A REVIEW OF SASKATCHEWAN CHRISTMAS BIRD COUNTS: 1942-1976 (PART I)

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This is the first of a two-part review that deals comprehensively with the large volume of information that has been collected during 35 years of Christmas Bird Counts since 1942 in Saskatchewan. Part I summarizes information about each of the 127 species that has been recorded during these counts.* Part II, which will appear in a future issue of the Blue Jay will discuss (1) the frequency and abundance of species within groups (waterfowl, raptors, etc.), (2) aspects of early winter species diversity, and (3) population changes that have occurred over the 35-year period.

In 1942, the Saskatchewan Christmas Bird Count became the first organized field activity of the newlyformed Saskatchewan Natural History Society. Prior to this time, published Christmas bird counts in the province had consisted of 14 reports (nine of which were from Eastend) between 1913 and 1941.⁴ Since 1942, these bird counts have generally followed the procedures developed by the National Audubon Society; however, for various reasons (the most impor-tant of which was likely the opportunity to publish the counts provin-cially) few counts were published in Audubon Field Notes or American Birds. Counts published in the Blue Jay from 1943 to 1977 form the basis of this review.

With few exceptions, we have incorporated all the information presented in the 946 counts reviewed in this paper. Counts from near the Saskatchewan border at Swan River, Manitoba, have been excluded. One other count at Webb in 1965 was rejected as it seemed likely that the single Western Meadowlark was reported to the editor as an incidental observation rather than an actual count. Responsibility for the accuracy of these records lies soley with the observers.

We have evaluated the status of each species recorded during the past 35 years of Saskatchewan Christmas Bird Counts by looking at five aspects of each species' occurrence: regularity, frequency, abundance, high counts (and area) and early winter distribution. Each species account presents the following information:

- 1) regularity (number of years recorded),
- 2) frequency (number of counts during which the species was recorded on count day or as an additional species),
- 3) abundance (total number of individuals recorded on count days),
- 4) high count (largest number of individuals reported, together with the locality and date, on count day or as an additional species during count period),
- 5) all observations of species recorded fewer than six times during count period,
- 6) northermost or southermost observations (if applicable); this information does not appear for species covered by distribution maps. Fig. 1 shows the locations of all localities mentioned in the text.

To provide an indication of relative status, the 60 most frequently recorded and the 60 most abundant species have been ranked in descending order of importance in the annotated

^{*}The annual summaries of Christmas Bird Counts have traditionally followed the 1957 A.O.U. Checklist and thus have recognized 129 species.¹

Table 1. Thirty most frequently recorded and 30 most abundant species observed on Christmas Bird Counts in Saskatchewan, 1942 to 1976. See Table 2 for ranks beyond 30. (T=tied)

	Rai	nk		Rank	
	Fre-	Abun-		Fre-	Abun-
	quency ¹	dance ²		quency ¹	dance ²
Black-billed Magpie	1	6	Starling	19	15
House Sparrow	2	1	Northern Shrike	20	_
Black-capped			Common Raven	21 T	16
Chickadee	3	11	Ring-necked		
Snow Bunting	4	2	pheasant	21T	19
Sharp-tailed Grouse	5	10	Gray Jay	23	29
Common Redpoll	6 7	3	Golden Eagle	24	
Downy Woodpecker	7	18	Mallard	25	7
Gray Partridge	8	8	Goshawk	26	
Hairy Woodpecker	9	21	Short-eared Owl	27	_
Pine Grosbeak	10	12	Hoary Redpoll	28	25T
Bohemian Waxwing	11	4	White-breasted		
Great Horned Owl	12	25T	Nuthatch	29	_
Ruffed Grouse	13	22	Merlin	30	
Snowy Owl	14	27	Canada Goose	_	9
Rock Dove ³	15	5	Common Goldeneye	_	17
Blue Jay	16	20	White-winged		
Evening Grosbeak	17	14	crossbill		23
Horned Lark	18	13	Cedar Waxwing	_	24
9			Red Crossbill	-	28
No.			Lapland Longspur	_	30

¹Based on 921 counts; range from Black-billed Magpie (844 counts, rank = 1) to Merlin (82 counts, rank = 30).

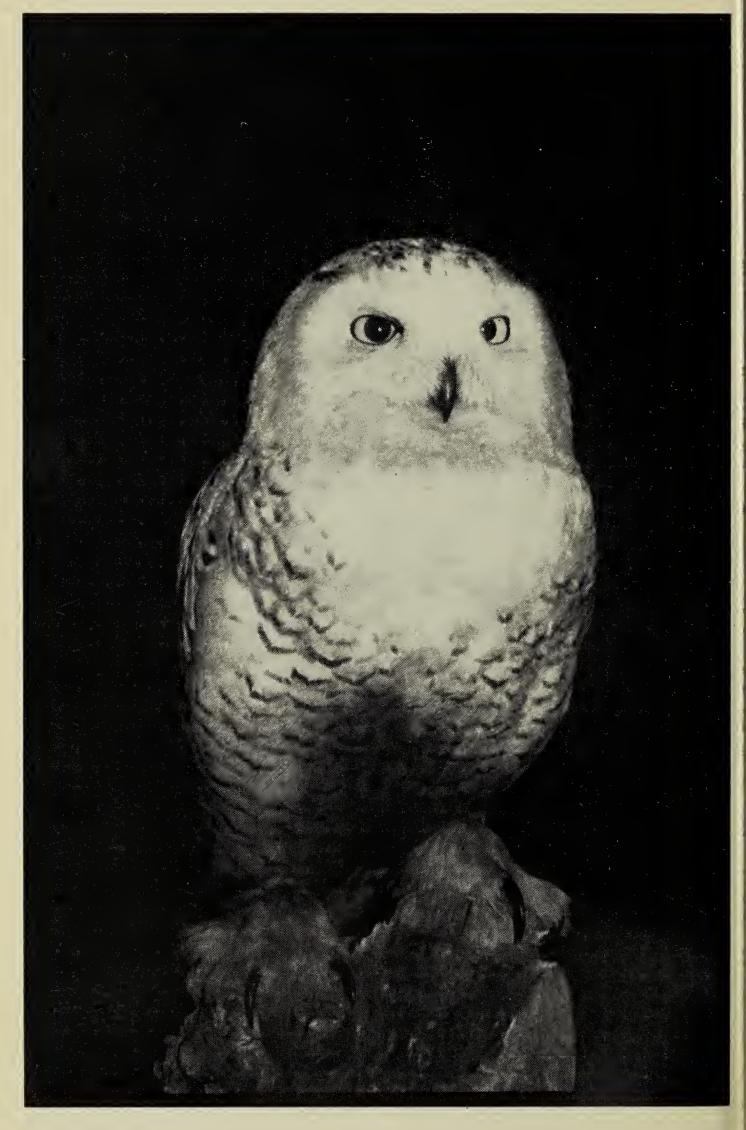
²Based on 916 counts; range from House Sparrow (217,058 individuals, rank = 1) to Lapland Longspur (259 individuals, rank = 30).

