly clear
Cabri	4 Jan 2012	2	10	0	10	0	2	clear	clear
Candle Lake	29 Dec 2011	-7	-6	5	10	10	15	cloudy	partly cloudy
Cater	1 Jan 2012	-22	-10	0	15	10	20	clear	clear
Chatsworth S.D.	3 Jan 2012	-1	1	10	20	1	25	clear	clear
Christopher Lake	22 Dec 2011	-8	-8	0	0	6	10	partly cloudy	partly cloudy
Churchbridge	14 Dec 2011	-12	-8	10	15	10	25	light snow	overcast
Clark's Crossing	17 Dec 2011	-8	-1	9	13	0	6	partly cloudy	cloudy
Codette Lake	17 Dec 2011	-13	-4	0	5	0	5	mostly clear	overcast
Coronach	14 Dec 2011	-6	-4	6	44	0	2	overcast	overcast
Craven	17 Dec 2011	-10	1	0	15	0	5	clear	clear
Creighton	2 Jan 2012	-15	-13	9	30	30	60	light snow	cloudy
Crooked Lake	18 Dec 2011	-2	1	10	30	0	10	light snow	mod.snow
Crooked River	28 Dec 2011	-8	-7	0	0	10	12	partly cloudy	partly cloudy
Cypress Hills P.P.	30 Dec 2011	-2	4	5	20	10	20	cloudy	partly cloudy
Denholm	25 Dec 2011	0	6	0	20	0	0	cloudy	overcast
Dorintosh	3 Jan 2012	-9	-2	15	25	4	25	mostly clear	partly cloudy
Eastend	3 Jan 2012	4	5	6	30	0	15	partly cloudy	mostly clear
Endeavour	18 Dec 2011	-2	0	2	5			cloudy	partly cloudy
Estevan	30 Dec 2011	-3	-1	10	15	0	5	overcast	overcast
Estuary North	3 Jan 2012	-5	5	0	0	0	0	overcast	overcast
Fenton	19 Dec 2011	-12	-4	2	4	2	5	mostly clear	mostly clear
Fort Qu'Appelle	16 Dec 2011	-14	-4	12	25	0	8	partly cloudy	mostly clear
Gardiner Dam	19 Dec 2011	-11	-6	10	30	0	3	partly cloudy	partly cloudy
Good Spirit Lake	29 Dec 2011	-12	-10	5	10	0	30	overcast	overcast
Grandora	5 Jan 2012	-1	5	6	11	0	1	clear	clear
Grasslands N.P.	22 Dec 2011	-12	-5	0	5	10	20	clear	
Grayson	28 Dec 2011	-8	-3	0	10	0	10	mostly clear	overcast
Harris	16 Dec 2011	-11	-5	15	20	0	10	overcast	partly cloudy
Hazlet	26 Dec 2011	3	4	40	70	0	5	partly cloudy	mostly clear
Hudson Bay	26 Dec 2011	-4	-2	15	20	30	35	moderate snow	
Indian Head	30 Dec 2011	-6	-2	0	0	15	20	moderate fog	light fog
Kenaston	19 Dec 2011	-13	-2	8	8	0	0	clear	overcast
Kenosee Lake	29 Dec 2011	-5	0	2	22	2	30	overcast	overcast
Ketchen North	26 Dec 2011	-8	-1	5	20	17	23	cloudy	mod.snow
Kilwinning	22 Dec 2011	-9	-3	10	25	0	10	cloudy	partly cloudy
Kindersley North	26 Dec 2011	2	3	2	2	0	0	mostly clear	mostly clear
Kinloch	4 Jan 2012	-7	2	3	6	2	23	clear	mostly clear
Kyle	22 Dec 2011	-14	-2	5	15	0	5	overcast	overcast

Table 1-2. Weather and Snow Cover

Locality	Date	Minimum Temp (°C)	Maximum Temp (°C)	Minimum Wind (km/hr)	Maximum Wind (km/hr)	Minimum Snow (cm)	Maximum Snow (cm)	Sky A.M.	Sky P.M.
Lac La Plonge	28 Dec 2011	-9	-16	0	10	20	90	mostly clear	overcast
La Ronge	29 Dec 2011	-10	-5	2	5	20	20	cloudy	partly cloudy
LMLNWA	1 Jan 2012	-15	-8	15	30	0	20	clear	clear
LMLNWA-Nokomis	17 Dec 2011	-13	-2	10	20	0	3	partly cloudy	partly cloudy
Love-Torch River	27 Dec 2011	-16	-14	0	5	15	20	overcast	mod.snow
Luseland	2 Jan 2012	-11	4	0	10	0	2.5	cloudy	cloudy
Macdowall	30 Dec 2011	-11	-4	0	0	5	10	mostly clear	cloudy
MacNutt	24 Dec 2011	-3	1	0		10	15	clear	clear
Matador	3 Jan 2012	-8	-2	20	40	0	2	partly cloudy	cloudy
Meadow Lake	26 Dec 2011	-1	-3	2	5	0	4	cloudy	cloudy
Moose Jaw	16 Dec 2011	-11	-2	15	25	0	0	cloudy	mostly clear
Moose Mountain	3 Jan 2012	-1	3	30	45	1	1	clear	clear
Morse	17 Dec 2011	-10	3	5	20	0	20	clear	mostly clear
Nipawin	30 Dec 2011	-9	-8	10	15	10	15	clear	partly cloudy
Nisbet Forest NW	27 Dec 2011	-6	0	12	20			overcast	heavy snow
Nisbet Forest West	1 Jan 2012	-16	-14	0	15	0	10	clear	clear
Odessa	23 Dec 2011	-8	2	20	29	6	10	partly cloudy	clear
Outlook	26 Dec 2011	-3	1	20	35	0	0	overcast	overcast
Pierce Lake	18 Dec 2011	-6	-3	4	16	10	20	partly cloudy	partly cloudy
Pike Lake	2 Jan 2012	-9	-3	22	37	0	10	partly cloudy	cloudy
Prince Albert	18 Dec 2011	-2	2	5	5	0	5	overcast	clear
Prince Albert N.P.	16 Dec 2011	-12	-6	10	15	0	15	cloudy	partly cloudy
Qu'Appelle	9 Jan 2012	-2	6	6	6	4	4	mostly clear	mostly clear
Qu'Appelle Dam	18 Dec 2011	-4	0	14	27	0	8	cloudy	mostly clear
Raymore	25 Dec 2011	-8	4	10	30	0	20	partly cloudy	overcast
Regina	27 Dec 2011	-4	0	20	30	0	10	overcast	cloudy
Rokeby	16 Dec 2011	-15	-5	10	15	8	15	light snow	mostly clear
Roscommon S.D.	30 Dec 2011	-7	-4	2	5	10	15	light fog	overcast
Rouleau	23 Dec 2011	-2	0	2	5	0	1	mostly clear	mostly clear
Round Lake	17 Dec 2011	-10	-1	0	15	0	10	clear	mostly clear
Saltcoats	31 Dec 2011	-5	8	17	20	5	10	mostly clear	mostly clear
Sask. Landing P.P.	30 Dec 2011	-4	4	8	50	0	10	partly cloudy	partly cloudy
Sask. River Forks	17 Dec 2011	-16	-5	5	10	5	10	mostly clear	partly cloudy
Saskatoon	26 Dec 2011	-1	4	22	45	0	8	cloudy	partly cloudy
Sawyer Lake	29 Dec 2012	-13	-8	2	5	23	23	partly cloudy	partly cloudy
Shamrock	2 Jan 2012	-5	-2	30	45	5	10	partly cloudy	cloudy
Snowden	3 Jan 2012	-4	1	2	2	3	15	clear	clear
Spinney Hill	15 Dec 2011	-11	-5	0	10	1	1	light fog	light fog
Squaw Rapids	2 Jan 2012	-30	-10	2	12	15	40	cloudy	partly cloudy
Swift Current	27 Dec 2011	-3	3	45	60	3	8	partly cloudy	mostly clear
Togo	4 Jan 2012	-3	-2	5	10	10	20	mostly clear	mostly clear
Weyburn	17 Dec 2011	-8	-1	3	5	0	1	clear	mostly clear
White Bear	26 Dec 2011	2	3	2	5	0	3	cloudy	cloudy
Whitewood	27 Dec 2011	-10	-6	15	30	2	20	overcast	mod.snow
Wingard-Ft. Carlton	29 Dec 2011	-4	-4	0	0	5	5	overcast	overcast
Yorkton	17 Dec 2011	-9	-6	11	13	10	35	mostly clear	mostly clear

Table 2-1. Effort and Habitat Coverage. Wild Fruit: p=poor, f=fair, g=good, e=excellent

Locality	Participants	Km on foot	Hours on foot	Km by vehicle	Hours by vehicle	Hours at feeders	Evergreen forest	Mixedwood forest	Deciduous forest	Aspen grove/farmland	Aspen grove/prairie	Native prairie	Tame pasture	Farmland	Farmsteads	Urban	Open water	Riparian	Shield, bog,swamp	Wild Fruit Crop
Archerwill	6	10.0	4.5	100	5.0	6.0		25						50	25					
Avonlea	2	5.0	3.0	114	4.5	0.5			15					35	15	25				p
Balgonie	12	2.0	0.5	414	19.0					35	5			50	5	5				g
Bangor	8	3.0	2.0	30	3.0	32.0				10					90					p
Biggar	9	18.0	9.0	447	12.3	5.0				19				49						g
Birch Hills	5	9.0	1.5	114	22.0	6.0			5	40			2	44	3	5	1			f
Broadview	3	2.5	1.5	115	5.0	2.0			20	35		5		25	5	10				p
Cabri	3	3.5	2.0	124	5.0															p
Candle Lake	4	5.0	5.0	178	8.0		20	20	30							30				p
Cater	4			234	8.0	1.0	5	10	5	15			5	50	5	5				g
Chatsworth S.D.	6	2.0	3.0	42	6.0					80		10			10					f
Christopher Lake	1	10.0	2.5					65		35										p
Churchbridge	13			128	12.0	66.0				10	15			72	2	1				f
Clark's Crossing	24	17.0	17.4	591	27.6	2.0				22	3	1		28	16	24	1	5		p
Codette Lake	2	2.0	1.0	100	4.0		5	10	20	20				15	25		5			g
Coronach	3	0.5	1.5	130	5.3							5	5	45	5	10	30			
Craven	35	31.0	16.0	427	21.0	7.0				15			5	10	45	10	15			
Creighton	2	1.0	1.0	142	6.0	2.0	10	10	10							20			50	e
Crooked Lake	1	0.5	0.5	126	3.5					40						10	50			f
Crooked River	5	0.5	5.0	25	0.5	5.0		40						40	20					g
Cypress Hills P.P.	6	8.0	4.5	15	1.0		40	40	8			10			2					g
Denholm	3			304	6.5	3.0				15				5	70	5	5			g
Dorintosh	2	10.0	3.0	100	3.0	2.0	60							40						p
Eastend	8	6.0	9.0	106	15.0	5.0		5		20	50	10	5	5		5	t			p
Endeavour	1			45	3.0	4.0		10		30					50	10				g
Estevan	5	5.0	4.0	177	5.8	3.0								10	9	36	15	30		g
Estuary North	2	4.0	4.0	50	4.0				50			25	10	10	5					f
Fenton	3	2.0	1.0	122	5.0															p
Fort Qu'Appelle	22									2	15			40	1	41	1			p
Gardiner Dam	8	33.0	16.3	428	15.0	1.0			5	3				37	15	3	32	5		
Good Spirit Lake	5			106	4.0	3.0		5	5	5		5	5	30	5	40				f
Grandora	3	2.0	2.0	23	5.0	1.5				90					10					
Grasslands N.P.	16	5.0	2.0	210	20.0							70	5	15	2	3		5		
Grayson	6	10.0	2.0	104	5.0	4.0				20				20	20	20				
Harris	2	5.0	2.8	190	6.3					17				53	30					f
Hazlet	2	1.0	0.8	185	5.1							10		80	5	5				f
Hudson Bay	12			12	1.0	15.0		12							76	12				g
Indian Head	21	2.0	1.0	155	5.0	15.0								20	30	40	10			p
Kenaston	4			83	6.0					10	10			70	10					
Kenosee Lake	2			124	4.5	0.5		5	45	20						30				p
Ketchen North	1	1.0	1.5	50	2.0	6.0					30		20	20	20	10				
Kilwinning	2	1.0	0.5	151	6.8		5	15	5	50			5	20						p
Kindersley North	2				5.0															
Kinloch	5	6.0	3.0	74	4.0	12.0		60	20						20					g
Kyle	4	7.0	4.0	260	12.0	2.0				2		25	5	63	1	2		2		p



Table 2-2. Effort and Habitat Coverage. Wild Fruit: p=poor, f=fair, g=good, e=excellent.

Locality	Participants	Km on foot	Hours on foot	Km by vehicle	Hours by vehicle	Hours at feeders	Evergreen forest	Mixedwood forest	Deciduous forest	Aspen grove/farmland	Aspen grove/prairie	Native prairie	Tame pasture	Farmland	Farmsteads	Urban	Open water	Riparian	Shield, bog,swamp	Wild Fruit Crop
Lac La Plonge	4	1	0.5	47.6	5.75	1.5		40	40								20			p
La Ronge	1			36	2.0	2.0	30	10									60			f
LMLNWA	2	1.0	0.5	153	7.0	0.8			10			15		50	5	20				f
LMLNWA-Nokomis	1	4.0	1.3	135	4.8	0.8			10	5	20	10	40	1	1		13			p
Love-Torch River	26	2.0	4.0	390	10.8	28.0	10	10		60				10	10					p
Luseland	7	7.0	4.0	237	6.0	4.0				35	10	5	5	30	5	10				f
Macdowall	7	0.5	0.3	110	7.3	10.0	5	25	10	5				25	30					p
MacNutt	2			150	5.5	4.0			20	30	10	2	20			8	10			f
Matador	2	2.0	1.0	115	5.3							85	5	5				5		g
Meadow Lake	6	5.0	4.0	121	4.0	8.0		50						30		20				p
Moose Jaw	3	7.5	3.8	160	6.5	1.0					t		15	t	60	25				f
Moose Mountain	4			199	8.0		5		5	20	5	10	25	5	5	10				f
Morse	11	6.0	4.5	543	28.3	1.0							3	90	7					p
Nipawin	14	2.5	2.5	204	10.0	4.0	20	10		5				20	10	30	5			g
Nisbet Forest NW	3	2.0	1.0			4.5								20	80					g
Nisbet Forest West	4	1.0	0.5	120	4.5		5	30					10	30	10	15				g
Odessa	3			30	20.0					25	20	10	10	25	10					p
Outlook	2	3.0	2.0	128	4.8	0.5					5		5	35	5	45	5			f
Pierce Lake	4			150	4.5		10	30	30	10				10		10				p
Pike Lake	46	32.0	25.0	476	23.5	13.0			15	10			5	15	15	40				p
Prince Albert	25	12.2	7.3	418	23.0	2.0														p
Prince Albert N.P.	24	168	30.5	35	1.8			95								5				p
Qu'Appelle	2			40	0.3	0.7								35	65					g
Qu'Appelle Dam	10	4.0	4.8	545	21.9			2	13	10	5	5	10	15	10	20	10			p
Raymore	2	0.5	1.0	136	8.0	0.5				35				35	10	20				f
Regina	34	53.0	23.0	493	35.0	10.0			5					25	5	65				g
Rokeby	6			50	8.0	3.0				4				95	1					p
Roscommon S.D.	8	0.5	1.0	90	4.0	18.0				30				60	10					g
Rouleau	4	8.0	1.0	213	5.5	0.5								80	10	10				p
Round Lake	3	1.0	0.5	160	6.0	4.0			25	45						30				f
Saltcoats	16	1.5	1.5	198	6.5									40	50	10				f
Sask. Landing P.P.	5	6.0	2.0	250	8.0				20		25	5	39	1			10			p
Sask. River Forks	4	6.0	2.5	84	6.0		15	20	20	15			5	15	5		5			p
Saskatoon	96	100	46.6	806	55.6	110			10	1	4	11	9	57	3	4				p
Sawyer Lake	4	14.0	6.0	28	10.0	4		30	20				5	40	5					f
Shamrock	7	4.0	4.0	312	10.5								5	75	20					p
Snowden	14		3.5	100	2.5	2.5		10						30	50	10				g
Spinney Hill	2	1.0	0.5	152	6.5				35	25		5		35						p
Squaw Rapids	2	1.0	0.8	93	5.8			93						2		5				p
Swift Current	21	14.0	9.5	427	29.0	9.5								20	10	70				p
Togo	10	4.0	2.0	60	2.5	5.5		10	20	30	10	5		25						f
Weyburn	14	2.0	3.0	507	14.0						5	15	10	60	5	5				p
White Bear	2			110	3.0						20	5	73	1				1		p
Whitewood	18	2.5	1.5	541	15.5	37.5				50				10	40					p
Wingard-Ft. Carlton	6	1.0	0.3	80	5.3	10.0		5	15	10				25	45					f
Yorkton	26	1.0	1.0	116	10.0	16.0				30						70				e

Table 3-1. Species found on 8 or more counts; ( ) = seen during Count Period (CP).

