



SUMMER 2022 VOLUME 80.2

# BLUE JAY







5 Debra Hanson and Ron Jensen share Debra's observations of cold Ruby-throated Hummingbirds at her farm during May 2021 and give a possible explanation as to the birds' lethargic behaviour.



6 The North American Beaver is a common resident of Canada's boreal forest. Even though it's well known that beavers live in lakes, their occurrence in this habitat isn't often studied. In 2019, a census of beaver lodges was conducted on Besnard Lake, SK. Check out page 6 for the results.



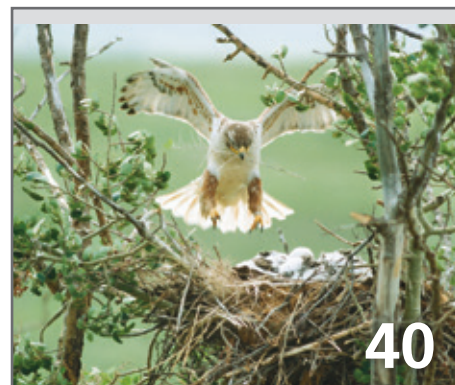
16 The results of the 80th Annual Christmas Bird Count, and 49th Annual Christmas Mammal Count, are in. Learn more beginning on page 16.



34 David Raitt of The Pas shares a number of noteworthy bird sightings in west central Manitoba during 2021.



39 Julia Froese and Phil Willson share the details of an unusual find while cleaning out nest boxes in November 2021.



40 Naturalist and Nature Saskatchewan Board member Joe Schmutz shares his perspectives on Saskatchewan's amended Trespass Act and provides 10 recommendations for reflection and further discussion.

# FROM THE PRESIDENT

Ken Ludwig  
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The central grasslands of North America span more than 500 million acres across three countries, from the Canadian prairies in the north through the plains of the United

States into the zacatonal of central Mexico in the south. This vast area is a mosaic of private, public and indigenous lands, and carries diverse landscapes and habitats with a rich array of plants and wildlife.

It is also a biome facing enormous conservation challenges. Isolated jurisdictional work does not seem to be working to adequately protect it, as wildlife populations and natural areas continue to decline. Indeed, temperate grasslands are now among the most endangered ecosystems in our own province and around the world.

A new initiative — the Central Grasslands Roadmap — hopes to change that.

This recent initiative has brought together non-governmental organizations, provincial and state agencies, federal agencies, academic institutions and partners, indigenous communities, industry representatives, and private land owners and managers to try to take conservation efforts further.

Its stated goal is to provide for those living and working in the biome area a "collaborative guide to increase support for conservation of North America's Central Grasslands".

A 40-member planning team representing all of the interested sectors is working on a number of projects, including: a tri-national Letter of Agreement, a North American Grasslands Conservation Act, Memorandums of Understanding with (at present) U.S. federal agencies, GIS story maps and data visualization tools, collaborative wildlife population goals, a progress scorecard, communications campaigns, and the organization of a Grassland Conservation Forum.



Ken Ludwig

The team is also developing a three-phase path forward for those who wish to collaborate with their efforts, which invites local partners to:

- sign on to demonstrate support for conservation of the grasslands,
- develop action plans based on a developed set of criteria for collaboration, and
- track progress through a common scorecard.

With the many challenges faced by our native prairie spaces and species, we welcome this ambitious organizing effort to add help to our work toward ensuring resilient and sustainable grassland ecosystems into the future. 🐦

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### ON THE FRONT COVER

An adult Sharp-shinned Hawk fans its tail in a Saskatoon backyard. Photo credit: Nick Saunders.



### ON THE BACK COVER

A Plains Bison at Grasslands National Park in April 2022. Photo credit: Annie McLeod.



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# COLD RUBY-THROATED HUMMINGBIRDS IN SASKATCHEWAN - MAY 2021

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On 20 May 2021, on a farm near Archerwill, SK, Debra Hanson observed some unusual behaviour by Ruby-throated Hummingbirds (*Archilochus colubris*), hereafter hummingbirds, which is described below. The overnight low was -2°C, a far departure from the 32°C earlier in the week. That morning, there was rain, snow and freezing rain and the high for the day was forecasted to be only 4°C. These were not ideal conditions for hummingbirds.

Hummingbirds arrived back to the farm on 14 May (entry in Debra's daily planner), and up to 10 had been seen feeding at one of the four sugar water feeders on 19 May. At 19:00 h on 20 May (Figure 1), Debra looked out her kitchen window to see a hummingbird motionlessly hanging from the feeder, upside down, while a second hummingbird was perched



**FIGURE 1:** Photograph of the two Ruby-throated Hummingbirds observed at 19:00 h on 20 May 2021, near Archerwill, SK. The bird on the left was hanging on the feeder until it fell to the ground. The bird on the right sat motionless.

on the feeder upright but not moving. As she was taking photographs of the birds, the hummingbird that had been hanging lost its grip and fell to the ground. Debra called for her husband Ted to come help! He went outside and was able to pick the hummingbird up from the ground, as well as the one sitting on the feeder. He took them into their greenhouse along with another feeder. The greenhouse was 21°C. A third hummingbird was caught later that day about 21:30 h. It, too, was moved to the warm greenhouse (Figure 2).

On 21 May at 06:00 h, a fourth hummingbird was moved to the greenhouse. Debra took a picture of two hummingbirds (Figure 3), one sitting motionless on the feeder while a second hovered over the motionless hummingbird. There were icicles hanging from the bottom of the feeder. Later in the day, at about noon, the last hummingbird, number five, was caught and moved to the greenhouse.

Two days later, when the weather had warmed up, four out of the five rescued hummingbirds flew out the open greenhouse door.



**FIGURE 2:** Photo of a Ruby-throated Hummingbird inside the greenhouse at the feeder. All photos courtesy of Debra Hanson.

One of the hummingbirds did not survive. It never became active in the greenhouse like the other four did.

One possible explanation for the observed lethargic behaviour witnessed from these hummingbirds is what is called torpor. Numerous species are known to use torpor, including hummingbirds. While a hummingbird is in torpor, it lowers its metabolic rate by up to 95 per cent, allowing it to use up to 50 times less energy and eliminate the need to feed.<sup>1</sup> Hummingbirds may use torpor nightly, which allows them to survive the night without feeding. When in torpor, the bird is unable to move as its muscles and reactions are almost shut down to conserve energy. Were the hummingbirds Debra observed going into torpor in response to cold stress? It's difficult to confirm, but this observation is fascinating nonetheless.

1. Bennu D (2012) How do Hummingbirds survive cold nights? Hummingbirds in Torpor. Published in "The Flyway" summer 2012 Quarterly Newsletter of Nisqually and Grays Harbor National Wildlife Refuges. <https://purl.fdlp.gov/GPO/gpo734>.



**FIGURE 3:** Two male Ruby-throated Hummingbirds, one hovering over the other motionless hummingbird, 21 May 2021.



# BEAVERS IN THE BOREAL: A LODGE CENSUS OF BESNARD LAKE



FIGURE 1: A juvenile beaver eating the bark of an alder stem on Besnard Lake, July 2021. All photos taken and provided by the authors.

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The North American Beaver (*Castor canadensis*) is a common resident of Canada's boreal forest. Beavers have long been a compelling research subject due to the extensive impacts of their dam building and tree cutting on waterways and near-shore forests, and their creation of wetland habitat for other species. While beavers live in a broad range of habitats, they are best known for damming streams. Lakes, though, are also good beaver habitat.<sup>1</sup> Beavers that live in lakes can build dams to regulate the inflow and outflow of water. They also shape the near-shore forest composition through selective tree cutting<sup>2</sup> (Figure 1). Despite the fact that it is well known that beavers live in lakes, their occurrence in this habitat is not often studied.

Lakes are common in Saskatchewan's boreal forest and beavers live in most of them. Besnard Lake (Figure 2) is located about 50 km west of La Ronge and has a surface area of 172 km.<sup>2</sup> It is in the

area of Saskatchewan long known to have high beaver population density.<sup>3</sup> Water flows into Besnard Lake primarily via the Mercer River and out of the lake towards the Churchill River via Black Bear Island Creek in the north end of MacDougall Bay. The lake has a complex, 575-km long shoreline that includes approximately 250 islands. The lake is relatively shallow, with an average depth of 7.9 m and a maximum depth of 30 m.<sup>4</sup> There is a long history of beaver trapping on Besnard Lake and during the height of the fur trade there were several fur trade outposts in the region.<sup>5</sup> The trap lines are not currently very active (C. Collins, pers. comm.).

The lake is surrounded by low forested hills that rise less than 100 m above the water. The southern two-thirds of Besnard Lake lies in the boreal plain ecozone while the northern third lies in the boreal shield ecozone (Figure 2). Flora of Besnard Lake has been documented.<sup>6</sup>

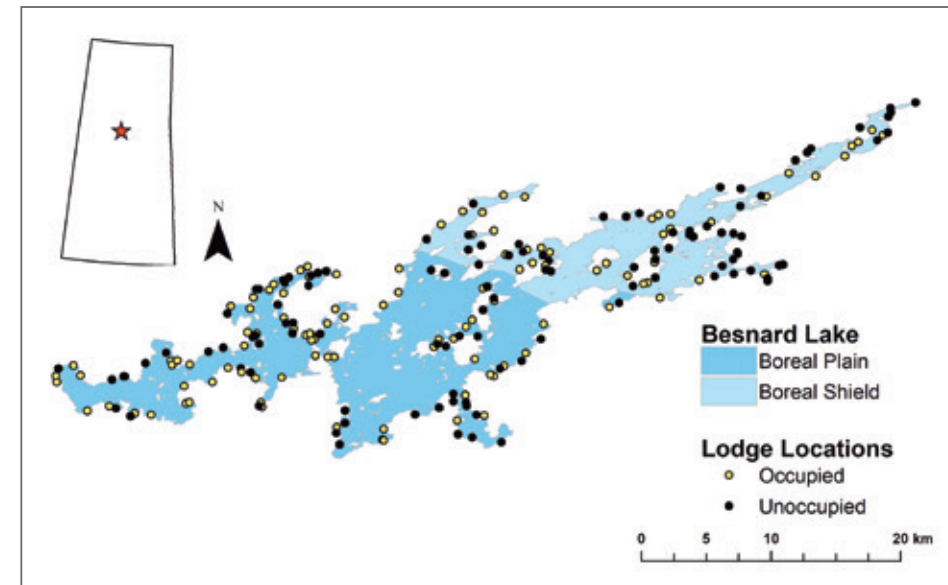


FIGURE 2: Occupied and unoccupied beaver lodge locations on Besnard Lake in 2019. The inset situates the location of Besnard Lake (red star) within Saskatchewan.

