



WINTER 2019 VOLUME 77.4

BLUE JAY





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Spencer G. Sealy details a nesting record of Lesser Yellowlegs along the North Saskatchewan River, near Highgate, Saskatchewan, on 11 July 1959. This record provides the farthest south breeding record of this species for Saskatchewan.



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Having touched the lives of countless people, lifelong educator and avid naturalist Mary Houston passed away in July 2019. See page 9 for a tribute to Mary.



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Recently, Common Ravens have reoccupied much of their former range in southern Saskatchewan. In this article, Dale and Estelle Hjertaas examine the nature of the range expansion, based on Christmas Bird Count data, and seek to explain why the species has recolonized this range.



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The Nature Saskatchewan Fall Meet took place in Greenwater Lake Provincial Park the weekend of September 14-16 amid ideal weather of sunny skies and the dazzling array of autumn colours.



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FROM THE PRESIDENT

Ed Rodger

President, Nature Saskatchewan

Saskatchewan was fortunate this year to have nearby access to a major continental grasslands conference: the America's Grasslands Conference, in Bismarck, North Dakota, August 20 to 22. The conference, put on by the US National Wildlife Federation, brought together delegates from many organizations, and many parts of the United States and other countries, and covered many aspects of land management and restoration, use of natural processes, monitoring techniques, policy frameworks, energy

issues — all in support of habitat protection and wildlife conservation.

The conference did an especially good job of incorporating the perspective and stories of land stewards, from ranchers to NGOs and indigenous groups. One highlight was a visit to a nearby ranch using pasture management and grazing practices compatible with natural processes. The success in supporting wildlife could be seen in the abundant birdlife, and heard in the roaring evening chorus of insects and pond life.

The theme of the conference was 'Working Across Boundaries', and much of the focus was on the importance of international cooperation in management of shared habitat, and coverage of the entire life-cycle of migratory species. There were several contributors and participants from Canada and Mexico, and there was also a representative from a successful grasslands conservation initiative in the Pampas Grasslands of South America.

Nature Saskatchewan (NS) was well-represented, including a contribution of three presentations. Former President and current Conservation Director Lorne Scott presented on the experience and challenges of political systems in a session entitled "Saskatchewan's Vanishing Grasslands: Politics vs. Grassland Conservation". Executive Director Jordan Ignatiuk discussed the successes of NS voluntary stewardship agreements in the presentation "Stewards of Saskatchewan: A Look at Over 30 Years of Habitat Conservation with Landowners". Finally, Past President Branimir Gjetvaj, representing Public Pastures – Public Interest, talked about that group's activities within the broader context of Canadian grasslands conservation, in the presentation "Conservation across



Ed Rodger

Borders: Small Environmental NGOs with Big Ideas".

There are many more themes that I could recount from the conference, but I'll finish by saying that there were a lot of useful learnings and contacts for the ongoing work of Nature Saskatchewan. For example, we may participate in the international cooperation that was promoted at this conference. Another specific topic has already been relevant, related to the conference focus on the establishment and maintenance of conservation easements. A few weeks after the conference, at the Business Meeting at the NS Fall Meet, there was a question and discussion on this topic, related to what options landowners had when they wanted to protect a natural environment in perpetuity. As a consequence, we will be assembling a set of guidelines that can be put on our website for interested people to refer to, and we also have a lead to investigate, from the conference, for an organization that ensures conservation easements are honoured.

Nature Saskatchewan will continue to benefit from participation in activities such as the America's Grasslands conference, and the knowledge and partnerships that grow from them. 🐦



ON THE FRONT COVER

A Boreal Chickadee at Prince Albert National Park, Saskatchewan.

Photo credit: Annie McLeod.



ON THE BACK COVER

A Ruffed Grouse at Candle Lake, Saskatchewan.

Photo credit: Annie McLeod.



BLUE JAY

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Editor: Annie McLeod
3017 Hill Avenue
Regina, SK S4S 0W2
E-mail: bluejay@nauresask.ca

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Main Office

Nature Saskatchewan
206 – 1860 Lorne Street
Regina, Saskatchewan S4P 2L7
(306) 780-9273
info@nauresask.ca
www.naturesask.ca

Publications

Blue Jay Editor
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Contacts for Local Societies & Affiliates

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NESTING RECORD OF LESSER YELLOWLEGS ALONG THE NORTH SASKATCHEWAN RIVER NEAR HIGHGATE, SASKATCHEWAN

Spencer G. Sealy

Department of Biological Sciences

University of Manitoba

Winnipeg, MB R3T 2N2

Spencer.Sealy@umanitoba.ca

In the account of the Lesser Yellowlegs (*Tringa flavipes*) in *Birds of Saskatchewan*, Frank Switzer wrote "Considering the abundance of the Lesser Yellowlegs, little is known about its local breeding biology."¹ Fewer than a dozen confirmed nesting records were recorded at scattered localities in the northern two-thirds of Saskatchewan, although observations of aggressive defence of territories or young by adults suggested breeding had been reported at several other locations. The distribution map given in this account shows a portion of the southern edge of the breeding range extending south to the North Saskatchewan River in the region of Battleford. I confirm this species' nesting there by reporting a pair of Lesser Yellowlegs that uttered alarm calls and aggressively defended a flightless young (Figure 1) at the edge of a backwater of the North Saskatchewan River, north of Highgate (52°87'N, 108°43'W), Saskatchewan, on 11 July 1959. The young was at the water's edge when first observed, but it ran a short distance across a mudflat and into cover. No other young were observed.

The record reported here provides the farthest south breeding record for Saskatchewan. Was this a

late date for a flightless Lesser Yellowlegs? Some individuals of this species have been reported migrating by mid-July, but their status was not known. The stage of development of the juvenal plumage of the young bird shown in Figure 1, however, suggests it hatched several days earlier. Adults with young have been observed elsewhere in Saskatchewan, near Snowdon on 14 July 1947², at Lady Lake on 7 July 1969¹, and a young, with down on its head, at Hasbala Lake on 25 July 1963.³

This is the only evidence of breeding of Lesser Yellowlegs I recorded during extensive observations made during my residence in Battleford (July 1958 through September 1961 and early May to mid-September 1962), and during frequent visits through 2016. I regularly recorded this species, however, during spring and fall migrations. There is an early report of

"two [Lesser Yellowlegs] seen June 11" by Fred G. Bard during a six-week period of field work in the area in 1935⁴, but their status was not determined.

Acknowledgements

My parents, Laurie and Viola Sealy, encouraged my observations, including the use of the car when distances were too great to be reached on foot or by bicycle.

1. Switzer FH (2019) Lesser Yellowlegs. Pages 246-247 in *Birds of Saskatchewan* (Smith AR, Houston CS, Roy JF, editors). Nature Saskatchewan, Regina.
2. Walkinshaw LH (1960) Some Saskatchewan bird observations. *Blue Jay* 18:125-127.
3. Nero RW (1967) Birds of northeastern Saskatchewan. Saskatchewan Natural History Society, Special Publication, No. 6.
4. Belcher M (1972) An early Provincial Museum field camp in the Battleford area. *Blue Jay* 30:8-17. 🐦



FIGURE 1. Flightless Lesser Yellowlegs along the North Saskatchewan River near Highgate, Saskatchewan, 11 July 1959. Photo credit: S.G. Sealy.

AN UPDATE ON NATURE SASKATCHEWAN'S HABITAT STEWARDSHIP PROGRAM WORK



FIGURE 1. Small-flowered Sand-verbena. Photo credit: Emily Putz.

Shirley Bartz, Emily Putz,
Kaytlyn Burrows, Melissa Ranalli
206-1860 Lorne Street
Regina, SK S4P 2L7
mranalli@naturesask.ca

The prairie region is one of the most endangered landscapes in North America; specifically, only 13.7-15 per cent of grassland is thought to remain in Saskatchewan.¹ Active stewardship by landowners is integral to the conservation of this remaining grassland and the biodiversity it supports, since approximately 85 per cent of southern Saskatchewan's grasslands are privately managed.²

Nature Saskatchewan delivers one-of-a-kind voluntary stewardship programs that engage landowners and land managers in species at risk habitat conservation. Species at risk serve to promote awareness of native grassland ecosystems and potential threats to plants and animals living there. The main goals of the

programs are to conserve habitat, raise awareness, and provide support to agricultural producers.

Our suite of five stewardship programs, include:

- **Operation Burrowing Owl** for the endangered Burrowing Owl (*Athene cunicularia*);
- **Shrubs for Shrikes** for the threatened Loggerhead Shrike (*Lanius ludovicianus excubitorides*);
- **Plovers on Shore** for the endangered Piping Plover (*Charadrius melodus circumcinctus*);
- **Rare Plant Rescue** for 16 species of federally listed and provincially rare plant species; and
- **Stewards of Saskatchewan banner program** for federally listed and provincially rare species not targeted by one of our other programs.

While our focus is on species targeted by each program, stewardship activities ultimately benefit many other prairie species



FIGURE 2. Western Spiderwort. Photo credit: Emily Putz.

and their habitats.

The stewardship programs encourage conservation and enhancement of habitat by educating landowners, encouraging informed stewardship, and building relationships. Landowners with habitat supporting species at risk are invited to participate by signing a voluntary stewardship agreement explicitly committing to conserve these areas. One way in which we engage rural landowners and land managers is by acknowledging and documenting their unique understanding of wildlife populations living on their land. For example, participants annually report target species at risk presence or absence, reproductive output, as well as any changes to the habitat on their land.

Participants with Burrowing Owl or Sprague's Pipit (*Anthus spragueii*) habitat are also invited to complete



FIGURE 3. Adult Loggerhead Shrike (left) and juvenile shrike (right), Saskatchewan. Photo credit: Boyd Coburn.

a project to enhance this habitat on their land with project costs being shared by Nature Saskatchewan. Further, participants are encouraged to adopt species at risk beneficial management practices (BMPs) through site-specific plans developed with program coordinators. Implementation and site-specific adjustments to BMPs are monitored through landowner visits, reported habitat changes, and at the request of the participant.

Rare Plant Rescue Field Work Update

Launched in 2002, Rare Plant Rescue (RPR) is a stewardship program for landowners with rare plants or habitat where they are likely to occur. Staff conduct targeted surveys on participants' land, and return periodically to monitor the status of any plant species at risk that are found.

During the 2019 field season, RPR staff surveyed 72 quarter sections of land and found more than 1,800 individual plant species at risk (Table 1). Surveys targeted Small-flowered Sand-verbena (*Tripterocalyx*

micranthus) (Figure 1), Western Spiderwort (*Tradescantia occidentalis*) (Figure 2), Smooth Goosefoot (*Chenopodium subglabrum*), and Tiny Cryptantha (*Cryptantha minima*); and the majority of surveys were completed along shorelines. Much of the 2019 survey work was completed in partnership with the provincial Ministry of Parks, Culture, and Sport in Douglas Provincial Park

and Saskatchewan Landing Provincial Park.

Additionally, 18 quarter sections were revisited and past plant species at risk occurrences (individual plants or groups of plants in close proximity) were monitored that have been found in past years. Five of the 18 quarter sections monitored were found to have plant species at risk present; however, Slender Mouse-ear-crec (*Halimolobos virgate*) was not detected on the remaining 13 (Table 2). In the process of revisiting known species occurrences, three new occurrences were incidentally detected (i.e., in addition to the occurrences monitored and reported in Table 2); one new occurrence (21 individual plants) of Hairy Prairie-clover (*Dalea villosa*), and two new occurrences of Buffalograss (*Bouteloua dactyloides*).

RPR staff contacted 40 landowners resulting in 14 visits with current participants, 11 visits with potential participants, and six newly signed RPR participants. In total, 82 RPR participants are conserving 145,262 acres (58,785 hectares) of plant species at risk habitat.

TABLE 1. Plant species at risk detected by Rare Plant Rescue staff during 2019 surveys.

SPECIES	NUMBER OF QUARTER SECTIONS SURVEYED	NUMBER OF OCCURRENCES	NUMBER OF INDIVIDUAL PLANTS
Small-flowered Sand-verbena	53	5	45
Western Spiderwort	12*	8	1,063
Smooth Goosefoot	17*	30	443
Tiny Cryptantha	2	0	0
Small Lupine	Incidentally located	36	322

*Of these 17 quarter sections surveyed, 12 were concurrently surveyed for Western Spiderwort.

TABLE 2. Plant species at risk located by Rare Plant Rescue staff during 2019 monitoring.

SPECIES	NUMBER OF QUARTER SECTIONS MONITORED	NUMBER OF OCCURRENCES	NUMBER OF INDIVIDUAL PLANTS
Slender Mouse-ear-crec	13	0	N/A
Western Spiderwort	1	9*	4,261
Small-flowered Sand-verbena	1	2	280
Hairy Prairie-clover	1	2	509
Buffalograss	2	22	N/A

*Four occurrences were located on the one quarter section monitored, while the other five were monitored while conducting targeted surveys elsewhere in Douglas Provincial Park.

TABLE 3. The number of individuals of program target species reported through the 2019 censuses to date.