Map Number	1	2	3	4	5	6	7	8	9	10	11
	Archerwill 17 Dec 2011	Avonlea 4 Jan 2012	Balgonie 2 Jan 2012	Bangor 28 Dec 2011	Biggar 27 Dec 2011	Birch Hills 20 Dec 2011	Broadview 24 Dec 2011	Cabri 4 Jan 2012	Candle Lake 29 Dec 2011	Cater 1 Jan 2012	Chatsworth S.D. 3 Jan 2012
Species											
Canada Goose											
Mallard					8						
Common Goldeneye											
Common Merganser											
Gray Partridge				1		(3)					11
Ring-necked Pheasant											
Ruffed Grouse	2					(1)	2			(2)	2
Sharp-tailed Grouse		1	5	21	26			1			8
Bald Eagle	(1)										1
Northern Goshawk									1		
Rough-legged Hawk					5						
Golden Eagle		1			2						
Merlin						(1)					
Gyrfalcon											
Rock Pigeon	21	135	276	7	271	121	59	39		2	12
Eurasian Collared-Dove					21			30			
Mourning Dove							(1)				
Great Horned Owl		(1)		2	4	2	1	1			
Snowy Owl			5	2	1		1	11			
Downy Woodpecker		1	3	9	1	3	(1)		1		4
Hairy Woodpecker	4	1		11	1	9	3		2	6	3
Northern Flicker					1						
Pileated Woodpecker	(1)								3		(1)
Northern Shrike						2					
Gray Jay	(2)								1		
Blue Jay	10				1	4	3		5	4	
Black-billed Magpie	46	14	82	41	124	88	19	42	4	30	20
Common Raven	67	(1)	30	31	88	16	16	1	224	159	14
Horned Lark											
Black-capped Chickadee	29		68	61	29	37	17	2	25	21	35
Boreal Chickadee	2								7		
Red-breasted Nuthatch	1	2			4				11		
White-breasted Nuthatch	5	2	2	3			2		1	2	4
Brown Creeper		(1)									
Golden-crowned Kinglet							2				
American Robin					2						
European Starling		21	21				(4)	9			2
Bohemian Waxwing			16		291	190	50			2	
Snow Bunting	330		89	40	67	(31)	1	2		566	50
Dark-eyed Junco		2			3						
Pine Grosbeak	42			7	6	31			29	81	
House Finch		(3)	2		65						
White-winged Crossbill									8		
Common Redpoll	124	73	538	57	615	221	192	35	107	188	85
Hoary Redpoll			1		2	2			1		
Pine Siskin											
American Goldfinch		(1)			1	(1)					
Evening Grosbeak	67								2		
House Sparrow		70	376	126	655	59	108	631		59	38
Total Birds Count Day	750	323	1517	417	2298	785	480	805	434	1120	289
Total Birds only in CP	5	8	0	0	0	37	6	0	0	2	1
Total Species Count Day	14	12	16	14	28	14	16	13	18	12	15
Total Species only in CP	4	6	0	0	0	5	3	0	0	1	1

Table 3-2. Species found on 8 or more counts; ( ) = seen during Count Period (CP).

Map Number	12	13	14	15	16	17	18	19	20	21	22
	Christopher Lake 22 Dec 2011	Churchbridge 14 Dec 2011	Clark's Crossing 17 Dec 2011	Codeite Lake 17 Dec 2011	Coronach 14 Dec 2011	Craven 17 Dec 2011	Creighton 2 Jan 2012	Crooked Lake 18 Dec 2011	Crooked River 28 Dec 2011	Cypress Hills P.P. 30 Dec 2011	Denholm 25 Dec 2011
Species											
Canada Goose			750		9187			464			
Mallard			2		5325	1		47			
Common Goldeneye			2		4	15					
Common Merganser											
Gray Partridge			23	1		10					(14)
Ring-necked Pheasant						1					
Ruffed Grouse		1		2		1			1		
Sharp-tailed Grouse		14	38		56	34	1				9
Bald Eagle			4	1				2			1
Northern Goshawk							2				
Rough-legged Hawk								1		1	
Golden Eagle					1	1		1		1	
Merlin											1
Gyrfalcon											
Rock Pigeon		6	341		5	79	142	23			91
Eurasian Collared-Dove					50						
Mourning Dove											
Great Horned Owl			5			1					(1)
Snowy Owl			3		7	13					
Downy Woodpecker	1	11	6	2		21	(1)		3		2
Hairy Woodpecker	2	10	10	3		11	1		3	1	2
Northern Flicker			3							1	
Pileated Woodpecker											
Northern Shrike								1			
Gray Jay							2		2		
Blue Jay		2	10	6		42		1	14		5
Black-billed Magpie	6	25	401	30	1	138	6	7	8	5	66
Common Raven		53	218	30		95	443	11	60	3	39
Horned Lark	8				17						
Black-capped Chickadee	13	57	148	31		202	5	5	33	26	12
Boreal Chickadee							7				
Red-breasted Nuthatch			3			4			2	10	
White-breasted Nuthatch	2	4		1		15		2	4		
Brown Creeper						2					
Golden-crowned Kinglet											
American Robin			1			(1)					
European Starling			115		7	210			4		
Bohemian Waxwing		21		15		72				60	(12)
Snow Bunting		130				(2)		10			(75)
Dark-eyed Junco						2					
Pine Grosbeak	7	8	30	42		(2)	31		29		6
House Finch			20			12					
White-winged Crossbill							(1)				
Common Redpoll	40	65	406	145	12	273	62	576		33	242
Hoary Redpoll		10	5	1			6				2
Pine Siskin											
American Goldfinch						(10)					
Evening Grosbeak	43			19					66		
House Sparrow		104	1221	43	54	305	2		18	3	61
Total Birds Count Day	122	523	3771	372	14734	1562	755	1156	247	149	539
Total Birds only in CP	0	0	0	0	0	15	2	0	0	0	102
Total Species Count Day	9	17	29	16	18	27	15	17	14	14	14
Total Species only in CP	0	0	0	0	0	4	2	0	0	0	4

Table 3-3. Species found on 8 or more counts; ( ) = seen during Count Period (CP).

Map Number	23	24	25	26	27	28	29	30	31	32	33
	Dorintosh 3 Jan 2012	Eastend 3 Jan 2012	Endeavour 18 Dec 2011	Estevan 30 Dec 2011	Estuary North 3 Jan 2012	Fenton 19 Dec 2011	Fort Qu'appelle 16 Dec 2011	Gardiner Dam 19 Dec 2011	Good Spirit Lake 29 Dec 2011	Grandora 5 Jan 2012	Grasslands NP 22 Dec 2011
Species											
Canada Goose				11117			420	872			
Mallard	(1)	6		2581			18	1831			
Common Goldeneye				39			20	191			
Common Merganser				2			8	77			
Gray Partridge		9						19			22
Ring-necked Pheasant		13		114	10						45
Ruffed Grouse	(3)		(1)						2		
Sharp-tailed Grouse	(2)	8		4			8	32	11		187
Bald Eagle		1		1			1	45		(2)	
Northern Goshawk				1	2		(1)				
Rough-legged Hawk				1	1						
Golden Eagle		1		4				2			1
Merlin											1
Gyrfalcon				(1)							
Rock Pigeon		10	20	24		38	123	124			65
Eurasian Collared-Dove		38		33			2	6			
Mourning Dove				1							
Great Horned Owl		4					(1)	5			1
Snowy Owl	(1)	3		4	1			3			4
Downy Woodpecker	2	1	1	2	1	1	11		2		1
Hairy Woodpecker	2	1	2	2	1	2	6		2	1	
Northern Flicker		1		(1)	2						
Pileated Woodpecker	(1)								2		
Northern Shrike		1				2	1				2
Gray Jay	4		1								
Blue Jay	5	1	4	(3)	5	2	25	7	11		
Black-billed Magpie	2	78	8	7	18	55	101	132	24		51
Common Raven	12	5	15	5	1	21	115	39	21	12	
Horned Lark											28
Black-capped Chickadee	15	37	26	10	12	31	128	14	53	4	
Boreal Chickadee											
Red-breasted Nuthatch	2	19					1	2	3		
White-breasted Nuthatch	2		2	1		1	13		3	1	
Brown Creeper								1		1	
Golden-crowned Kinglet		1									
American Robin										(1)	
European Starling		25	6	62			24	4			
Bohemian Waxwing				(12)	15	177	44	62			
Snow Bunting	(100)		35	12				16	120		121
Dark-eyed Junco		7					3	2			
Pine Grosbeak	3	8	25		27	39		24	31		
House Finch		2		(2)			12				
White-winged Crossbill		17									
Common Redpoll	25	61	65	385	22	138	761	91	12		1
Hoary Redpoll			1					1			
Pine Siskin											
American Goldfinch				(3)			3				
Evening Grosbeak	5		47								
House Sparrow		151	50	145	40	113	104	490	2	14	49
Total Birds Count Day	79	510	308	14599	158	620	1973	4210	300	33	582
Total Birds only in CP	108	0	1	23	0	0	4	0	0	3	0
Total Species Count Day	12	28	16	35	15	13	29	37	16	6	17
Total Species only in CP	6	0	1	7	0	0	4	0	0	2	0

Table 3-4. Species found on 8 or more counts; ( ) = seen during Count Period (CP).

Map Number	34	35	36	37	38	39	40	41	42	43	44
	Grayson 28 Dec 2011	Harris 16 Dec 2011	Hazlet 26 Dec 2011	Hudson Bay 26 Dec 2011	Indian Head 30 Dec 2011	Kenaston 19 Dec 2011	Kenosee Lake 29 Dec 2011	Ketchen 26 Dec 2011	Kilwinning 22 Dec 2011	Kinderley North 26 Dec 2011	Kinloch 4 Jan 2012
Species											
Canada Goose	429				750						
Mallard	117				150						
Common Goldeneye	10				12						
Common Merganser	3										
Gray Partridge		9		(2)	6						
Ring-necked Pheasant					1						
Ruffed Grouse	1				2			7	1		7
Sharp-tailed Grouse	2	36	18	3	7				7		
Bald Eagle	3			(1)	16				2		(2)
Northern Goshawk				(1)			1	1	1		(1)
Rough-legged Hawk		3									
Golden Eagle					2						1
Merlin					1				1		
Gyr Falcon											
Rock Pigeon		5	9		110	38	7	22	8	30	
Eurasian Collared-Dove											
Mourning Dove											
Great Horned Owl	1	5	1		2	2					1
Snowy Owl		6	3		3	1				2	
Downy Woodpecker	2	1		7	19		4	3	2		2
Hairy Woodpecker	2			7	11		3	3	3		2
Northern Flicker											
Pileated Woodpecker				1							
Northern Shrike								(1)	1		
Gray Jay				17					4		5
Blue Jay	6			32	30	(1)	17	12	5		23
Black-billed Magpie	25	64	31	19	66	31	11	11	30	35	15
Common Raven	48	18		509	100	11	16	46	42	1	23
Horned Lark			149		20						6
Black-capped Chickadee	32	5		87	122	2	71	8	34		24
Boreal Chickadee				9					9		
Red-breasted Nuthatch				2	5		3		1		1
White-breasted Nuthatch	1			8	12		5	1	4		7
Brown Creeper							1				
Golden-crowned Kinglet		1					1				
American Robin		1									
European Starling		1			11			12			
Bohemian Waxwing		9			6	(1)					
Snow Bunting	18		588	10	215	3		26	15	25	185
Dark-eyed Junco		10			7		1				
Pine Grosbeak		11		111			7	31	82		36
House Finch		2			12						
White-winged Crossbill									5		
Common Redpoll	152	46	103	139	176	4	83	69	128		118
Hoary Redpoll		1	1					6			6
Pine Siskin					4				3		
American Goldfinch											
Evening Grosbeak				155				1	67		18
House Sparrow	82	671	20	38	542	42	21	51	25	50	4
Total Birds Count Day	935	905	923	1155	2423	134	252	312	488	150	487
Total Birds only in CP	0	0	0	4	0	3	0	1	0	0	3
Total Species Count Day	19	20	10	18	32	9	16	19	26	8	19
Total Species only in CP	0	0	0	3	0	3	0	1	0	0	2

Table 3-5. Species found on 8 or more counts; ( ) = seen during Count Period (CP).

Map Number	45	46	47	48	49	50	51	52	53	54	55
	Kyle 22 Dec 2011	Lac La Plonge 28 Dec 2011	La Ronge 29 Dec 2011	LMLNWA 1 Jan 2012	LMLNWA-Nokomis 17 Dec 2011	Love-Torch River 27 Dec 2011	Luseland 2 Jan 2012	Macdowall 30 Dec 2011	Macnutt 24 Dec 2011	Matador 2 Jan 2012	Meadow Lake 26 Dec 2011
Species											
Canada Goose											
Mallard			1								
Common Goldeneye			1								
Common Merganser			1								
Gray Partridge	12					(11)	7				
Ring-necked Pheasant											
Ruffed Grouse		1				3		2	4		(2)
Sharp-tailed Grouse	60			2	11		(2)	3			
Bald Eagle						(1)		(1)	(1)		
Northern Goshawk	(1)							(1)	(1)		
Rough-legged Hawk	(1)				1						1
Golden Eagle											
Merlin	1										
Gyrfalcon	(1)								(1)	(1)	
Rock Pigeon	238			41	18	32	152				17
Eurasian Collared-Dove	(2)						9				
Mourning Dove									1		
Great Horned Owl	5			5	4		1	(1)			
Snowy Owl	11			11	5		1		1	2	
Downy Woodpecker	2	2	2			11		7			
Hairy Woodpecker		3	(1)		(1)	11		6	5		1
Northern Flicker											
Pileated Woodpecker						(1)		2			
Northern Shrike								(1)			
Gray Jay		9	5			18					3
Blue Jay	2	5				18	13	7	10		5
Black-billed Magpie	75	20		22	30	86	122	22	25	5	13
Common Raven	5	117	42	1	5	152	9	26	39		68
Horned Lark	(2)						22				
Black-capped Chickadee	1	15	3	2	2	119	10	69	68		10
Boreal Chickadee		4				8					(1)
Red-breasted Nuthatch		2				10	1	1			4
White-breasted Nuthatch						4		6	1		(1)
Brown Creeper											
Golden-crowned Kinglet											
American Robin							(1)	(1)			
European Starling				25		42	9				
Bohemian Waxwing	(15)		117		1	81	149	(25)			
Snow Bunting	350			988	720	2011	330	315	124	564	
Dark-eyed Junco			(1)	5		3					
Pine Grosbeak	4	18	8	1		191	32	72	23		21
House Finch				5			10				1
White-winged Crossbill											
Common Redpoll	175	21	43	53	140	1590	131	316	22		
Hoary Redpoll		20				5		3			1
Pine Siskin						10			6		
American Goldfinch											
Evening Grosbeak		11	26			145		71			4
House Sparrow	836			339	110	152	272	2	34	23	6
Total Birds Count Day	1780	261	249	1500	1048	4704	1280	930	364	595	154
Total Birds only in CP	22	0	2	0	1	13	3	32	3	1	4
Total Species Count Day	17	15	11	14	13	24	18	17	15	5	13
Total Species only in CP	6	0	2	0	1	3	2	8	3	1	3

Table 3-6. Species found on 8 or more counts; ( ) = seen during Count Period (CP).