Dominant trees include jack pine (*Pinus banksiana*), black spruce (*Picea mariana*), white spruce (*Picea glauca*), white birch (*Betula papyrifera*) and beaver's preferred food, trembling aspen (*Populus tremuloides*). In the boreal plains ecozone there are also expansive peat bogs along the shoreline of lakes; those bogs that are treed have tamarack (*Larix laricina*) and black spruce. However, smaller wetlands consisting primarily of fens occur along the water's edge of the boreal shield ecozone. The shrubs in the fens mainly consist of alder (*Alnus incana*) and willow (*Salix* spp.). Beavers commonly cut down both of these shrubs for food and material to disrupt the flow of water and build their lodges. Besnard lakes' location along the boreal plain/shield boundary, and its shoreline complexity, make it an interesting place to ask questions of beaver habitat choices.

In 2019, we conducted a census of beaver lodges on Besnard Lake. We estimated the number of beaver colonies (families) via counting the number of occupied beaver lodges between late June and the end of August. For the lodge census, we used the systematic survey

methods developed for the ongoing monitoring of Bald Eagles (*Haliaeetus leucocephalus*) which subdivided the lake into 50 sections<sup>7</sup>, each consisting of approximately 11.5 km of shoreline (mainland and island). We surveyed each of these sections by boat. Since there are hundreds of reefs on Besnard Lake, shorelines were surveyed from a distance (10-40 m) at a boat speed of 2-15 km/h. When observing the shoreline, one observer used binoculars and another observer did not. When a lodge was spotted, the boat was navigated to within 2 m of the lodge and its coordinates obtained with a hand-held GPS.

Food caches are an effective indicator of occupancy by beaver colonies in regions where winter ice forms.<sup>8</sup> We recorded whether lodges were occupied primarily based on the presence of a cache (Figure 3), which is a pile of branches of woody species constructed during autumn to supply food through the winter in northern latitudes. But we also considered collections of recently cut stems at a lodge as evidence of beaver occupation. We did not evaluate the reproductive status of beaver pairs occupying lodges. Since one beaver colony (family group) may use one

or multiple lodges<sup>9</sup>, lodge sites were considered to be separate territories if they were at least 0.5 km apart.<sup>10</sup> We also recorded location (mainland, island) and shoreline habitat (upland, wetland) for each lodge. If the shore vegetation was burned in the 2015 fire (the Egg Lake fire), we recorded that. With permission from Ducks Unlimited Canada, available habitat (upland, wetland) was determined in ArcGIS using imagery from the Canada Wetland Inventory (see <https://www.ducks.ca/initiatives/canadian-wetland-inventory/>) for a 50-m zone from the shore inland. This zone width seemed most appropriate to characterize near-shore habitats as beavers rarely travel farther than this from water to cut trees.<sup>11</sup> To determine whether beavers occupy a particular shoreline habitat in proportion to its availability, we carried out a chi-squared goodness of fit statistical test.

We found 225 beaver lodges on Besnard Lake (Figure 2). Lodges often occurred in small bays that had water deep enough to make it unlikely that it would freeze to the bottom in winter.<sup>12</sup> Some of the lodges were surrounded by water but many were built onto the shoreline. Shoals were present at many bay entrances, providing lodges a degree of protection from wave action.<sup>13</sup> Only in five instances were there multiple lodges (not more than two) built in close proximity (within 0.3 km of one another). Beaver colonies are known to use newer and older lodges co-located in a lake bay.<sup>1</sup> Although we looked carefully, we did not observe any beaver burrows on the lake, which Bashinskiy<sup>14</sup> reports as the main type of habitation structure on lakes rather than lodges throughout the northern hemisphere. Beavers likely build lodges rather than dig burrows on Besnard Lake due to the rocky shores and thin soils.

A comparison of occupied sites





**FIGURE 3:** Caching of food (woody materials) in a pile close to the entrance of the lodge, as shown here, supplies a beaver family with much of its food during the winter when the lake is frozen; 11 October 2020.

is the most biologically useful measure of beaver density. Lodge occupancy was 50% and occupied lodge density was 0.19 colonies/km of shoreline. Lodge occupancy was lower than that recorded for a lake about half the size of Besnard in Texas (95% occupancy)<sup>15</sup>, but there are only a few reports of lodge occupancy for lakes in the scientific literature. A high ratio of unoccupied to occupied lodges can reflect overharvesting, overpopulation or other environmental constraints.<sup>16</sup> Fluctuating lake levels might make some lodges habitable in drier or wetter years.<sup>14</sup> In lakes where water levels fluctuate greatly year to year a high incidence of two or more lodges within 0.5 km of one another, usually at different heights relative to the high water mark, would be expected; however, we observed few instances of two or more lodges within 0.5 km of each other. It is also unlikely that

the low lodge occupancy reflects overharvesting. Although there are two trap lines passing through the lake, neither have been very active for many years. More likely, the occupancy rate reflects the fact that beavers will move from lodge to lodge every few years<sup>17</sup> when the forest regrowth is sufficient to again support their tree cutting.<sup>2</sup>

Within 50 m of shore, there was 13.5 km<sup>2</sup> (55%) of upland habitat, 5.5 km<sup>2</sup> (22%) of wetland habitat and 5.6 km<sup>2</sup> (23%) of open water (small lakes). Wetland habitat was used in a higher proportion to its abundance and upland habitat was used in a lower proportion to its abundance ( $\chi^2 = 14.0$ ,  $p = 0.0002$ ). Higher occurrence of beavers in wetlands than uplands has also been reported in northern British Columbia, and was attributed to wetlands having more high-value forage species.<sup>18</sup>

In particular, wetlands often have a high abundance of willows (*Salix* sp.), which can sustain longer term consumption by beaver owing to their quick regenerative capacity.<sup>19,20</sup> But beaver can also subsist on sedges (*Scirpus*, *Typha*, etc.)<sup>21</sup> and other emergent aquatic plants<sup>22</sup>, which are common in boreal wetlands. Also important in influencing beaver habitat choices is how close the high-value forage is to shore. Beavers forage close to shore to minimize the time and energy expenditure involved with cutting a tree, sectioning it into manageable pieces, and dragging the pieces to water.<sup>23,24</sup> Foraging close to shore also reduces predation risk.<sup>25</sup> The uplands thus might have been used in a lower proportion to their abundance as the Ducks Unlimited Canada data indicate 73% of the upland forests within 50 m of the shore were conifer-dominated, which are tree species typically avoided

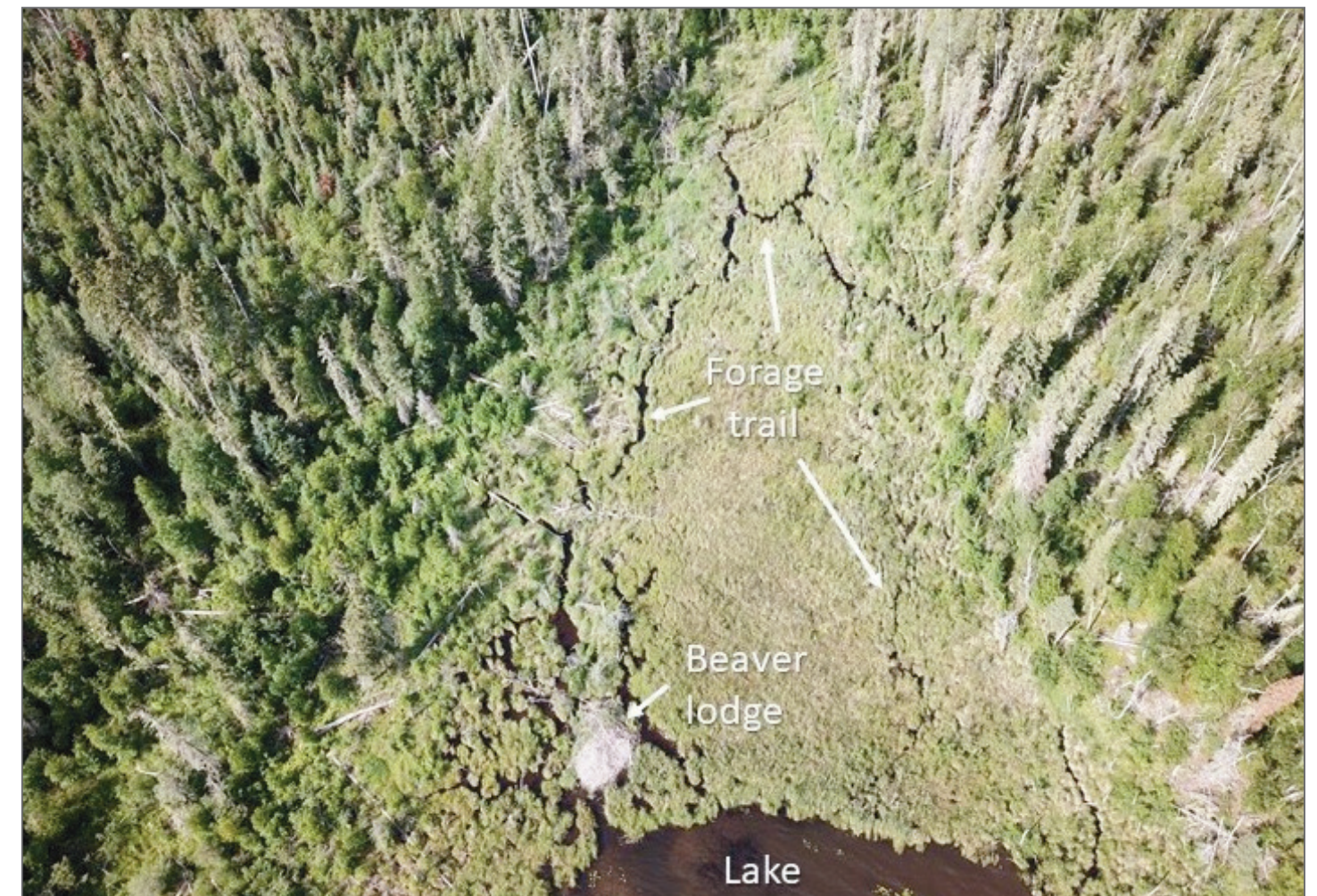
by beavers.<sup>2</sup> One other thing we noticed was that at many of the wetland sites, beavers had excavated an extensive network of forage trails through them to access trees (especially aspen) in the uplands (Figure 4). Interconnection of lake habitats by beaver canals has been noted elsewhere, for example, at Miquelon Lake Provincial Park east of Edmonton.<sup>26</sup> Why wetland habitat at Besnard Lake is being selected by beavers at a higher proportion to its availability is unclear — is it selected to reduce predation risk or to access a wide range of high-value forage species?