PROGRAM	CENSUS COMPLETION STATUS	NUMBER OF PARTICIPANTS WHO HAVE RESPONDED TO DATE	TARGET SPECIES REPORTED	NUMBER OF INDIVIDUALS REPORTED
Operation Burrowing Owl	51%	158 of 309	Burrowing Owl	22 (8 pairs, 6 singles, and 0 juveniles)
Shrubs for Shrikes	19%	46 of 243	Loggerhead Shrike	59 (21 pairs, 11 singles, and 6 juveniles)
Plovers on Shore	16%	10 of 61	Piping Plover	12 (3 pairs, 4 singles, and 2 juveniles)
Stewards of Saskatchewan Banner	11%	15 of 142	Multiple Species	179 Barn Swallows
				3 Ferruginous Hawks
				≥ 12 Sprague's Pipits
				≥ 6 Bobolink
				≥ 6 Common Nighthawks
				9 American Badgers
≥ 29 Northern Leopard Frogs				
≥ 2 Western Tiger Salamanders				
				17 Monarch Butterflies

Bird Species at Risk Programs and Stewards of Saskatchewan Banner Program Field Work Update

Nature Saskatchewan's Operation Burrowing Owl (OBO) program was launched in 1987 to protect Burrowing Owl habitat from cultivation, monitor population changes, and to increase awareness of the owl. In addition to coordinating the Saskatchewan portion of the International Piping Plover Breeding Census every five years, Nature Saskatchewan initiated Plovers on Shore (POS) in 2008 for landowners that manage lands and habitat for this endangered species. Shrubs for Shrikes (SFS), launched in 2003, focuses on conserving grassland and shrub habitat for the threatened Loggerhead Shrike (Figure 3). Nature Saskatchewan's Stewards of Saskatchewan (SOS) banner program was launched in 2010 to include all prairie species at risk that are not already targeted by our other stewardship programs. For example, landowners supporting habitat for the Sprague's Pipit (*Anthus spragueii*), Barn Swallow (*Hirundo rustica*), Ferruginous Hawk

(*Buteo regalis*), Bobolink (*Dolichonyx oryzivorus*), Common Nighthawk (*Chordeiles minor*), American Badger (*Taxidea taxus taxus*), Northern Leopard Frog (*Lithobates pipiens*), Western Tiger Salamander (*Ambystoma mavortium*), or Monarch (*Danaus plexippus*) are engaged through this program.


Since the beginning of our 2019 field season (including the Ferruginous Hawk work described below), 74 current participants have been visited (4 POS, 16 SOS, 22 SFS and 32 OBO); 115 potential participants have been visited (6 POS, 59 SOS, 35 SFS and 15 OBO); and 75 new participants joined one of our programs (3 POS, 31 SOS, 30 SFS and 11 OBO). Two habitat enhancement projects (with 50 per cent of costs covered by Nature Saskatchewan) have been initiated to improve habitat for the Burrowing Owl, and one for the Piping Plover. Additionally, 45 BMP plans have been distributed to landowners (4 POS, 8 SOS, 19 SFS and 14 OBO). In total, 66 POS, 162 SOS, 270 SFS, and 361 OBO participants are conserving 145 miles (233 kilometers) of shoreline (POS), and 325,505 acres (131,727

hectares) of species at risk habitat (SOS, SFS, and OBO).

In 2019, Nature Saskatchewan partnered with the Saskatchewan Conservation Data Centre to contact private landowners who were identified as having Ferruginous Hawks nesting on their property during a survey organized by the Ministry of Environment and Saskatchewan Conservation Data Centre in 2018. From April to May 2019, Nature Saskatchewan staff mailed out 82 letters notifying landowners of Ferruginous Hawk nesting activity on their land, with an additional 20 landowners visited in person during spring field visits. All landowners contacted were invited to participate in our Stewards of Saskatchewan banner program, and six new participants signed on through this specific outreach.

The summer mailout was sent to all program participants on June 7, 2019 and it included census cards, program updates, a summer/fall events list, and an information sheet on grain bag recycling. The OBO, SFS, POS, and SOS census results continue to be received by program coordinators. Current census data are summarized in Table 3, and a finalized summary of census data is expected to be available on the Stewards of Saskatchewan webpage in December 2019.

1. Doke Sawatzky, K. 2018. The Prairie Commons Project: A Reporter's Journey Through Saskatchewan's Grasslands. <http://www.prairiecommons.ca>. Accessed March 11, 2019.

2. Saskatchewan Watershed Authority. 2002. A Land Manager's Guide to Grassland Birds of Saskatchewan. 

A TRIBUTE TO MARY HOUSTON

Long-time Society member Mary Houston passed away in July 2019. A lifelong educator and avid naturalist, Mary touched the lives of countless people.

A University of Saskatchewan graduate, Mary began her professional life teaching at Yorkton Collegiate Institute. With her marriage to Stuart Houston in 1951 she embarked on a very busy life, raising four children and assuming a variety of volunteer responsibilities, as well as working with Stuart on an energetic array of bird-banding projects, research and publications.

Mary was a bird-bander for 63 years, personally banding pelicans, cormorants, and gulls, then later shifting to backyard species. She banded many songbirds, including 6,000 Dark-eyed Juncos, 3,500 White-throated Sparrows and 3,200 redpolls. In winter months, Mary banded a record 5,387 Bohemian Waxwings, more than the total of all other North American bird banders combined.¹ She also provided Stuart's owl, hawk and vulture-banding crews with an always dependable and much appreciated supply of water, iced tea, sandwiches (notably peanut butter and raisin) and cookies.

Mary introduced many school classes and individual students to birding. She often invited school classes to her home, or led them on outings at Pike Lake. In 1968, Mary and Stuart became the first adult advisors for a brand-new Saskatoon Junior Natural History Society. Mary proceeded to organize a trail of nest boxes for bluebirds over 200 miles long — a project inspired by successes with similar projects in the Brandon and Indian Head areas designed to “bring back the bluebirds”. The junior naturalists built 270 nest boxes for their section

of the trail, and assisted with the checking and banding that had to be done every 10 days or so between May and July (it took four full days to do the whole route). Mary led this activity every year until 2005 when she finally handed it off to a team (Greg Fenty, Melanie Elliott, Jan Shadick and Tim Haughian) to take her place. During her tenure, she banded over 8,000 bluebirds and over 18,000 Tree Swallows.

Long time Saskatoon society members will remember with fondness many post-Boxing Day Bird Count socials that Mary hosted. She also devoted a phenomenal number of hours for over 30 years (with the exception of two years when she wasn't in the province) to compiling all of the Christmas Bird Count data from across the province into one annual report.

In her lifetime, Mary served on the Saskatchewan Provincial Council of Girl Guides of Canada, and on the executive of the Canadian Nature Federation, the Saskatchewan Natural History Society, the Saskatoon Nature Society, the University Women's Club and the Anglican Church Women at her church. She has authored and co-authored many journal articles, one book, and several book chapters, and provided an unimaginable amount of critical review and proof-reading, including, most recently, for *Birds of Saskatchewan*.

The Saskatoon Council of Women, inducting Mary into the Saskatoon Women's Hall of Fame in 2011, called her “one of the city's most remarkable women”. She was one of the first four recipients of a Fellows Award from the Saskatchewan Natural History Society in 1987 (Stuart was another of the four). Other awards Mary received over



Photo credit: Greg Fenty.

the years include Meewasin's Conservation Award in 1996, the Douglas Pimlott Conservation Award from the Canadian Nature Federation in 1988, Nature Saskatchewan's Conservation Award in 2003, and the Saskatchewan Volunteer Medal and the Saskatchewan Centennial Medal in 2006. She was added to the U. of S. College of Education Alumni Wall of Honour in 2010, and was named an Alumna of Influence by the College of Arts and Science in 2013.

Mary is both mourned and celebrated by all who knew her, and most keenly by her husband Stuart, their four children, nine grandchildren, and one great-grandchild.

Reprinted from the September 2019 Saskatoon Nature Society newsletter, with permission.

1. Houston CS (2016) Mary Houston: North America's Pre-eminent Bohemian Waxwing Bander. *Blue Jay* 74(4):25-27. 🐦

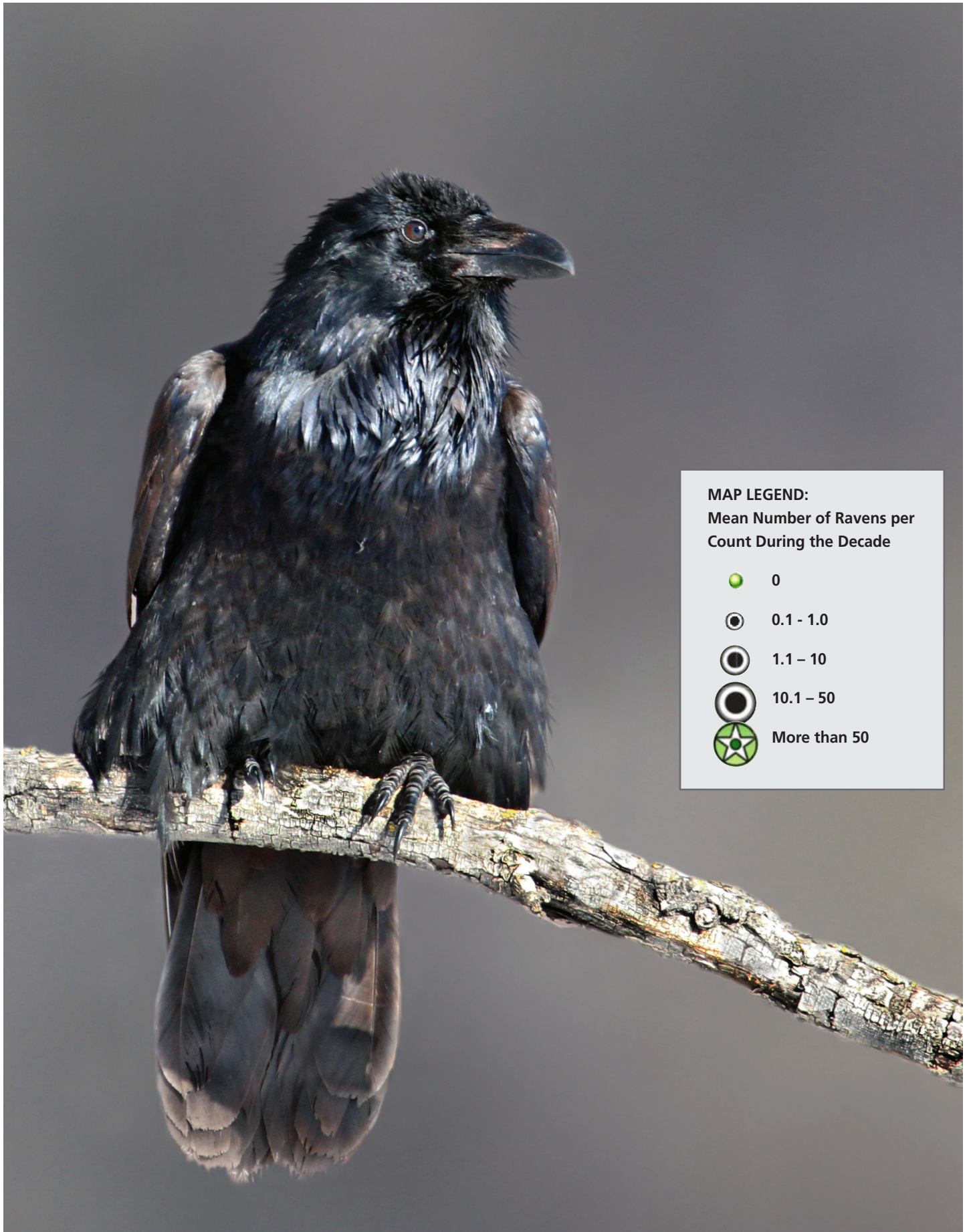


Photo credit: Nick Saunders.

THE COMMON RAVEN

REOCCUPIES SOUTHERN SASKATCHEWAN

Dale G. Hjertaas
15 Olson Place
Regina, SK S4S 2J6

Estelle Hjertaas
322 12th Ave.
Prince Albert, SK S6V 1C1

The Common Raven (*Corvus corax*), and hereafter 'Raven', was once a common resident of the prairie and parkland regions of Saskatchewan as well as of the boreal forest, present across the prairies and extending down into the Dakotas".¹ With the advent of settlement, the Raven disappeared from the prairie and

parkland regions, and was apparently absent from areas south of the boreal by 1910. Houston¹ notes that the last summer report was in 1893 at Rush Lake, that John Gunn saw them in winter at Good Spirit Lake until around 1908 and that Lawrence Potter saw three between 1901 and 1915 at Eastend and then no more.

Recently the Raven has reoccupied much of its former range. We were intrigued both by the expansion of the Raven population into the Aspen Parkland and Mixed Prairie, but also by the question of why, after an absence of so many years, did the population recolonize much of its

former range. We used Christmas Bird Count (CBC) data to examine the nature of the range expansion.