Map Number	56	57	58	59	60	61	62	63	64	65	66
	Moose Jaw 16 Dec 2011	Moose Mountain PP 3 Jan 2012	Morse 17 Dec 2011	Nipawin 30 Dec 2011	Nisbet Forest NW 27 Dec 2011	Nisbet Forest West 1 Jan 2012	Odessa 23 Dec 2011	Outlook 26 Dec 2011	Pierce Lake 18 Dec 2011	Pike Lake 2 Jan 2012	Prince Albert 18 Dec 2011
Species											
Canada Goose	38							(75)			
Mallard	37								1		
Common Goldeneye								(14)	43		
Common Merganser											
Gray Partridge	3		105	4							
Ring-necked Pheasant			11								
Ruffed Grouse				2	(1)		3			1	4
Sharp-tailed Grouse		2	18				15			8	
Bald Eagle			1	2			2	4	1	7	1
Northern Goshawk											
Rough-legged Hawk										1	
Golden Eagle			1								
Merlin	1		1								1
Gyr Falcon			1	(1)							
Rock Pigeon	401	9	278	128				2		76	467
Eurasian Collared-Dove	2		6					20			
Mourning Dove			2							(2)	
Great Horned Owl	1		19				1	1		6	
Snowy Owl	6	1	17				2			1	
Downy Woodpecker	1			9	3	4	4	1	1	27	5
Hairy Woodpecker	1	1		4	1	3	6	1		22	6
Northern Flicker	1						4				
Pileated Woodpecker				1			2			2	
Northern Shrike			1							3	
Gray Jay				2					2		1
Blue Jay		1		30	7	10	2	5	3	28	21
Black-billed Magpie	23	24	71	58	3	12	25	68	7	144	116
Common Raven	3	121	7	291	1	23	12	23	35	174	409
Horned Lark			67								
Black-capped Chickadee	14	16		99	51	25	20	5	2	425	189
Boreal Chickadee											2
Red-breasted Nuthatch	2			18				1		3	1
White-breasted Nuthatch	3	6		2	3	1		(2)		8	8
Brown Creeper											
Golden-crowned Kinglet											
American Robin	(2)						2			10	2
European Starling	101		28	210						822	5
Bohemian Waxwing			1	561						205	1153
Snow Bunting			1473			30	40			878	12
Dark-eyed Junco	6			(1)						7	
Pine Grosbeak				116	5	36		(4)	5	131	83
House Finch	(1)		1							4	
White-winged Crossbill				5							2
Common Redpoll	3	59	506	446	12	108			22	591	231
Hoary Redpoll				4		1				7	5
Pine Siskin				1							42
American Goldfinch											
Evening Grosbeak					(6)	47					17
House Sparrow	80	42	1235	231				149		376	362
Total Birds Count Day	731	282	3851	2294	86	300	140	280	122	3967	3154
Total Birds only in CP	4	0	1	2	9	1	0	95	0	2	2
Total Species Count Day	22	11	23	24	9	12	15	12	11	27	28
Total Species only in CP	3	0	1	2	4	1	0	4	0	1	1

Table 3-7. Species found on 8 or more counts; ( ) = seen during Count Period (CP).

Map Number	67	68	69	70	71	72	73	74	75	76	77
	Prince Albert NP 16 Dec 2011	Qu'appelle 9 Jan 2012	Qu'appelle Dam 18 Dec 2011	Raymore 25 Dec 2011	Regina 27 Dec 2011	Rokeby 16 Dec 2011	Roscommon 30 Dec 2011	Rouleau 23 Dec 2011	Round Lake (Q.V.) 17 Dec 2011	Saltcoats 31 Dec 2011	Sask Landing PP 30 Dec 2011
Species											
Canada Goose			2503		379						
Mallard			1101		3				18		1
Common Goldeneye			54						1		
Common Merganser			1						1		
Gray Partridge			3		93	33					15
Ring-necked Pheasant											1
Ruffed Grouse	7					1	7			2	
Sharp-tailed Grouse			26		11	12				15	31
Bald Eagle			10			1			2		
Northern Goshawk			1				(1)				
Rough-legged Hawk					1						
Golden Eagle			2						3	(1)	3
Merlin					4						
Gyr Falcon			1								1
Rock Pigeon			41	4	587	50		69	106		61
Eurasian Collared-Dove			35								
Mourning Dove											
Great Horned Owl			3	1	3	1	(1)	4			3
Snowy Owl			3		45	1		19		1	4
Downy Woodpecker	2	3	1	5	13	3	4		2	8	
Hairy Woodpecker	5	4	7		4	1	6		4	11	
Northern Flicker			2		6						
Pileated Woodpecker	3						(1)				
Northern Shrike			1								
Gray Jay	16										
Blue Jay	1		4		12		8		33	8	1
Black-billed Magpie	9	4	85	16	39	37	14	2	31	39	68
Common Raven	30	3	6	31	63	24	8		14	85	2
Horned Lark			1								2
Black-capped Chickadee	22	14	40	19	96	25	48		22	49	1
Boreal Chickadee	146										
Red-breasted Nuthatch	1		2		40				1		1
White-breasted Nuthatch					9		1		9	7	
Brown Creeper					4				1		
Golden-crowned Kinglet					4						
American Robin					12		1		1		
European Starling			7		208			30			3
Bohemian Waxwing			117	205			61				
Snow Bunting			162	1	900	160	(500)			125	
Dark-eyed Junco				(1)	34		3				
Pine Grosbeak			46	4	14	15	58		11	12	
House Finch			18	5	89						
White-winged Crossbill	25						(40)				
Common Redpoll	2		282	31	44	17	93		484	127	39
Hoary Redpoll				1			4		1		
Pine Siskin	3				24						
American Goldfinch											
Evening Grosbeak										2	
House Sparrow		18	684	126	1286	222	36	80	111	54	402
Total Birds Count Day	277	46	5378	471	4059	604	352	204	856	545	640
Total Birds only in CP	0	0	0	1	3	0	543	0	0	1	1
Total Species Count Day	18	6	37	14	34	17	15	6	20	15	19
Total Species only in CP	0	0	0	1	2	0	5	0	0	1	1



Table 3-8. Species found on 8 or more counts; ( ) = seen during Count Period (CP).

Map Number	78	79	80	81	82	83	84	85	86	87	88
	Sask. River Forks 17 Dec 2011	Saskatoon 26 Dec 2011	Sawyer Lake 29 Dec 2011	Shamrock 2 Jan 2012	Snowden 3 Jan 2012	Spinney Hill 15 Dec 2011	Squaw Rapids 2 Jan 2012	Swift Current 27 Dec 2011	Togo 4 Jan 2012	Weyburn 17 Dec 2011	White Bear 26 Dec 2011
Species											
Canada Goose		421									
Mallard		84									
Common Goldeneye		181					268				
Common Merganser		2					2				
Gray Partridge		20		11				41		20	
Ring-necked Pheasant				1				11		19	
Ruffed Grouse	1	1	5				2		2		
Sharp-tailed Grouse					10		5	(25)	4		8
Bald Eagle		4					3	(1)			
Northern Goshawk			(1)								
Rough-legged Hawk		1						(1)			1
Golden Eagle										1	
Merlin		11							1	1	
Gyr Falcon											
Rock Pigeon		2534		102		29		174	6	210	92
Eurasian Collared-Dove		8						46		15	
Mourning Dove		1		3						3	
Great Horned Owl		3		11				2		1	1
Snowy Owl				14				9	1	1	3
Downy Woodpecker	3	16	1		11	3		1	15	1	
Hairy Woodpecker	6	8	1		6	3			10		
Northern Flicker		11				1		4			
Pileated Woodpecker	2		(1)			1			1		
Northern Shrike		3						1			
Gray Jay	4		2		3		11				
Blue Jay	10	60	2		16	5	8		68		
Black-billed Magpie	32	410	14	29	84	40	15	154	12	22	24
Common Raven	25	313	19		83	25	27	2	118		1
Horned Lark						2		3			
Black-capped Chickadee	34	713	14		87	27	22	2	78		
Boreal Chickadee	8				9		5		10		
Red-breasted Nuthatch		76			7		15	18		4	
White-breasted Nuthatch	1	2			6			3	6	1	
Brown Creeper		1					1				
Golden-crowned Kinglet	1	8						2			
American Robin		1				1					
European Starling		81	16			13	1			400	3
Bohemian Waxwing		298						10		4	
Snow Bunting	5		350	928	160	3	326	305			
Dark-eyed Junco		13						9		7	
Pine Grosbeak	42	12	14		110	9	18	8	61		
House Finch		430		2		5		79			
White-winged Crossbill		11						12			
Common Redpoll	372	439	34	54	518	274	187	60	153	12	
Hoary Redpoll	3	3		1			1				
Pine Siskin		3						7			
American Goldfinch		(1)									
Evening Grosbeak		2	30		147	4			77		
House Sparrow	28	2513	120	675	2	200	13	618	31	542	35
Total Birds Count Day	577	8774	622	1834	1275	652	940	1584	655	1264	168
Total Birds only in CP	0	2	4	0	0	0	2	27	0	0	0
Total Species Count Day	17	48	14	15	17	19	25	28	19	18	9
Total Species only in CP	0	2	3	0	0	0	2	3	0	0	0

Table 3-9. Species found on 8 or more counts; ( ) = seen during Count Period (CP).

Map Number	89	90	91				
	Whitewood 27 Dec 2011	Wingard-Fort Carlton 29 Dec 2011	Yorkton 17 Dec 2011	Totals Count Day	Totals only in Count Period	#Counts Count Day	# Counts only in Count Period
Species							
Canada Goose				27330	75	12	1
Mallard			3	11335	1	20	1
Common Goldeneye				841	14	14	1
Common Merganser				97	0	9	0
Gray Partridge	2	2		482	30	25	4
Ring-necked Pheasant				227	0	11	0
Ruffed Grouse	(1)	3	1	83	11	32	7
Sharp-tailed Grouse	(6)	21		799	35	42	4
Bald Eagle	2		1	119	10	26	8
Northern Goshawk				10	8	8	8
Rough-legged Hawk		1		19	2	13	2
Golden Eagle				28	1	17	1
Merlin	1			26	1	13	1
Gyr Falcon				3	5	3	5
Rock Pigeon	38		159	8384	0	61	0
Eurasian Collared-Dove	5		7	333	2	17	1
Mourning Dove				11	3	6	2
Great Horned Owl	(1)	(1)	1	115	7	37	7
Snowy Owl	2			233	1	40	1
Downy Woodpecker	14	2	17	334	2	65	2
Hairy Woodpecker	8	4	5	297	2	65	2
Northern Flicker				37	1	12	1
Pileated Woodpecker	(1)	1	1	22	7	13	7
Northern Shrike		1		20	2	13	2
Gray Jay		2		114	2	21	1
Blue Jay	22	15	4	736	4	61	2
Black-billed Magpie	43	19	13	4243	0	89	0
Common Raven	94	49	149	5392	1	82	1
Horned Lark				325	2	12	1
Black-capped Chickadee	182	10	66	4287	0	80	0
Boreal Chickadee				226	1	13	1
Red-breasted Nuthatch			1	285	0	39	0
White-breasted Nuthatch	15	4	7	223	3	51	2
Brown Creeper	2			14	1	9	1
Golden-crowned Kinglet				20	0	8	0
American Robin				34	6	11	5
European Starling			81	2619	4	35	1
Bohemian Waxwing	70	50	30	4143	65	32	5
Snow Bunting	845	10		14789	708	51	5
Dark-eyed Junco	1		1	126	3	20	3
Pine Grosbeak	8	42	19	2033	6	59	2
House Finch	3			779	6	21	3
White-winged Crossbill				85	41	8	2
Common Redpoll	803	64	54	15280	0	81	0
Hoary Redpoll	3	1		110	0	32	0
Pine Siskin				103	0	10	0
American Goldfinch	(1)	1		5	17	3	6
Evening Grosbeak		23		1190	6	27	1
House Sparrow	284	54	530	19550	0	79	0
Total Birds Count Day	2447	380	1150	128510	1121		
Total Birds only in CP	10	1	1	1121			
Total Species Count Day	22	23	21				
Total Species only in CP	5	1	1				

Table 4-1. Species found in fewer than 8 counts.

<b>Species</b>	<b>Locality and Number (*=Count Period)</b>
Greater White-fronted Goose	Coronach (2)
Snow Goose	Indian Head (1), Moose Jaw (1), Regina (1)
Cackling Goose	Estevan (5), Gardiner Dam (50), Qu'Appelle Dam (3)
Gadwall	Crooked Lake (2), Estevan (3)
Northern Pintail	Estevan (1)
Green-winged Teal	Estevan (1)
Canvasback	Estevan (2), Saskatoon (1), Squaw Rapids (1*)
Redhead	Gardiner Dam (37)
Ring-necked Duck	Crooked Lake (2), , Estevan (7), Grayson (1)
Lesser Scaup	Crooked Lake (1), Estevan (8), Fort Qu'Appelle (1), Gardiner Dam (21), Qu'Appelle Dam (2), Saskatoon (2), Squaw Rapids (1)
White-winged Scoter	Gardiner Dam (2)
Long-tailed Duck	Squaw Rapids (1)
Bufflehead	Fort Qu'Appelle (1), Saskatoon (1)
Barrow's Goldeneye	Squaw Rapids (1*)
Hooded Merganser	Estevan (5), Gardiner Dam (2), Squaw Rapids (2)
Red-breasted Merganser	Coronach (1)
Ruddy Duck	Estevan (1), Fort Qu'Appelle (1*)
Spruce Grouse	Hudson Bay (1), Love-Torch River (1)
Willow Ptarmigan	Creighton (20), Lac La Plonge (13)
Wild Turkey	Broadview (4), Cypress Hills P.P.(2)
Pied-billed Grebe	Coronach (1), Estevan (2)
Horned Grebe	Gardiner Dam (1)
Red-necked Grebe	Gardiner Dam (1)
Western Grebe	Coronach (1)
American White Pelican	Fort Qu'Appelle (1), Gardiner Dam (5)
Turkey Vulture	Moose Jaw (1*)
Northern Harrier	Archerwill (1*), Grasslands N. P. (1)
Sharp-shinned Hawk	Clark's Crossing (1), Qu'Appelle Dam (1), Saskatoon (2), Swift Current (1)
Cooper's Hawk	MacDowall (*), Regina (1*)
Red-tailed Hawk	Gardiner Dam (1), Regina (1*), Saskatoon (2)
American Kestrel	Morse (1*)
Prairie Falcon	Kyle (2), Qu'Appelle Dam (1), Saskatchewan Landing P.P. (1*), Shamrock (1)

*Table 4-1. (Con't) Species found in fewer than 8 counts.*

American Coot	Coronach (2), Estevan (7), Fort Qu'Appelle (17)
Killdeer	Gardiner Dam (1)
Herring Gull	Gardiner Dam (7)
Northern Hawk Owl	Kenaston (1*), Kinloch (1), Nipawin (1), Nisbet Forest West (1*), Prince Albert (3), Sawyer Lake (2*), Squaw Rapids (2)

*Table 4-2. Species found in fewer than 8 counts.*

<b>Species</b>	<b>Locality and Number (*=Count Period)</b>
Great Gray Owl	Candle Lake (2), Prince Albert NP (1)
Short-eared Owl	Biggar (2), Clark's Crossing (2), Grassland NP (2), Rokeby (1)
Northern Saw-whet Owl	Prince Albert N.P. (1)
American Three-toed Woodpecker	Kilwinning (2), Nisbet Forest Northwest (1*), Prince Albert (1), Squaw Rapids (1)
Black-backed Woodpecker	MacDowall (1*), Nisbet Forest Northwest (1*), Prince Albert N.P. (1), Squaw Rapids (3)
American Crow	Craven (1), Regina (8), Saskatoon (16), Swift Current (1)
Winter Wren	Fort Qu'Appelle (1)
Townsend's Solitaire	Biggar (1), Clark's Crossing (1), Craven (1), Cypress Hills P.P. (1), Regina (1*), Saskatoon (3), Swift Current (1)
Varied Thrush	Qu'Appelle Dam (1)
Cedar Waxwing	Fort Qu'Appelle (1), Raymore (20), Regina (20), Saskatoon (9), Snowden (16)
Orange-crowned Warbler	Togo (1)
American Tree Sparrow	Qu'Appelle Dam (1)
White-throated Sparrow	Ketchen (1), Saskatoon (2)
Harris's Sparrow	Kyle (1), LMLNWA-Nokomis (1), Morse (1), Saskatoon (1)
White-crowned Sparrow	Ketchen (1)
Northern Cardinal	Prince Albert (2*), Yorkton (1)
Red-winged Blackbird	Eastend (1), MacNutt (1)
Yellow-headed Blackbird	Good Spirit Lake (1), Indian Head (2)
Rusty Blackbird	Balgonie (3), Clark's Crossing (1), Kilwinning (6), Saskatchewan Landing PP (1), Spinney Hill (7)
Common Grackle	Churchbridge (2), Estevan (1*), Moose Jaw (3), Regina (2), Saskatoon (1*), Shamrock (1)
Gray-crowned Rosy-Finch	Cabri (1), Wingard-Fort Carlton
Purple Finch	Prince Albert (5)
Red Crossbill	Cypress Hills PP (2), Prince Albert NP (2), Saskatoon (22)

Table 5. Birds not identified to species.