The materials with which beaver lodges were constructed varied across the lake, mostly by habitat type (Figure 5). In wetland habitat (especially bogs and treeless fens),

fewer sticks were used and lodges were built primarily from excavated peat soil. In upland habitat, beavers primarily used logs and branches. Regardless of their location, most lodges were tall, likely so that breathing holes would be above snow (Figure 6). The area receives on average 154 cm of snow each winter (Environment and Climate Change Canada climate ID station no. 4064150, La Ronge). Many lodges had a roughly circular base and conical side view but some were lodge complexes consisting of two or more conical shapes, suggesting they had been built onto by multiple generations of beavers. Successive beaver colonies occupying a single site will repair old lodges or expand them instead of building new ones.<sup>27</sup> We observed only one instance of

a new lodge being built on the lake during our census.

The July 2015 wildfire burned large tracts of forest in the northeast and extreme western parts of the lake. The fire effectively cleared the ground of standing vegetation and litter along much of its path. In our census, we observed 24 lodges along the shoreline burned in the wildfire, five (20%) of which were occupied by beavers. In September 2020 we re-surveyed the burned shoreline and observed 12 occupied lodges using the same methods described earlier. Seven of these lodges were classified abandoned in 2019 and then were re-occupied by beavers in 2020 but the other five lodges were new. In September 2021 we observed 13 occupied lodges along shoreline burned in



**FIGURE 4:** Drone (DJI Mavic) acquired image showing a beaver lodge and a network of forage trails leading from the lake, through the small wetland (peatland) to the upland, 4 July 2021.





**FIGURE 5:** Examples of the diversity of construction and composition of beaver lodges on Besnard Lake.

2015 (Figure 7); nine were classified abandoned in 2019. Wildfires renew early successional species like aspen, which is an important beaver food resource.<sup>2</sup> Aspen are quick growing trees; aspen forest stands can reach 10% canopy cover and 5 m average tree height within 5–10 y post fire<sup>28</sup>, but it can take upwards of 20–30 y after a wildfire to renew beaver food resources sufficiently to increase beaver density.<sup>29,30</sup> However, fire disturbance can also support production of aquatic plants, the availability of which is associated with the persistence and density of beaver occupancy in lakes.<sup>31</sup> We will continue to monitor the number of occupied lodges along the burned shoreline to evaluate recovery post-fire.

It might be expected that lodge density would be lower on islands than the mainland at Besnard Lake, as islands burn less often and thus have mostly coniferous forests. However, this was not the case. While we did observe more occupied beaver lodges on the mainland (83) than on islands (17), the shorelines were used in proportion to their



**FIGURE 6:** Snow covered, occupied beaver lodge with close-up of breathing hole on top (inset) at Besnard Lake, March 2021. This is the same lodge shown in Figure 3.



**FIGURE 7:** An occupied beaver lodge built in 2021 along the shoreline burned in 2015. Note the growth of aspen and alder along the shoreline.

abundance ( $\chi^2 = 2.9$ ,  $p = 0.089$ ). The reason for this is not clear. Perhaps it is because on islands, beavers are less vulnerable to predators like wolves, bears, wolverines and cougars<sup>32-35</sup> or perhaps it is because many of the islands are large and have small bays. Further research is recommended to provide insights on this observed pattern.

Occupied lodge density was higher in the part of the lake lying in the boreal plain (0.21/km of shoreline) than in the boreal shield (0.17/km). Beavers, however, used the shoreline of the lake in the boreal plain (61%) and in the boreal shield (39%) in proportion to their availability ( $\chi^2 = 1.05$ ,  $p = 0.31$ ). This was somewhat surprising as there was 2.4 times more wetland habitat available within 50 m of the lake in the boreal plain than the boreal shield. Further, Symington<sup>3</sup> reported that beaver fur production in the Canadian shield was low owing to dominance of coniferous species. The lack of difference in lodge density on Besnard Lake between the two

boreal ecozones may be an artifact of the spatial resolution at which the boundary was identified. The boundary for the ecoregions was retrieved from Agriculture and Agri-Food Canada's Terrestrial Ecoregions of Canada open-access dataset; this dataset contains GIS shapefiles for the entire country. In examining the regional physiography on higher resolution aerial photographs and in site visits, it is likely that the boreal plain-shield boundary is farther south than in the federal dataset which might influence the use of the shoreline statistics.

In summary, we observed 225 beaver lodges on Besnard Lake in 2019 and no beaver burrows. Half of the lodges were occupied, with a density of 0.19 beaver colonies/km of shoreline. Lodges varied in composition, depending on the habitat. In wetlands lacking trees, lodges were built primarily from excavated peat whereas in uplands and treed wetlands, lodges were built primarily from logs and branches. We found that wetland habitat

was used in a higher proportion to its abundance and upland habitat was used in a lower proportion to its abundance, consistent with observations of beaver habitation in other lakes in Canada. Foraging trails were common in wetlands, terminating at uplands. Although occupied lodge density was higher in the part of the lake lying in the boreal plain than in the boreal shield, beavers surprisingly used both shorelines in proportion to their availability despite there being more wetland habitat available within the boreal plain than the boreal shield. The wildfire in 2015 burned at least two dozen beaver lodges; however, a more than two-fold increase in the number of occupied lodges observed between 2019 and 2020 is encouraging evidence of beavers' quick recovery.

#### Acknowledgements

We thank Alain Richard of Ducks Unlimited Canada for generously providing us with permission to use the Canada Wetland Inventory data.



Thank you to Jon and Naomi Gerrard for boldly starting the long-term Bald Eagle project that inspired us to look down at the shoreline. The project was supported a NSERC Discovery Grant (RGPIN-2017-05873) and a University of Saskatchewan Sabbatical Grant. The study was carried out in Treaty 10 Territory and we pay our respects to the land and the Cree, Dene and Métis peoples who have lived in this area for many generations.

1. Soper JD (1937) Notes on the beavers of Wood Buffalo National Park, Alberta. *Journal of Mammalogy* 18(1):1-13.

2. Westbrook CJ (2020) Beaver as agents of plant disturbance. In: Plant disturbance ecology, 2nd edition. Johnson EA, Miyanishi K (eds.), Elsevier, p. 489-528.

3. Symington DF (1956) Beaver in Saskatchewan. Saskatchewan Department of Natural Resources, Conservation Bulletin No. 1, 17 pp.

4. Chen MY (1974) The fisheries biology of Besnard Lake, 1973. Saskatchewan Department of Tourism Renewable Resources, Fisheries Tech Rep 74-7. Saskatoon, SK.

5. Fung K (1999) Atlas of Saskatchewan. University of Saskatchewan, Saskatoon, SK.

6. Harms VL, Leighton A (1994) Flora of the Besnard Lake area, north-central Saskatchewan. *Blue Jay* 54(4):190-199.

7. Gerrard JM, Dzus E, Bortolotti GR, Gerrard PN (1993) Water-bird population changes in 1976-1990 on Besnard Lake, Saskatchewan: increases in loons, gulls, and pelicans. *Canadian Journal of Zoology* 71:1681-1686.

8. Robel RJ, Fox LB (1993) Comparison of aerial ground survey techniques to determine beaver colony densities in Kansas. *The Southwestern Naturalist* 38(4):357-361.

9. Beck JL, Dauwalter DC, Gerow KG, Hayward GD (2010) Design to monitor trend in abundance and presence of American beaver (*Castor canadensis*) at the national forest scale. *Environmental Monitoring and Assessment* 164:463-479.

10. Alekskiuk M (1968) Scent mound communication, territoriality, and population regulation in the beaver. *Journal of Mammalogy* 49:759-762.

11. Stoffyn-Egli P, Willison JHM (2011) Including wildlife habitat in the definition of riparian areas: The beaver (*Castor canadensis*) as an umbrella species for riparian obligate animals. *Environmental Review* 19:479-494.

12. Thomasson RD (1973) Ontario land inventory methodology series: wildlife. Ontario Ministry of Natural Resources, Toronto, ON.

13. Thompson ID (1988) Habitat needs of furbearers in relation to logging in boreal Ontario. *Forestry Chronicle* 64(3):251-261.

14. Bashinskiy IV (2020) Beavers in lakes: a review of their ecosystem impact. *Aquatic Ecology* 54:1097-1120.

15. King SL, Keeland BD, Moore JL (1998) Beaver lodge distributions and damage assessments in a forested wetland ecosystem in the southern United States. *Forest Ecology and Management* 108(1-2):1-7.

16. Payne NF (1989) Population dynamics and harvest response of beaver. *Proceedings of the Fourth Eastern Wildlife Damage Control Conference* 33:127-134.

17. Hood GA, Bayley SE (2008) The effects of high ungulate densities on foraging choices by beaver (*Castor canadensis*) in the mixed-wood boreal forest. *Canadian Journal of Zoology* 86(6):484-496.

18. Mumma MA, Gillingham MP, Johnson CJ, Parker KL (2018) Where beavers (*Castor canadensis*) build: testing the influence of habitat quality, predation risk, and anthropogenic disturbance on colony occurrence. *Canadian Journal of Zoology* 96(8):897-904.