³See Additional Notes at end of Annotated List.

list of Table 2. The 30 most frequently recorded and 30 most common species are shown in Table 1. Where two or more species are tied for frequency or abundance, this is also indicated.

Both ranking proceedures were used because a rank based on frequency often is not a reliable indication of a rank based on abundance. A major factor explaining this apparent anomaly is the species' social habits. A dispersed species, e.g., Hairy Woodpecker, usually has a frequency rank much higher than its abundance rank, and is typically recorded in small numbers on a large number of counts. Conversely, a highly gregarious species, e.g., Bohemian Waxwing, usually has a much higher abundance than frequency rank, and is recorded in large numbers on a relatively smaller number of counts. In fact, the Hairy Woodpecker was the 9th most frequently recorded but only 21st most abundant species; the Bohemian Waxwing was the 11th most frequently recorded but 4th most abundant species. Clearly, both frequency and abundance must be considered in evaluating the status of a species.

Only counts completed within the official count period in each year have been included in the calculation of regularity, frequency, abundance, high counts and lists of all observations of rare species. Counts longer than a day, e.g., counts recording maximum numbers of each species observed during Christmas week, are excluded from data used to determine abundance. Where more than one count was submitted from one location in one year, the count with the highest species total on the day of the count was considered as count day. Species observed only on other counts completed at that location in that year were considered to be ad-



Snowy Owl

Wayne Gemmell

Table 2. Annotated List for Saskatchewan Christmas Bird Counts — 1942-1976

Species	S	Counts	<u>~</u>	.s	-~	n Count, ation and	Remarks (Unless otherwise noted, month is December)
Spe	Years	Cor	Rank	Birds	Rank	High	Ren (Un oothe not Dec
Red-neck Grebe Horned Grebe Eared Grebe Western Grebe Pied-bill Grebe White Pelican Am Bittern Mute Swan Whistling Swan Trumpeter Swan Canada Goose	1 3 5 2 8 3 1 18 17 1 22	1 3 5 2 8 3 1 18 17 1 27		1 3 6 2 9 4 1 107 75 1 9427		1 1 2 1 2 2 1 12 8 1 1639	Regina 28/68 Regina 26/59 & 26/60 & 24/61 Regina 30/62. All Regina. Regina 26/56 & 26/69 Regina 27/55 & 26/73. All Regina. Regina 26/59; 1 on 26/67 & 26/69. (All) Yorkton 26/53. Injured. Regina 26/58. All Regina. Regina Jan. 3/65. All Regina. Regina Jan. 3/65. Regina 26/75. N to Kutawagan Lake.
White-fr Goose Snow Goose Ross' Goose *Mallard Black Duck Gadwall	1 1 2 29 1 10	1 1 2 110 1 13		1 1 2 12387 1 12		1 1 1 990 1 2	In Regina annually 1955-1976 Saskatoon 26/74 Regina 26/74 Regina 30/62 & 26/74 Regina 28/63 Regina 26/73 Regina 24/61 & Jan. 3/65 CP 2 Regina 24/63. N to Saskatoon Regina 26/56 & 27/55 & 26/60, Saskatoon
Green-wgd Teal	3	3	_	2	_	2	26/74. North to Saskatoon Saskatoon 26/74; CP 1 Regina/55, /56 &
Blue-wgd Teal Am Wigeon N Shoveler	6 8 4	6 11 4	=	4 17 5	=	2 7 2	(All) (1 inj) Regina 30/62. All Regina Regina 28/63. N to Saskatoon Regina 26/75; 1 Regina 30/62, Saskatoon
Redhead Canvasback Greater Scaup *Lesser Scaup *Com Goldeneye Bufflehead	11 16 1 21 24 4	14 18 1 39 69 4	58 ³ 40 33	31 24 1 211 1152 3	 34 17 	8 4 1 15 207 2	26/67 & 26/74. All observations. Regina 26/69. N to Saskatoon Regina 26/70. N to Saskatoon Regina 26/74 Regina 27/71 Saskatoon 26/76 Regina 26/73, 1 Regina 26/69. CP 1 Reg/60
Oldsquaw	1	1	_	_	_	_	& /74. (All) CP1 Ft. Qu'Appelle 21/68; collected, 1st
Wh-wgd Scoter Ruddy Duck Hood Merganser	1 [.] 15 3	1 15 3	=	2 42 6	<u>-</u> 56 -	2 7 3	Saskatchewan record. Cold River 15/74 Regina 30/62. All Regina Estevan 30/60; 2 Gardiner Dam 20/72; 1 Reg 26/74. (All)
Com Merganser	12	18	58 ³	29	_	7	Gardner Dam 30/76. N to Squaw Rapids and Cold River
Red-br Merganser	3	4	-	5	-	2	Regina 26/56 & Saskatoon 26/73; 1 Regina 26/69. CP 2 Ft. Qu'Appelle 24/69. (All)
*Goshawk Sharp-sh Hawk	32 4	99 4	<u>26</u>	100	<u>46</u>	5 1	Yorkton 26/43 & Little Bear Lake 26/58 Carlton 30/56 & Moose Jaw 26/70 & Big Gully 18/74. CP 1 Nipawin-Squaw Rapids 26/69. (All)
Cooper's Hawk *Rough-leg Hawk *Golden Eagle *Bald Eagle Marsh Hawk	1 18 33 16 7	1 37 136 26 7	43 24 50	21 120 56 4	 43 54 	3 5 19 1	CP 1 Battleford 28/59 Val Marie 26/66 Skull Creek 26/69 Nipawin-Squaw Rapids 26/69 per count. N to Harris, Kenaston, Hawarden.
Gyrfalcon	5	8	-	8	_	1	Gull Lake, Harris, Lady Lake, Last Mt. Lake, Reg, Saskatoon (2 yrs), White Bear
*Prairie Falcon Peregrine Falcon *Merlin Am Kestrel	22 7 25 3	43 8 82 3	39 30 —	24 4 84 2	 47 	1 1 6 2	per count. CP 2 Regina/60, Skull Creek/76 per count. N to Squaw Rapids-Carrot R. Saskatoon 26/72 & 26/75 Lumsden 29/58 & Skull Creek 27/69.
*Spruce Grouse *Ruffed Grouse *Willow Ptarmigan *Sharp-t Grouse Sage Grouse	12 35 10 35 8	13 329 14 568 8	- 13 - 5 -	38 712 76 9069 29	57 22 48 10	29 17 32 386 11	CP 1 Spring Valley 17/72 Nipawin 31/48 Battleford 26/60 Stony Rapids 31/71 Harris 17/72. See below. Shaunavon Jan. 1/62 & Masefield 27/62. N to Maple Creek
*Ring-nk Pheasant Chukar	² 31 2	165 2	21 ²	1133 37	19 58	55 30	Woodrow 26/59 Lumsden 29/58; 7 Battleford 29/47.
*Gray Partridge	35	483	8	10795	8	532	(All). See below. Saskatoon 26/70