Category	Locality and Number (*=Count Period)
Duck sp.	Qu'Appelle Dam (120), Saskatoon (3)
Grebe sp.	Coronach (1)
Small Accipiter	Avonlea (1*),
Accipiter sp.	Regina (1)
Eagle sp.	Shamrock (1)
Falcon sp.	Love-Torch River (1)
Woodpecker sp.	Clark's Crossing (1), Raymore (2), Saskatoon (1)
Crossbill sp.	Kinloch (9)
Finch sp.	Saskatoon (11)

Figure 1. Location of 2011 counts (numbers correspond to those in text under Count areas and participants).

Natural Vegetation Zones\*

- A. Subarctic Woodland
- B. Northern Boreal Forest
- C. Southern Boreal Forest
- D. Aspen Parkland
- E. Mixed Prairie
- F. Dry Mixed Prairie
- G. Cypress Hills

\*adapted from: Thorpe, J. 1999. Natural Vegetation. P. 133 in Atlas of Saskatchewan (K. Fung, ed). Univ. of Sask., Saskatoon.

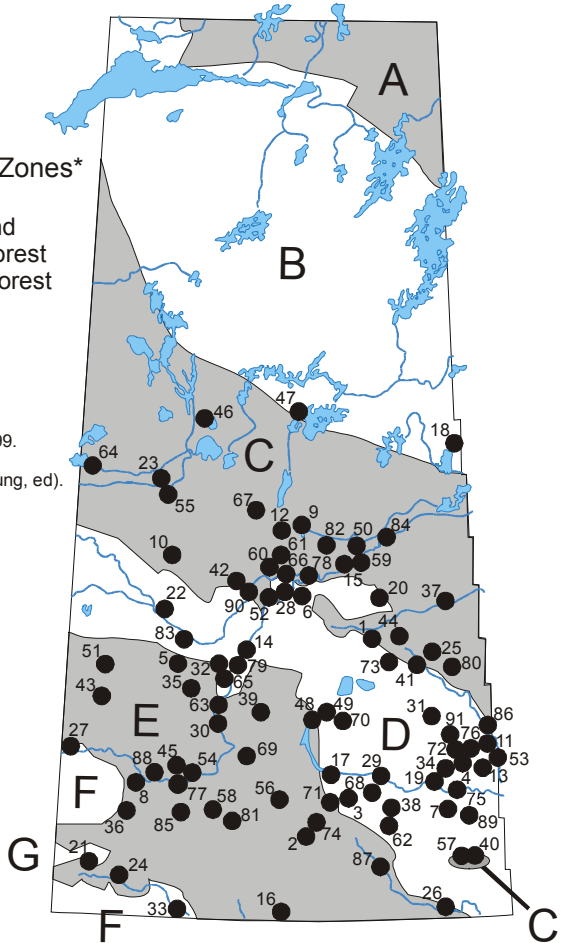


Table 6. New (*in bold and italics*) and tying high counts for individual species 2011.

LOCATION	2011 COUNT	SPECIES	PREVIOUS HIGH	LOCATION, YEAR
<b>Gardiner Dam</b>	<b>50</b>	<b><i>Cackling Goose</i></b>	<b>33</b>	<b><i>Gardiner Dam, 2005</i></b>
<b>Gardiner Dam</b>	<b>27</b>	<b><i>Redhead</i></b>	<b>15</b>	<b><i>Gardiner Dam, 1999</i></b>
<b>Estevan</b>	<b>7</b>	<b><i>Ring-necked Duck</i></b>	<b>4</b>	<b><i>Grayson, 2005</i></b>
Gardiner Dam	2	White-winged Scoter	2	Cold River, 1974
Squaw Rapids	1	Long-tailed Duck	1	Ft Qu'Appelle, 1968 (count period); Saskatoon, 1997; Gardiner Dam 2002
Squaw Rapids (count period)	1	Barrow's Goldeneye	1	Squaw Rapids, 1996; Saskatoon 2007 (count period)
<b>Estevan</b>	<b>5</b>	<b><i>Hooded Merganser</i></b>	<b>3</b>	<b><i>Estevan, 1960, 2010</i></b>
Estevan	2	Pied-billed Grebe	2	Regina, 1955, 1973
Gardiner Dam	1	Horned Grebe	1	Regina, 1959, 1960, 1961, 1977; Saskatoon, 1983; Coronach, 1997
Gardiner Dam	1	Red-necked Grebe	1	Regina, 1968; Squaw Rapids 1988
Coronach	1	Western Grebe	1	Regina, 1956, 1969; Gardiner Dam, 1979, 1988, 1997; Qu'Appelle Dam, 1990, 2005; Coronach, 1998, 1999
<b>Regina</b>	<b>45</b>	<b><i>Snowy Owl</i></b>	<b>36</b>	<b><i>Regina 1997</i></b>
<b>Prince Albert N.P.</b>	<b>142</b>	<b><i>Boreal Chickadee</i></b>	<b>52</b>	<b><i>Prince Albert N.P., 1987, 1996</i></b>
Ft. Qu'Appelle	1	Winter Wren	1	Ft Walsh, 1999
Togo	1	Orange-crowned Warbler	1	Saskatoon, 1997 (count Period)
Prince Albert (count period)	2	Northern Cardinal	2	Kamsack, 1998
<b>Indian Head</b>	<b>2</b>	<b><i>Yellow-headed Blackbird</i></b>	<b>1</b>	<b><i>Moose Jaw, 1995 (count period)</i></b>

Table 7. Population changes in numbers of selected species in 2011\* compared to 2010 and the average for 5 years (2006-2010), based on the number of birds per party hour. A minus sign indicates a decrease from previous years.

Species	% change from 2010	% change from 2006-2010	Species	% change from 2010	% change from 2006-2010
Canada Goose	720	193	Black-billed Magpie	10	24
Mallard	144	54	Common Raven	21	38
Common Goldeneye	26	25	Horned Lark	-79	-90
Gray Partridge	-79	-78	Black-capped Chickadee	-9	0
Ring-necked Pheasant	-38	-33	Boreal Chickadee	216	116
Ruffed Grouse	-23	-21	Red-breasted Nuthatch	-36	-41
Sharp-tailed Grouse	-46	-38	White-breasted Nuthatch	-21	-6
Bald Eagle	15	93	Brown Creeper	24	33
Northern Goshawk	-19	-31	Golden-crowned Kinglet	-33	18
Golden Eagle	52	52	American Robin	85	-74
Merlin	69	79	European Starling	244	261
Prairie Falcon	-22	-35	Bohemian Waxwing	-55	-28
Rock Pigeon	10	8	Dark-eyed Junco	69	37
Great Horned Owl	21	-1	Snow Bunting	-4	-45
Snowy Owl	659	272	Pine Grosbeak	188	27
Short-eared Owl	242	-36	House Finch	-12	-11
Downy Woodpecker	-35	-21	White-winged Crossbill	-43	-49
Hairy Woodpecker	-32	-20	Common Redpoll	552	139
Northern Flicker	81	-10	Hoary Redpoll	47	-11
Pileated Woodpecker	8	-3	Pine Siskin	-28	-75
Northern Shrike	-28	-14	Evening Grosbeak	1	-2
Gray Jay	71	17	House Sparrow	5	1
Blue Jay	-1	8			

\*As tremendous changes can occur in small sample sizes only those species recorded on an annual average of six or more counts are included.



# HOUR OF EGG LAYING OF THE MOURNING DOVE IN MANITOBA, AND A LOOK AT AN EARLY DATA-SET ON LAYING TIMES OF CAPTIVE MOURNING DOVES AND PASSENGER PIGEONS

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## Introduction

Information on the hour of day that birds lay their eggs is important for an understanding of reproductive biology. Laying times may influence the budgeting of time for foraging, territory defense, singing, mate guarding and copulation, and defense of nests against predators and brood parasites.<sup>1, 2, 3, 4, 5, 6</sup> Only a few studies, however, have addressed these issues in detail, despite the fact that variation in laying times among species of birds was noted more than a century ago;<sup>7, 8</sup> in fact, accurate laying times of most species have not been determined. My interest in laying times arose during studies, with my students, of interactions between the parasitic Brown-headed Cowbird (*Molothrus ater*) and its host species', conducted mostly in and adjacent to the dune-ridge forest at Delta Marsh, Manitoba. Results from studies elsewhere suggested that the timing of laying by cowbirds and by their hosts influenced decisions taken by hosts whether to reject parasitism.<sup>1, 9</sup> Laying times were determined by direct observations of laying females on nests, from blinds aided by binoculars and spotting scopes when necessary, of 22 species of passerine birds, including the parasitic Brown-headed Cowbird.<sup>3, 5, 10, 11.</sup><sup>12</sup> Cowbirds laid their eggs consistently during a 25-minute window about 30 minutes before sunrise, whereas the average laying times of the other species

ranged from a few minutes after sunrise through mid-morning and early afternoon.

Laying times were also determined for the Black-billed Cuckoo (*Coccyzus erythrophthalmus*) and the Mourning Dove (*Zenaida macroura*) at Delta Marsh by inspecting nests before and after the eggs were laid. In certain years of increased food availability, Black-billed Cuckoos lay eggs in other nests of their own species, which has been recorded at Delta Marsh<sup>13</sup> and in nests of the Yellow-billed Cuckoo (*C. americana*) and even occasionally passerine birds and the Mourning Dove.<sup>14</sup> Data for laying times of the Mourning Dove, which nests abundantly in the dune-ridge forest<sup>15</sup> (Fig. 1), are presented here. These data are compared with laying times of captive Passenger Pigeons (*Ectopistes migratorius*) derived from an early published paper.<sup>16</sup> Passenger Pigeons historically nested in southern Manitoba until they disappeared from the region in the late 1800s, followed a few decades later by the expansion of the Mourning Dove into the Canadian Prairies, after human settlement.<sup>17, 18, 19, 20</sup>

## Methods and Results

Laying times of the Mourning Dove.— Mourning Doves typically lay clutches of two eggs.<sup>21</sup> (Fig. 2). I determined laying times of the second egg in nests constructed in the forested dune ridge that separates Lake Manitoba and Delta





Figure 1. Mourning Dove brooding two young, dune-ridge forest, Delta Marsh, Manitoba, June 1981.

Marsh,<sup>22</sup> Manitoba (50°11' N, 98°19' W), between 30 May and 23 June 1992. Laying times were determined by locating nests containing one egg and checking them on the next day beginning about 08:00 hr (all times CST), which is about 3.5 hours after sunrise, and then inspecting the nest every two hours or so the same day until the next egg was laid. The laying times, all after sunrise (SR + minutes), were calculated as the midpoint between the two nest inspections that bracketed the laying event.<sup>1,2</sup> To determine the exact time of sunrise at Delta Marsh for the days in 1992 on which I recorded laying, I used the 1991 Observer's Handbook of the Royal Astronomical Society of Canada because sunrise times for a given latitude exhibit little year-to-variation in the temperate zone. The sunrise times ranged from 04:30 hr (30 May 1992) to 04:23 hr (23 June 1992).

A Mourning Dove was flushed from the nest during all but two nest inspections. In all cases, the second egg was laid the

day after the first egg was first observed, although it cannot be construed from this that the eggs were laid on consecutive days. The number of hours that elapsed between laying of the first and second eggs, i.e., the laying interval, was not recorded for any of the nests because the time of laying of the first eggs were not determined. The average laying time of second eggs at eight Mourning Dove nests was SR + 243 ± 11.8 (SE) minutes (08:35 hr; i.e., 4 hours, 18 minutes after sunrise) with a range of SR + 218 minutes (08:00 hr; 3 hours, 36 minutes) to SR + 316 minutes (09:38 hr; 5 hours, 16 minutes). Of the 24 species whose laying times were determined at Delta Marsh,<sup>5</sup> the Mourning Dove was one of nine species that laid eggs well past sunrise.

Laying times of the Passenger Pigeon.— Passenger Pigeons apparently laid only clutches of one egg,<sup>23</sup> thus making it more difficult to determine laying times in the field because the day on which the single egg was to be laid would not be known for



*Figure 2. Mourning Dove nest containing a typical two-egg clutch, dune-ridge forest, Delta Marsh, Manitoba, May 1977.*

sure and, hence, empty nests likely would have to have been checked leading up to the actual laying day. This difficulty is comparable to determining laying times of first eggs of the Mourning Dove and most other species of birds. Fortunately, a sample of laying times of the Passenger Pigeon was determined from captive females that sat on completed nests intermittently for up to two days before laying,<sup>16</sup> thus alerting the observer that an egg was about to be laid. These early observations of laying in captivity provided insight into the time of day of laying in the Passenger Pigeon.

A. W. Schorger's compilation of information on the former distribution and fragmentary details of the biology of the extinct Passenger Pigeon, published in *The Passenger Pigeon, Its Natural History and Extinction*, summarized observations of the time of day of egg laying.<sup>24</sup> These data, in remarkable detail, were based on observations of captive

birds made between 29 July 1896 and 31 July 1898, and published posthumously by C. O. Whitman in 1919.<sup>16</sup> Ten eggs for which the hour of laying was determined were laid in the late afternoon between approximately 16:00 hr (SR + 11.2 hours) on 29 July 1896 and 18:25 hr (SR + 13.5 hours) on 22 April 1897, presumably CST as Whitman's aviaries were located near Chicago, Illinois; eight additional eggs were indicated only as laid in the afternoon.<sup>16</sup> Sunrise times for dates of observations in 1897 and 1898 for the Chicago area were obtained from the website of the United States Naval Observatory Astronomical Applications Department (<http://aa.usno.navy.mil/AA/>).

Whitman elegantly described (p. 48) a female Passenger Pigeon during the act of laying, at 17.25 hr (SR + 13.4 hours) on 28 April 1897: "[The female] moved forward in the nest and held herself in a more or less erect position. When she dropped the egg she lifted her wings

a little, just as I saw her do in laying a previous egg [in another nest]. Another *Ectopistes* female stood up for 5 minutes after laying and then sat on the egg. She gave a few low calls shortly before laying.” This is all we will ever know about the laying times of the Passenger Pigeon, which was once one of the most abundant species of bird in North America.<sup>24</sup> We must assume that these times reflect the actual time of day that Passenger Pigeons laid their eggs in the wild.

## Discussion

In addition to influences that laying times have on the breeding biology of birds, there are practical reasons for accurately determining them, particularly in species such as the Mourning Dove and other species that lay several hours after sunrise. In many studies, nests are inspected each morning, likely preceding laying of first and subsequent eggs, thus resulting in eggs being recorded a day later than the one on which they were actually laid. This problem has apparently hampered attempts to determine accurate laying intervals of the Mourning Dove, and other species of dove and pigeon, because considerable variation in this interval has been recorded, some of it likely erroneous.