19. Hall JG (1960) Willow and aspen in the ecology of beaver on Sagehen Creek, California. *Ecology* 41(3):484-494.

20. Novakowski NS (1967) The winter bioenergetics of beaver populations in northern latitudes. *Canadian Journal of Zoology* 45:1107-1118.

21. Johnson GE, van Ripper C (2014) Effects of reintroduced beaver (*Castor canadensis*) on riparian bird community structure along the Upper San Pedro River, southeastern Arizona and northern Sonora, Mexico. USGS Open-File Report 2014-1121.

22. Fryxell JM (2001) Habitat suitability and source-sink dynamics of beavers. *Journal of Animal Ecology* 70:310-316.

23. Fryxell JM, Doucet CM (1993) Diet choice and the functional response of beavers. *Ecology* 74:1297-1306.

24. Gallant D, Léger L, Tremblay É, Berteaux D, Lecomte N, Vasseur L (2016) *Canadian Journal of Zoology* 94(10):671-676.

25. Salandre JA, Beil R, Loehr JA, Sundell A (2017) Foraging decisions of North American beaver (*Castor canadensis*) are shaped by energy constraints and predation risk. *Mammalian Research* 62:229-239.

26. Hood GA, Larson DG (2015) Ecological engineering and aquatic connectivity: a new perspective from beaver-modified wetlands. *Freshwater Biology* 60(1):198-208.

27. Slough BG, Sadleir RMFS (1977) A land capability classification system for beaver (*Castor canadensis* Kuhl). *Canadian Journal of Zoology* 55:1324-1335.

28. Bartels SF, Chen HYH, Wulder MA, White JC (2016) Trends in post-disturbance recovery rates of Canada's forests following wildfire and harvest. *Forest Ecology and Management* 361:194-207.

29. Cunningham JM, Calhoun AJK, Glanz WE (2006) Patterns of beaver colonization and wetland change in Acadia National Park. *Northeastern Naturalist* 13(4):583-596.

30. Little AM, Guntenspergen GR, Allen TH (2012) Wetland dynamics in response to beaver (*Castor canadensis*) activity at multiple scales. *Ecoscience* 19(3):246-257

31. Bergman BG, Bump JK (2018) Revisiting the role of aquatic plants in beaver habitat selection. *The American Midland Naturalist* 179(2):222-246.

32. Scrafford MA, Boyce MS (2018) Temporal patterns of wolverine (*Gulo gulo luscus*) foraging in the boreal forest. *Journal of Mammalogy* 99(3):693-701.

33. Lowry B, Elbroch LM, Broberg L (2016) Is individual prey selection driven by chance or choice? A case study of cougars (*Puma concolor*). *Mammal Research* 61:353-359.

34. Gable TD, Windels SK, Romanski MC, Rosell F (2018) The forgotten prey of an iconic predator: a review of interactions between grey wolves *Canis lupus* and beavers *Castor* spp. *Mammal Review* 48(2):123-138.

35. Knopff KH, Knopff AA, Kortello A, Boyce MS (2010) Cougar kill rate and prey composition in a multiprey system. *Wildlife Management* 74(7):1435-1447. 🦉

# IN MEMORIAM: CARMAN DODGE (1952-2021)

Don Weidl  
Broadview, SK

Carman Dodge, born July 25, 1952, spent his early years on a farm south of Cabri, SK where he learned his appreciation for the outdoors and wildlife. After graduating from Cabri High School, Carman completed the two-year Renewable Resources Technology course at Kelsey Institute in Saskatoon. He then began a 35-year career with the Forestry Branch in Prince Albert. During his forestry work, Carman met several people across western Canada and was proud to say that during his career he had visited every one of the 1:250,000 scale National Topographic map sheets in Saskatchewan — a feat that not many can claim.

His love of the outdoors made it inevitable that Carman would be involved with Nature Saskatchewan. Carman was President of Nature Prince Albert for more than 30 years, from 1981 to 2015. During this time, he spoke to many school and senior groups, organized bird box building projects, owl hooting expeditions, Christmas Bird Counts, and plant walks to the McDowall Bog. In 2005, Nature Prince Albert hosted the annual Nature Saskatchewan spring outing and meeting. Carman was instrumental in pulling together a very successful three-day event and even led a group to look for rare orchids and other plants in the forest west of Prince Albert.

In addition to promoting nature through his role with Nature Prince Albert, Carman conducted numerous wildlife surveys. Some of these included Breeding Bird Surveys, Nocturnal Owl Surveys and, as mentioned, Christmas Bird Counts at Prince Albert, Candle Lake, Fenton, Birch Hills and Saskatchewan River Forks. Carman's knowledge of plants



Carman Dodge at the east end of Ekapo Lake. Photo credit: Don Weidl.

should also be mentioned. Carman learned to identify many plants during his work with the Forestry Branch and many people would stop at his office to ask for his assistance. He also accompanied a well-known CTV host on a field trip to assist her in identifying edible plants in the Prince Albert region that she could use in some of her recipes.

Although Carman was known for his knowledge of nature, he was just as well known for his infectious and sometimes quirky personality. Carman knew no strangers; he was able to start a conversation with anyone, anywhere, at any time. He was a regular at "coffee row" and Boston Pizza where his order would be waiting for him before he entered the door. Carman's knowledge of

trivia was outstanding, and people would often ask "how do you know that?" For those who first met Carman, it wouldn't be long before they knew what "Coprolite Rocks" were, what "spraint" was, that "besides primates, elephants are the only mammals that have their breasts between their front legs", and as printed on his favorite t-shirt, "with Fronds like these, who needs Anemones".

Carman will be missed by many. Before his death, he requested that a bench with his name on it be constructed at the Prince Albert Memorial Gardens so people could stop by for a visit. But be careful what you say — Carman will be listening. 🦉



# GET OUTSIDE!

**Shannon Chernick**

Project Leader, Education and Public Outreach, Nature Regina

When the COVID-19 pandemic began, my kids and I started to spend even more time outside. We were hearing a lot about kids experiencing negative mental health during the pandemic but that was not the case for us — my kids were thriving during the pandemic! We were exploring and learning in nature on a daily basis. Plus, we were out hiking and walking and getting a lot of physical activity.

The Government of Saskatchewan had requested that we stay in our own neighbourhoods at the beginning of the pandemic. Once this restriction was lifted, I asked my oldest son what he would like to do and he said “Let’s go for a hike at A.E. Wilson Park.” He was so excited to get out and explore somewhere outside of our neighbourhood!

As we explored Boreal Island at A.E. Wilson Park, my son was surprised that we didn’t see anyone else. He turned to me and said “Mom, why don’t we take pictures of all these cool places we know about and post them on the internet so that others know about them?” From there, Nature Regina’s Wandering Wednesdays was born!

For the first five months, my kids and I created a new guide for exploring a park or open space each week. Nature Regina members also shared a list of field trip locations that we started exploring. I would basically follow my kids around with my camera and take photos of the interesting things they found. They would also ask questions about what they were seeing. That was when I realized I needed help! What was that bird we saw? What was



Get Outside! Preschool Club learning to birdwatch at A.E. Wilson Park. Photo credit: Shannon Chernick.

the name of that plant? Where were cool and interesting places to explore? Nature Regina members shared their expertise and knowledge about wildlife, plants, insects, nature identification apps such as ebird and iNaturalist and answered lots of our questions. Without the help from these experts, there would not have been Wandering Wednesdays! After two years and the creation of more than 35 Get Outside! Outdoor Adventure Guides and 350,000+ Facebook views, Wandering Wednesdays is wrapping up in April 2022.

About five months into the pandemic, it became obvious that it would be going on for some time. My kids and I had had so many positive experiences exploring parks and open spaces that we wanted to share this with other families. At that point, we knew that spending time outside was a relatively safe activity and that the use of hand sanitizer, masks and limiting groups sizes were measures

that would keep people safe when gathering together.

On behalf of Nature Regina, I contacted Lacey Weekes from Nature Saskatchewan and Leah Japp from SaskOutdoors to start a Get Outside! Kids Club in Regina. They were both extremely supportive and without their help the program would not have happened. We were very grateful in the second year of the program to have the Canadian Wildlife Federation’s WILD Outside staff join us as a partner as well.

The Get Outside! Kids Club is geared toward children between the ages of 6 and 13. Children and their parent/caregiver met once a week in a park in Regina to participate in hands-on, nature-based activities, games and exploration. Since the beginning of the pandemic, we have had more than 2,000 registered participants for the Get Outside! Kids Club and have explored A.E. Wilson Park, Les Sherman Park, McKell Wascana Conservation Park, Wascana

Park (several locations), Kinsmen Park South, Kiwanis Park and Lakeridge Park North. Thanks to a donation of ice fishing tents from Cabela’s, we were able to offer the program in all four seasons.

Activities for the Get Outside! Kids Club participants have included pond dipping, wildflower hunting, insect spotting, nature scavenger hunts, garden exploration, snowshoeing, cross country skiing, snow sculpting, winter shelter building, hiking, birdwatching, art activities, Indigenous games, winter water science experiments and lots of WILD Education nature themed games.

It took a village to plan in-person events with kids during a pandemic! We could not have done it without partnerships with organizations including the Art Gallery of Regina, Birds Canada, WUQWATR, Royal Saskatchewan Museum, Saskatchewan Wildlife Federation, WILD Outside (Canadian Wildlife Federation), Regina Ski Club, Cross Country Saskatchewan, City of Regina, Neil Balkwill Civic Art Centre, Saskatchewan Orienteering Association, Wascana Centre, Friends of Wascana Marsh, Indigenous educators and several very committed community volunteers.

We were very excited by the results of our participant surveys as well. Ninety-five per cent of program participants felt, having a positive outdoor experience in a park, that those spaces should be conserved for future generations. Almost 100 per cent said that participating in the program improved their mental health while 90 per cent indicated that participating improved their physical health. Almost all program participants, whether or not they had been in a particular park or open space before, indicated that they would be returning later with their family. Thanks to these compelling results, we were able to apply for and secure funding from the City of



Shannon’s kids learning to cross country ski at Wascana Park with the Regina Ski Club as an activity for Wandering Wednesdays. Photo credit: Shannon Chernick.