^{*}See Distribution map. ²Two-way tie.

³Three-way tie.

							. <u>~</u>
						a,t	Remarks (Unless otherwise noted, month December)
						High count, Location and	noi (eer)
Species		ıts				9.5	Remarks (Unless otherwise noted, mc December
o Company	Years	Counts	Rank	Birds	Rank	gh Cat	Remark (Unless otherwi noted, Decemb
Sp	Υe	ŏ	Ra	Bir	Ra	으로	De of C
Am Coot	22	24	54 ²	71	51	11	Regina 28/63. All Regina except 2 at
				, ,	٥.		Gardiner Dam & Ft. Qu'Appelle
Glaucous Gull	2 1	2 1	_	4	_	3	Gardiner Dam 22/75 & 1 on 30/76 (All)
Herring Gull Ring-bill Gull	2	2	_	1	_	1	CP 1 Regina 30/56 Saskatoon 26/58. CP 1 Regina 23/69 (All)
Rock Dove	19	309	15	21462	5	1846	Saskatoon 27/71. See below
*Mourning Dove *Great Horn Owl	8 35	12 364	— 12	10 555		3 11	Round Lake 28/75 Harris 19/71
*Snowy Owl	35	325	14	521	27	15	Regina 26/75
*Hawk Owl	15	17	61 ³	12	_	2	Masefield 30/60. CP Nipawin 31/56;
Barred Owl	3	4	_	1	_	1	Radisson 20/69 Klogei Lake-High Hill 27/59. CP 1
54.154 5.11	J	·		·		•	Radisson 20, 27/68 & Regina 23/69 &
Crost Croy Owl	1	7		c		2	31/72 Nipowip 20/73, 1 Carret River, Cowen I.
Great Gray Owl	4	7	_	6		2	Nipawin 29/73. 1 Carrot River, Cowan L — Cowan R, Nipawin (twice), Nipawin-
*1							Squaw Rapids, Pas Trail, Saltcoats
*Long-eared Owl *Short-eared Owl	12 27	12 92	 27	8 191	 38	2 23	Shaunavon 23/60. CP 3 Masefield 23/62 Regina 26/69
Boreal Owl	8	9		6	_	1	per count. South to Dilke, N to Nipawin
*Saw-whet Owl	9	12	<u> </u>	5		1	per count.
*Common Flicker	19	39	41	55	55	6	Regina 26/67. Only "Red-Shafted" was at Regina 26/70
*Pil Woodpecker	31	52	37	35	60²	2	Nipawin 26/42 & Wallwort Jan. 1/45 &
							Somme 26/53 & Big River 30/55. CP 2 Nipawin/52 & Big River 26/58 & 30/59
*Hairy Woodpecker	35	439	9	874	21	13	Saskatoon 26/72
*Downy Woodpecker	35	503	7	1146	18	23	Saskatoon 26/73 & 26/76
*B-b 3-t Woodpeck *N 3-t Woodpecker	16 17	19 25	56 51	17 35	— 60²	3 7	Somme 27/52 Somme 27/52
*Horned Lark	32	227	18	5688	13	519	Moose Jaw 26/68
*Gray Jay	35	162	23	448	29 20	67	Besnard Lake 27/74
*Blué Jaý *BI-bill Magpie	35 35	259 844	16 1	874 17007	6	25 381	Saskatoon 26/70 Saskatoon 26/74
*Common Raven	33	166	21 ²	1548	16	195	Besnard Lake 27/74
*Common Crow	19	30	45	66	52	33	Prince Albert 27/57 (9 ravens also); 5 Moose Jaw 26/62
*BI-cap Chickadee	35	695	3	8524	11	218	Saskatoon 26/73
Mount Chickadee	1	1	 32	1	<u> </u>	1	Piapot 28/66
*Boreal Chickadee *Wh-br Nuthatch	31 30	70 83	32 29	253 124	42	31 4	Besnard Lake 27/74 Wallwort Jan. 1/45 & Somme 27/52
							& Big River 31/52 & Moose Jaw
*Red-br Nuthatch	25	53	36	217	32	60	26/62 & Spirit Lake 29/63 Fort Walsh 31/76
*Brown Creeper	15	23	54 ²	29	_	5	Fort Walsh 31/76
North Mockingbird Brown Thrasher	1 2	1	_	1	_	1 1	Regina 26/67 Saskatoon 26/60. CP 1 Regina 21/68
*Am Robin	27	2 73	31	194	36	44	Saskatoon 26/70
Mount Bluebird	1	1	_	_	_		CP 1 Ft. Qu'Appelle 26/73
Town Solitaire *Gold-cr Kinglet	5 13	6 28	 47	6 213	 33	1 45	Regina (4 yrs.), Moose Jaw, Ft. Walsh Big Gully Creek 19/74
Ruby-cr Kinglet	1	1	_	1	_	1	Biggar 16/72
*Bohemian Waxwing	34	422	11	68329 582	4	12442	Saskatoon 26/75
*Cedar Waxwing *Northern Shrike	21 33	38 172	42 20	153	24 39	90 6	Saskatoon 26/75 Saskatoon 26/63 & Pike Lake 28/69
*Starling	32	208	19	2524	15	124	Moose Jaw 26/68
Yel-rump Warbler *House Sparrow	1 35	781		1 217058	1	1 4333	Saskatoon 28/54. (Myrtle) Saskatoon 26/70
*West Meadowlark	11	17	61 ³	12	_	3	Skull Creek 26/71
*Red-wg Blackbird	14 17	24 56	52 ² 34	71 206	50 35	30 38	Estevan 27/62
*Rusty Blackbird *Brewer Blackbird	20	27	48 ²	206 58	53	23	Regina 26/73 Wolseley 31/63
*Common Grackle	12	14	_	13	_	3	Regina 26/67
Brown-h Cowbird Cardinal	1 1	1 1	_	<u> </u>	_	1	CP 11 Masefield Jan. 2/60 Craven 29/60. Collected, 1st Sask.
		·					specimen record
*Evening Grosbeak	34	255	17	3725	14	202	Nipawin 26/72
Purple Finch *Pine Grosbeak	8 35	9 437	- 10	26 7550	 12	14 422	Saskatoon 26/69. N to Saskatoon Saskatoon 26/69
Gray-c Rosy Finch	4	4	_	140	40	140	Ft. Walsh 31/76. CP 25 Dollard/45,
*Hoary Redpoll	25	89	28	555	25 ²	62	3 Dollard/46, 1 Spring Valley 30/75. (All) Cumberland House 31/69
*Common Redpoil	35	541	6	72785	3	3651	Nipawin 26/52
*Pine Siskin	8	14	_	193	37	50	Moose Jaw 26/72
*Red Crossbill *Wh-wgd Crossbill	15 21	29 51	46 38	471 702	28 23	235 230	Nipawin 31/48 Emma Lake 30/75
Ruf-side Towhee	1	1	_	1	_	1	Moose Jaw 26/63
Vesper Sparrow	1	1	_	1	_	1	Saltcoats 27/52. Injured wing.