Whitman also observed captive Mourning Doves, and recorded eight females laying their first eggs in the afternoon, between 17:00 hr (SR + 12.4 hours) on 2 June 1898 and 18:07 hr (SR + 14 hours) on 24 April 189. These laying times were similar to those he determined for the Passenger Pigeon's single egg.<sup>16</sup> Whitman's observations are still the only accurate determinations of the hour of laying of the Mourning Dove's first eggs; other authors, however, have alluded to the laying of this egg in the afternoon.<sup>25, 26, 27</sup> Whitman also recorded laying times of four second eggs of the Mourning Dove, all in the morning, ranging from

06:35 hr (SR + 1.5 hours) on 28 April 1897 to 09:00 hr (SR + 3 hours) on 20 August 1897;<sup>16</sup> these times were similar to the laying times of second eggs of Mourning Doves recorded at Delta Marsh. Whitman concluded that Mourning Dove eggs were laid 38-40 hours apart, or on alternative days. Laying the only or first eggs late in the afternoon may be typical of other species of dove and pigeon,<sup>27</sup> but determination of these times require nest inspections that bracket egg laying to confirm them.<sup>2</sup>

It is problematic when authors stated that first eggs were laid in the late afternoon or evening, followed the next morning by the second eggs—an interval less than 24 hours. A minimum of 24 hours or more, without exception, is required for production and laying of successive eggs in birds.<sup>28</sup> If the Mourning Dove does lay its first egg in the evening, as the strongest evidence suggests,<sup>16</sup> most clutches are likely laid on alternate days. Confusion exists regarding the reporting of this interval, however, because laying times or laying dates of the first eggs, and (or) possibly also the second eggs, were not accurately determined. At the extreme are results from a study of wild and captive Mourning Doves in Iowa, in which it was reported (p. 380) “that eggs were laid when mature regardless of the time of day” (McClure 1943). Times were not provided to support of this variation in laying time, despite detailed notes given on the females' behaviour before and after the moment of laying. Apparently most eggs were laid 24 hours apart in this study, but several intervals of only 12 hours were also reported.<sup>26</sup> The 12-hour intervals were obviously recorded in error, unless this represents a heretofore unappreciated aspect of egg production and laying that requires more careful study (The 12-hour interval was repeated in the most recent account of this species' biology.)<sup>21</sup>, Goodwin<sup>27</sup> (p. 178) cryptically

questioned such short laying intervals, stating of the Mourning Dove that “the first [egg] is laid in the evening and the second in the early morning of the next day but one after”.<sup>21</sup> What Goodwin meant by “... but one after” is not clear but it suggests that he thought that the second eggs were probably laid two mornings later, thus laid on alternate days.

Other workers reported an interval of about 30 hours between laying of successive Mourning Dove eggs,<sup>29, 30</sup> but this also seems unrealistic, if the first eggs are laid in the evening and the second eggs are laid in the morning. In a detailed study of captive breeding Mourning Doves in Illinois, 17 of 27 clutches (63%) were produced on alternate days and 10 (37%) were laid on consecutive days.<sup>31</sup> Actual laying times were not given in any of these cases and, hence, the intervals cannot be verified. In the closely related White-winged Dove (*Z. asiatica*), first eggs were laid in the afternoon and second eggs in the morning of the third day, that is, about 36 hours apart, thus, on alternate days.<sup>32</sup> Further studies of laying times of the Mourning Dove and other species of dove and pigeon, and birds in general, are needed to fully understand a species' breeding biology and to dictate schedules of nest inspection and other activities by researchers to avoid disturbing laying females as much as possible.

As laying times of each species were determined on my study site at Delta Marsh in the late 1980s and early 1990s,<sup>3, 5, 10, 33</sup> students and I adjusted schedules of nest searching to occur after, or in some species that laid later in the day, before each species was expected to lay, so as not to disturb females in the act of laying.<sup>34, 35</sup> Mourning Doves are particularly challenging in this regard, however, as adults sit tightly on their nests after the first egg has been laid,<sup>30</sup> thus leaving little opportunity to inspect

nests without disturbing them. Knowing the range of laying times, however, allows field workers to inspect nests well after or before laying and minimize the possibility that nests will be deserted.

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Mourning Dove Nestling

L. Strauss

# DISCOVERY OF THE WORLD'S FIRST NEST OF THE SOLITARY SANDPIPER

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The first reported nest of any species is a milestone event in ornithology. The Solitary Sandpiper, *Tringa solitaria*, nest discovery was especially noteworthy because this species was relatively common, yet its nest site had gone unreported for more than a century. The hero of this account is a sixteen-year-old Scottish immigrant farm lad in Alberta named Evan Thomson. Evan corresponded with John Macoun and Walter Raine, and Raine personally visited the Thomson farm at Red Lodge, Alberta, in 1906. Three of Evan's egg sets even commanded attention in England. The final oologist visit to Evan at Red Lodge was jointly by Fletcher J. Street and George Stuart in 1923.

Evan Thomson's arrival in the world was itself noteworthy. He was born 15 September 1886 on board the stern wheel river boat Princess as she passed Sandy Long Point on the upper reaches of Lake Winnipeg. It was the last trip that summer for the Princess; had Evan's pregnant mother not caught it, she would have been forced to spend the winter in Winnipeg. Evan's father, Colin Thomson, born in Rosemarkie, Scotland 3 September 1855, was a Hudson's Bay Company (HBC) clerk at The Pas, Manitoba, 1883-1890.<sup>1</sup> Colin had met Sarah Margaret McDonald at The Pas, and had married her in Winnipeg on 28 July 1884.

Sarah Margaret was the daughter of Alexander McDonald and Mary Ann McRae; the latter's father was Duncan McRae (1813-1898), the Scottish stonemason and architect who had

joined the HBC in Winnipeg in 1837 and later superintended the building of major churches in the Winnipeg area.<sup>2</sup> Colin Thomson retired from the Hudson's Bay Company on 23 August 1892 and returned for three years to Scotland, where he operated a bakery in Inverness; his two oldest sons, Hepburn and Evan received their only formal education at the Raining Stair school in Inverness.

In 1895, when Evan was eight and his brother Hepburn nine, Colin and Sarah Thomson moved their family of five children under the age of 10 back to Canada. Colin homesteaded on the southeast quarter of section 28, township 34, range 2, west of the fifth meridian, eight miles west of the hamlet of Bowden (map, figure 1). Colin filed on the southwest quarter for his son Hepburn who lived there until his death in 1977. Below Hepburn's home there was open water year-round on Olds Creek; because of a spring; watering cattle was not a problem. Until 1927 Evan farmed the northeast quarter of the same section 28. Bowden is 116 km north of Calgary and 37 km south of Red Deer. The first school within walking distance was Berrydale, 4 miles south, which opened in September 1897, followed by White Creek school three miles west, in March 1907, and finally Red Lodge school, just over a mile south, in September 1907.<sup>3</sup> Hepburn and Evan missed out on the Canadian schooling that their younger siblings enjoyed.

To earn a little pocket money, Evan collected birds' eggs. In an age when egg-collecting was a more popular hobby

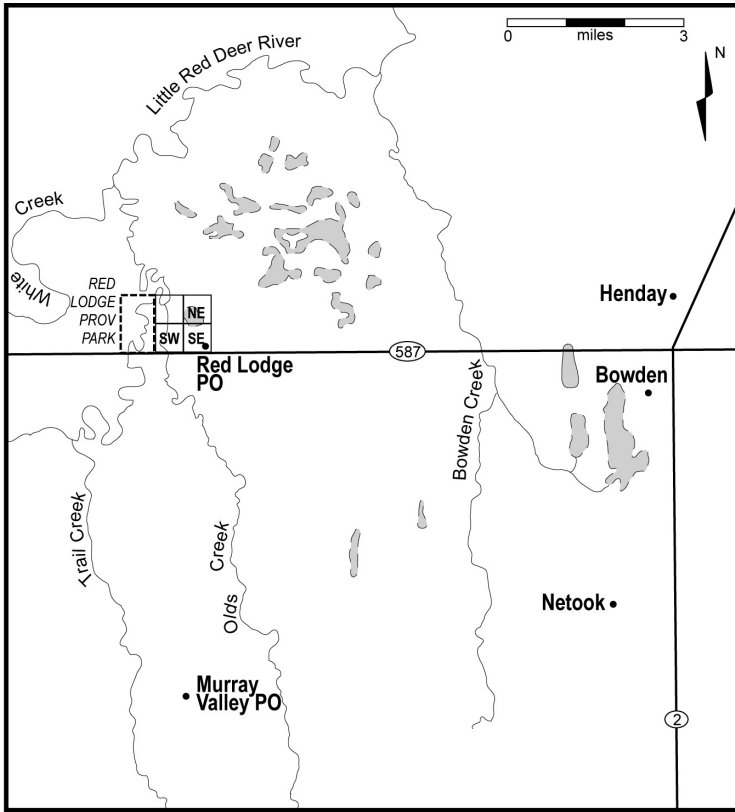


Figure 1. Map of Bowden and Red Lodge. By Carol Beaulieu

than stamp collecting, he carefully “blew out” the contents of each bird’s egg through a tiny hole in each end, and sent the eggs, carefully wrapped, by mail with their species identifications and sometimes their nests, to Walter Raine, Canada’s leading merchant of birds’ eggs, in Toronto, Ontario.

It seems highly probable, from indirect evidence, that Evan’s first contact with Walter Raine was in 1903, and that Raine paid him that year for his first shipment of eggs. If so, Evan’s still extant letter with what would then have been his second shipment, on 30 July 1904, was a reiteration of mention of the 1903 nest, as follows: “While collecting in Alberta last year 1903 on 16th June I happened

to come on an old Robins nest in which I found a Solitary Sandpiper sitting on eggs, but they [the eggs] were in too far a stage of incubation to preserve.” (Figure 2A, 2B). This pertinent fact, of four eggs that could not be emptied of their contents and hence were of little or no value, was omitted by Raine in his two published accounts.<sup>4, 5</sup>

The following is Raine’s wording: “In the spring of 1903, I engaged Mr. Evan Thomson to collect birds eggs for me in northern [sic = western] Alberta, and when the season was over he sent me notes on the specimens he had collected, amongst which was a record of finding a clutch of sandpiper eggs [16 June 1903] in an old American robin’s nest built in a



tree top ... I was sure I had at last secured a clutch of solitary sandpiper eggs."<sup>4</sup> For unequivocal verification, before this exciting discovery could be announced to the world, Raine directed Evan Thomson to collect an adult Solitary Sandpiper for unequivocal species identification, and its eggs from another tree nest the following year (1904). Evan located his second nest on 9 June, 1904, blew the eggs but left them in the grackle nest; the next morning the empty eggshells had disappeared and the adult was not visible. "On the 20th June ... I found another clutch and shot the parent bird as she flew from the

nest and secured the four fresh eggs ... [from] a cedar waxwing's nest in a spruce tree out in a swamp or muskeg." (figure 2a, 2b).<sup>4, 5</sup> Raine purchased the Solitary Sandpiper specimen, the Cedar Waxwing nest and the four eggs from Evan Thomson.

In 1905, Evan Thomson found his fourth Solitary Sandpiper nest.<sup>6</sup>

Raine submitted his findings to two journals, one Canadian and one American.<sup>4, 5</sup> The longer version, with a photograph of two eggs sets in their nests, appeared only in *Oologist*. In this way Raine successfully shared his new discovery with the widest possible audience. Such double publication was done occasionally at the time, although today it would be considered inappropriate.

**Walter Raine:** Raine was born in September 1861 in England. When only sixteen, Raine had presented a talk to the Leeds Naturalist Club, recounting his hikes through five adjacent localities within ten miles, searching for birds' nests. He had identified 86 bird species and located nests that contained 1074 eggs; of these he kept fewer than a hundred eggs for his personal collection, which he displayed at the meeting. The Leeds Naturalist Club published sixteen of Raine's bird notes and one about a polecat observation, in its bulletin, *The Naturalist*. A second talk to the club, on 20 August 1878, was mentioned favourably in the *Yorkshire Post and Leeds Mercury*.<sup>7</sup>

Raine emigrated to Toronto, Ontario in 1884. He continued to collect birds' eggs; this activity soon became his major source of income. He took his first trip by train to western Canada in 1891, stopping in Moose Jaw and Rush Lake, where the McCown's Longspur was the commonest small bird on the elevated prairies; Raine's specimens

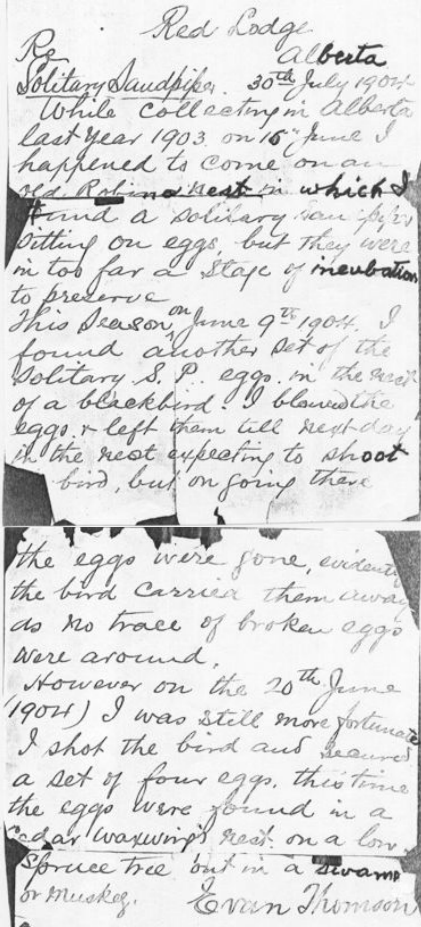


Figure 2A, 2B. Letter from Evan Thomson to Walter Raine, 1903

were the first of this little-known longspur to be deposited in the Geological Survey of Canada collection. In 1892, each McCown's Longspur egg listed at one dollar, a new listing thanks to Raine. [A Ferruginous Hawk egg listed for retail sale at \$2.50; a Sandhill Crane egg, \$2; a Whooping Crane egg, \$3; a Bald Eagle egg, \$3.50, and a Golden Eagle egg, \$6]<sup>8</sup>. Wishing to share his observations and collections, Raine prematurely and inadvisedly rushed into print with his 197-page book, *Bird Nesting in Northwest Canada*. Raine, in his first experience with birds on the western plains, was unaware that he had attributed several egg sets to a migrating wader species present nearby and not to the resident species that had laid them. Raine returned to western Canada in 1893; details of his sightings and collections appeared in five articles in six issues of *Nidologist*, an egg-collector's journal.<sup>7,9</sup>

**John Macoun:** John Macoun enters our story in 1904, when Walter Raine passed on to him the incubating adult Solitary Sandpiper specimen collected at his behest by Evan Thomson on 24 June 1904 as it flew from the previous Cedar Waxwing nest.<sup>10</sup> This set of four Solitary Sandpiper eggs, complete with the Cedar Waxwing nest, was promptly sold to oologist Colonel John E. Thayer in Lancaster, Massachusetts.<sup>5</sup>

It may be permissible to mention two of Macoun's missed opportunities. First, back in 1896, Macoun had in all probability missed his chance to find the world's first Solitary Sandpiper nest near Prince Albert, Saskatchewan: "On July 6th, 1896, while collecting plants in a swamp, I saw a bird of this species sitting on a small birch, but could neither raise the other bird nor find the nest. The next day I visited the same place and found two birds sitting on trees, but failed to find the nest."<sup>11</sup> Macoun did not think to look for a sandpiper's nest in the trees,

and thereby he missed his chance to add to his other important birds' nest finds: a colony of Passenger Pigeon nests on the Waterhen River between Lake Manitoba and Lake Winnipegosis on 23 June 1881 and the nest of a Connecticut Warbler in the Carberry swamp, 21 June 1883. John Macoun was the author of *Catalogue of Canadian Birds*, published in three segments in 1900, 1903 and 1904. John's son and assistant, James M. Macoun, joined him as the second author of the reprint edition in 1909. John Macoun waited patiently to assume charge of the national museum, the Victoria Memorial Museum in Ottawa, which did not open until January 1911.

Second, Macoun was in fact one of the few Canadians who might possibly have read about the tree-nesting habit of the European counterpart of the Solitary Sandpiper. The Green Sandpiper, *Tringa ochropus*, in the forests of Germany and Sweden, has a white rump but is otherwise similar in appearance to the Solitary Sandpiper. That the Green Sandpiper laid its eggs in trees in previous nests of other bird species had had been first noted as early as 1818, and in 1834 the identity of the host nest, a Song Thrush, *Turdus philomelos*, was first identified. However it was not until 1855 that Forest-Inspector Weise published the definitive article in *Journal für Ornithologie* ! Independently, H.W. Wheelwright in Sweden published a similar report in Britain's *Field* newspaper, 18 August 1860, in spite of doubts expressed [and years later apologized for] by the editor of *Field*.<sup>12</sup> Obviously, Macoun and virtually all other North American oologists, had not learned of the habits of the Green Sandpiper.