Regina to continue this program and introduce a pilot project called the Get Outside! Preschool Club.

In September 2021, the Get Outside! Preschool Club for children between the ages of 2 and 5 and their parent/caregiver began. Each month, we explore a new park in Regina with nature-based games and exploration plus early literacy, science and math activities. Winter activities included exploring animal tracks, finding out what is happening under the ice and snow, making ice decorations with natural materials, winter birdwatching, predator-prey tag games, nature scavenger hunts, playing in the snow kitchen, winter story walks, and making winter snow forts. Research shows that providing positive outdoor activities for kids from birth to age 10 will result in the development of a conservation ethic

later on in life.

The past two years have been a blast! My family and I have enjoyed exploring and learning more about nature in our very own community and then sharing it with others. It has also been a privilege to be supported by so many knowledgeable people in our community who help to connect others to nature.

SaskOutdoors, as a partner with the Get Outside! Kids Club, has been approached by communities across the province interested in getting their own Kids Club started! A pilot project with communities in the Prairie Central District for Sport, Culture and Recreation is currently underway. If you want to find out more, or are interested in starting a Get Outside! Kids Club in your community, please contact [outdoorplaysk@saskoutdoors.org](mailto:outdoorplaysk@saskoutdoors.org). 🐦



# 80TH ANNUAL SASKATCHEWAN CHRISTMAS BIRD COUNT - 2021

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## The Counts

An usually cold spell between Christmas and New Year's Day resulted in the postponement of several counts and the cancellation of at least four others. This caused a decline in the number of counts conducted from 82 in 2020-21 to only 78 this past winter. More strikingly, the number of observers dropped from 853 to 729. Hours spent in the field fell from 1,824 to 1,571, but it was no surprise that the number of hours spent in the warm indoors watching feeders remained about the same (570 and 560 hours, respectively).

## The Weather

Average minimum and maximum temperatures for the count period (with 2020-21 records in brackets) were -22 to -17°C (-11 to -6°C), wind speeds 11 to 22 km/h (9 to 20 km/h), and snow depths 15 to 29 cm (12 to 26 cm). Weather conditions were on average harsher this winter compared to the previous winter; lower temperatures and slightly higher winds combined to produce higher wind chill values. This, along with deeper average snow depths, combined to make it more difficult to find birds.

## The Birds

The 126,407 birds counted was much lower than last winter's 175,761, but near the century average of around 125,000. The decline compared to last winter is largely due to a much lower count of Canada Geese from Estevan (350 versus 61,700).

The 98 species recorded on count

day was about average for the century, while the average number of species per count at 18.86 was also about average.

For the fourth time in the last six years, Gardiner Dam won the crown for the most species at 39. The runner up was Regina with 36 species.

## Population Trends

Except for the new provincial high for Cackling Geese (Table 6), waterfowl were generally found in lower-than-average numbers.

Raptors (hawks, falcons and owls) were generally found at or near normal numbers. For the second consecutive winter, Great Gray Owls invaded the forest fringe with 10 birds on five counts, plus another three during count period (Table 3).

Numbers of the two common open country passerines — the Horned Lark and Snow Bunting — were up markedly over the previous winter. Larks numbered 1,495 on 22 counts compared to 447 on 19 counts last winter, while Snow Buntings numbered 21,257 on 61 counts versus 10,102 on 60 counts.

The range expansion of the introduced Eurasian Collared-Dove and House Finch appears to have stalled. The dove showed up on the newly-minted Rosthern count extending its range about 40 km north, while the finch showed no change in overall range.

Results for other species of finch were mixed. Numbers of the Common Redpoll exploded with 20,450 birds on 74 counts compared to 3,052 birds on 61 counts last winter. On the other hand, White-winged Crossbills were down with only 55 on 9 counts compared with 663 birds on 18 counts (Table 3).

## Rarities

Few rarities were recorded; these included the CBC's sixth Barrow's Goldeneye at Crooked Lake, and seventh Red-bellied Woodpecker at Watrous (Table 6).

## Dedication

This Christmas Bird and Mammal Count is dedicated to the memory of Carman Dodge who passed away in November 2021. Carman was the compiler of the Fenton and Prince Albert counts. His kindness and humour will be missed.

## Note

For the purposes of Saskatchewan Counts, as published herein, the count period extends from 14 December to 5 January; Audubon counts include only those species recorded three days prior to and after the count day.

## Count Areas and Participants (names of compilers are in italics)

1. ARCHERWILL. Shauna Estelle, Gerald Hiron, Susan Hiron, Audrey Hnetka, Perry Hnetka, *Elaine Hughes*, Dorothy Klettberg, Willie Klettberg, Annette Kozak, Judy Revoy.

2. AVONLEA. Randi Edmonds, Michelle Howse, *Alan Smith*, Blaine Sudom, Graham Thomson (count period).

3. BALGONIE. Joel Cherry, Jared Clarke, Rowan Clarke, Teal Clarke, Ken Feltn, Gail Fennel, Chris Harris, Dale Hjertaas, Fran Kerbs, Gayle Kertai, Maureen Lee, Carmen Leibel, Sarah Ludlow, Paula Mack, Kristen Martin, Annie McLeod, *Brett Quiring*.

4. BIGGAR. Dale Booth, Mary-Jo Danychuk, Sheila Jezowski, Murray Newton, Lorne Sutherland, *Guy Wapple*, Marguerite Wapple, Rob Wapple.

5. BORDEN-RADISSON. Jade Allard, Greg Fenty, Jennifer Fenty, *Kyron Giroux*, Terri Jackson, Ron Jensen.

6. BROADVIEW. Doug Boivin, Barb Weidl, *Don Weidl*.

7. BROOKSBY. *Sharon Walker*.

8. CANDLE LAKE. John Lundgren, Sharlane Toole, *Vicki St. Germaine*, Warren St. Germaine.

9. CHATSWORTH. *George Murray*, Laurie Murray.

10. CHRISTOPHER LAKE. *Jeannie Walker*.

11. CLARK'S CROSSING. Dale Booth, Sarah Bradley, Jake Buhler, Ruth Buhler, Dave Cook, Louise Cook, Kyle Drake, Lorne Duczek, Shelly Fisher, Marilyn Fox-Reid, Dawn Hall, Jeff Harder, Marilyn Haskins, Ron Jensen, Robert Johanson, Gwen Klypak, Heney Klypak, LeeAnn Latremouille, Bill MacKenzie, Janine McManus, Meghan Mickelson, *John Patterson*, Jan Shadick, Stan Shadick, Marten Stoffel, Guy Wapple, Diane Wells, Diane Young.

12. CRAVEN. Brian Armstrong, Carolyn Armstrong, Levi Belisle, Stephane Canevet, Joel Cherry, Jared Clarke, Rowan Clarke, Stephen Davis, Ryan Fisher, Jeff Gamble, *Chris Harris*, Victoria Hartley-Cox, Trevor Herriot, Louise Holloway, Phil Holloway, Andrew Huculak, Bonnie Huculak, Jones Irving, Keri Irving, Joan Karasin, Tracy Karasin-Belisle, Laurette Lane, Barbara Mader, Amelia McDonald, Jaret McDonald, Annie McLeod, John Menzies, Maxine Menzies, Barry Mitschke, Valerie Mitschke, Janet Ng, Dave Phillips, Rhonda Phillips, Brett Quiring, Ed Rodger, Jim Rollins, Susan Rollins, Dan Sawatzky, Jeanette Taylor, Robb Taylor, Rand Teed, Gerry Tompkins, Lorna Tyler.

13. CROOKED LAKE. Barb Weidl, *Don Weidl*.

14. CROOKED RIVER. Marie Harpham, *Margaret Mehler*, Morley Mehler.

15. CYPRESS HILLS PROVINCIAL PARK (Centre Block). Dwight Dobson, Nancy Dobson, Malinda Drury, David Larson, Margaret Larson, Mimi Martin, *Melody Nagel-Hisey*.

16. DAVIDSON-CRAIK. Edward Kammer, Maureen Kammer, *Sharlane Toole*.

17. DENHOLM. Beverly Beland, Gerard Beland, Linda Beland, *Orval Beland*.

18. DUNDURN. Ryan Dudragne, Jeff Jensen, *Ron Jensen*, Nick Saunders, Guy Wapple.

19. E. B. CAMPBELL DAM. *Bert Dalziel*, Joan Dalziel, Rick Doustin, Mitch Simon, Stacie Simon, Bill Weighill, Clara Weighill.

20. EASTEND. Roxie Binkley, Duane Bristow, *Robert Gebhardt*, June Higgins, Joan Hodgson, Harvey Johnson, Katherine Meyer, Kim Redlin, Mary Thompson, Ted Venema.

21. ESTEVAN. *Guy Wapple* (non-participating compiler), Kathy Hedegard, Craig Palmer, Larry Preddy.

22. ESTUARY NORTH. Barry Cocks, Cathy Cocks, Jack Clary, *Dean Francis*.

23. FENTON. John Lundgren, *Vicki St. Germaine*, Warren St. Germaine, Sharlane Toole.

24. FLORAL. Guy Wapple.

25. FORT QU'APPELLE. Jean Ashcroft, Pete Ashcroft, Linda Banman, Jared Clarke, Teal Clarke, Alice Isfan, Tom McDougall, Jean McKenna, Alan Mlazar, Wendy Paquin, Florence Pearpoint, *Keith Stephens*, Kim Stephens, Ted Stevenson, Colette Stushnoff, Richard Stushnoff, Dave Sutherland.

26. GARDINER DAM. Ryan Dudragne, Greg Fenty, Ron Jensen, Nick Saunders, Stan Shadick, Joe Stookey, *Guy Wapple*, Robert Wapple, Brandi Worman, Kale Worman.

27. GOOD SPIRIT LAKE. *Joyce Anaka* (non-participating compiler), Dorothy Riesz, Ray Riesz.

28. GREENWATER. Bill Gudjonson, *Brian Shuya*, Helen Toovey.

29. HARRIS. Dale Booth, Ron Jensen, Bruce Trapp, *Guy Wapple*, Rob Wapple.

30. HUDSON BAY. Marlene Bracken, Jean Chalus, *John Daisley*, Teena Johnson, Agnes Lewellin, Dennis Reimer, Gloria Stang.