There were few CBCs prior to 1950, so we examined distribution of Ravens beginning in the 1950s. The mean number of Ravens per count was calculated for each count area for each decade and then plotted (Figures 1-7). Our prime focus was presence or absence of Ravens, so we treated observations from the count period the same as count day observations. Occasionally there were two or more counts conducted by different observers for the same location and same year. In these cases, the highest count for that year was used. Also, occasionally counts

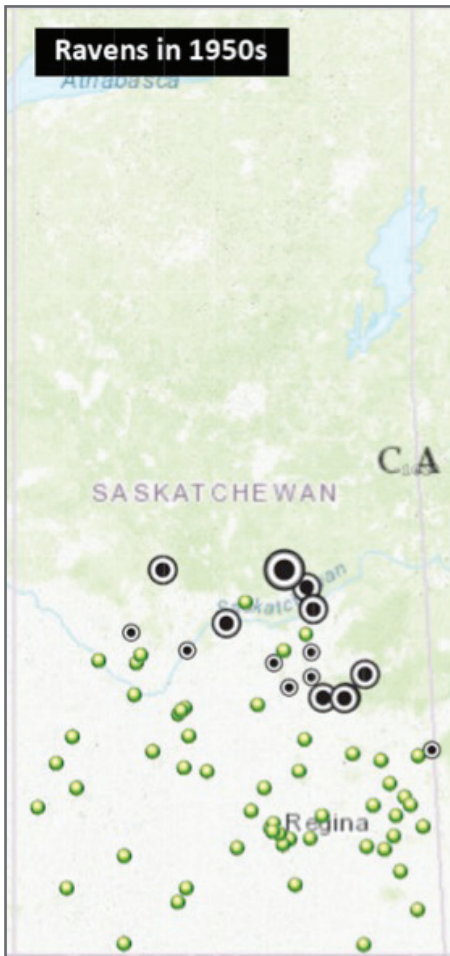


FIGURE 1. Distribution and Abundance of Common Ravens on CBCs from 1950 to 1959.

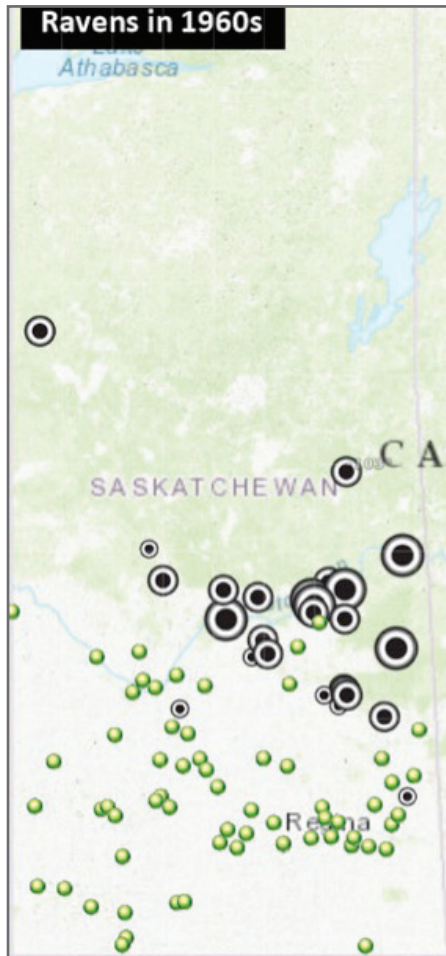


FIGURE 2. Distribution and Abundance of Common Ravens on CBCs from 1960 to 1969.

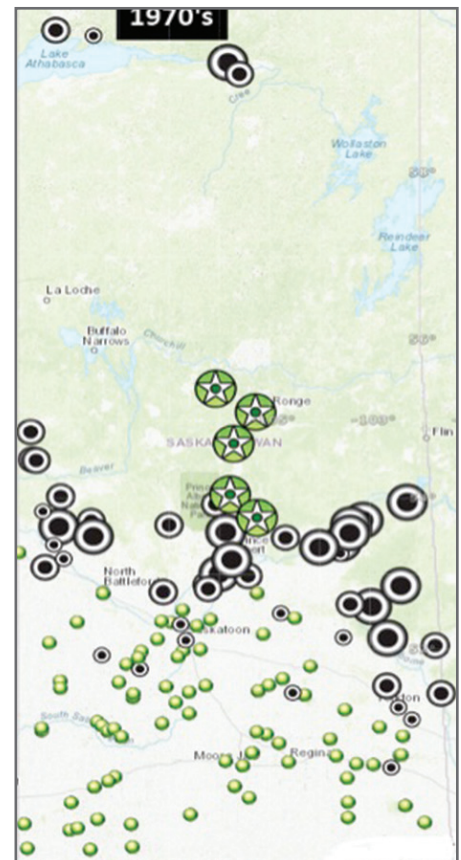


FIGURE 3. Distribution and Abundance of Common Ravens on CBCs from 1970 to 1979.

with different names, such as Big Muddy and Big Muddy Lake appear to have surveyed the same area as was counted in a previous year under the different name. These locations were treated as one and plotted under the first name used.

Vegetation Zones refer to the Natural Vegetation Zones of Saskatchewan as presented in *Birds of Saskatchewan*.²

In the 1950s Ravens were primarily observed only on CBCs in the Southern Boreal Forest and the northern edge of the Aspen Parkland (Figure 1). No CBCs were conducted in the Northern Boreal Forest or Subarctic Woodland during that decade. The most southerly counts with Ravens were at Naicam and Rose Valley in the Aspen Parkland and High Hill and Madge Lake at the south edge of the Southern

Boreal Forest. The number of Ravens recorded was small. The highest counts were 14 at Prince Albert (1958), 10 at the Somme (1951) and 13 at Nipawin-White Gull Creek (1954). A grand total of 152 Ravens were counted during the decade.

During the 1960s, Ravens were primarily observed on counts in the Southern and Northern Boreal Forest. Single Ravens were observed twice in Saskatoon and two were observed at Saltcoats in 1967. However, sightings in the Parkland remained rare (Figure 2). The number observed rose modestly with Prince Albert, Hudson Bay, Nipawin, Nipawin - Squaw Rapids, Nipawin - White Fox, and Cumberland House having mean counts of more than 10. A total of 360 Ravens were counted during the decade with high counts of 40 at Prince Albert (1968) and 49 at

Nipawin (1966).

The total number of Ravens observed during the 1970s increased to 2,069, an increase of 57 per cent from the 1960s. This was partly due to larger counts in the forest, with five count areas averaging more than 50 Ravens per count and 18 averaging between 10 and 50. The first count of more than 100 Ravens was 195 at Besnard Lake in 1974. In 1978, 115 Ravens were recorded at Emma Lake and in 1979, Squaw Rapids became the third CBC to exceed 100 with 148. A definite move south was also apparent. Ravens were observed as far south as Broadview, at a number of other locations in the Aspen Parkland and at Harris and Duperow - Ruthilda in the Mixed Prairie (Figure 3).

In the 1980s, Ravens became well established across the Aspen Parkland (Figure 4) with observations

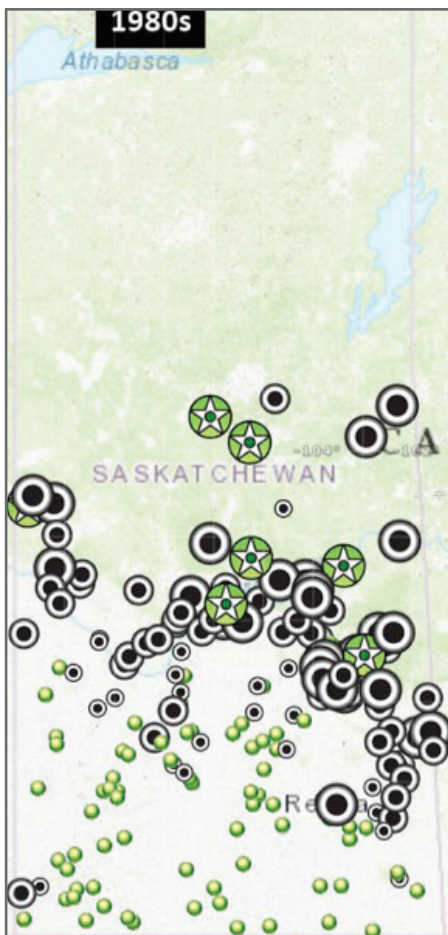


FIGURE 4. Distribution and Abundance of Common Ravens on CBCs from 1980 to 1989.

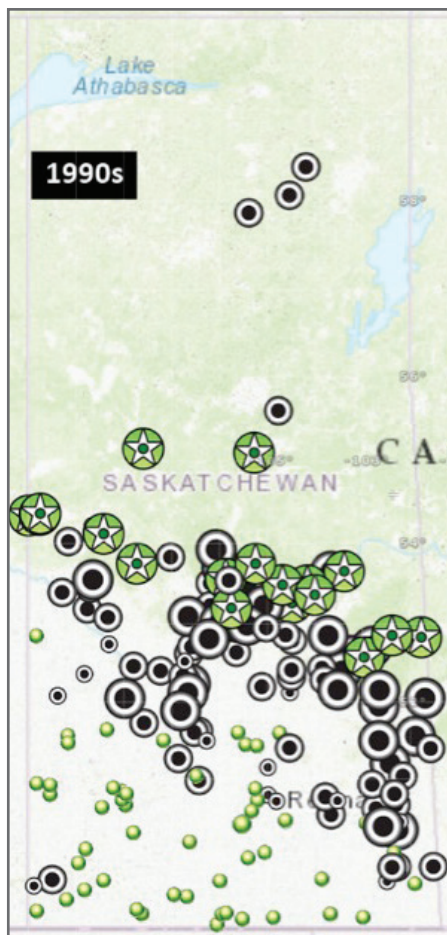


FIGURE 5. Distribution and Abundance of Common Ravens on CBCs from 1990 to 1999.

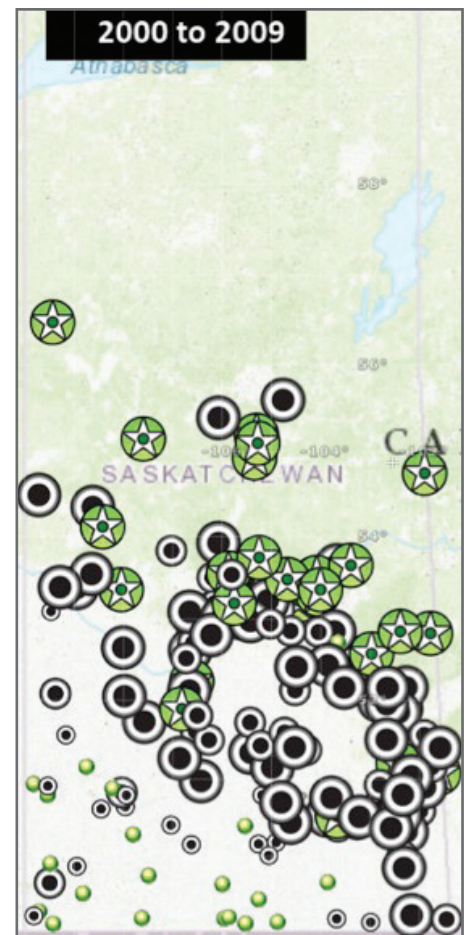


FIGURE 6. Distribution and Abundance of Common Ravens on CBCs from 2000 to 2009.

as far south as White Bear Lake and at Round Lake, Crooked Lake and Fort Qu'Appelle in the Qu'Appelle Valley. Ravens were observed on several counts in the northern part of the Mixed Prairie including Battleford, Gardiner Dam, Kenaston and Scott, and were observed at both Cypress Hills PP (Centre Block) and Fort Walsh (West Block). The number of ravens on many counts increased compared to the 1970s. The high counts during the decade were 116, 137, 199 and 205 at Grand Centre, La Ronge, Squaw Rapids and Prince Albert respectively. A total of 6,259 Ravens were observed during the decade.

The number of Common Ravens observed on many counts continued to increase during the 1990s. Eighteen counts had an average of more than 50 Ravens (Figure 5). The

high counts for the decade were at Hudson Bay (393), Emma Lake (309) and Prince Albert (307). Each of these single counts was more than double the total number of Ravens counted across the province during the 1950s. The expansion southward continued as Ravens appeared at a number of new locations including Arcola, Craven, Indian Head, and Luseland. Nearly 17,000 Ravens were recorded during the decade.

In the 2000s, the movement of Ravens south into the Mixed Prairie and the Dry Mixed Prairie was striking (Figure 6). Ravens were first observed on a Regina CBC in 2000. They occurred in the southeast at Gainsborough, Oxbow, Estevan and Bromhead. In central Saskatchewan they were found as far south as Avonlea and Briercrest and in the west were observed on counts at Shamrock, Saskatchewan Landing Provincial Park, Cabri, Leader North, Morse and Govenloch. The only area where no Ravens were found was the area north of the US border between Weyburn and Eastend.

During the first six years of the 2010s, the species essentially completed their reoccupation of their former range in Saskatchewan. Ravens were observed as far south as Grasslands National Park and Coronach. While birders on a few counts did not find any Ravens, there are no regions where the Raven is absent. The high counts so far during the decade have been 508 at Nipawin and 509 at Hudson Bay.

Aside from the maps, a second way to evaluate the expansion is simply by numbers (Figure 8). The number of Ravens observed increased gradually in the 1950s and 60s and then at a more rapid rate from the 70s to 90s with the increase at least temporarily stopping after reaching a peak of 5,501 in 2012.

The number of CBCs conducted

annually has increased from around 20 in the 1950s to between 80 and 100 since 1990. The mean number of Ravens observed per active count, i.e. number of Ravens divided by number of counts conducted that year, has increased from zero in 1942 to more than 60 in 2012 (Figure 9). Clearly the range expansion and the higher individual counts were the main factor in the large increases, not just the increase in number of counts.

CBCs have been conducted regularly, although not every year, at Prince Albert and Nipawin in the Southern Boreal Forest and La Ronge in the Northern Boreal Forest, with counts at Nipawin going back to the 1940s, Prince Albert to the 1950s and La Ronge counts since 1971. Though there is significant year to year variation, the general pattern is clear. Extremely low numbers in the 40s with a high count of two at Nipawin, very low counts in the 1950s with only one count over 10, a modest increase in the 60s and 70s and then accelerating growth through 2010 (Figure 10). The pattern is consistent with the broader pattern observed by looking at forest sites on the maps, so it is reasonable to accept this as the pattern on Raven population change in the forest.