Species	Years	Counts	Rank	Birds	Rank	High Count, Location and	Remarks (Unless otherwise noted, month is December)
*Dark-eyed Junco	24	54	35	127	41	50	Yorkton 26/53. Only 3 "Oregon" records: 2 Saskatoon 26/58, CP 1 Moose Jaw 23/63, CP 1 Ft. Qu'Appelle Jan. 1/64
*Tree Sparrow	24	32	44	103	45	28	Skull Creek 30/56
Harris Sparrow	7	9		7	_	1	per count. N to Nipawin
Wh-cr Sparrow	1	1	_	1		1	Saskatoon 26/74
Wh-thr Sparrow	6	6		5	_	1	per count. N to Nipawin
Fox Sparrow	7	10		_	_		CP 1 Val Marie 22/67
*Song Sparrow *Lapland Longspur	8 9	10 13	_	9 250	20	700	per count
*Snow Bunting	35	655	4	259 133058	30 2	200 11561	Caron 27/71 Nipawin 26/52
Jilow Banting	33	033	7	133030	2	1001	Nipawiii 20/ 32

ditional species, i.e., species observed during count period but not on count day. Counts with slightly different count names such as Nipawin — Squaw Rapids and Nipawin — White Gull Creek were maintained as separate counts.

Distribution maps are included for 63 of 75 species recorded more than nine times during the 35-year period. The Rock Dove was not mapped because it was not counted prior to 1958. Eleven species of waterfowl were excluded because they were very locally distributed. All localities are given for species recorded fewer than six times. Northernmost or southernmost locatlities are provided for species noted six to nine times and for species recorded more than nine times but for which accompanying distribution maps are not included.

The information used to draw the distribution maps followed the same general criteria as those used to determine frequency except that counts completed in Saskatchewan outside the official count period were also used. It was felt that these counts provided significant additional information on early winter distribution of several species.