31. INDIAN HEAD. *Irvin Escott*, David Gehl, Roberta Gehl, Jim Jinks, Linda Jinks, John Kort, Linda Kort, Dora Nichols, James Rudack, Ruthanne Rudack, Brian Scott, Lorne Scott, Chris Skinner, Fred Skinner, Joan Taylor, Donna Thompson, Elaine Williamson.

32. KENASTON. *P. Lawrence Beckie*, Margaret Ann Beckie.

33. KENOSEE LAKE. Blain Hjertaas, Boyd Metzler, *John Pollock*.

34. KITCHEN NORTH. *Dallas Fairburn*.

35. KINLOCH. Andy Arnold, Wayne Fletcher, *Don Forbes*, Ashley Messner, Darcy Swider, Doreen Wickstrom.

36. KYLE. Yvonne Nelson, Glen Pederson, Ken Risi, Marten Stoffel, Ken Waldner, *Dan Zazelenchuk*.

37. LA RONGE. Sharon Feschuk, Linda Mikolayenko, Peter Mizanski, Sid Robinson, *John Schisler*, Jan Shewchuk, Brian Ulriksen, Lori Ulriksen.

38. LOVE - TORCH RIVER. *Bert Dalziel*, Joan Dalziel, Sara Dalziel, Scott Edwards, Janice Evans, Neal Evans, Marie Fafard, Harold Fisher, Shelly Fisher, Adrik Kurbis, Coulter Kurbis, Duane Kurbis, Renee Kurbis, Riley Kurbis, Eileen L'Heureux, Shawn Paschke, Linda Petrinchuk, Reg Petrinchuk, Hannah Rushby, Sara Rushby, Audrey Schrader, Eric Schrader, Leonard Turtle.

39. LUSELAND. Estelle Finley, *Kim Finley*, Liam Finley, Jean Halliday, Nona Holtz, Brent Honeker, Kim McKenzie.



40. MACDOWALL. Jan Shadick, Stan Shadick, Marten Stoffel.

41. MEADOW LAKE. Bob Wilson, Ian Wilson.

42. MELFORT. Bert Dalziel, Joan Dalziel, Graydon Eskowich, Kim Eskowich, Wendy Eskowich, Cecil Gooliaf, Scott Green, Darlene Thompson, Sharon Walker.

43. MOOSE JAW. Joel Cherry, Chris Harris, Jeff Mander, Annie McLeod, Joel Priebe, Brett Quiring, Ryan St. Louis, Dan Sawatzky, Sharlane Toole (count period), Morgan Waller (count period).

44. MOOSE MOUNTAIN. Kathy Hedegard, Val Thomas.

45. MORSE. Elizabeth Enns, John Enns, Noel Enns, Stella Enns, Mike Francis, Dave Gardner, Randy McCulloch, Joel Priebe, Ken Priebe, Myrna Priebe, Lori Wilson.

46. NEILBURG-MARSDEN. Kale Worman, Wade Worman.

47. NIPAWIN. Nancy Budd, Joyce Christiansen, Bert Dalziel, Joan Dalziel, Betty Dolman, Rick Douslin, Terry Gulewich, Shannon Just, Jennette LeCuyer, Fred Olfert, Doug Pegg, Doug Phillips, Shirley Phillips.

48. NISBET FOREST, NORTHWEST. Sandra Jewell.

49. NISBET FOREST, WEST. Kim Clark, Suzanne Clark.

50. ODESSA. Arden Curts, Denise Curts, Denny Curts.

51. OUTLOOK. Graham Thomson.

52. PIKE LAKE. Alyson Brownbridge, Donna Bruce, Gordon Bue, Michelle Bue, David Cook, Louise Cook, Al Dormuth, Lorne Duczek, Bob Godwin, Judy Haraldson, Bob Howe, Irene Howe, Greg Hutchings, Ron Jensen, Karen MacEwan, Audrey MacKenzie, Bill MacKenzie, Kathy Meeres, Murray Morgan, Rob Pagnin, John Patterson, Marc Sabourin, Bev Schmidt,

Jan Shadick, Stan Shadick, Edward Shirley, Elliot Shirley, Ian Shirley, Marilyn Shirley, Ljubica Stuglin, Stephan Stuglin, Guy Wapple.

53. PRINCE ALBERT. Doug Braaten, Marie Braaten, Ffion Cassidy, Kim Clark, Harold Fisher, Hamilton Greenwood, Estelle Hjertaas, Sandra Jewell, Gwen Klebek, Merle Klebek, Axel Klenz, Bea Kolbialko, Les Love, John Lundgren, Michael McLaughlin, Sylvia McLaughlin, Carl Nehechewsky, Shannon Poppy, Christine Ran ye, John Rye, Vicki St. Germaine, Warren St. Germaine, Eldon Thorson.

54. QU'APPELLE. Jean Ashcroft, Peter Ashcroft, Melanie Beattie, Cory Bennett, Christine Blair, Colette Stushnoff, Richard Stushnoff, Frank Veresh.

55. QU'APPELLE VALLEY DAM. Bob Godwin, Dawn Hall, Robert Johanson, Jan Shadick, Stan Shadick, Hollyce Siemens, Marten Stoffel, Guy Wapple.

56. REGINA. Ingrid Alesich, Brian Armstrong, Korinne Benget, Maureen Bennett, Joanne Bonneville, Lionel Bonneville, Stephane Bonneville, Geoff Brown, Janet Canwood, Cheryl Clark, Derek Donald, Darcy Ehman, Elaine Ehman, Jim Elliott, Ruth Englund, Sheniz Eryuzlu, Gail Fennell, Mary Field, Terry Ford, Chris Harris, Johnathon Herriot, Karen Herriot, Kate Herriot, Maia Herriot, Trevor Herriot, Darlene Hince, Peter Hince, Dale Hjertaas, Paule Hjertaas, Bruce Holmes, Fran Kerbs, Charlene Kramer, Maureen Lee, Sarah Ludlow, Kim Mann, Val Mann, Joanne Martin, Brett Quiring, Brian Rainey, Chris Ratch, Ed Rodger, Joe Ralko, Jacqueline Roy, Dan Sawatzky, Margaret Skeel, Linda Uhren.

57. ROSCOMMON S.D. Bernice Althouse, Jim Althouse, Kate Althouse, Ruby Finnie, Brian Irving, Sophie Jankowski, Joan Lillibo, Dianne Sloan, Marguerite Sloan.

58. ROSETOWN. Ryan Dudragne, Nick Saunders, Ryan Sparks.

59. ROSTHERN. Greg Bobbitt, Dennis Helmut, Loretta Helmut, Sheri Hodgson, Brenda Kramarchuk, Dianne Murphy, Robert Nelson, Dave Ryson, Joan Yoder.

60. ROULEAU. Stuart Anderson, Marla Childs, Patricia Sterzuk.

61. ROUND LAKE (Qu'Appelle Valley). Kelly Finkas, Kristen Finkas, Boyd Metzler, John Pollock, Pat Ward.

62. SALTCOATS. Arden Bradford, Donna Bradford, Violet Braun-Taylor, Len Cameron, Muriel Cameron, Brenda Crosswell, Walter Farquharson, Pam Hall, Terry Hall, Dave Herron, Gloria Herron, Gerri Knudsen, Ron Knudsen, Fern McKay, Les Pearson, Shirley Pearson, Monique Smith, Heather Torrie, Randy Torrie, Ken Trowell, Mardell Trowell, Val Trowell, Earl Upshall, Verda Upshall, Rob Wilson.

63. SASKATCHEWAN LANDING PROVINCIAL PARK. Glen Pederson, Marten Stoffel, Dan Zazelenchuk.

64. SASKATCHEWAN RIVER FORKS. Bea Kolbialko, John Lundgren, Vicki St. Germaine, Warren St. Germaine.

65. SASKATOON. Alexander Acton, Britt Agrey, Sofya Baijius, Lorne Binsfeld, Joanne Blythe, Sara Bryson, Geoffrey Carter, Jeremiah Carter, Kathleen Carter, Louis Carter, Roseanne Carter, Robin Davis, Rodger Davis, Kiel Drake, Lorne Duczek, Melanie Elliott, Joan Feather, Greg Fenty, David Forbes, Peter Gerrard, Bob Godwin, Mike Gollop, Raea Gooding, Jeff Harder, Danielle Hopkins, Amanda Horvath, Ron Jensen, Shan Landry, Troy Lange, LeeAnn Latremouille, Maggie Lloyd-Smith, Pat Lloyd-Smith, Bev Loring, Audrey MacKenzie, Bill MacKenzie, Don Martin, Mary Maxwell, Kariann McCrea, Janine McManus, Bob McNaughton, Jane McPhee, Kathy Meeres, Meghan Mickelson, Scott Mitchell, Carol Monahan, Joe Monahan, Jackson Olaski, Chelsea Parent, John Patterson, Jim Paul, William Robertson, Marc Sabourin, Nick Saunders, Jan Shadick, Stan Shadick, Kathlin Simpkins, Joel Spetz, Marten Stoffel, Jenny Sutton,

Hilda Voth, Brandon Wapple, Guy Wapple, Sandra Wapple, Morgan Wapple Spetz, Hamish Watts, Olive Watts, Trent Watts, George West, Bev Will, Eric Wood, Grant Wood, Dan Zazelenchuk, Norman Zlotkin.

66. SHAMROCK. Mike Francis, Dave Gardner, Randy McCulloch, Iris McNeill, Joel Priebe, Myrna Priebe.

67. SHELL LAKE. Ryan Dudragne, Carole Martin (count period), Nick Saunders.

68. SNOWDEN. Sonja Fidyk, Gus Formadus, Shirley Formadus, Ed Hagel, Irene Hagel, Linda Patton, Jack Pickett, Annie Pistun, Wendy Pistun, Barry Priestley, Karen Priestley, Valerie Rien, Rosie Slonski, Ted Slonski, Ann Stafford, Tim Thompson.