Why has the Common Raven reoccupied the range it had abandoned nearly a century earlier? Their disappearance was probably driven by death from poison and traps set for predators³ and by a lack of food after disappearance of the bison and other large mammals on whose carcasses the Ravens depended for winter food.¹ A key condition for their recolonization of southern Saskatchewan is undoubtedly that food is again available across the prairie and parkland. Large mammals have returned in the form of livestock and deer. Occasional carcasses provide a

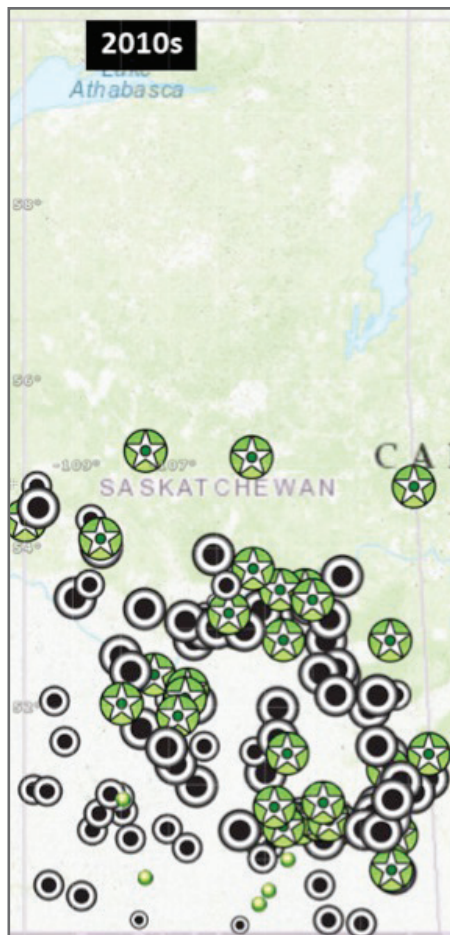


FIGURE 7. Distribution and Abundance of Common Ravens on CBCs from 2010 to 2016.

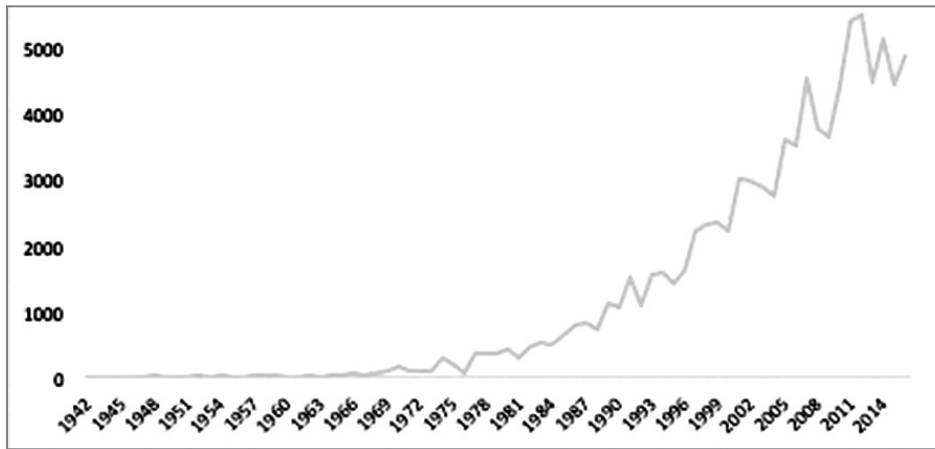


FIGURE 8. Total number of Common Ravens observed on Saskatchewan Christmas Bird Counts from 1942 to 2016.

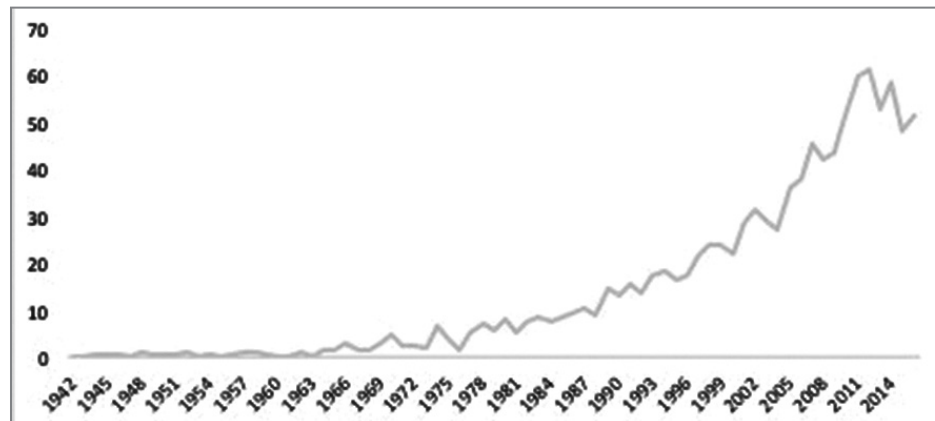


FIGURE 9. Mean number of Common Ravens per active count observed on Saskatchewan Christmas Bird Counts from 1942 to 2016.

food resource that was not present after the bison had been eliminated and before farming introduced new potential food sources. Landfills and road kill of large and small wildlife provide additional food sources.

Historically, Ravens on the prairie and parkland would have moved to follow bison herds and other food sources. Today they probably aggregate in winter in good feeding areas, such as landfills. This is a probable explanation for the difference between counts from Yorkton and Good Spirit Lake (Figure 11). Although these two count areas are only 35 km apart, the Good Spirit Lake count is centered on a provincial park and includes significant areas of aspen forest and wetland while the Yorkton count is centered on the city and includes more farmland and the municipal landfill. Ravens were first

observed on the Good Spirit Lake CBC in 1972 and have been observed on each CBC since then, with numbers slowly increasing but only exceeding 50 on one occasion, in 2002 when 93 were counted (Figure 11). At Yorkton, Ravens arrived later and only became common in 1989. Numbers increased steadily after that with a high count of 411 in 2013. The key point is that in both areas, numbers remained low for a period and then increased with the much higher numbers reached at Yorkton probably reflecting the greater availability of winter food at the Yorkton Landfill and other urban sources.

While food is a critical factor and will be a key determinant of ultimate winter populations, there have clearly been suitable food sources in southern Saskatchewan for decades, so an appropriate question might be

why Ravens took so long to reoccupy their former range.

Reinvasion requires a population source. Ravens clearly expanded south from the boreal forest. For a significant population expansion to occur the Boreal Forest population had to generate surplus birds which could emigrate. Assuming the growth pattern shown at Prince Albert, Nipawin and La Ronge (Figure 10) represents the pattern for the Boreal Forest in general, the boreal population was not producing surplus birds in the 1950s. As the population in the forest grew over succeeding decades, there were more individuals to pioneer new areas and as a greater percentage of potential territories in the forest were occupied, pressure on younger birds to seek new breeding areas likely increased. Later, as populations grew in colonized areas such as Yorkton, these areas became sources for further colonists. However, we argue that a growing Raven population in Northern Saskatchewan was critical for the recolonization of the south.

Ravens were never eliminated in northern Saskatchewan as this area did not see the catastrophic loss of almost all large mammals which occurred in the Aspen Parkland and Mixed Prairie. Why was the Raven population low in the north? Stewart³ suggested that poison contributed to the demise of Ravens, and that Ravens would have continued to be vulnerable. Spears⁴ commenting on the return of Ravens to the Ottawa area, also blamed strychnine for their previous low populations. Hayes described arriving at a strychnine bait site in the Yukon and finding a grizzly bear, two wolves, 10 Ravens, six Magpies and many chickadees dead.⁵ Poisoning with strychnine baits was not confined to southern Saskatchewan. Baits were spread in many parts of the forest for wolf

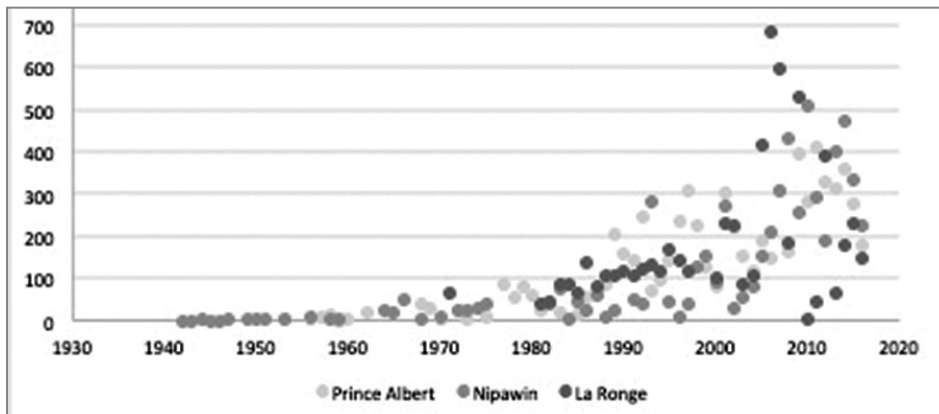


FIGURE 10. Number of Ravens Observed on CBCs at La Ronge, Prince Albert and Nipawin 1942-2016.

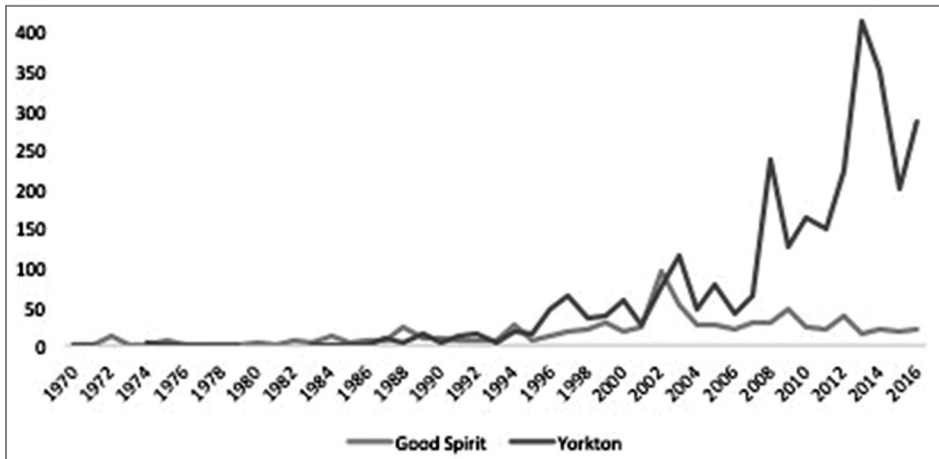


FIGURE 11. Ravens Observed at Good Spirit Lake and Yorkton CBCs.

control. The use of strychnine officially came to an end in Saskatchewan in 1967, but it is likely that poisoning continued for several years in some locations as northern offices used up their stocks of strychnine. Tim Trottier, Fish and Wildlife Branch, Sask Environment, reports that at least some poisoning was occurring in 1975, but believes most use of strychnine ended by the early 1970s (Personal communication Tim Trottier, December 11, 2006). A decline in poison use in the 1960s and cessation of setting strychnine baits in the 1970s offers a possible explanation for the modest increase in Raven population observed in the late 1960s and the much greater population increase in the 1970s and thereafter. When mortality from poisoning was reduced, the Raven population began to grow. A larger population then expanded into southern areas.

Conclusion

The Common Raven, once a bird of the Boreal Forest, Aspen Parkland and Mixed Prairie, disappeared from its prairie and parkland ranges during the 1800s. Our analysis of CBC data shows a slow recolonization of the parkland and then the grassland ecoregion beginning in the latter 1960s and accelerating in the 1990s and 2000s. By 2016, Ravens occurred throughout the province with only a small number of CBC counts in any year not reporting Ravens. The most important factor in this reoccupation was probably that the prairie and parkland are again suitable habitats for the Raven with winter food sources such as landfills, road killed animals, dead livestock and big game killed by coyotes, hunters or other factors. In addition, cessation of poisoning predators, especially wolves in the boreal forest, probably

reduced mortality of the Raven population in the forest, allowing the Boreal Forest population to grow and produce the colonists that expanded into more southern areas.

Acknowledgements

This project began when Estelle Hjertaas, then a high school student, extracted all Raven counts from the Christmas Bird Counts in our extensive *Blue Jay* collection. A first draft of the paper was prepared from that data and submitted to the *Blue Jay*. The editor, Anna Leighton, recommended we redo the paper to include all CBCs where no Ravens were seen. While we agreed that would improve the paper it meant substantial work and other activities interfered, so the project spent a decade on hold. When Dale Hjertaas retired, he reactivated the project. We thank Al Smith for providing the spreadsheet containing all Christmas Bird Count data, Glen McMaster for assistance with graphing, Anna Leighton for her recommendations to improve the analysis, Dave MacDonald for help in learning ArcGIS to create the maps, and Dr. Mark Brigham for his thoughtful review.

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PHOTOGRAPHY

Thank you to Dan Loran of Indian Head, SK who sent in this photo of a small portion of a large flock of Canada Geese north of Indian Head on September 8, 2019.

POETRY

30 Gusting to 45

The chill arctic air
Borne on the southern wind
Rushed northward again
From where it was
herded away
In a great sweep
By the circular system
Now pushing it back,
Carrying nary a breath
Of the balmy lands
It has brushed by
To its fount of
Floes, plains and mounts
of ice.