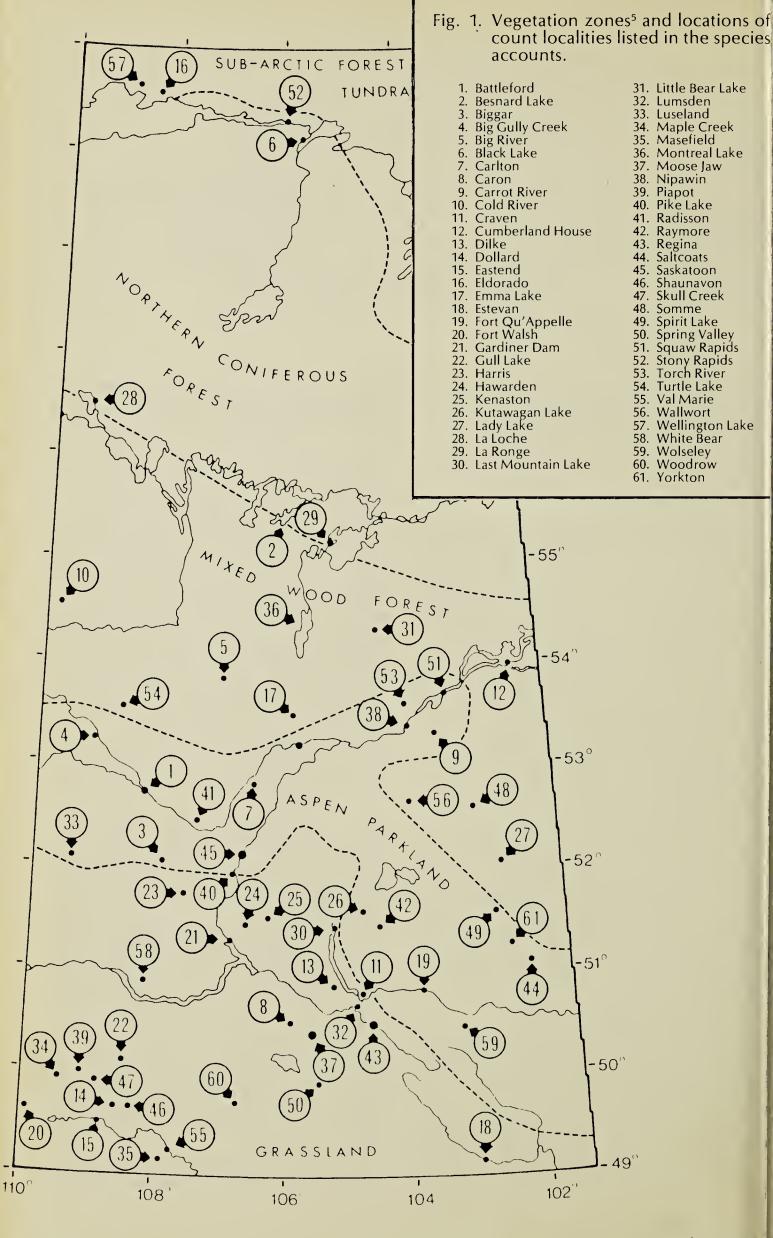
A total of 946 counts was reviewed for this summary; 945 were published in the Blue Jay and the other (from Black Lake in 1972) was published in American Birds. A total of 920 counts was used to evaluate regularity and frequency and to establish high counts for common species and lists of all observations for rare species;

916 counts were used to establish abundance; and distribution maps are based on 933 counts.

Information on the number of hours spent counting and miles travelled was often not provided; therefore, analysis by party-hours (the procedure used in American Birds to map distribution) or party-miles could not be used here. The small number of observers participating in most counts often resulted in a small number of species on count day and a relatively large number during count period when additional species are included. We felt that, for mapping purposes, the most accurate indication of a species' frequency in an area was its presence during the count period (i.e., either on count day or as an additional species).

The distribution maps show the trequency of occurrence of each species in blocks that are two degrees longitude by one degree latitude; these areas, referred to here as degree blocks, are based on the 1:250,000 scale maps published by the Surveys and Mapping Branch, Department of Energy Mines and Resources. The total number of counts in each degree block is presented on the first distribution map. The percent of counts on which a species was recorded (during count period) is presented diagrammatically in the circle contained in each degree

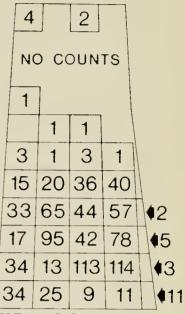
To provide more accurate range information for the earlier years, the



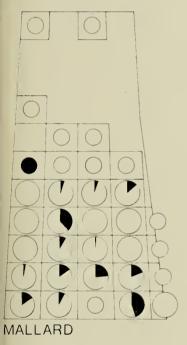
SHADED PART OF EACH CIRCLE REPRESENTS PER CENT OF COUNTS ON WHICH THE SPECIES WAS RECORDED DURING COUNT PERIOD, 1942 TO 1976.

(CIRCLES ARE SMALLER IN DEGREE BLOCKS WITH FEWER THAN 10 COUNTS)