**Walter Raine's visit, 1906:** The fourth year, Raine determined to visit Red Lodge, Alberta, in person, from 5 to 11 June 1906. His aim was to see, first-hand,

a nest of a Solitary Sandpiper. In company with Evan Thomson, now nineteen, Raine reported:

“We were fortunate in finding three nests of this bird ... June 5th ... four eggs laid in the old nest of a Canada [Gray] jay ... in a small spruce tree five feet from the ground”; on June 8th, “four eggs laid in the nest of a Brewer [sic] blackbird about fifteen feet from the ground”; on June 11th ... “four eggs in an old [Eastern] kingbird’s nest at least twenty feet up in a poplar tree. So far, I have had nine clutches ...”<sup>10</sup> These were the fifth, sixth and seventh nests found by or with Evan Thomson, who found two additional nests in 1906, his eighth and ninth, one in an American Robin nest in a tamarack on 6 June and another on 15 June after Raine had left (see Jourdain below). While at Red Lodge, Raine took a photo of Evan Thomson’s recently-built log shack (Figure 3) and took another photograph, now very faded, of the Colin Thomson family.



Figure 3. Evan Thomson’s bachelor shack, 1906. Photo by Walter Raine.

Following Raine’s double publications in 1904, illustrated with excellent photographs, egg-collectors now for the first time knew to look in trees for Solitary Sandpiper nests. By the end of the 1909 season Raine had been able to purchase another 12 sets of four eggs, four sets of three, two sets of two, and one single egg.<sup>13</sup> Raine was so proud of his pre-eminence that he refrained from turning most of these eggs into a

quick, substantial profit; he knew that all major museums lacked a set of Solitary Sandpiper eggs. However, the double publication had no doubt enhanced his reputation and his sales of eggs of other species.

Raine remained in favour with John Macoun. During that same trip to Red Lodge, although perhaps before or after, Raine also collected the world’s first nest of the Short-billed Dowitcher. Time proved that Raine’s diagnosis of the bird being the *griseus* Short-billed race was correct though Macoun was doubtful.<sup>10</sup> Only in 1954 did the American Ornithologists’ Union recognize the Short-billed and Long-billed Dowitchers as separate species.

**F.C.R. Jourdain, 1907.** Jourdain’s 1907 article in *Ibis* depicted four sketches of Solitary Sandpiper eggs, one (#4) sketched by Jourdain himself from an American Robin nest 15 feet above ground in a tamarack, collected 6 June 1906 by Evan Thomson. Raine had evidently sold this set to Major F.W. Proctor, an English oologist. The other three eggs were #1, from the 16 June 1905 nest already mentioned above, the egg itself still at that time in the possession of Raine. Number 2 depicted an egg from the set collected 15 June 1906 after Raine had left Red Lodge and which had already been sold by Raine to Jeremiah Matthew Goodall, another well-known English oologist. The provenance of the egg sketched by Raine in #3 is not explained by Jourdain’s text or legend.<sup>6</sup> No doubt both Proctor and Goodall paid a premium for being the first Europeans to own these rare Solitary Sandpiper eggs. These “extra” nests were not mentioned in Macoun and Macoun 1909.<sup>10</sup>

**Evan marries Annie Baines, October 1918.** By working winters as a lumberjack in British Columbia, Evan had earned

sufficient to build a new house in 1916 or 1917 on the northeast quarter of section 28, the quarter section north of his parent's (Figures 4, 5). He had gained permission, after eight years of courtship, to marry Sarah Annie Baines, who went by "Annie," in October 1918. Annie's family, who emigrated from Coniston in England's "lake country" in 1897, farmed four miles to the south of Red Lodge, near the tiny settlement of Murray Valley. Evan's son Gerald was born 28 March 1920 and daughter Marjorie, 14 November 1922 (Figure 6). Evan shared his lifelong interest in wildlife with his two children.

**Fletcher J. Street and George Stuart's visit in 1923:** Evan Thomson (Figure 3) received his final recorded visit from an oologist, when J. Fletcher Street from Beverly, New Jersey and George H. Stuart 3rd from Philadelphia, Pennsylvania, arrived together at Bowden by train 28 May 1923. Evan drove them to

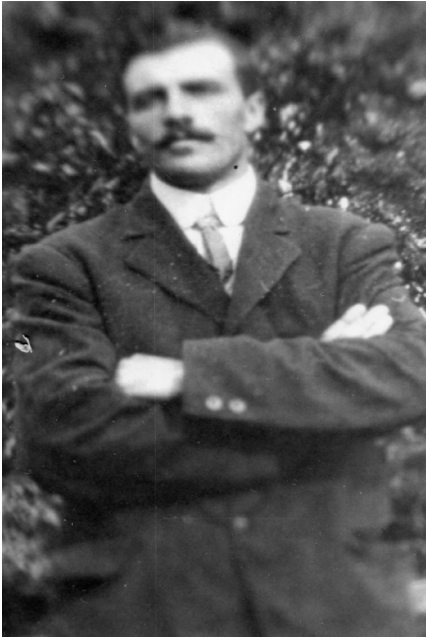


Figure 4. Evan Thomson as a young man

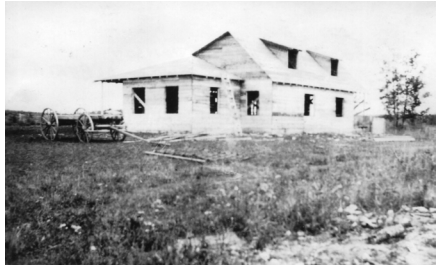


Figure 5. Evan Thomson's home under construction about 1916



Figure 6. Evan Thomson's wife, Annie, and children, Gerald and Marjorie, ca 1924

his "log cabin at the edge of the muskeg ... living alone in this wilderness without neighbors" Street's statement of Evan "living alone" was not true in 1903, when Evan was living with his parents and siblings, and was even less true in 1923, by which time Evan had a wife, a son and a daughter living in a frame house (Figure 7). On 29 May Evan took the two American oologists to his best hope, a chain of small lakes northwest of Red Lodge. There George Stuart was the one who located a Solitary Sandpiper nest with "four of the most beautiful eggs I have ever seen ... in a Robin's nest set

four feet from the ground in an eight foot spruce. ... Due to a lack of rainfall during the last four or five years ... what were once shallow ponds are now dried up muskegs. In places where the Solitary Sandpiper was once numerous it is hardly to be found at all.”<sup>14</sup>



Figure 7. Evan Thomson's home, ca 1926

The two Americans then continued farther north to Belvedere, Alberta, where Street published original observations of the nearly-as-rarely-found nests of the Lesser Yellowlegs near Belvedere.<sup>14</sup> Street and Stuart were the guests of A.D. Henderson, an American who was Alberta's most prolific bird's-egg collector. Henderson became the second Albertan to equal Evan Thomson in finding five sets of Solitary Sandpiper eggs: in American Robin nests in 1914, 1922 and 1923, in a Rusty Blackbird nest in 1927, and in an Eastern Kingbird nest in 1941.<sup>15</sup> In 1923, Henderson and Richard C. Harlow, an American, together found the first downy young of the Short-billed Dowitcher and in 1924, north of Fort Assiniboine AB, the second-ever nest, 1 and 2 June 1925<sup>16</sup>.

**Later life:** Evan Thomson sold his uneconomical farm in May 1927 and moved to Red Deer, where he was soon caught up in the Great Depression. He became a steam presser for a dry-cleaning firm for \$40 a month, but also raised silver foxes in an attempt to earn a little extra. Next he was in charge of the horses which worked underground for the Brazeau Colleries at Nordegg.

Finally he became a maintenance man for the Red Deer school division until his retirement in Red Deer in 1958 at age 72 (Figure 8). After two years in the Valley Park Nursing Home, his wife, Annie died in September 1977 at age 86, followed soon thereafter by Evan on 11 October 1977 at age 91 years.

Evan's daughter, Marjorie Kent, lives in Burnaby, B.C. Evan's niece, Beatrice Kure, daughter of Hepburn Thomson, lives with her husband Jens, have taken over her father's site. Bea reports (2 October 2011):

“The muskeg, a real muskeg that a man can sink down in, is still there on Evan's original farm. The moose love it in the winter. Some spruce trees have been taken out for lumber, leaving mostly small tamaracks, but some spruce still grow along the edge of the sandy land. Short pasture grass grows sparsely, with groves of poplar. It was never good farm land.”

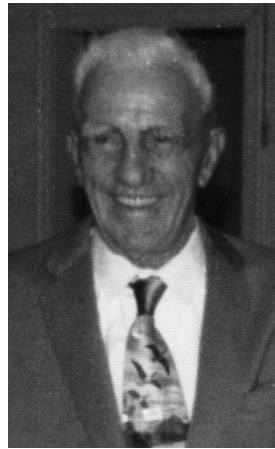


Figure 8. Evan Thomson as an older man

The geographical name of Red Lodge is today preserved in Red Lodge Provincial Park with 120 campsites, on the banks of the Little Red Deer River, 15 km west of Bowden and immediately west of Hepburn's quarter section where Bea and Jens Kure live. Nearby to the east is the

Red Lodge Guest Ranch, Bowden AB T0M 0K0, operated by Dale and Wendy Bradshaw, located 11 km west of Bowden on Highway #587.

### Summary

It is noteworthy, in fact astounding and against all statistical probability, that Evan, without binoculars, somehow had access to a bird book. Evan correctly and without hesitation identified the Solitary Sandpiper -- three years before the inexpensive Chester Reed's Bird Guide appeared in 1906 in two small volumes.<sup>17</sup> Identifying birds correctly was then extremely difficult; the norm was to shoot any unfamiliar bird and then spend an hour keying it out in the difficult manuals of that era.

While others on this continent kept their eyes on the ground when watching any Solitary Sandpiper pair that showed apparent breeding behaviour, Evan was the first to appreciate the significance of his bird landing on a robin nest in a tree! In spite of his limited education and limited access to books, he eclipsed thousands of much better educated people with infinitely greater opportunity. In the definitive Solitary Sandpiper species account #156 in the Birds of North America series of 716 species accounts, the timing of Evan's achievement is acknowledged without naming him, in Moskoff's brief 1995 statement: "... the nest was not discovered until 1903."<sup>18</sup> I suggest that Evan deserves long overdue naming as the improbable but triumphant hero.

### Acknowledgments

I am indebted to Marjorie Kent and Jens Kure for photographs and maps. Bea Kure copied relevant pages from Pioneer Legacy<sup>19</sup> and offered constructive criticism of two drafts of this account. Martin K. McNicholl offered constructive criticism.

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Solitary Sandpiper  
<http://www.robinarnoldphotography.com>

Robin Arnold

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# MAMMALS

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## 39<sup>th</sup> ANNUAL SASKATCHEWAN CHRISTMAS MAMMAL COUNT - 2011

ALAN R. SMITH, *Box 154, Avonlea, SK, S0H 0C0, Email: <alanrandi@sasktel.net>*

Eight-seven Christmas Mammal Counts were conducted this past winter, the highest number since 2005 when 89 counts were conducted. The 2384 mammals seen or heard was much lower than the 3635 seen last year, and the lowest since 1993 when only 2002 were noted. Most of this decline over last year is attributable to the number of deer reported. Mule deer were down from 805 in 2010 to 568 in 2011, White-tailed Deer from 1797 to 767. It is uncertain as to the cause. As with the upland gamebirds, the decline may have been more perceived than real as there was little snow to concentrate animals. On the other hand the previous winter's deep snow and subsequent rains that formed a crust on the snow undoubtedly resulted in high mortality in many areas.

The number of species seen or heard (32) was about average for the last decade. No new species were added to the all-time total of 49 species. For the fifth consecutive year Indian Head led the way with the most species on count day-14.

Noteworthy are two Fox Squirrels on the Qu'Appelle Dam count. Unknown to the province until 1979 when it was seen by Bob Luterbach in Regina, the species has now completed its conquest of the Souris and Qu'Appelle River basins. Also of note were Mountain Lion tracks on the Cabri, Cypress Hills P.P. and Endeavour counts-the most in any year.

A new high for the recently reintroduced Bison was reached with 42 on the Grassland N.P. count. Four Northern Flying Squirrels at Togo tied the previous high set at that locality on the 2001 and 2002 counts.

For information on participants, weather, coverage and location of Christmas Mammal Counts see the CBC summary in this issue.

Explanation of entries in Table 1.

The number of mammals actually seen or heard on count day is treated separately from those recorded by other means, or those recorded during count period (14 December to 5 January) but not on count day. Numbers of individuals seen or heard are given in Table 1 and are tallied in the first line of totals at the bottom of the table. The number of species they represent is given in the second line.

For species only detected by tracks or by other means, or that are seen or heard only in the count period but not on count day, no numbers of individuals is given in Table 1. Species detected only by tracks are indicated by 't' in the table; those detected only by other means (dead animals 'm', more clearly identifiable chewing or digging 'd', dens or lodges 'L' (including Muskrat push-ups) and by smell 's.') Species detected by any means during the count period, but not on count day are indicated by 'c' in the table. These additional species are tallied in lines 3, 4 and 5 at the bottom of the table. If a mammal is reported as member of a species group (i.e. mouse species, deer species), it is counted as a species only if no other species in this group has been definitely recorded. The columns at the end of the table, give totals for each species.



Table 1-1. 39th Saskatchewan Christmas Mammal Count - 2011.

CBC number	1	2	3	4	5	6	7	8	9	10	11	12
	Archerwill, 17 Dec 2011	Avonlea, 4 Jan 2012	Balgonie, 2 Jan 2012	Bangor, 28 Dec 2011	Biggar, 27 Dec 2011	Birch Hills, 20 Dec 2011	Broadview, 24 Dec 2011	Cabri, 4 Jan 2012	Candle Lake, 29 Dec 2011	Cater, 1 Jan 2012	Chatsworth S. D., 3 Jan 2012	Christopher Lake, 22 Dec 2011
SPECIES												
Shrew species												
Eastern Cottontail												
Nuttall's Cottontail								t				
Snowshoe Hare	t					1	t		t	t	t	t
White-tailed Jack Rabbit				t		t						
Richardson's Ground Squirrel												
Eastern Grey Squirrel							1					
Eastern Fox Squirrel		6	3				1					
American Red Squirrel	5			8		9	3		14	3	4	8
Northern Flying-Squirrel												
Northern Pocket Gopher												
American Beaver							L	L	L			
Deer Mouse			1				t	t	t	1		t
Muskrat					L	L	L			L		
Gapper's Red-Backed Vole												
Meadow Vole					1							
Vole species						t	t		t			
Norway Rat												
House Mouse												
Mouse species	t					t						
American Porcupine	m					t	m			1		
Coyote	1		3	6	2	1	3	t	t			
Gray Wolf	t								t	t		
Red Fox	t	t		3	1		1		t		c	
Raccoon						t	t					
American Marten									t			
Fisher									t			
Ermine						t	t					
Long-tailed Weasel				3		t	t		t			
Least Weasel						t		t	t			
Weasel species	t									t		
American Mink	t											
American Badger		d			d	d	1					
Striped Skunk						m		m				
River Otter									t			
Mountain Lion								t				
Canada Lynx									t			
Mule Deer					4			1				
White-tailed Deer	7		3	14	12		2		24	26	7	t
Deer species						t	t	t				
Moose	5						t			m		
Elk												
Pronghorn								t				
American Bison												
Totals seen/heard on count day	18	6	10	34	20	11	12	1	38	31	11	8
Total species seen/heard	4	1	4	5	5	3	7	1	2	4	2	1
Total species recorded by tracks	6	0	1	0	1	7	10	7	12	3	1	3
Total species otherwise recorded	1	1	0	0	2	3	2	3	1	2	0	0
Species recorded count period	0	0	0	0	0	0	0	0	0	0	1	0
Total species count period and day	11	2	5	5	8	13	19	10	15	9	4	4

Table 1-2. 39th Saskatchewan Christmas Mammal Count - 2011.