George Grassick

P.O. Box 205
Lumsden, SK S0G 3C0
ggrassick@sasktel.net

CALL FOR APPLICATIONS FOR THE MARGARET SKEEL GRADUATE STUDENT SCHOLARSHIP

In 2011, our Graduate Student Scholarship was renamed in honour of Margaret Skeel, the retiring manager of Nature Saskatchewan. This name change recognized her outstanding contribution to the organization from 1997 to 2011. Margaret expanded Nature Saskatchewan programs from the initial Operation Burrowing Owl to an array of successful landowner stewardship programs. She also initiated programs in other education and conservation areas and established partnerships on the national as well as the international level. Since Nature Saskatchewan assumed management of Last Mountain Bird Observatory in 2008, Margaret was involved in building support and programming there. Her managerial skill and exceptional grant writing ability provided the basis for these programs, many of which continue today. The renamed scholarship also recognized that to develop and deliver these programs, Margaret annually hired and mentored numerous university students beginning their careers in the biological sciences.

The Nature Saskatchewan Margaret Skeel Graduate Student Scholarship in the amount of \$2,000 will be awarded in 2020 to assist a graduate student attending a post-secondary institution in Saskatchewan in the fields of biology, ecology, wildlife management, environmental education and environmental studies including social sciences applied to advancement of conservation and sustainable use of natural resources.

The scholarship is awarded to a student pursuing studies in a field that complements the goals of Nature Saskatchewan: to promote appreciation and understanding of our natural environment, and support research to protect and

conserve natural ecosystems and their biodiversity. We work for sustainable use of Saskatchewan's natural heritage, ensuring survival of all native species and representative natural areas, as well as maintenance of healthy and diverse wildlife populations throughout the province. We aim to educate and to stimulate research to increase knowledge of all aspects of the natural world. Research that will contribute to resolving current conservation problems has a special priority.

The Margaret Skeel Graduate Student Scholarship must be applied to tuition and associated costs at the named institution. For more information, contact our office at info@naturesask.ca or 306-780-9273 (in Regina) or 1-800-667-4668 (Saskatchewan only).

Application Guidelines

Please include the following documents:

- An updated resume with a cover letter
- A full description of your present and/or proposed research
- A transcript of the undergraduate and graduate courses completed so far and those currently enrolled in
- An indication of what other source(s) of funding you hope to rely on to complete your studies
- Letter of References are optional

Application deadline: Dec. 31, 2019

Winner announced: Jan. 31, 2020

Please submit your completed application to the Scholarship Committee:

info@naturesask.ca

- or -

Nature Saskatchewan
206-1860 Lorne Street
Regina, SK S4P 2L7 🐦

BEYOND YOUR BACKYARD: THE ART OF HAND-FEEDING BIRDS

Kimberly J. Epp
kepp@shaw.ca

Feeding birds over the winter helps their survival, especially when the days are very cold. Birds must eat all day long, but they also cache food for leaner times. During the long night, the food they had eaten all day slowly digests, and this helps them stay warm as they huddle. Some birds, such as chickadees, even lower their body temperature into a state of near hypothermia to help them survive the long, cold nights. Having to only heat their core area also helps the survival process. When natural food is scarce or hidden by the snow, putting out a feeder (and filling it daily) will assist the winter birds.

These small birds have the ability to recognize faces and even voices. You can attract birds to your feeder by providing a mixture of various bird seed. Shelled oilseed is very popular to most birds, and has little mess. Nyjer seed is also popular. I provide a mixture of oilseed and crushed peanuts for my Red and White-breasted Nuthatches, Black-capped Chickadees, and House Finches.

Set your feeder(s) in an area that is sheltered, but also provides a view on each side. Birds' eyes, situated on the side of their heads, give them a field of vision of 300 degrees, which is needed for protection from predators. Their eyes are the largest of any animal, compared to their body size.

The birds will get to know you if you spend some time each day near the feeders. Every day, if you want to hand feed, take a few minutes and stand beside the feeder with the seed in a pail beside you and some pine nuts in your hand. The absence

of motion is critical, but you can quietly talk to them so they get to know your voice. Wait for a couple of minutes. Each day, move closer to the feeder and repeat the process. Within no time at all, you will have a bird that will grab a pine nut from you. Stay still, and let the bird take a few more. Then fill the feeder and keep offering pine nuts. Sit outside on a chair near enough that the birds will eventually come to you as you sit and sip your coffee. Eventually, they get used to the clicks of your camera as well. Feeding birds, or just sitting near them, is a calming activity.

The only rule these birds have when hand-feeding at the community feeder at Wakamow in Moose Jaw is 'pine nuts or bust'. One bird went to the hand of a friend who just ran out of pine nuts. The nuthatch then took the oilseed she had and flung it at her head. All of the birds then dispersed. The pine nut feeding frenzy was over! I always have fun with the little guys, putting pine nuts on my head or taking

'nuthatch selfies'.

Two springs ago, I was out walking in Wakamow with an older lady who had a slight fear of birds. So, although I had pine nuts with me, we walked the path and skipped going to the feeder. Before long I heard the 'I found food' friendly call of the chickadee. The bird knew I was 'packing'. I told this lady to remain still and put some pine nuts in her hand. I caught the big smile on her face as this tiny being gently took a nut, while apparently inside she was quaking in her boots. But she overcame her fear — at least with chickadees!

On many of my winter bird programs over the past two years as Field Trip Director and President of the Moose Jaw Nature Society (MJNS), there have been dozens of participants who have never before had the experience of holding a bird on their hand. The joy on their face, especially that of children, is what it is all about. Two boys were once counting the times a nuthatch landed on their



Photo credit: Kimberly Epp.

cold little hands. One little girl, who had never hand-fed, was so excited that she brought her friends to the Wakamow feeder the very next day — and then it became a weekly thing for her and her friends. Her mom, Jayne, said she could hear her teaching what she had learned from me. How could I not smile?

Jayne Seargeant said this about that field trip: “The pine nuts were distributed to the group, and a hush overcame us as we waited. It was simultaneously exhilarating and grounding to have a tiny feathered nuthatch touch down on my fingertips to retrieve a morsel. The real treat, though, was the thrill of seeing my child have a meaningful and memorable encounter with nature. Hand-feeding birds has (now) become a tradition and an honor for my child and I.”

Patti Kosteniuk, one of our new directors, was also at that trip last December. Following the December field trip, Patti was able to try the tips she learned about hand-feeding. She had this to say: “Last winter I went

out to fill my feeders and a Red-breasted Nuthatch was sitting in our crab apple tree and didn't fly away when I slowly approached. I thought ‘I'm going to put some pine nuts in my hand before I fill the feeders and see if it will come to me’ and it did.” The rest is history!

Tim Nicholl, also a new member and director, was absolutely intrigued when the first chickadee landed on his hand. Nature is a new thing to him, and he is finding each trip, workshop, speaker and meeting to be very educational. His response: “It's hard to believe that something that can fly anywhere would come down to visit me. I haven't done that before. I felt honored.”

With the help of a generous donor, the MJNS will once again be able to maintain the community feeder at Wakamow. If you go to hand-feed, always carry pine nuts. Pine nuts are higher in nutrition and energy, and softer to break down. If you hide a few pine nuts in a handful of oilseed, the bird will spend an extra few seconds looking for the ‘white

gold’. The common birds that come to your hand include Black-capped Chickadees, Red-breasted Nuthatches, occasionally White-breasted Nuthatches and every now and then a male Downy Woodpecker.

Last year, I took a good friend out to Beaver Creek Conservation Area. Although she had been there multiple times, she had never once hand fed any birds. In no time she ‘landed’ her first bird. In fact, then the chickadees followed us. A ways down the trail, a family of five were trying to hand feed with oilseed. I gave them all pine nuts, and told them there was no need to worry as they are gentle and very light. Well, the father ‘landed’ one, and started to tell his three kids: “Be careful as their claws are really sharp.” So, my friend who is a nurse and tells things as they are, responded by saying “You work in an office, don't you?” The wife laughed, and also said “busted.” The children enjoyed the gentle birds and thanked us for the pine nuts.

Our society will continue with many exciting workshops, field trips, and monthly meetings with guest speakers with topics of great interest. Rich Pickering has taken over as President, and he led the group also in the 80s. Through having an online presence, trips and workshops, our little group has grown — and the membership is four times what it was two years ago. For more information, contact Kim at (306) 681-3198 or on the Moose Jaw Nature Society Facebook page. Rich can be contacted at (306) 693-3183 and is the contact for seed donations as well.

Help our feathered friends out, and have fun and some laughs while doing so. 🐦

Epp is an environmental educator and writer, and is Past President and Field Trip Director for the Moose Jaw Nature Society. She also writes nature articles for the MJ Independent.



Photo credit: Kimberly Epp.

TYPE SPECIMENS OF AVIAN SUBSPECIES COLLECTED IN THE CANADIAN PRAIRIE PROVINCES, 1910-1965

Spencer G. Sealy

Department of Biological Sciences

University of Manitoba

Winnipeg, MB R3T 2N2

Spencer.Sealy@umanitoba.ca

While preparing the account of the parasitic Brown-headed Cowbird (*Molothrus ater*) for inclusion in *Birds of Saskatchewan*,¹ I examined the description of a new subspecies that was based on specimens taken in Saskatchewan around the turn of the 20th century.² This prompted me to compile information pertaining to type specimens of other avian taxa collected at and subsequent to that time in the Canadian Prairie Provinces (Alberta, Saskatchewan, Manitoba), and to confirm the collecting localities and note their current taxonomic status — information important for studies of taxonomy and nomenclature.³⁻⁵ I obtained this information through examination of the published description of each subspecies and photographs of type specimens, and critical scrutiny of the literature relevant to the collection or description of the specimens, including archived letters, where applicable.

This is not the first interest shown in the type specimens of birds collected in this region.^{6,7} C. Stuart Houston clarified the localities at which 19 new bird species and nine forms now recognized as subspecies were collected in the vast territory known as “Hudson Bay.” Changes were recommended in the designation of the type locality for the type specimens of three species and one subspecies, which include several specimens taken in northeastern Manitoba during the second half of

the 18th century.⁷ I do not consider these taxa further nor new species and subspecies listed in *The Birds of the Saskatchewan River* that date from collections made during the Franklin Expedition and by Thomas Drummond nearly 200 years ago.⁸

The annotated list of type specimens presented below is composed of eight subspecies described from specimens collected in Alberta and three subspecies collected in Saskatchewan, for a total of 11 subspecies. No new taxon has been described from Manitoba since the early descriptions referred to above. Each account begins with the name of the subspecies as originally proposed, followed by the author and the citation in the journal in which the description was published, the locality of collection and name of the collector (sometimes the same as the author), and date. The current status of each subspecies is indicated and whether it was accepted by the American Ornithologists’ Union’s *Check-list of North American birds*⁹, or by other authorities.

In 1930, ornithologist Outram Bangs, who worked at the Museum of Comparative Zoology at Harvard University, provided the following description of a type specimen (p. 149)¹⁰: “When an author specifies a certain individual as his type or has one specimen from which he describes, then there is a holotype, or as it is called here, following the usual custom of ornithologists, a type. On the other hand, when an author describes from several specimens, and does not himself designate any one as his type, all of the original specimens from the type locality are of equal importance, and all are

cotypes. No one of such specimens can afterwards be selected by someone else, and called *the* [italics Bangs’s] type.” (Bangs wrote at a time when most ornithologists were men). More recently, including the present paper, workers have followed the concept of type as used by Deignan³: a type may refer to a primary type (holotype, lectotype or neotype) or to a syntype (often called a cotype). I did not attempt to designate primary types in most instances; when only one specimen was listed, it may be assumed to be the holotype unless otherwise stated. The collectors, describers and in some cases persons after whom the subspecies were named, represent a who’s who of early naturalists, collectors and ornithologists who worked in the Canadian prairie region.

The designation of type specimens in association with descriptions of new species and subspecies of birds continues today^{11,12}; in fact, the history surrounding early collecting and descriptions of new species has been celebrated in recent works^{13,14}. Nevertheless, not all recently described taxa have been anchored by type specimens.¹⁵

The concept of the subspecies, in the context of the process of speciation, however, has come under fire in recent decades^{16,17}, although subspecies continue to provide focal points for studies of geographic variation and speciation.^{18,19} Foremost among the problems is that most subspecies were described before the advent of statistical methods in ornithology and were named on the basis of mean differences only, rather than on the extent of overlap.

In many cases too few specimens of similar freshness of plumage, or wear, made comparisons difficult^{20,21}, and subsequent studies of geographic variation, particularly combined with the use of modern genetic markers, sometimes have failed to uphold their genetic distinctiveness. For this reason, subspecies often are given less importance.

Holotypes and other specimens referred to in the text are catalogued in the following museums: Canadian Museum of Nature (CMMAV), formerly National Museums of Canada, Ottawa, ON; The Field Museum of Natural History (FMNH), Chicago, IL (H.B. Conover and Louis B. Bishop collections); Museum of Comparative Zoology (MCZ), Harvard University, Cambridge, MA; and United States National Museum (USNM), Washington, DC.

ALBERTA Sandhill Crane

Grus canadensis rowani Walkinshaw

Canadian Field-Naturalist
79(3):181, June 1965.

FMNH 16013 (H.B. Conover Collection); male, 10 miles west of Fawcett, Alberta (54.544561° N, 114.10354° W), June 1, 1943; collector, William Rowan.