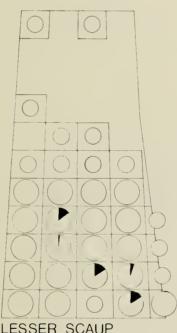




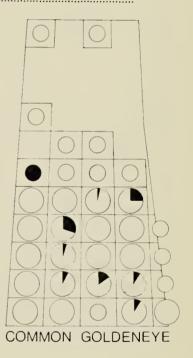
TOTAL NO. COUNTS IN EACH DEGREE BLOCK

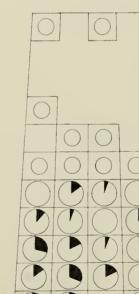


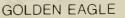


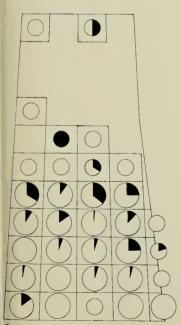


LESSER SCAUP

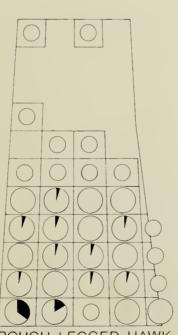




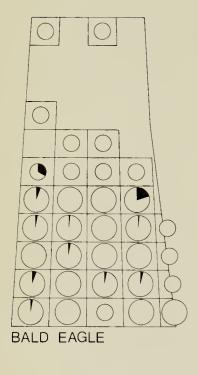


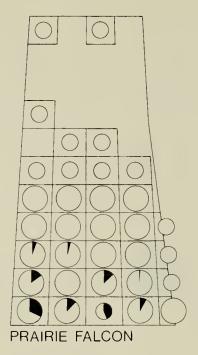


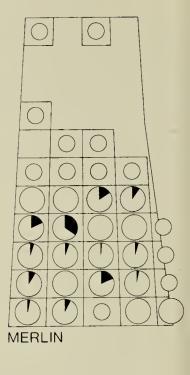
GOSHAWK

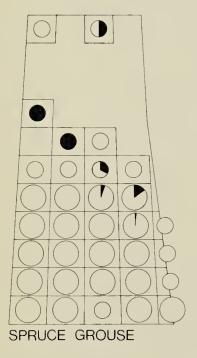


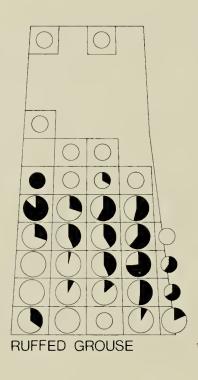
ROUGH-LEGGED HAWK

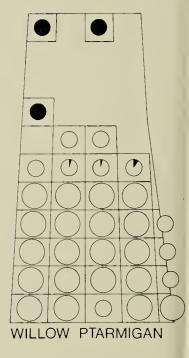


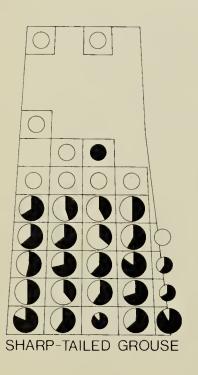


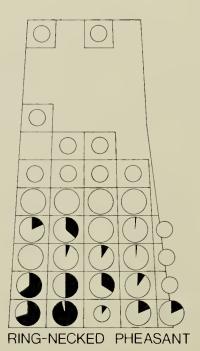


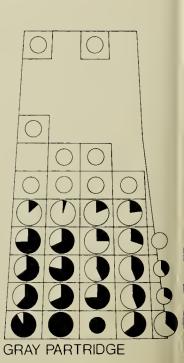


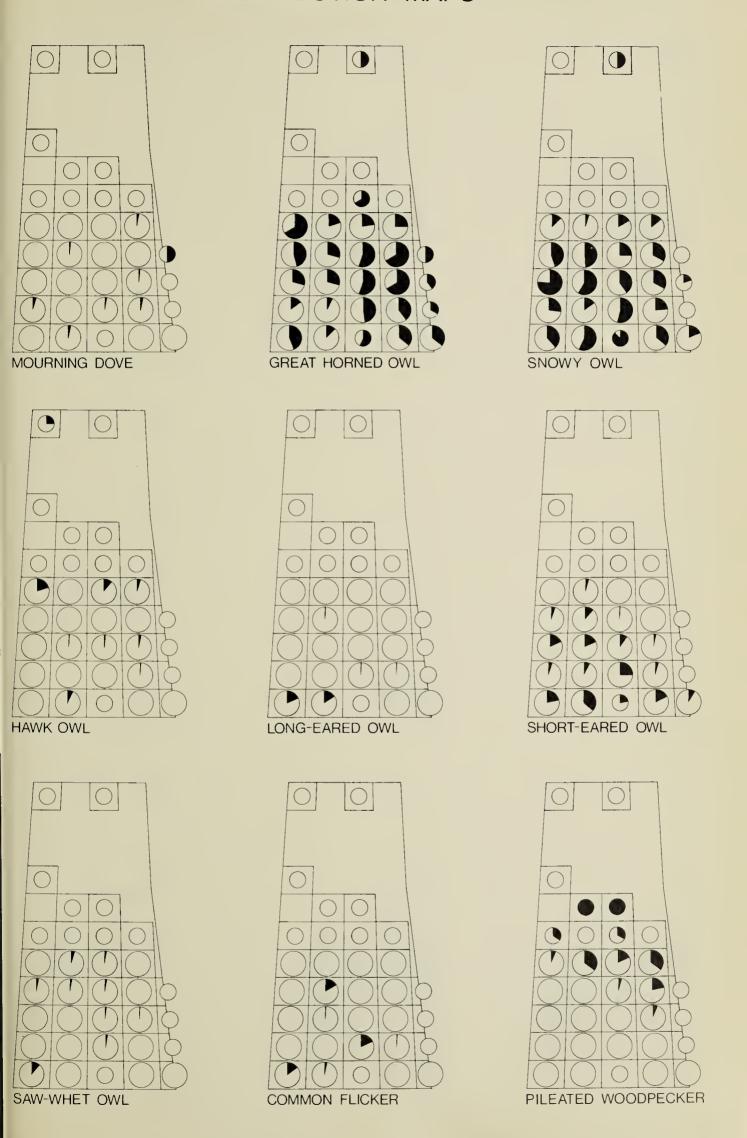


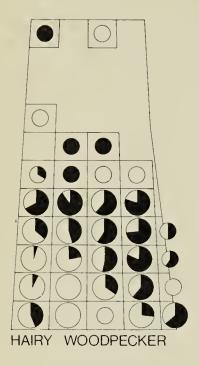


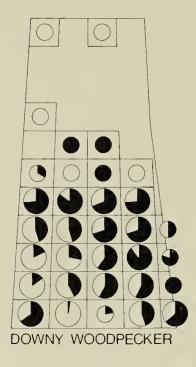


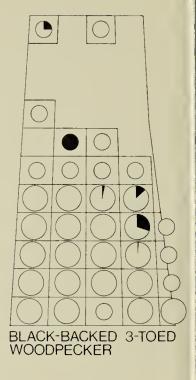


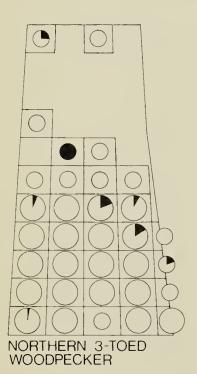


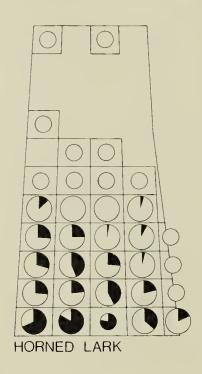


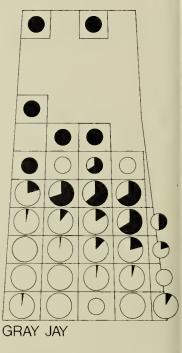


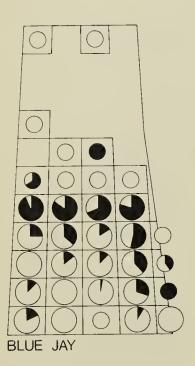


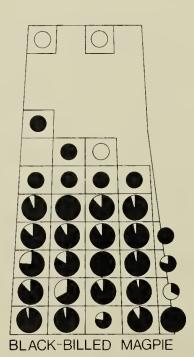


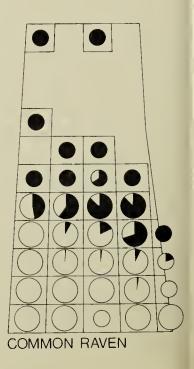


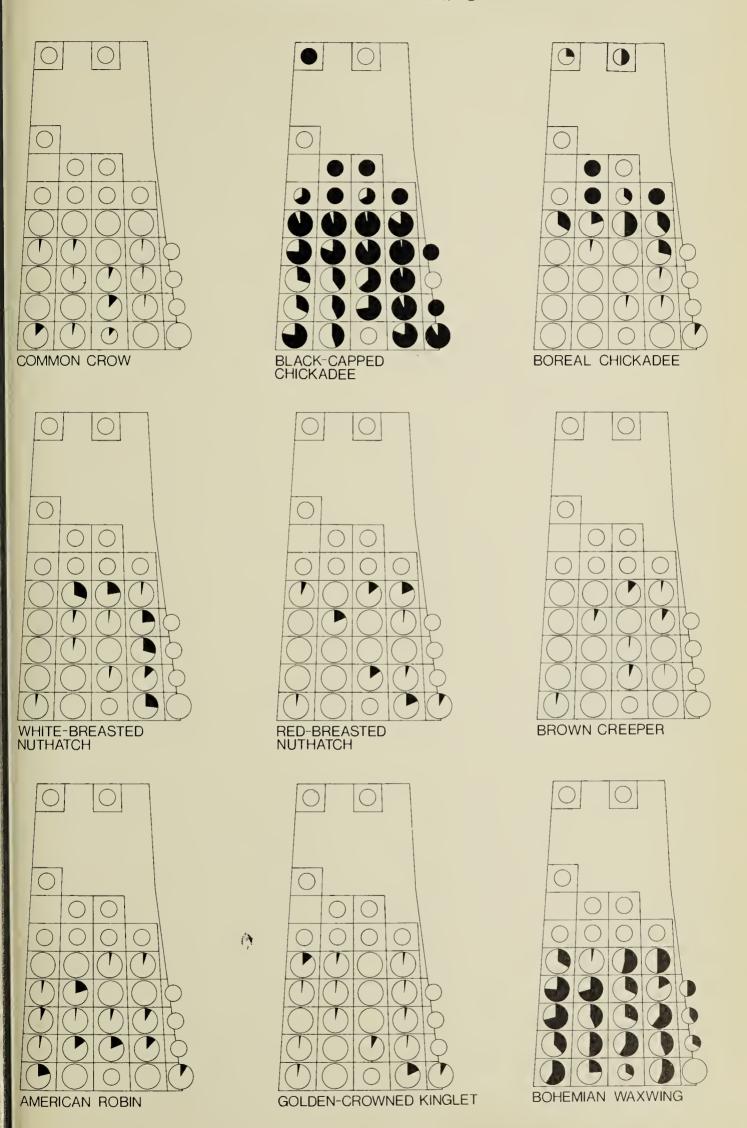


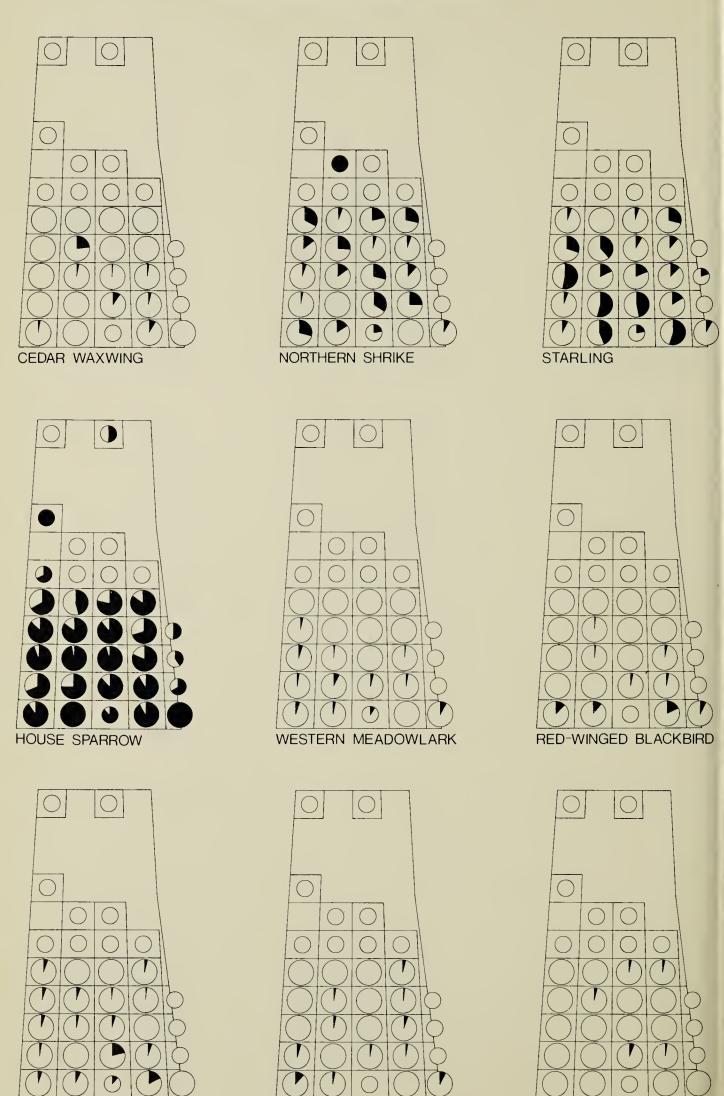








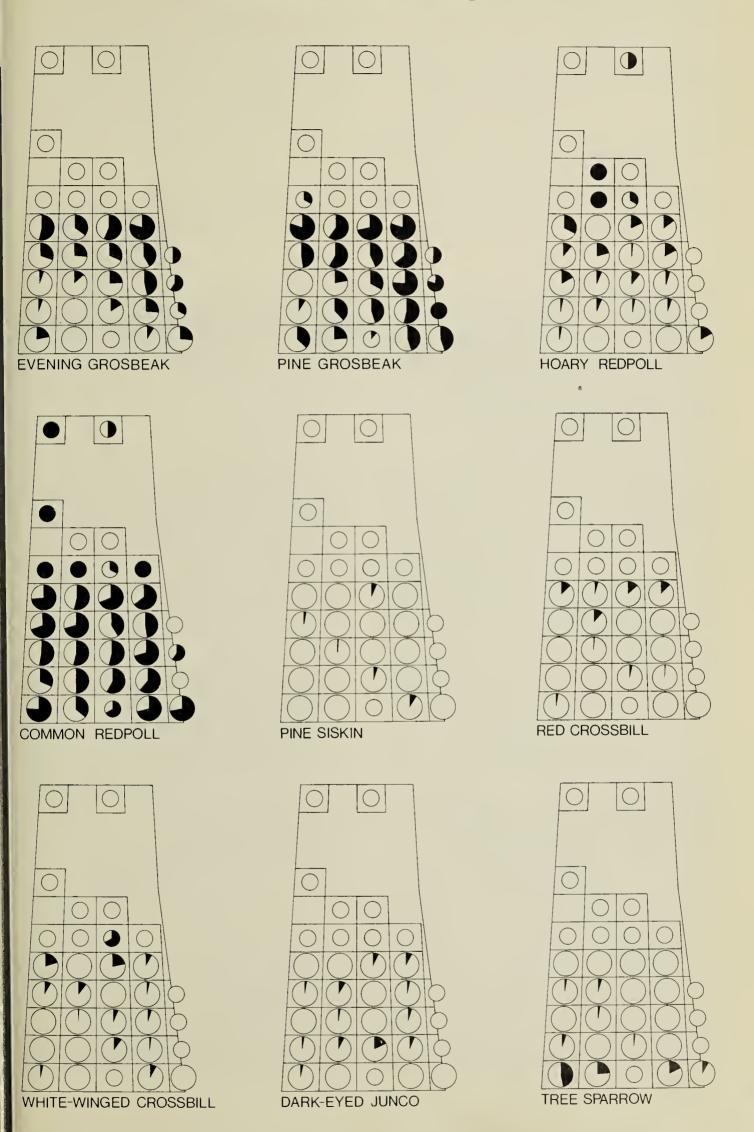


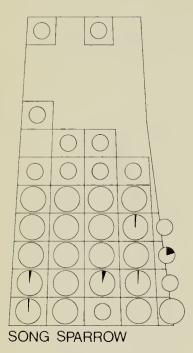


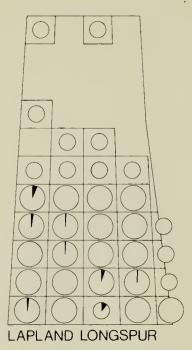
BREWER'S BLACKBIRD

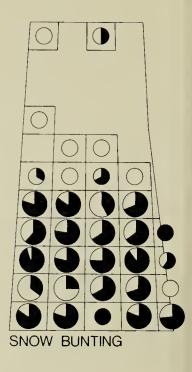
COMMON GRACKLE

RUSTY BLACKBIRD