69. SOUTH LADY LAKE. David Weiman, Adam Schmidt.

70. SWIFT CURRENT. Theresa Busse, Norris Currie, Laurent Dudragne, Mary Ann Dudragne, Arnie Ens, Dave Green, Norma Hain, Hugh Henry, Lois Howes, Vera Lynn Knipful, Wanda Knox, Dot Letkeman, Janet Payne, June Roy, Irene Stinson, Allen Twamley, Betty Twamley.

71. TORCH RIVER VALLEY. Lorna Blaine, Bert Dalziel, Joan Dalziel, Sara Dalziel, Rick Douslin, Wayne Gall, Don Happner, Don Lidster, Nancy Lidster, Barry MacLeod, Deborah MacLeod, Shawn Paschke, Dawn Schumilas, Markus Taschler, Regina Taschler.

72. TURTLEFORD. Hank DeGraaf, Marlene DeGraaf, Larry Ingram, Miles Johnson, Rebecca Johnston, Vance Johnston, Alex Keen, Brent Keen, Brody Lukas, Bonny Macnab, Trent Macnab, Shirley Maloney, Diane Perkins, Richard Roney, Mark Seabrook, David Smith, Dorothy Textor, Marg Uhlig, David Woof.

73. WATROUS. Linda Adams, George Cotts, Darlene Kornelson, Karen Norberg, Sel Norberg, Sharlane Toole, Joyce Wilton.

74. WEYBURN. Henry Breckenridge, Jack Breckenridge, Dallas Burnett, Bob Cameron, Lucille Cameron, Millie Fleming, Charlotte Payak, Don Payak, Garnet Schultz, Linda Schultz, Joe Stephaniuk, Tanis Thomas, Val Thomas.

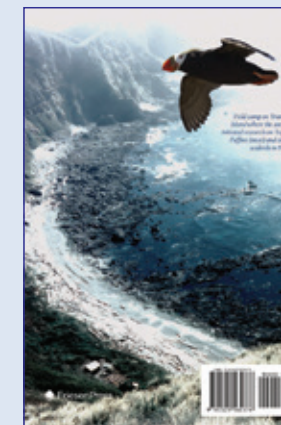
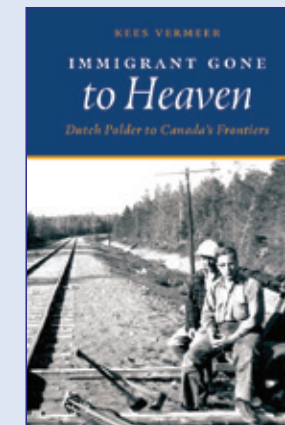
75. WHITE BEAR. Martin Gerard, Stephane Gerard, Yvonne Nelson, Deb Peterson, Dan Zazelenchuk.

76. WHITEWOOD. Ken Aldous, Carole Armstrong, Cindy Ashfield, Joe Ashfield, Paul Ashfield, Kerri Bachtold, Joyce Kydd, Sarah Mambourg, Boyd Metzler, Margaret Niemenen, Paul Niemenen, Brenda Pollock (count period), John Pollock (count period), Doug Shepherd, Dawn Vennard, Lyle Vennard, Diane Veresh, Pat Ward.

77. WINGARD. Rebecca Beam.

78. YOUNG. Holly Train, Sharlane Toole.

## IMMIGRANT GONE TO HEAVEN by KEES VERMEER



*Immigrant Gone to Heaven* is a remarkable book. It grips the reader from the moment the author joins an Emigration Training Centre in the *Biesbosch* region of the Netherlands with the goal of moving to Canada. We follow his experiences as he lands in Canada and works his way up from farm-hand to obtaining a doctorate in Zoology. The section of the book detailing his explorations in ornithology are as fascinating as the stories of immigration and the memories of World War II. The book takes the reader on a riveting journey of exploration in many facets of social history and science as viewed through the lens of an inquisitive and always optimistic upbeat man. I strongly recommend this book to anyone interested in learning more about World War II, immigration, bird behavior or even just in how a life's journey can unfold with all its unexpected twists and turns.

**Tom Bijvoet**  
**Publisher, DUTCH the Magazine – De Krant**

Brimming with charming personal anecdotes and fascinating ornithological research in equal measure, Kees Vermeer's *Immigrant Gone to Heaven* paints a vivid picture of an adventurous and fearless life. Vermeer's curiosity and insight into the natural world are evident from his descriptions of childhood nest-hunting in the Dutch polder, to his pioneering work with seabirds on British Columbia's windswept *Triangle Island*. His stories of everyday life under Nazi occupation are enthralling in their own right. Naturalists, scientists and history buffs alike will enjoy this book.

**Annie McLeod**  
**Editor, Nature Saskatchewan's Blue Jay**

To order, please mail a cheque for \$34  
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Kees Vermeer

8968 Mainwaring Rd. North Saanich, BC, Canada, V8L 1J7  
Or E-transfer \$34.00 to keesvermeer@telus.net

For further info, go to: [www.immigrantgonetoheaven.com](http://www.immigrantgonetoheaven.com)



**TABLE 1. Weather and Snow Cover.**

LOCALITY	DATE	MIN TEMP (°C)	MAX TEMP (°C)	MIN WIND (KM/HR)	MAX WIND (KM/HR)	MIN SMOW (CM)	MAX SNOW (CM)	SKY A.M.	SKY P.M.
Archerwill	30 Dec 2021	-37	-30	5	8	25	25	mostly clear	mostly clear
Avonlea	2 Jan 2022	-10	-2	5	30	0	20	overcast	clear
Balgonie	2 Jan 2022	-21	-5	10	22	10	25	mostly clear	partly cloudy
Biggar	16 Dec 2021	-27	-22	5	25	10	20	partly cloudy	clear
Borden-Radisson	2 Jan 2022	-24	-10	9	33			cloudy	partly cloudy
Broadview	1 Jan 2022	-36	-26	0	10	30	40	clear	clear
Brooksby	3 Jan 2022	-25	-22	5	10	60	90	light snow	light snow
Candle Lake	2 Jan 2022	-18	-17	5	10	10	30	cloudy	cloudy
Chatsworth S.D.	4 Jan 2022	-22	-18	15	20	40	50	cloudy	mod. snow
Christopher Lake	30 Dec 2021	-31	-29	5	5	25	30	partly cloudy	
Clark's Crossing	18 Dec 2021	-28	-21	7	16	5	20	partly cloudy	cloudy
Craven	19 Dec 2021	-26	-17	22	31	2	20	mostly clear	mostly clear
Crooked Lake	14 Dec 2021	-5	-2	10	15	2	4	cloudy	partly cloudy
Crooked River	29 Dec 2021	-34	-28	0	3			clear	clear
Cypress Hills P.P.	30 Dec 2021	-24	-22	20	29	5	15	overcast	overcast
Davidson-Craik	2 Jan 2022	-12	-9	10	13	10	50		clear
Denholm	2 Jan 2022	-19	-14	0	8	10	20	mostly clear	partly cloudy
Dundurn	30 Dec 2021	-38	-30	8	13	10	20	partly cloudy	partly cloudy
E.B.Campbell Dam	3 Jan 2022	-31	-24	0	15	45	60	partly cloudy	overcast
Eastend	19 Dec 2021	-13	-10	12	40	0	15	partly cloudy	cloudy
Estevan	4 Jan 2022	-20	-19	20	40	10	20	light snow	light snow
Estuary North	2 Jan 2022			40	60	12	25		
Fenton	3 Jan 2022	-22	-22	10	25	10	30	cloudy	light snow
Floral	21 Dec 2021	-17	-13	20	30	10	20	partly cloudy	partly cloudy
Fort Qu'Appelle	19 Dec 2021	-16	-12	30	40	5	6	overcast	overcast
Gardiner Dam	14 Dec 2021	-5	-3	20	30	5	15	cloudy	overcast
Good Spirit Lake	2 Jan 2022	-27	-17	9	15	20	48	clear	clear
Greenwater	3 Jan 2022	-23	-18	6	11	60	68	cloudy	cloudy
Harris	15 Dec 2021	-20	-18	25	45	5	25	cloudy	overcast
Hudson Bay	26 Dec 2021	-23	-21	15	20	40	50	cloudy	
Indian Head	29 Dec 2021	-35	-26	20	20	30	30	clear	clear
Kenaston	17 Dec 2021	-20	-19	2	5	15	15	clear	clear
Kenosee Lake	19 Dec 2021	-13	-2	22	58	5	20	partly cloudy	clear
Ketchen North	26 Dec 2021	-30	-20	0	30	30	35	overcast	light snow
Kinloch	2 Jan 2022	-20	-14	5	5	26	26	overcast	overcast
Kyle	22 Dec 2021	-12	-3	6	29	0	5	overcast	light snow
La Ronge	27 Dec 2021	-24	-24	7	10	20	20	partly cloudy	partly cloudy
Love-Torch River	26 Dec 2021	-31	-27	0	15	35	45	cloudy	mod. snow
Luseland	2 Jan 2022	-14	-8	0	10	5	25	mostly clear	mostly clear