The describer, Lawrence H. Walkinshaw, a dentist by profession, devoted many years to the study of the cranes of the World.²² His analyses of measurements of Sandhill Cranes throughout the range in North America and Cuba identified four populations, each recognizable as a subspecies of *Antigone* (*Grus*) *Canadensis*.²³ Measurements of Sandhill Cranes breeding in Alberta, Saskatchewan, west-central Manitoba, and southern Mackenzie, however, were intermediate in size compared with measurements of individuals sampled in the other breeding populations. This population was described as a new subspecies and

was named for the collector of the type specimen, William Rowan, professor of zoology at the University of Alberta and internationally known for his ground-breaking experiments on the physiology of timing of migration in birds.²⁴ The propriety of separating the intermediate-sized *rowani* from the smaller *canadensis* and larger *tabida*, however, eventually was questioned as collectively they demonstrate a continuum in morphology and random pairing among the proposed subspecies.²⁵

This specimen was registered as a gift from Rowan to the Field Museum of Natural History in Chicago (B. Marks, *in litt.*, September 23, 2015), originally as part of the collection of Henry Boardman Conover. The specimen might have been expected to have been deposited in the Canadian Museum of Nature, as were Rowan's specimens of dowitchers (see below), but it was later that Walkinshaw recognized this population of Sandhill Crane as a new subspecies. The specimen became part of the Conover collection because Rowan frequently bartered or sold specimens taken in Alberta to build up the University's collection, and by that time, Rowan had had a long association with Conover, which included sharing an eleven-day collecting trip to Beaverhill Lake east of Edmonton in the early 1920s.^{24,26}

Short-billed Dowitcher

Limnodromus griseus hendersoni

Rowan

Auk 49(2):22, January 1932.
CMNAV 24832; adult male, Devil's Lake, Alberta (53.709687° N, 114.098749° W), June 19, 1924; collector, William Rowan.

The type specimen of this subspecies was among 34 males measured and which Rowan referred to as the "Inland Dowitcher".²⁷ It was noted in a footnote of Table C that the specimen was "donated to the National Museum of Canada," where it still resides (Figure 1).

Acceptance of the interior subspecies by field naturalists was swift^{28,29}, as identification of the dowitchers had been problematic.

This subspecies is recognized by the AOU⁹ but its breeding distribution in the muskegs of central Canada remains only generally described as central and northern Alberta, Saskatchewan, Manitoba (best known in the Churchill region³⁰, and northern Ontario, and on Akimiski Island, Nunavut)³¹. In an analysis of geographic variation in the dowitchers, Pitelka verified (p. 74) the localities listed in Rowan's table, with the exception of the type locality, Devil's Lake, but the subspecies stood up to scrutiny.³²

This subspecies was named in



FIGURE 1. Type specimen of *Limnodromus griseus hendersoni* (CMN 24832), collected by William Rowan at Devil's Lake, Alberta, 19 June 1924. Photo credit: Michel Gosselin, Canadian Museum of Nature.

honour of oologist Archibald D. Henderson of Belvedere, Alberta, in recognition of the discovery of the Short-billed Dowitcher's breeding grounds in the muskeg region of central Alberta and of the collection of the first breeding specimens, including eggs.^{27,33} In fact, Rowan was effusive in his praise of Henderson's contributions, acknowledging him (p. 28) as the "discoverer of the Alberta breeding grounds [of Short-billed Dowitcher], who took endless trouble to procure me the first certain breeding skins obtained and to whose own activities and ever ready hospitality to visiting ornithologists[,] western Canada owes much of its recent advances in ornithological knowledge."²⁷

Rowan possibly would not have known about dowitchers nesting in central Alberta, or that Sandhill Cranes also nested there^{34,35}, if it had not been for Henderson's pioneering field work.^{27,36} The following excerpts (p. 214) tell some of the story behind the collections of the first breeding specimens and, importantly, reveal the caution the scientist expressed before he described the new subspecies³⁷:

"For the last three years it has been evident that the Red-breasted Snipe [Short-billed Dowitcher] breeds in Alberta even further south than Edmonton. I need not detail the evidence except to say that finally, in June, 1925, Mr. A.D. Henderson of Belvedere, Alberta (about sixty miles N.W. of Edmonton), took a set of eggs and kindly got me a couple of skins from a spot to the west of Belvedere. This is heavily wooded country and the home of the Solitary Sandpiper and both Yellowshanks [Greater and Lesser yellowlegs]. The photograph ... is of a lake of the same type on this side of Belvedere on which I took a Red-breasted Snipe in the middle of June, 1924, that was almost certainly a breeding bird, although eggs were not obtained. This skin, and those taken by Henderson, and those taken by others on the Point are all of the same

type, rather like griseus but larger and differing in some points that appear to be constant."

Rowan was not yet ready to describe the new subspecies. He stated further (pp. 214-215):

"But till we have a working series, as there is considerable variation, we can decide nothing definite. But all the facts together suggest that we are either on the verge of the breeding range of griseus, hitherto unknown, and our birds belong to that race but are not typical, or our Red-breasted Snipe represent a third and good sub-species. Both the races at present recognized show considerable variation, but typical birds of either are well defined and characteristic. It was not until two years ago that I was convinced of this, but even now, with a series of sixty skins, there are points that require further elucidation."

Enough comparative material was eventually assembled and the new subspecies was described²⁷, with the specimen mentioned above, collected "in the middle of June, 1924", designated as the holotype. Henderson was impressed with the newly acquired specimens and stated: "I do not know if this sub-species has been accepted by the A.O.U. committee but even one so unskilled in the art of feather splitting as myself could readily see the points of difference when a series of skins was displayed."³⁵

Canada Jay

Perisoreus canadensis albescens Peters
Proceedings of the New England Zoölogical Club 7:51, May 4, 1920. MCZ 247,526; adult male, Red Deer, Alberta (52.2681° N, 113.8112° W), March 18, 1897; collector, George F. Dippie.

In his paper on the birds of the Red Deer River, Alberta³⁸, Taverner stated (p. 252) that Gray Jays from the region "should probably be referred to as *P. c. canadensis*". This prompted James L.

Peters to examine five adult specimens taken there by George F. Dippie, taxidermist formerly of Toronto, later of Calgary, between March 4 and 18, 1897. These were registered in the Museum of Comparative Zoology at Harvard University. Peters noted (p. 51) "These [specimens] hardly need comparison to show that they belong to an undescribed race ... This form is strikingly paler than any of the known races of *Perisoreus canadensis*."³⁹ *P. c. albescens* was recognized by the AOU⁹ and "... considered intermediate in colouration between *canadensis* and *capitalis* – pale in overall colouration like the latter but with areas of dark colouration just as extensive as in *canadensis*".⁴⁰ In a recent account of the historic use of the earlier name of this species, Canada Jay, the subspecies *albescens* remains valid.⁴¹

Boreal Chickadee

Parus hudsonicus farleyi Godfrey
Canadian Field-Naturalist 26(1):
26, January-February, 1951.
CMNAV 21879; adult male,
Lac la Nonne, Alberta (53.93803° N,
114.32028° W), August 23, 1926;
collector, Hamilton M. Laing.

Parus hudsonicus farleyi (Figure 2) is one of five subspecies of Boreal Chickadee recognized in Canada.^{42,43} "The extreme paleness of the grey on the sides of the neck separates this subspecies from all other described races."⁴⁴ Godfrey's study of geographic variation was beset with the problems inherent in such a study, despite having some 600 specimens at hand that represented all populations of this species in Canada.⁴⁴ By the time faded and worn specimens were removed, only fresh fall and early winter specimens were available for study. Added to this was the possibility that a certain amount of migration and mixing occurred during the non-breeding season. Then there was the problem that specimens collected several decades earlier "may be faded



FIGURE 2. Type specimen of *Parus hudsonicus farleyi* (CMN 21879), collected by Hamilton M. Laing at Lac la Nonne, Alberta, 23 August 1926. Photo credit: Michel Gosselin.

and foxed so drastically that in colour, particularly that of the pileum and other upper parts, they little resemble recently-taken specimens from the same locality."⁴⁴

This subspecies was neither recognized by the AOU⁹ nor by Phillips²¹ who, despite the latter's support of the subspecies concept, implicitly dismissed the validity of this and other subspecies of Boreal Chickadee (p. 81), "Until and unless reasonably fresh, properly prepared material from most parts of the range becomes available, no definitive treatment of the subspecies is possible."

This subspecies was named for Francis (Frank) La Grange Farley in recognition of his work on birds, initially in Ontario, but later for studies in the Red Deer and Camrose regions of central Alberta⁴⁵; in fact, Farley was dubbed a pioneer of Alberta ornithology.⁴⁶ The collector of the type specimen, Hamilton Mack Laing, was an important naturalist in his own right and much has been written about his extensive collections and writings on ornithology and natural history, particularly in western Canada.^{47,48}

Marsh Wren

Telmatodytes palustris laingi Harper

Occasional Papers of the Boston Society of Natural History 5:221, December 10, 1926.

MCZ 231790; adult male, Athabaska

Delta, Main Branch (14 km above mouth), Alberta (59.4242° N; 109.3404° W); June 3, 1920; collectors, Francis Harper and J. Alden Loring, orig. no. 122.

This subspecies was named for Hamilton Mack Laing, "in appreciation of his writings on the bird life of western Canada"⁴⁹, and other accomplishments acknowledged above. Among 14 subspecies listed for Marsh Wren, *laingi* was not recognized by some authorities^{9,50}, although it was listed in *The Birds of Canada*⁴² and BNA account for this species.⁵¹ This species' "tangled taxonomic and nomenclatural history"⁴⁹ has been somewhat elucidated by evidence, based primarily on different songs, that point to two cryptic species that meet on either side of the Great Plains.⁵²

Savannah Sparrow

Passerculus sandwichensis campestris

Taverner

Proceedings of the Biological Society of Washington 45:204, November 10, 1932.

CMNAV 10414; male, near Red Deer, Alberta (52.268112° N, 113.811239° W), June 29, 1917; collector, Percy A. Taverner.

The holotype of "prairie Savannah sparrow" was collected by Percy Algernon Taverner, ornithologist with

the National Museum of Canada. This specimen was among 13 individuals of this species taken during the expedition on the Red Deer River in 1917.⁵³ Two types of colouration were exhibited among these specimens, some with yellow eye stripes, others with yellow and white eye stripes. Taverner was nevertheless reticent about referring them to subspecies. He stated (p. 203) "Until a detailed study is made of Canadian Savannah Sparrows I do not care to make subspecific determination. *P. s. alaudinus* is the generally accepted form in Canada west of Ontario."⁵³

With additional specimens collected in ensuing years, Taverner compared a larger series of Savannah Sparrows from British Columbia and the southern Canadian Prairie Provinces and found them to separate into two populations: "the ruddy, slightly olivaceous bird of the British Columbia interior [*alaudinus*] and ... the paler one of the prairies [proposed as *campestris*]."⁵³ The new subspecies was not recognized^{9,42} because specimens of *savanna* and *alaudinus* were compared only qualitatively. For example, comparing specimens from Mackenzie, the following statement was telling: "These birds are difficult of allocation as between *savanna* and *campestris* but by bill characters seem to agree more closely with the latter."⁵³

Purple Finch

Carpodacus purpureus taverneri Rand

Canadian Field-Naturalist 60(5):95, September-October, 1947.

CMNAV 25387; adult male, Government Hay Camp (Park Headquarters), Wood Buffalo Park, Alberta (58.2717° N, 112.2517° W), May 26, 1933; collector, J. Dewey Soper.

Although this subspecies, described in 1947 and named for Percy A. Taverner⁵⁴, was not recognized by the A.O.U.⁹, it was listed in *The Birds*

of Canada.⁴² This subspecies is most similar to nominate *purpureus*, but of paler colouration in the adult male in spring. The holotype was collected by J. Dewey Soper, one of Canada's foremost naturalists and travellers whose specimens were taken in widely scattered regions of the country in the early decades of the last century.⁵⁵ The breeding grounds of the Blue Goose, now known to be a colour phase of the Snow Goose (*Chen caerulescens*), were among Soper's many important discoveries.⁵⁶

Fox Sparrow

Passerella iliaca altivagans Riley

Proceedings of the Biological Society of Washington 24:234, November 20, 1911.

USNM 222832; subadult male, Moose Pass Branch, a headwater of the Smoky River (~ 7000 feet [2133 m] in the northern reaches of Jasper National Park, Alberta (53.933271° N, 116.576504° W), July 31, 1911; collector, J. Harvey Riley, orig. no. 2175.

The "Alberta Fox Sparrow" was founded upon four immature birds taken at the type locality, three on the British Columbia-Alberta border, the other just inside British Columbia.^{57,58} Augmented by 90 specimens available for study, the subspecies was later upheld.⁵⁸ Differences in colouration among subspecies of Fox Sparrow are slight. *P. i. altivagans* was noted as similar to *P. i. schistacea* Baird of extreme southeastern British Columbia and southwestern Alberta, "... but middle of back more brown instead of mouse gray; wings and tail with more red in the brown (near burnt umber)."⁵⁹ Compared with *P. i. zaboria* Oberholser of interior central and southeastern British Columbia, "... browns [are] less rufescent and upper parts more vaguely streaked."⁴²

The A.O.U. eventually recognized 18 subspecies of Fox Sparrow, *P. i. altivagans* among them.⁹ Taxonomy of this species has been confusing and

later work has suggested the existence of three or possibly four species.⁵⁹

Collectors had been sent by the Smithsonian Institution in Washington, D.C. to join the Alpine Club of Canada's Expedition to Jasper Park in 1911, with activities focused on the Yellowhead Pass and Mount Robson region.⁵⁸ The Alpine Club, founded in 1906 as Canada's national mountaineering club, organized tours for naturalists and wealthy tourists to the Canadian Mountain Parks. This trip, however, was primarily scientific and was accompanied by William Spreadborough, an associate of John Macoun, Canada's all-round naturalist of the day. A comprehensive account of the birds observed and collected during this expedition was later published.⁶⁰

SASKATCHEWAN

Long-billed Curlew

Numenius americanus parvus Bishop

Auk 27(1):59, January 1910. FMNH 15743; adult male, Crane Lake, Saskatchewan (50.086597° N, 109.09049° W), June 23, 1906; collection of Louis B. Bishop.