distribution maps have incorporated observations of species that were present during the latter half of December or early January, but not necessarily during Christmas week. When organized Christmas Bird Counts were first undertaken in the early 1940's, the count period was relatively short, extending only from Christmas Day to New Year's Day. This period was later lengthened to 14, then 16 days from mid-December to early January.

An example of the regularity, frequency and abundance summary is as follows:

HAIRY WOODPECKER. 35 years; 439 counts (rank, 9); 874 individuals (rank, 21). This indicates that the Hairy Woodpecker was recorded in all 35 years; on 439 of a possible 920 counts (making it the 9th most-frequently recorded species); with a total of 874 individuals on count day (making it the 21st most abundant species).

Common names of species and the order in which they are presented follow the latest American Ornithologists' Union Checklist and revisions^{1 2 3}; thus Red-shafted and Yellow-shafted Flicker are regarded

as one species, Common Flicker; Oregon and Slate-colored Junco are treated together under Dark-eyed Junco. Each of these four subspecies has been recorded at least once on Saskatchewan Christmas Bird Counts. Subspecific common names are maintained in the respective species accounts.

Within the province of Saskatchewan 121 species have been recorded on count day and six species have been recorded as additional species during count period. In the following annotated list, count period observations (made during count period but not on count day) are preceded by CP; often no date is available. Distribution maps are included for species marked with an asterisk (*).

Additional Notes

Sharp-tailed Grouse. A Greater Prairie Chicken X Sharp-tailed Grouse hybird was observed at Raymore on December 24, 1971 (CP observation).

Sage Grouse. A higher Christmas Bird Count total of 30 individuals was made at Eastend on December 26, 1935.4

Chukar. These observations followed local

releases. The species were unable to survive the severe winters. None of the introductions was successful.

Rock Dove. Rock Doves were not counted on Christmas Bird Counts prior to 1958. Much higher ranks for frequency and abundance would be expected if the species had been counted over the entire 35-year period.

¹A.O.U. 1957. Check-list of North American Birds. 5th Ed. American Ornithologists' Union. 691 pp.

²A.O.U. 1973. Thirty-second supplement to the American Ornithologists' Union Check-list of North American birds. Auk 90:411-419.

³A.O.U. 1976. Thirty-third supplement to the American Ornithologists' Union Check-list of North American birds. Auk 93:875-879.

⁴HOUSTON, M. I. and C. S. HOUSTON. 1976. Prairie Christmas Bird Counts, 1906 - 1941. Blue Jay 34:214-219.

⁵RICHARDS, J. H. and K. I. FUNG. 1969. Atlas of Saskatchewan. University of Saskatchewan, Saskatoon. 236 pp.



Dark-eyed Junco

Doug Gilroy