CBC number	13	14	15	16	17	18	19	20	21	22	23	24
	Churchbridge, 14 Dec 2011	Clark's Crossing, 17 Dec 2011	Codette Lake, 17 Dec 2011	Coronach, 14 Dec 2011	Craven, 17 Dec 2011	Creighton, 2 Jan 2012	Crooked Lake, 18 Dec 2011	Crooked River, 28 Dec 2011	Cypress Hills P.P., 30 Dec 2011	Denholm, 25 Dec 2011	Dorintosh, 3 Jan 2012	Eastend, 3 Jan 2012
<b>SPECIES</b>												
Shrew species												
Eastern Cottontail												
Nuttall's Cottontail					c	t		t				
Snowshoe Hare		t	t		1					t	m	
White-tailed Jack Rabbit		1							t			
Richardson's Ground Squirrel												
Eastern Grey Squirrel					4							
Eastern Fox Squirrel					5							
American Red Squirrel	3	4	12		10	2	2	5	4		t	
Northern Flying-Squirrel										1		
Northern Pocket Gopher										d		
American Beaver	L										L	
Deer Mouse										m		
Muskrat	L	2			3		3					
Gapper's Red-Backed Vole										1		
Meadow Vole												
Vole species						t						
Norway Rat	d											
House Mouse												
Mouse species								3			t	
American Porcupine												
Coyote	2	7	2	1	7	t		t	1	1	t	3
Gray Wolf												
Red Fox		t	t									
Raccoon									t			
American Marten												
Fisher						t					t	
Ermine												
Long-tailed Weasel												
Least Weasel								1			t	
Weasel species		2								c		
American Mink											t	
American Badger												
Striped Skunk	s							c				
River Otter											t	
Mountain Lion									t			
Canada Lynx											t	
Mule Deer					26							
White-tailed Deer	1	11	6	3	30			t	7	14	54	
Deer species												
Moose	t							1	t			1
Elk			t								t	
Pronghorn												
American Bison												
Totals seen/heard on count day	6	27	20	4	86	2	5	10	12	17	54	4
Total species seen/heard	3	6	3	2	8	1	2	4	3	4	1	2
Total species recorded by tracks	1	2	3	0	0	4	0	2	5	1	9	0
Total species otherwise recorded	4	0	0	0	0	0	0	0	0	2	2	0
Species recorded count period	1	0	0	0	1	0	0	1	0	1	0	0
Total species count period and day	9	8	6	2	9	5	2	7	8	8	12	2

Table 1-3. 39th Saskatchewan Christmas Mammal Count - 2011.

CBC number	25	26	27	28	29	30	31	32	33	35	36	38
	Endeavour, 18 Dec 2011	Estevan, 30 Dec 2011	Estuary North, 3 Jan 2012	Fenton, 19 Dec 2011	Fort Qu'Appelle, 16 Dec 2011	Gardiner Dam, 19 Dec 2011	Good Spirit Lake, 29 Dec 2011	Grandora, 5 Jan 2012	Grasslands N.P., 22 Dec 2011	Harris, 16 Dec 2011	Hazlet, 26 Dec 2011	Indian Head, 30 Dec 2011
SPECIES												
Shrew species												
Eastern Cottontail		t										
Nuttall's Cottontail						t			1			
Snowshoe Hare	t			t	1	t	1					1
White-tailed Jack Rabbit						t	t		1			1
Richardson's Ground Squirrel												
Eastern Grey Squirrel												
Eastern Fox Squirrel		3			1							5
American Red Squirrel	3			4	27		4					20
Northern Flying-Squirrel												
Northern Pocket Gopher											d	
American Beaver				L		L	L					1
Deer Mouse												
Muskrat		1		L	3	1	L		1	L		1
Gapper's Red-Backed Vole												
Meadow Vole	1									1		
Vole species				t				4				1
Norway Rat					c							2
House Mouse						3						
Mouse species				t		t		t				
American Porcupine	c				1				1	3		1
Coyote	1	4	1	t	5	4	1	1	15	6	t	12
Gray Wolf												
Red Fox			c		c	t			2			1
Raccoon			c					2				
American Marten												
Fisher												
Ermine	1	t		t	c	t						
Long-tailed Weasel												
Least Weasel				t		t						
Weasel species												
American Mink					1							
American Badger									m	d	d	1
Striped Skunk												
River Otter								1				
Mountain Lion	t											
Canada Lynx												
Mule Deer		13			5	23			224	6		15
White-tailed Deer	c	1	15		13	77	15	m	30	22	4	33
Deer species			t						5			
Moose			9		c		t					
Elk												
Pronghorn									14			
American Bison									42			
Totals seen/heard on count day	6	22	25	4	60	105	23	6	336	38	4	95
Total species seen/heard	4	5	3	1	10	4	5	3	10	5	1	14
Total species recorded by tracks	2	2	0	7	0	8	2	1	0	0	1	0
Total species otherwise recorded	0	0	0	2	0	1	2	1	1	2	2	0
Species recorded count period	2	0	2	0	4	0	0	0	0	0	0	0
Total species count period and day	8	7	5	10	14	13	9	4	11	7	4	14

Table 1-4. 39th Saskatchewan Christmas Mammal Count - 2011.

CBC number	39	40	41	42	43	44	45	46	48	49	50	51
	Kenaston, 19 Dec 2011	Kenosee Lake, 29 Dec 2011	Katchen, 26 Dec 2011	Kilwinning, 22 Dec 2011	Kindersley North, 26 Dec 2011	Kinloch, 4 Jan 2012	Kyle, 22 Dec 2011	Lac La Plonge, 28 Dec 2011	Last Mountain Lake, 1 Jan 2012	Last Mountain Lake-Nokomis, 17 Dec 2011	Love-Torch River, 27 Dec 2011	Luseland, 2 Jan 2012
SPECIES												
Shrew species										c		
Eastern Cottontail												
Nuttall's Cottontail							2					
Snowshoe Hare		t				1					t	
White-tailed Jack Rabbit	t			t	c		1		1	c	t	c
Richardson's Ground Squirrel												
Eastern Grey Squirrel				1								
Eastern Fox Squirrel								3		1		
American Red Squirrel		6	c	9		2		6			21	
Northern Flying-Squirrel												
Northern Pocket Gopher											d	
American Beaver	L	L	L			L	t					
Deer Mouse											c	
Muskrat		1	L			L				L		
Gapper's Red-Backed Vole												
Meadow Vole				1						c		
Vole species			c									1
Norway Rat												
House Mouse												
Mouse species							t					
American Porcupine		1				t						
Coyote	c			t		1	3		t	2	2	5
Gray Wolf						t						
Red Fox	c			t					t	c	1	c
Raccoon	t											
American Marten												
Fisher												
Ermine												
Long-tailed Weasel	t											
Least Weasel	t											
Weasel species						t						1
American Mink												
American Badger	d	d						d				
Striped Skunk	d											
River Otter												
Mountain Lion												
Canada Lynx												
Mule Deer		2			3		14		8	c		c
White-tailed Deer	c	12		1		t	4				3	28
Deer species			t									
Moose	t		t			t						c
Elk			t			m					t	
Pronghorn					c		74					
American Bison												
Totals seen/heard on count day	4	18	0	12	3	4	98	6	12	6	54	5
Total species seen/heard	3	2	0	4	1	3	6	1	3	3	6	1
Total species recorded by tracks	5	1	3	3	0	5	2	0	2	0	3	0
Total species otherwise recorded	3	3	1	0	0	3	1	0	0	1	1	0
Species recorded count period	3	0	2	0	2	0	0	0	0	6	1	4
Total species count period and day	14	6	6	7	3	11	9	1	5	10	11	5

Table 1-5. 39th Saskatchewan Christmas Mammal Count - 2011.

CBC number	52	53	54	55	56	57	58	59	60	61	62	63
	Maccowall, 30 Dec 2011	MacNutt, 24 Dec 2011	Matador, 2 Jan 2012	Meadow Lake, 26 Dec 2011	Moose Jaw, 16 Dec 2011	Moose Mountain P.P., 3 Jan 2012	Morse, 17 Dec 2011	Nipawin, 30 Dec 2011	Nisbet Forest Northwest, 27 Dec 2011	Nisbet Forest West, 1 Jan 2012	Odessa, 23 Dec 2011	Outlook, 26 Dec 2011
<b>SPECIES</b>												
Shrew species									m			
Eastern Cottontail												
Nuttall's Cottontail						t						
Snowshoe Hare							t	t				
White-tailed Jack Rabbit					1		3				6	
Richardson's Ground Squirrel									1			
Eastern Grey Squirrel												
Eastern Fox Squirrel				14							2	
American Red Squirrel	2	2		11		3		6		2	2	
Northern Flying-Squirrel												
Northern Pocket Gopher												
American Beaver									L			
Deer Mouse							t					
Muskrat	c				L	1 L			L			
Gapper's Red-Backed Vole												
Meadow Vole												
Vole species			1		1		1 t					
Norway Rat												
House Mouse							t					
Mouse species												
American Porcupine			c						c			c
Coyote	2	2	6 t		1		9 t		1	2	5 m	
Gray Wolf												
Red Fox					1		4				2	
Raccoon												
American Marten												
Fisher												
Ermine												
Long-tailed Weasel												
Least Weasel							m					
Weasel species								t				
American Mink												
American Badger							3					
Striped Skunk							2					m
River Otter												
Mountain Lion												
Canada Lynx												
Mule Deer			74				41				10	2
White-tailed Deer	t		2	3 c			53	2 t	c	25	3	
Deer species							4					
Moose		c					2					
Elk			c					t				
Pronghorn												
American Bison												
Totals seen/heard on count day	4	4	83	14	18	4	122	8	2	4	52	5
Total species seen/heard	2	2	4	2	5	2	9	2	2	2	7	2
Total species recorded by tracks	1	0	0	1	0	0	2	6	2	0	0	0
Total species otherwise recorded	0	0	0	0	1	0	2	0	3	0	0	2
Species recorded count period	1	1	2	0	1	0	0	0	1	1	0	1
Total species count period and day	4	3	6	3	7	2	13	8	8	3	7	5

Table 1-6. 39th Saskatchewan Christmas Mammal Count - 2011.

CBC number	64	65	66	67	68	69	70	71	73	74	75	76
	Pierce Lake, 18 Dec 2011	Pike Lake, 2 Jan 2012	Prince Albert, 18 Dec 2011	Prince Albert N.P., 16 Dec 2011	Qu'Appelle, 9 Dec 2012	Qu'Appelle Dam, 18 Dec 2011	Raymore, 25 Dec 2011	Regina, 27 Dec 2011	Roscommon S.D., 30 Dec 2011	Rouleau, 23 Dec 2011	Round Lake (Q.V.), 17 Dec 2011	Saltcoats, 31 Dec 2011
SPECIES												
Shrew species	t	t	t									
Eastern Cottontail												
Nuttall's Cottontail												
Snowshoe Hare	t	t	t	t				1				
White-tailed Jack Rabbit			t			1				1		1
Richardson's Ground Squirrel												
Eastern Grey Squirrel								8				
Eastern Fox Squirrel					2	2		30				
American Red Squirrel	4	10	16	28					1		1	1
Northern Flying-Squirrel												
Northern Pocket Gopher												
American Beaver			L			L					L	
Deer Mouse		t					t					
Muskrat			L			L		t			2	
Gapper's Red-Backed Vole												
Meadow Vole		t				2		1				
Vole species			t	t								
Norway Rat												
House Mouse									1			
Mouse species			t	t				t				
American Porcupine			1	d		t		1			d	
Coyote	t	t	t	t	1	4	6	4	3		2	5
Gray Wolf	t			1								
Red Fox	t		t	t	1			1		t	t	1
Raccoon									1	m		
American Marten				t								
Fisher				t								
Ermine												
Long-tailed Weasel			t			1			t			
Least Weasel												
Weasel species				t								
American Mink								1				
American Badger								d				L
Striped Skunk			m					1	1	s		
River Otter	t			t								
Mountain Lion												
Canada Lynx												
Mule Deer		5				33			6		t	
White-tailed Deer	7	11	t	2		20	3	1	14		t	2
Deer species						1						
Moose				t					t		1	
Elk				t								
Pronghorn								c				
American Bison												
Totals seen/heard on count day	11	27	16	31	4	64	9	49	27	2	5	10
Total species seen/heard	2	4	1	3	3	7	2	10	7	2	3	5
Total species recorded by tracks	5	5	9	11	0	0	1	1	4	1	3	0
Total species otherwise recorded	0	0	4	0	0	0	2	1	0	2	2	1
Species recorded count period	0	0	0	0	0	0	0	1	0	0	0	0
Total species count period and day	7	9	14	14	3	7	5	13	10	5	8	6

Table 1-7. 39th Saskatchewan Christmas Mammal Count - 2011.

CBC number	77	78	79	80	81	82	83	84	85	86	87	88
	Saskatchewan Landing P.P., 30 Dec 2011	Saskatchewan River Forks, 17 Dec 2011										
SPECIES												
Shrew species	1	t		t								
Eastern Cottontail												
Nuttall's Cottontail							t		2			
Snowshoe Hare		t	6	c		t				1		
White-tailed Jack Rabbit	1			c			t				2	
Richardson's Ground Squirrel									1			
Eastern Grey Squirrel			1						21			
Eastern Fox Squirrel											12	
American Red Squirrel		16	4	7		6	3	3		6		
Northern Flying-Squirrel										4		
Northern Pocket Gopher												
American Beaver												
Deer Mouse		t	t	t							1	
Muskrat			2									
Gapper's Red-Backed Vole												
Meadow Vole			4	t					1			
Vole species		t										
Norway Rat												
House Mouse												
Mouse species	t		t					t				
American Porcupine		t	t				t					
Coyote	2	3	3	t	1		2	2	1	5	8	
Gray Wolf		t		t						t		
Red Fox		t	t				1		c		4	
Raccoon	t					t				1		
American Marten		t										
Fisher		t										
Ermine		t		c								
Long-tailed Weasel		t				t						
Least Weasel			1			t						
Weasel species	t											
American Mink			t						1	t		
American Badger	c	d			d				d			
Striped Skunk									s			
River Otter							m					
Mountain Lion												
Canada Lynx												
Mule Deer	9		4		4		6		14			16
White-tailed Deer	5	t	40	c	9	4	9	6	32	15	9	
Deer species												
Moose	2			c			3			t		c
Elk		t		t						t		
Pronghorn	15								3			35
American Bison												
Totals seen/heard on count day	35	19	65	7	14	10	24	11	76	32	36	51
Total species seen/heard	7	2	9	1	3	2	6	3	9	6	6	2
Total species recorded by tracks	3	13	6	6	0	4	4	1	0	4	0	0
Total species otherwise recorded	0	1	0	0	1	0	1	0	2	0	0	0
Species recorded count period	1	0	0	5	0	0	0	0	1	0	0	1
Total species count period and day	11	16	13	12	4	6	11	4	12	10	6	3





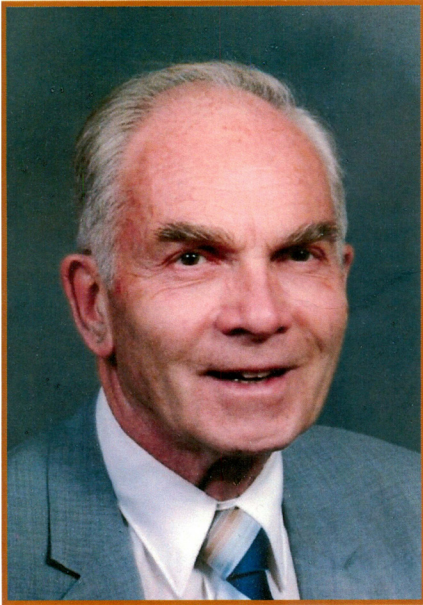
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# NOTES AND LETTERS

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## *Obituary*

Dr. Ronald M. Bremner (1923-2011)



Past president of the Saskatchewan Natural History Society, co-founder of the Saskatoon Natural History Society, and a lifetime birder and conservationist, Ron died in Saskatoon on October 21, 2011. He is survived by his wife Muriel, son Murray, daughter Margaret and husband Bruce Filson, and their children Chloe, Lydia and Veronica.

Born and educated in Toronto, Ron graduated with an MD from the University of Toronto in 1945. He served in general medical practice for four years in rural Ontario, during which time he published in the *Canadian Field Naturalist* (1949) his observations on the birds of the Casummit Lake region of NW Ontario. After further studies, he became a specialist in dermatology, and moved to Saskatoon in 1954 to establish the city's first private practice in that field.