The collecting locality of the holotype was given on the label (Figure 3) as Maple Creek, Saskatchewan¹, which is about 45 km southwest of the type locality, Crane Lake, designated in the original description. In 1906, a field party consisting of Arthur Cleveland Bent,

the Rev. Herbert K. Job, and Chester S. Day reached Maple Creek on June 5, but Bent had to return home on 17 June⁶¹, leaving Day and Job as co-collectors of this specimen and also of the type of the cowbird subspecies discussed below. Both specimens became part of the comprehensive Louis B. Bishop collection, now mostly absorbed in Chicago's Field Museum of Natural History. In 1907, Bishop accompanied Bent on a return trip to Maple Creek where they were joined later by Dr. Jonathon Dwight Jr., for whom the new cowbird subspecies was named.

A smaller race of Long-billed Curlew, *N. a. occidentalis* Woodhouse, added to the A.O.U. *Check-list* in 1931 on the basis of an immature male collected in New Mexico in 1853⁶², is actually referable to *parvus*. In fact, Bishop later stated "Therefore *occidentalis* becomes a synonym of *americanus*, and for the small northern bird must be replaced by *parvus*. Of this fact I was aware when I described the Canadian subspecies [in 1906]."⁶³ Godfrey treated *parvus* as the breeding subspecies of Long-billed Curlew in Canada, although the characters distinguishing *americanus* and *parvus* are minor.⁴² Notable was that "There is some uncertainty in assigning early records to *N. a. americanus* or *N. a. parvus*. While there is an average size difference between the two, there is

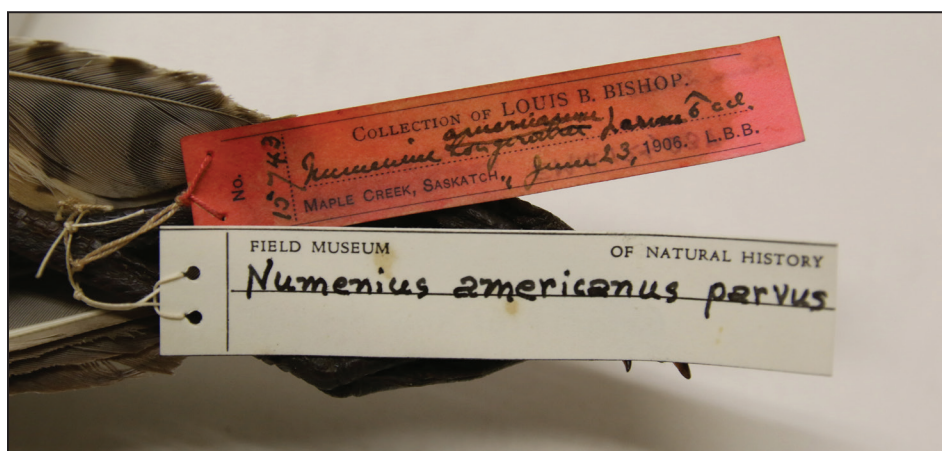


FIGURE 3. Labels attached to the type specimen of *Numenius americanus parvus* (FMNH 15743), collected at Crane Lake, Saskatchewan, 23 June 1906. Photo credit: Josh Engel and Ben Marks, Chicago Field Museum.



FIGURE 4. Type specimen of *Molothrus ater dwighti* (FMNH 15759), collected at Crane Lake, Saskatchewan, 24 June 1906. Photo credit: Josh Engel and Ben Marks.

overlap, making racial identification of specimens of unknown age and sex difficult".⁹ Similar difficulties of separation of races had been noted for several subspecies discussed above.

Brown-headed Cowbird

Molothrus ater dwighti Bishop
Auk 27(1):61, January 1910.
FMNH 15759; adult male, Crane Lake, Saskatchewan (50.086597° N, 109.09049° W), June 24, 1906; collection of Louis B. Bishop.

The collecting locality is given on the original label as Maple Creek, Saskatchewan (Figure 4), which is about 45 km southwest of the designated collecting locality, Crane Lake. This is another example of a subspecies described on the basis of incomplete information, albeit measurements were compared with individuals from other regions that showed that those of *dwighti* were larger, and its bill was more slender; however, sample sizes were too small for confirmatory statistical analysis. Bishop noted the "Cowbird breeding in Saskatchewan is considerably larger than in our Eastern States, as is shown by the subjoined measurements of breeding birds. The bird inhabiting Alberta, Manitoba, and northern Montana is doubtless the northern race, but I have not seen specimens from these localities."² *Dwighti* was not accepted by the AOU because it was "Too close to *M. ater*".⁶⁴

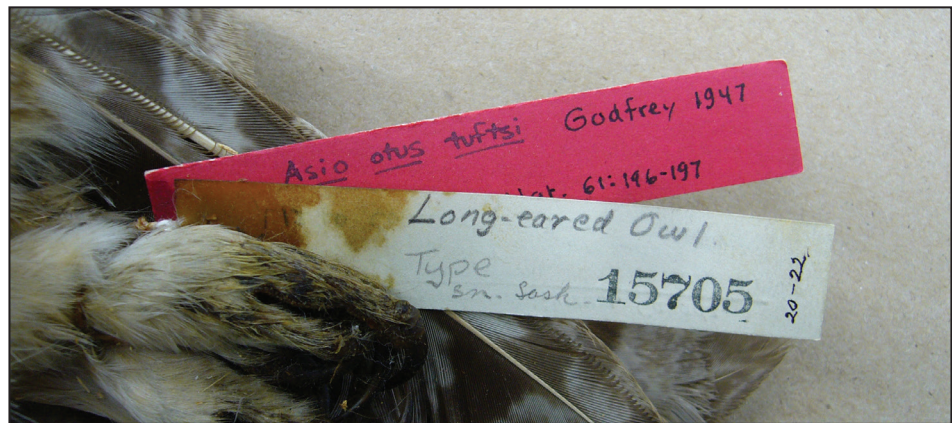


FIGURE 5. Labels attached to the type specimen of *Asio otus tuftsi* (CMNAV 15705), collected by Charles H. Young at Last Mountain Lake, Saskatchewan, 14 July 1920. Photo credit: M. Gosselein.

Long-eared Owl

Asio otus tuftsi Godfrey
Canadian Field-Naturalist 61(6):196,
November-December, 1947.
CMNAV 15705; adult male, South Arm, Last Mountain Lake, Saskatchewan (51.333051° N, 105.238799° W), July 14, 1920; collector, Charles H. Young, orig. no. 293.

Based on the study of 56 specimens of Long-eared Owl, Godfrey described a new subspecies (Figure 5) that differed in both sexes from "Eastern" *Asio otus wilsonianus* (Lesson, 1830) in being of paler colouration, and from Old World *A. o. otus* (Linnaeus, 1758), in possessing broader and more prominent barring on the underparts and in being, on the average, of less ochraceous colouration.⁶⁵ *A. o. tuftsi* is recognized by the AOU⁹ and by other authorities^{66,67}, but because other workers questioned its validity^{68,69},

Dickerman examined 178 additional specimens of Long-eared Owl and concurred that *tuftsi* is invalid, because the variation originally observed is explained by dimorphism.⁷⁰ Complicating this issue is the degree of foxing that occurs as museum specimens age.^{70,71}

This subspecies was named after Robie W. Tufts, former Dominion Wildlife officer for the Maritime Provinces, in recognition of extensive contributions to Canadian ornithology. The collector, Charles Henry Young, was an entomologist associated early on with the Old Division of Entomology attached to the Experimental Farms Service in Ottawa. Among many contributions, Young was recognized for preparing "thousands" of specimens, including birds, for the Canadian Museum of Nature and the National Collection of Insects, Department of Agriculture.⁷²

Summary

Of the 11 subspecies of birds considered here (Table 1), five were recognized in the fifth edition of the American Ornithologists' Union *Check-list of North American Birds*⁹, the last edition to include subspecies.

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TABLE 1. Current status of subspecies of birds that were described based on type specimens collected in Alberta and Saskatchewan, 1910-1965.

SUBSPECIES RECOGNIZED BY THE 5 TH EDITION OF THE AOU CHECK-LIST ¹
Long-billed Curlew (<i>Numenius americanus parvus</i>), 1910: Saskatchewan
Short-billed Dowitcher (<i>Limnodromus griseus hendersonii</i>), 1932: Alberta
Long-eared Owl (<i>Asio otus tuftsi</i>), 1947: Saskatchewan
Gray Jay (<i>Perisoreus canadensis albescens</i>), 1920: Alberta
Fox Sparrow (<i>Passerella iliaca altivagans</i>), 1911: Alberta
SUBSPECIES NOT RECOGNIZED BY THE AOU
Boreal Chickadee (<i>Parus² hudsonicus farleyi</i>), 1951: Alberta
Marsh Wren (<i>Telmatodytes³ palustris laingi</i>), 1925: Alberta
Savannah Sparrow (<i>Passerculus sandwichensis campestris</i>), 1932: Alberta
Purple Finch (<i>Carpodacus⁴ purpureus taverneri</i>), 1947: Alberta
Brown-headed Cowbird (<i>Molothrus ater dwighti</i>), 1910: Saskatchewan
Subspecies described after the 5 th edition of the AOU Check-list
Sandhill Crane (<i>Grus⁵ canadensis rowani⁶</i>), 1965: Alberta

¹ The Check-list is now published and updated by the American Ornithological Society (formerly American Ornithologists' Union).

² Now *Poecile*.

³ Now *Cistothorus*.

⁴ Now *Haemorhous*.

⁵ Now *Antigone*.

⁶ This subspecies is considered part of a cline in size from small to large in mid-continental North America.²⁵

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NATURE SASKATCHEWAN 2019 AWARDS RECIPIENTS

Each year at the Fall Meet, Nature Saskatchewan recognizes outstanding service and contributions that Society members, and/or affiliate and partner organizations, have made toward Nature Saskatchewan's objectives and goals. Below are the award recipients for 2019.



A dishevelled, weak Ruby-throated Hummingbird with a deformed bill. Photo credit: P. Taylor.

Cliff Shaw Award: Ron Jensen

Each year, the Editor of *Blue Jay* chooses the recipient of the Cliff Shaw Award. This award acknowledges an article that appeared in the most recent four issues of *Blue Jay*, which merits special recognition for its contribution in any branch of natural history. In 2019, Ron Jensen was chosen to receive the Cliff Shaw Award for his article "Ruby-throated Hummingbird with a Deformed Bill", which appeared in the Spring 2019 issue of *Blue Jay*.

During the summer of 2018, Ron — who is one of only four people in Saskatchewan permitted to band hummingbirds — was notified of, and subsequently trapped, a Ruby-throated Hummingbird with a deformed bill at a property north of Blaine Lake, Saskatchewan. After careful observation, and photos of the bird taken by banding assistant and friend, Phil Taylor, Ron posted the photo on a website for hummingbird banders to see whether others had seen such a condition. Comments came in from other permitted and experienced banders, which are shared and summarized in the article.

Ron details the characteristics of the bird found in Saskatchewan, including weight, bill measurements, a description of the nature of the deformed bill, and compares the details to 'normal' hatch-year Ruby-throated Hummingbirds. He also shared the findings of research he undertook to seek out similar occurrences of Ruby-throated

Hummingbirds with deformed bills and provided a number of photos that helped to illustrate his observations, as well as the observations and occurrences of others in the field.

Naturalists and ornithologists have been describing abnormal bills of birds for many years; thus, the description of one more may not seem important. Ron took the description farther, however, and provided detailed observations that revealed the bird managed to feed on its preferred liquid nectar, despite its apparently severe handicap.

Conservation Award: Joanne Havelock

Since 2012, Joanne has worked tirelessly to bring attention to the need to retain the former PFRA pastures as public lands with conservation priorities and official protection. She was part of a small group of people who formed Public Pastures – Public Interest to advance the public interest in keeping our Crown grasslands healthy both for grazing and ecological values. Joanne's dedication and countless hours at meetings, on the phone and on her computer has in eight years made PPPI into a small but effective civic society environmental organization whose list of supporters has grown to more than 500 with founding principles endorsed by more than 50 NGOs from around the continent.

From the beginning, Joanne has kept PPPI supporters and allies

informed and connected via email messages, social media and news releases. Thanks in large part to Joanne's efforts, the former PRFA pastures were retained by the province and leased out to patrons in 15-year agreements with three main conditions: 1) Only the patrons could purchase the pastures; 2) The native landscape on the pastures could not be broken, cleared or drained; 3) The pastures could not be sub-divided and fragmented. But Joanne and PPPI did not stop there because public grasslands continue to be threatened by development. The media and letter writing campaigns Joanne has put together have led directly to the protection of public grasslands including the White Butte Recreation Area and the Crown lands that were slated for wind energy development near Chaplin. New wind energy guidelines for the province were also developed in the wake of the Chaplin reversal and Joanne has been an important link for PPPI to the wind industry as more projects become proposed, helping to ensure native grasslands are left intact.