He soon met a number of the local natural history enthusiasts, including Professor D.S. Rawson, head of the University of Saskatchewan Biology Department, Stuart Houston, Bernie Gollop, Bill Richards and Frank Roy. In 1955 the group decided there likely was sufficient interest to organize a Natural History society in the city. Ron became the first president in 1955-56. During his long life he watched the Society grow in membership and influence. He served as director five times in the succeeding 25 years: 1960, 1971, 1972, 1979 and 1980. Ron was president of the Saskatchewan Natural History Society in 1961-62. He had earlier gained recognition after writing a brief urging the provincial government to protect all hawks and owls. Protection of raptors was not an easy sell in those days. He faced opposition even within the Society executive, but after a resolution of differences, the brief was first presented to the government in 1959. Partial victory followed in 1960 when all birds of prey became protected with the exception of "snowy owls, great horned owls and goshawks which a person may hunt, take, shoot at, wound or kill from the first day of November in any year to the last day of March in the following year." It wasn't until several years later that protection was extended to all birds of prey. Ron's initial work had borne fruit. The legislation stands and is widely respected.

Ron led an active and varied life. He was a Rotarian for 30 years, a staunch member of St. Andrew's Presbyterian Church which he served for 53 years, an avid reader, philatelist, and world traveler. In 1984 he joined "The Golden Eagles," a group for retired persons within the Saskatoon Nature Society. He attended weekly excursions, supported their varied activities ranging from garbage clean-up,

restoration of Peturrson's Ravine, spring and fall bird counts, submission of bird observations for *The Birds of Saskatoon* (published 1996) to studies of lakes and marshes for the Canadian Wildlife Service.

Rev. Annabelle Wallace, who knew Ron for many years, says of him: "He lived simply so he could be generous. He gave of himself constantly, yet he served quietly. Happy, learned, humorous, proud of his heritage, he was a joy to be with."

-Written By Frank Roy



## BAND-TAILED PIGEON IN SASKATOON, SK

On June 29, 2011 my husband was in his living room chair when he looked up to the back yard bird feeders and said "There's a hawk sitting on the feeder hanger". I quickly went to the window and said "Not a hawk, but a pigeon". Because it looked different I quickly got the camera and took pictures. When we compared the pictures to our bird books we identified the bird as a Band-tailed Pigeon and realized this bird was not supposed to be in our area.

The Pigeon sat on the arms of the feeders and then flew to a tree in the yard West of us and appeared to be eating. I quietly went into the back yard to see if I could get any other pictures. It flew back to the Shurbert Chokeycherry in the SE corner of our yard and when I moved and walked toward it it flew away. We did not see it again.



- Trish Santo, 144 Delaronde Rd,  
Saskatoon Sk S7J 3Y4  
<tsanto@sasktel.net>



## ROCK PTARMIGAN - A NEW BIRD FOR ALBERTA

Kevin Kuipers<sup>1</sup>, Natalie Kuipers, Peter Storer  
<sup>1</sup>PO Box 90, Garden River, AB, T0H 4G0, Email: <kpkuipers@gmail.com>

On December 18 2011, we participated in the first Garden River Christmas Bird Count (CBC). After being in the province for only three and a half months, and having yet to experience a winter in the 'North', our familiarity with winter Alberta species was mostly limited to our printed resources. Nonetheless we had a very good idea of what we may run into due to range maps. Furthermore, due to the remoteness of Garden River, there was

a sense of potential discovery. If a rare winter resident had yet to be identified in the province, surely this was the location it was hiding.

For the CBC, the temperature was -24°C and sunny, with some bird activity in the Jack Pine stands. While driving eastbound 15 km west of Garden River, we encountered a Ptarmigan on the road. Peter was quick to note he almost

drove over it, as it camouflaged with the surrounding snow perfectly. The bird quickly flew to the adjacent forest, but boomeranged back onto the road in front of the vehicle.

Upon getting out of the vehicle, we immediately noted a black line running from the beak just past the eye, a feature I knew to be diagnostic. The question was, diagnostic of which species? A quick flip of a few pages produced the answer; a Rock Ptarmigan *Lagopus mutus*. I was aware this was a good find, but was under the impression that it was an irregular visitor to northern Alberta. I was wrong, and wouldn't find that out for a couple of days. Luckily Peter had brought along his digital SLR camera, and snapped a few pictures of it as it cautiously walked away from us. After a few more minutes of examining its feathery legs, we continued on our way.



Figure 1 - Photograph of Rock Ptarmigan in Alberta

After finishing the count, I did some research and excitedly discovered that the Rock Ptarmigan was a new bird in Alberta for the CBC. The surprises did not cease, however, and after reading through Alberta's Official Bird List,<sup>1</sup> found that the Rock Ptarmigan was absent from the list. Thank goodness for the photos. A few hours of general excitement ensued, intertwined with emails to various authoritative Alberta birding figures.

The Rock Ptarmigan was formerly considered "hypothetical" in Alberta, i.e.,

reported but without full substantiating evidence such as a photograph or specimen<sup>2</sup>(Figure 1).

However, it is a rare winter visitor to the Uranium City area of extreme NW Saskatchewan, with six records of single birds or coveys between 1957 and 1975. There have been few observers in that region since then.<sup>3</sup>

In winters past, it could be found in varying numbers (and frequency) on the Churchill Christmas Bird Count in Manitoba, having been reported on 16 of 21 CBCs, with hundreds or even thousands present until late March and early April during an irruption in 1998.<sup>4</sup> It has also been documented further inland, as far as 280 km from the Hudson Bay coast.<sup>5</sup>

As my wife and I will be living in Northern Alberta for a few years to come, our residence in such a remote location may prove to be very beneficial to further bird population research. We will continue to monitor sightings, documenting as many as possible, and ensuring that each Rock Ptarmigan encountered will be reported.

1. <http://www.royalalbertamuseum.ca/natural/birds/birdlist/taxon.htm>
2. Salt WR, Salt JR (1976) The birds of Alberta, Hurtig Publishers, Edmonton, AB.
3. Smith AR (1996) Atlas of Saskatchewan birds, Saskatchewan Natural History Society Special Publication No. 22, p. 124.
4. Manitoba Avian Research Committee (2003) The birds of Manitoba, Manitoba Naturalists Society, Winnipeg, MB, pp. 152-153.
5. Larche RA, Sealy SG (1977) Inland records of the rock ptarmigan in Manitoba, *Blue Jay* 35:99-100.



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## PHOTO NOTES

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### SHORT-EARED OWL (*Asio flammeus*)

ROSS DICKSON, Box 285, Nokomis SK, S0G 3R0 Email<rossdickson@sasktel.net>



Short-eared Owl *Asio flammeus* © 2011 Environment Canada - Cody Osborne

COSEWIC Status: *Special Concern 2008*

Short-eared Owl is nomadic, nesting and wintering in areas with a local abundance of *Microtus* voles and other small mammals, and generally avoids forested areas. It is a rare breeder in Saskatchewan except in low-lying grasslands in the Last Mountain Lake – Quill Lakes area.<sup>1</sup> Its irregular appearances obscure the continent-wide downward population decline as measured by Christmas Bird Counts.<sup>2</sup> The primary factor appears to be habitat loss and alternation.

Nests are hard to find, typically hidden in dense grassland, but sometimes in stubble.<sup>3</sup> The female is reluctant to flush from the grass-lined nest bowl often containing 6+ eggs (Figure 1). A nest of 7 young and 4 eggs near Greenan SK 28 May 1966 tied the North American record for largest clutch.<sup>4</sup> Egg-laying at 1-2 day intervals may begin in late April in central Saskatchewan. Incubation of about 27 days starts with the first egg resulting in asynchronous hatching (Figure 2).

Most leave the Canadian Prairies in winter. A satellite-carrying female was released at Last Mountain Lake 17 October 2007. The final signal was received 15 November near Fremont, Iowa, a distance of 1500 km (Marcel Gahbauer, Migration Research Foundation).



Figure 1. A clutch found 29 June 2006 indicates a re-nesting attempt. All nest photos are from Last Mountain Lake National Wildlife Area.

© 2006 Environment Canada - Joseph Kotlar.



Figure 2. Eyes are closed in these 1-5 day old chicks found 12 June 2006.

© 2006 Environment Canada - Joseph Kotlar.



*Figure 3. Buffy body feathers and dark facial masks have emerged on the larger chicks by 19 June 2006.*

© 2006 Environment Canada - Joseph Kotlar.



*Figure 4. The alert oldest nestling (about 12 days old) has crawled from the nest 19 June 2006. Pre-fledging dispersal at about 15 days reduces the chance that a predator will find all the young birds.*

© 2006 Environment Canada - Joseph Kotlar.

1. Smith AR (1996) Atlas of Saskatchewan birds. Special Publication No. 22, Saskatchewan Natural History Society, Regina.

2 COSEWIC (2008) COSEWIC assessment and update status report on the Short-eared Owl *Asio flammeus* in Canada. Committee on the Status of Endangered Wildlife in Canada. Ottawa.

3 Houston CS (2002) Short-eared Owl In Birds of the Saskatoon Area (A.L.

Leighton et al, eds). Special Publication No. 23, Nature Saskatchewan, Regina.

4 Houston CS (1997) Banding of Asio Owls in south-central Saskatchewan. Pp. 237-241 In Biology and conservation of owls of the Northern Hemisphere; Second international symposium, February 5-9, 1997, Winnipeg, Manitoba, Canada (J.R. Duncan, D.H. Johnson and T.H. Nicholls, eds.), USDA Forest Service, North-central Forest Experimental Station, St. Paul, MN. GTR-NC-190.



*Short-eared Owl*

*Pete Hardie*

*“Our ability to perceive quality in nature begins, as in art, with the pretty. It expands through successive stages of the beautiful to values as yet uncaptured by language.”*

*-Aldo Leopold, A Sand County Almanac*

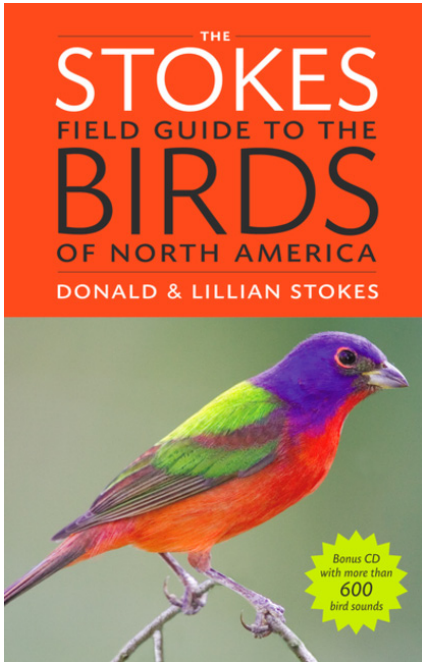
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# NATURE LIBRARY

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## THE STOKES GUIDE TO THE BIRDS OF NORTH AMERICA.

Donald and Lillian Stokes. 2010. Little Brown and Company, New York, NY. \$27.99 CDN. Soft Cover. ISBN: 978-0-316-01050-4. 792 pp. 13.8 cm by 21.5 cm.



The Stokes Guide to the Birds of North America is a traditional bird guide with standard bird photos illustrating birds perching, swimming, walking or flying. The 854 species accounts are arranged in typical phylogenetic order determined by the AOU Checklist Committee. Scattered amongst the species accounts, there are large text boxes containing useful identification tips for most major groups of birds in North America. Species accounts range from a quarter page to a full page. Species accounts and identification tip text boxes contain brief, concise well written-text with heavy use of abbreviations. Range maps are clear and sharp and look the same or similar to range maps found in other recent bird field guides. Each species account is

attractively arranged in a simple format with photos at the top of the page and text and range maps below. I did not detect any errors in the species accounts.

The 3,400 plus photos are clear and sharp and contain captions that indicate age, sex, season, morph and subspecies when appropriate. This is the first field guide to indicate in captions in which jurisdiction and month for almost every photo was taken. However, almost all photos were taken in the US. Each species account contains one to four photos. I noticed that for the Burrowing Owl, 2 of 3 photos showed the less common and more range restricted floridana subspecies. It might have been better to show more photos of the more commonly encountered hypugea subspecies.

The Stokes Guide does not use a photo composite approach like the Crossley ID Guide but has smaller book dimensions and provides more text information than the Crossley ID Guide (3). Also, the Stokes Guide focuses on quantitative shape as bird identification tool. In addition, other bird guides are even more compact (Kaufmann); contain more habitat information (Dorling Kindersley, Lone Pine); include information on best birding sites (Lone Pine); describe bird behaviour, ecology and evolution (Dorling Kindersley); and other useful features that aid bird identification such as labeled field marks (Dorling Kindersley) 1,4,5.

A key strength of the book is a section entitled "How to use this Guide" where the authors clearly explain each section



of species accounts so readers can get the most out of this book. It is particularly strong on bird shape and plumages, which are key to successful bird identification. This section also includes area and species covered, photos and captions, species name, American Bird Association (ABA) birding codes, length, flight, voice, habitat, subspecies, hybrids and range maps. I find sections on flight and habitat too brief and I do not think the use of ABA birding codes for relative abundance is very effective. The key to the parts of a bird section is excellent with clear, sharp well-labeled photos. Handy summaries of how to use this guide and key to the parts of a bird are found in the front and back inside covers respectively.

There is something new with the Stokes Guide that is not included with most other bird field guides: a bonus CD of selected bird songs and calls. The bonus CD includes over 600 songs and calls of 150 common North American birds. The individual species soundtracks can be easily found on the CD when it is loaded in a computer CD drive and by the soundtracks index at the end of the guide. The CD also includes a downloadable and printable PDF guide to these calls and songs. The sound quality on this CD is equal to Thayer's Birds of North America DVD version 5 and Peterson's Field Guides Eastern/Central Bird Songs 2,6. However Thayer and Peterson cover songs and calls of many more species than the Stokes CD.

The book concludes with acknowledgements, photo credits, a simple and effective three-page glossary, a detailed species index and a key to location abbreviations. However, it lacks a reference list for readers to find additional information.

Although the well put together Stokes Guide doesn't have all the features found

in other field guides, I still recommend it to birders looking to further their identification skills with a traditional but up to date photo bird guide.

1. Bird, DM (2010) Birds of Canada. Dorling Kindersley, New York, NY.
2. Cornell Laboratory of Ornithology. (1990) Peterson Field Guides: Eastern/Central Bird Songs. Third Edition. Houghton Mifflin Company, New York, NY.
3. Crossley R (2011) The Crossley ID: Eastern Birds. Princeton University Press, Princeton, NJ.
4. Hoar TL, De Smet K, Campbell RW, Kennedy G (2010) Birds of Canada. Lone Pine Publishing, Edmonton, AB.
5. Kaufmann K (2000) Birds of North America. Houghton Mifflin Company, New York, NY.
6. Thayer PW (2009) Thayer's Birds of North America DVD version 5 - Gold Edition. Thayer Birding Software Inc. Naples, FL.

*Reviewed by Rob Warnock,  
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*"Nature holds the key to our aesthetic, intellectual, cognitive and even spiritual satisfaction."*

*-E. O. Wilson*

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# MYSTERY PHOTO

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## ANSWER TO THE DECEMBER 2011 MYSTERY PHOTO

No answers were submitted for the mystery photo from December 2011. The new editors of Blue Jay recognised this strange item immediately, as they have spent time picking them up from the shores of Last Mountain Lake. The American White Pelican (*Pelecanus erythrorhyncho*) is the only one of eight species of pelican to grow these bill “horns”.



Anywhere between one and up to five horns grow approximately one-third of the bill's length behind the tip, in the breeding season (see photo of adult bird). The horn is shed off after the birds have mated and laid their eggs. The material of the horn is similar to that of a large toenail (in a human), and thus collecting the dropped horns on the shoreline is initially fun, but can become slightly disgusting after one realizes what they are.



Pelican horn circled in black



Pelican horn

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### MARCH 2012 MYSTERY PHOTO

This mystery photo for was taken of an object found on mowed grass in a rural yard. It may have been blown out of the mature Manitoba Maple trees overhead. Do you know what it is and who made it? Send your answers to <[bluejay@naturesask.ca](mailto:bluejay@naturesask.ca)>.



*L Strauss*

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Common and scientific (Latin) names are used for all species. Common bird names follow the Checklist of North American birds by the American Ornithologists' Union (7th edition, 1998); mammal names: Mammal Species of the World by Wilson & Reeder; butterfly names: The Butterflies of Canada by Layberry et al.; and names of reptiles and amphibians follow Scientific and Standard English Names of Amphibians and Reptiles of North America North of Mexico, with comments Regarding Confidence in our Understanding, Sixth Edition, by The Committee on Standard English and Scientific Names (Brian I. Crother, Chair) (2008).

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