Thanks to Joanne's leadership and work with PPPI, the pastures remain in public ownership and the natural values are being retained. PPPI continues to work with its supporters and NGO allies to monitor the wellbeing of Crown grasslands and encourage governments to take steps to secure these critically important grasslands. 🐦

NATURE SASKATCHEWAN FALL MEET 2019 RECAP: GREENWATER LAKE PROVINCIAL PARK



Becky Quist
Nature Saskatchewan

The Nature Saskatchewan Fall Meet took place in Greenwater Lake Provincial Park the weekend of September 14-16 amid ideal weather of sunny skies and the dazzling array of autumn colours. Kicking the meet off on Friday evening was the Larry Morgotch photo presentation, where the talent and patience of several members was apparent as they showcased their own stunning photos of wildlife — especially birds. Following that, the itinerary for Saturday's tours was discussed before members departed for the evening. It ended up being the perfect evening for stargazing with clear skies and a full, harvest moon to light the path back to the accommodations.

The echo of a loon's call on Greenwater Lake, along with a full spread of breakfast items, was the ideal start to Saturday, as all 42 registrants ate and got ready to load the bus to set off for the first stop, Marean Lake. A hiking loop that ran alongside the lake had a viewing platform to look out over the golden treetops, plenty of bird species to identify, mushrooms galore, and many boreal plants, which kept everyone content for a calm, flawless morning. After lunch, the next stop on the tour was to one of Nature Saskatchewan's sanctuaries, the Van Brienens Sanctuary. Long-time member, Sylvia Van Brienens, interested in ensuring the land be undeveloped for future generations, donated the property to Nature Saskatchewan back in 1993. Her nephew, Brian Irving, who still lives in the area and is a life-time member and donor, delivered a presentation on the value of the property, along with interesting family and area history,

All photos courtesy of Becky Quist.

as well as what is being done on the property for upkeep.

After the intriguing and entertaining storytelling, and with binoculars ready, attendees were able to roam around the property. They walked along a mowed path near the water and through the field to appreciate the work being done (spring seeding to restore the previously cultivated field to permanent vegetation) and to enjoy the surrounding flora and fauna. After the visit to the sanctuary, the last pit-stop before heading back toward Greenwater was to the second house built by the family connected to the sanctuary, the Van Brienens, over 100 years old but still standing with a visible interior.

The evening brought another great meal and, once completed, Nature Saskatchewan's annual awards were presented. This year's Cliff Shaw Award was presented to Ron Jensen for his article "Ruby-throated Hummingbird with a Deformed Bill", which appeared in the Spring 2019 (volume 77.1) issue

of *Blue Jay*. Joanne Havelock was presented with the Conservation Award for her extensive work in bringing attention to the protection of PFRA pastures as public lands and for her efforts informing and working with the Public Pastures Public Interest group. After the awards portion of the evening, the Saskatchewan Ministry of Environment delivered a presentation on the Province of Saskatchewan's Climate Change strategy. A lively and educational question period

followed. As a topic that is integral when considering the future of nature in the province, the opportunity for the members of Nature Saskatchewan to ask and voice their questions and concerns was appreciated.

Ending the meet with somewhat hopeful optimism for nature in Saskatchewan, yet tired from the day's adventures, members parted ways knowing they could reunite again in the spring of 2020 in Avonlea. 🐦



SPRUCE GROUSE — SPRING BEHAVIOUR

Peter Gerrard

1904 Pembina Avenue
Saskatoon, SK S7K 1C3
pgerrard@shaw.ca

For the past six years (2014-2019), I have had the opportunity to observe bird life during the spring and summer on an island on Besnard Lake, Saskatchewan. This lake is best known as a centre of over 50 years of Bald Eagle (*Haliaeetus leucocephalus*) research, coordinated by my brother Jon and his wife Naomi.¹ The island is 13 hectares (32 acres) in size; 70 per cent is covered with white spruce,

10 per cent balsam fir and black spruce, 15 per cent birch and five per cent everything else, including some open and deadfall areas. In this note I describe spring displays and calls of Spruce Grouse (*Falcapennis canadensis*).

I refer to a higher point on the south side of the island as Signal Hill (SH), as this is the best place to get cellular telephone coverage at sunrise or sunset. The cell tower is at La Ronge, which is more than 50 km away. As the signal is weak, I may spend over an hour there in the morning waiting for the signal to strengthen enough to receive emails

and get a weather forecast. For the past four years I have been aware of a male Spruce Grouse displaying 50 m from where I stand at SH. The bird displays in a relatively open area with sparse spruce cover. This spring I set out to document the activities of the Spruce Grouse on the island, especially the male close to SH. The other display area on the island is 150 m to the NW in an open glade in a Birch Forest (BF).

The Spruce Grouse “is known for its relative tameness” as reported in *Birds of Saskatchewan*.² There often are two broods on the island. The females usually start off with seven or eight chicks, hatching in mid-June, and end up with three or four by mid-September. Last year, one female brought her brood around the cabin and had no fear of us. Once, as I was picking gooseberries, the female brought the brood along and one young walked between my legs. The other female was nervous and never brought her young too close to us.

In mid-April 2019, the males start displaying and continued daily (except during inclement weather) until mid-May. This year, one male started displaying on April 13, the other a few days later. They continued displaying regularly until May 18. In 2018, they stopped their regular displaying on May 17.

Males displayed morning and evening in characteristic ways that combined perching with flying. The SH adult perched about 4.5 m up in a spruce tree and hunched up his wings much like I might raise my shoulders; this was an indication that he was about to flush. He would fly some 20 m — for the last 5 m of his flight he would beat his wings rapidly in front of him making a very distinctive sound that was more than a flap but less than a boom. After a short rest, he hunched his wings,



Male Spruce Grouse on May 1, 2019. Photo credit: Peter Gerrard.

took off for his tree or stump and, just before landing, he flapped his wings hard to make this same sound. He carried on this activity for more than an hour. Once, the behaviour was repeated for two hours and 40 minutes. The females do not display. In 2019, two males displayed — last year, there was a third male displaying near BF. If one male was displaying, usually the other was, too. Most mornings they started displaying before sunrise. When they displayed in the evenings, which was about half as often as they did in the morning, they started to display one-to-two hours before sunset and occasionally beyond.

I never saw them display in the above manner at other times of the day. This display is different from the strutting that occurs when they encounter a female at other times of the day elsewhere on the island.

I only once chanced on a female in a display area. This was on May 13, 2019 in BF and copulation was in process. Afterwards, they both gave their feathers a good shake. The male went back to displaying and the female walked towards where I was standing. When she was 5 m away, she noticed me and walked slowly into the bush. While the males are displaying, I often encountered females elsewhere on the island.

On April 20, 2019, I became aware of a bird call that I did not recognize. The bird was calling about 30 minutes before sunrise; the island is particularly quiet at this time. The loons, flickers, and song birds have yet to return. On the fourth day I located the bird high up in a spruce tree — it was a grouse. Dr. Karen Wiebe (professor, Department of Biology, University of Saskatchewan) confirmed that what I was hearing is described in *The Birds of North America* as the spring call of the female grouse.³

“The most song-like vocalization is a

long series of nasal cackles and clucks ... sometimes lasting many seconds, given by females on their spring territories. In southwestern Alberta, during the late prelaying and laying periods, females utter *Cackle* from specific pine trees usually well-spaced within their territories. These trees, used as song perches, are also used as feeding trees at dawn and dusk, and as roost trees, where birds spend the night. This song is apparently uttered spontaneously when light intensities are low (< 33 lux) at dawn and dusk, but can be stimulated at any time of day during this period by playing a recording of it inside their territories. The cackle has never been heard in a courtship context. Female Canada Spruce Grouse utter a similar “long cackling call with several inflections” (J. F. Bendell, personal communication), but its significance remains poorly understood.”⁴

I would describe the call as more like a chicken trying to warble than as a cackle! I heard female grouse warbling 10 mornings in a row from April 20 to April 29 — this was well before their laying or late pre-laying period as, if chicks are hatching between June 11 and 15, egg laying is initiated no earlier than May 9. Godfrey stated that the incubation period is 24 days, which is initiated after all eggs are laid.⁵ Thus, it would take about eight days to lay eight eggs, laying one egg each day. I suspect I heard them calling after April 29; however, my ears could not definitely distinguish the grouse call from the other birds now contributing to the morning and daily chorus. One morning I was only aware of a grouse uttering three calls within a two-minute span. Another morning it (or they as there were at least three female grouse on the island) might have called up to a dozen times over a 10-minute span and from at least two locations.

After May 18, I found the SH male


and the BF male both displaying in the morning of May 26, 28 and 31 and in the evening of June 1. During that period, they were not observed displaying on any other occasion. As the male grouse displayed at the same time despite being 150 m apart, I wondered whether a female grouse called and ‘incited’ them to display?

The BF male was seen in or near his display area on the evening of May 26 and mornings of May 29 and June 2. The SH male was seen in or near his display area on the mornings of May 30 and June 1 and the evening of May 31. They were in their respective display areas but not displaying — I suspect nothing had ‘incited’ them to display.

Spruce grouse are year-round residents on this island, which is 600 m from the nearest island and 2 km from the mainland. For some individuals, I suspect this island is the only home they will ever know. Their relative tameness and the small size of our island enables ready observation of their behavior. They are our island friends.

Acknowledgements

I would like to thank Elston Dzus and Jon Gerrard for their review and comments on an earlier draft of this manuscript.

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HUMAN NATURE

Joel Cherry

Regina, SK

I'm often given a quizzical look when I inform friends or colleagues that I plan to spend a long weekend in and around Estevan. Dotted with oil rigs and pockmarked by generations of coal mining, it can be easy to overlook the surrounding area's natural charm. If you had told me ten years ago I would find one of my favourite natural spots on the doorstep of the Energy City, I may not have believed it myself.

My partner (and *Blue Jay* editor) Annie McLeod and I first visited Roche Percee Campground at the urging of our friend and birding mentor Bob Luterbach. We had initially planned a birding trip to the busier and more tourist-friendly Moose Mountain Provincial Park, but Bob encouraged us to set our sights further south.

To get to the campground, visitors must turn east off Highway 39 where the busy Canada-U.S. corridor crosses the Souris River. It's worth slowing down and having a look and listen as soon as you turn off. We have been treated to the songs of Sprague's pipits in the grassy field immediately adjacent to the highway, and the simple gravel road leading into the campground is a great spot to see Bobolinks.

The campground itself is nearly encircled by the meandering Souris River and contains a variety of mature trees and bushes. Abandoned from 1981 until the start of this decade, the campground has now been largely pruned back and tamed. On a visit in early summer, you are likely to see a few RVs parked at the electrified campsites.



A Veery at the Roche Percee Campground. Photo credit: Annie McLeod.

Despite this, it remains a favourite birding spot and an unrivalled location for several sought-after Saskatchewan species. Black-headed Grosbeak, Eastern Wood-Pewee and Yellow-breasted Chat, all regulars at the campground, were first-timers for us, and other favourites such as Black-billed Cuckoo, Lazuli Bunting, Yellow-throated Vireo and Veery are often present as well.

Roche Percee has become for us a familiar place where we can take a walk and hear familiar voices from the trees, while never knowing what may turn up next. Continued visits to the campground keep turning up surprises such as our first Ruby-throated Hummingbird nest, our second-ever Field Sparrow, which we heard singing from the nearby hills, and a beautiful Red-headed Woodpecker in trees nearby.

The campground is also a great starting point for other adventures in the immediate area. The unique sandstone formations that give the

nearby village of Roche Percee its name offer a great photo opportunity and sit amongst hillsides sprinkled with Western Red Lilies in summer. Two years ago, Annie and I caught a glimpse of a Smooth Green Snake as it slithered through the grass during a visit here.

On a warm, sunny day, the Taylorton Bridge, which traverses the Souris river immediately to the east of the campground, is a guaranteed spot to see Western Painted Turtles sunning themselves on fallen logs. Snapping turtles also inhabit the area, though we have not been lucky enough to see one yet. The heritage cemetery down the road is home to Eastern Bluebirds and Killdeer and is worth a visit.

Even the old spoil piles hold their own surprises. I find something hopeful in the sight of a mother Hooded Merganser swimming with her young in a pond created by the disfigurement of the land. 🐦



Photo credit: Randy McCulloch.



Photo credit: Fran Kerbs.

Mystery Photo **Winter 2019 (left)**

QUESTION:

Look carefully: what insect is partially pictured here?

Please send your answers to Blue Jay editor Annie McLeod at bluejay@naturesask.ca or by letter mail: 3017 Hill Ave. Regina, SK S4S 0W2.

Those with correct answers will be entered into a draw for a prize from Nature Saskatchewan.

Mystery Photo **Fall 2019 (above)**

ANSWER:

Great Horned Owl (*Bubo virginianus*)

The Great Horned Owl is one of the most common owls in North America. While the female owls are larger than males, the male's voice boxes are larger and, as such, they have deeper voices.

Have you taken a picture that may make for a good mystery photo? Send it to the editor for possible inclusion in an upcoming issue.



Nature
SASKATCHEWAN

206 – 1860 Lorne Street
Regina, SK S4P 2L7