LOCALITY	DATE	MIN TEMP (°C)	MAX TEMP (°C)	MIN WIND (KM/HR)	MAX WIND (KM/HR)	MIN SMOW (CM)	MAX SNOW (CM)	SKY A.M.	SKY P.M.
MacDowall	2 Jan 2022	-17	-13	10	30	10	20	overcast	overcast
Meadow Lake	26 Dec 2021	-32	-30	0	4	6	35	light snow	cloudy
Melfort	23 Dec 2021	-20	-12	20	40	40	50	partly cloudy	cloudy
Moose Jaw	19 Dec 2021	-17	-14	33	58	0	5	cloudy	mostly clear
Moose Mountain	2 Jan 2022	-13	-4	15	20	6	12	mostly clear	mostly clear
Morse	15 Dec 2021	-20	-17	32	36	2	6	overcast	mostly clear
Neilburg-Marsden	18 Dec 2021	-28	-18	8	10	15	15	cloudy	cloudy
Nipawin	30 Dec 2021	-34	-31	0	5	30	30	heavy fog	clear
Nisbet Forest NW	26 Dec 2021	-29	-27	10	15	25	30	overcast	light snow
Nisbet Forest West	2 Jan 2022	-21	-18	5	10	30	50	overcast	overcast
Odessa	20 Dec 2021	-28	-14	15	25	13	20	mostly clear	mostly clear
Outlook	2 Jan 2022	-7	-5	10	19	6	90	partly cloudy	partly cloudy
Pike Lake	3 Jan 2022	-21	-20	20	30	4	35	overcast	overcast
Prince Albert	19 Dec 2021	-19	-17	20	35	20	40	light snow	light snow
Qu'Appelle	2 Jan 2022	-22	-8	6	20	25	35	overcast	partly cloudy
Qu'Appelle Dam	19 Dec 2021	-18	-15	25	46	0	15	mostly clear	cloudy
Regina	26 Dec 2021	-23	-20	17	32	20	30	light snow	mod. snow
Roscommon S.D.	2 Jan 2022	-2	-13	10	15	20	30	overcast	clear
Rosetown	18 Dec 2021	-31	-23	0	5	31	46	overcast	mostly clear
Rosthern	18 Dec 2021	-27	-19	0	16	2	10	mostly clear	partly cloudy
Rouleau	2 Jan 2022	-17	-3	2	19	5	35	mostly clear	partly cloudy
Round Lake (Q.V.)	22 Dec 2021	-17	-9	0	15	0	5	partly cloudy	cloudy
Saltcoats	18 Dec 2021	-27	-27	8	11	4	6	clear	clear
Sask. Landing P.P.	21 Dec 2021	-19	8	0	11	0	5	partly cloudy	overcast
Sask. River Forks	20 Dec 2021	-20	-17	10	15	10	30	cloudy	partly cloudy
Saskatoon	26 Dec 2021	-33	-28	11	21	3	60	mostly clear	mostly clear
Shamrock	4 Jan 2022	-22	-20	27	31	10	22	overcast	overcast
Shell Lake	31 Dec 2021	-30	-25	0	20	8	65	partly cloudy	mostly clear
Snowden	3 Jan 2022			2	29	27	44	mostly clear	overcast
South Lady Lake	19 Dec 2021	-17	-13	25	55	5	30	partly cloudy	mostly clear
Swift Current	14 Dec 2021	-5	-3	18	30	6	20	overcast	overcast
Torch River Valley	28 Dec 2021	-37	-31	0	5	40	50	clear	clear
Turtleford	28 Dec 2021	-32	-31	2	11	30	45	cloudy	overcast
Watrous	18 Dec 2021	-28	-19	10	21	8	30	partly cloudy	cloudy
Weyburn	18 Dec 2021	-26	-23	10	15	6	8	mostly clear	mostly clear
White Bear	3 Jan 2022	-18	-17	30	40	5	20	overcast	overcast
Whitewood	29 Dec 2021	-11	-5	20	39	12	18	overcast	mod. snow
Wingard	30 Dec 2021								
Young	5 Jan 2022	-33	-32	16	18	8	15	cloudy	partly cloudy



**TABLE 2. Effort and Habitat Coverage (%). Wild Fruit: p=poor, f=fair, g=good, e=excellent.**

LOCALITY	PARTICIPANTS	KM ON FOOT	HOURS ON FOOT	KM BY VEHICLE	HOURS BY VEHICLE	HOURS AT FEEDERS	EVERGREEN FOREST	MIXEDWOOD FOREST	DECIDUOUS FOREST	ASPEN GROVE/FARMLAND	ASPEN GROVE/PRAIRIE	NATIVE PRAIRIE	TAME PASTURE	FARMLAND	FARMSTEADS	URBAN	OPEN WATER	RIPARIAN	BOG, SWAMP, CLEAR-CUT	WILD FRUIT CROP	
Archerwill	10	2.0	1.5	0	0.0	8.0		25						50	25						p
Avonlea	4	0.0	0.0	80	3.5	4.0						5	5	30	5	50		5			
Balgonie	19	38.6	11.7	314	21.5	0.6				50				25		25					f
Biggar	8	6.0	4.8	561	15.0	5.0				18				54	5	23					p
Borden-Radisson	6	8.0	6.8	276	5.3	0.0															
Broadview	3	1.0	0.5	122	6.5	3.5			20	25		5	10	25	5	10					p
Brooksby	1	0.0	0.0	24	2.0	0.0		10						80	5			5			p
Candle Lake	4	0.3	0.3	166	9.0	0.0	15	30	20							25		5	5		p
Chatsworth S.D.	2	1.0	2.0	10	2.0	4.0				80		10	5		5						f
Christopher Lake	1	0.0	0.0	0.0	0.0	1.3		60								40					f
Clark's Crossing	28	29.1	24.5	584	29.8	3.0				30			5	15	10	35	0	5			f
Craven	43	27.6	10.5	545	30.3	20.3				20	15	5	5	20	10	25					p
Crooked Lake	2	1.5	0.5	107	6.0	0.0				10				40	5	25	20				p
Crooked River	3	0.0	0.0	0	0.0	9.0		40						40	20						p
Cypress Hills P.P.	7	10.0	7.0	20	1.5	0.0	30	25	10			25		10							g
Davidson-Craik	3	0.0	0.0		8.0	0.0							3	90	2	5					p
Denholm	4	0.0	0.0	220	7.1	1.0				10	5		5	70	5	5					p
Dundurn	5	7	6.8	85	8.3	0.0					40			40		20					f
E.B.Campbell Dam	7	3.0	1.5	85	7.0	4.0		50	20								10	20			p
Eastend	10							5		10	20	50				14	1				p
Estevan	3	0.5	0.5	95	4.0	5.0								25		13	12	50			p
Estuary North	4	0.0	0.0		1.0	5.0						50		25	25						p
Fenton	4	0.0	0.0	152	3.8	0.0				20				70		10					p
Floral	1	3.0	2.8	175	5.3	0.0				28				44	12	16					p
Fort Qu'Appelle	17	0.5	0.3	349	20.8	0.0				25	20		10	20	4	20	1				p
Gardiner Dam	10	17.0	14.0	639	26.0	0.0				5				35	13	8	37	2			p
Good Spirit Lake	2	0.0	0.0	12	6.0	0.0				20			20	30	5	25					p
Greenwater	3	0.0	0.0	111	0.0	6.0		90						10							p
Harris	5	5.0	5.0	367	12.0	0.0				18				45	18	19					p
Hudson Bay	7	4.0	0.0	20	1.0	9.0		60							20	20					p
Indian Head	17	6.0	6.0	200	5.0	16.0	5			10				75	5	5					p
Kenaston	2	0.0	0.0	135	2.0	3.0								95		5					
Kenosee Lake	3	1.0	1.0	151	3.0	0.5			25		10	5		10		50					g
Ketchen North	1	0.5	0.5	0	0.0	8.5									5	95					
Kinloch	6	0.0	0.0	0	0.0	15.0								5	95						p
Kyle	6	4.0	2.0	202	6.0	2.0						20		45	15	15		5			p
La Ronge	8	1.0	2.0	40	5.5	11.0		5	10							50	10	25			g
Love-Torch River	23	0.5	0.5	312	13.5	16.3	10	15		50				5	10	10					p
Luseland	7	7.0	4.0	337	7.5	1.0				50	10	5	5	20	5	5					p

LOCALITY	PARTICIPANTS	KM ON FOOT	HOURS ON FOOT	KM BY VEHICLE	HOURS BY VEHICLE	HOURS AT FEEDERS	EVERGREEN FOREST	MIXEDWOOD FOREST	DECIDUOUS FOREST	ASPEN GROVE/FARMLAND	ASPEN GROVE/PRAIRIE	NATIVE PRAIRIE	TAME PASTURE	FARMLAND	FARMSTEADS	URBAN	OPEN WATER	RIPARIAN	BOG, SWAMP, CLEAR-CUT	WILD FRUIT CROP	
MacDowall	3	1.0	0.3	293	14.0	0.0	10	25	50	10						5					p
Meadow Lake	2	5.0	3.5	125	2.0	0.0		50						40		10					f
Melfort	9	1.0	0.5	80	22.0	2.0															f
Moose Jaw	8	40.7	14.2	303	14.7	0.0		10					5	40	5	30		10			p
Moose Mountain	2	0.0	0.0	139	5.0	0.0	5	20	5	5		5	10	30		15		5			f
Morse	11	2.0	0.5	505	23.5	5.0							3	90	7						p
Neilburg-Marsden	2	8.0	4.5	65	1.5	0.0				10	10		5	20	5	50					g
Nipawin	13	2.0	0.5	222	11.0	16.0	15	5		15				25	10	30					p
Nisbet Forest NW	1	0.0	0.0	0	0.0	4.0		50								50					p
Nisbet Forest West	2	0.5	0.5	116	4.0	3.0	25			10			10	25	10	15		5			p
Odessa	3	4.0	4.0	20	4.0	12.0				10	20	30	10	10	20						f
Outlook	1	0.0	0.0	130	5.0	0.0				75			10			10		5			f
Pike Lake	32	22.8	16.7	369	21.0	25.5			5	10	5		5	35	15	25					p
Prince Albert	23	23.0	10.8	666	37.5	5.2															p
Qu'Appelle	8	2.3	1.5	345	11.0	15.0				60	5		5	20	5	5					p
Qu'Appelle Dam	8	6.5	5.7	512	21.7	2.0			3		27	4	1	30	6	26		3			p
Regina	45	70.1	33.1	365	19.2	18.5															f
Roscommon S.D.	9		1.0	89	3.3	20.0				20				60	20						p
Rosetown	3	1.4	2.0	220	7.0	0.3				5		5	15	40	20	10		5			f
Rosthern	9	4.7	1.3	434	16.3	1.0				55				40		5					
Rouleau	3	0.0	0.0	158	5.5	2.5				5				80	5	10					p
Round Lake (Q.V.)	5	0.0	0.0	163	8.5	2.0				10				60	10	15	5				f
Saltcoats	27	4.0	2.0	168	7.5	135.0				2		5	10	79	3		1				
Sask. Landing P.P.	3	8.0	3.0	210	6.5	0.0						10	5	40	15	20		10			p
Sask. River Forks	4	0.3	0.5	127	7.3	0.0		15		10				75							p
Saskatoon	73	81.4	46.5	664	45.2	40.9				25	5					65		5			f
Shamrock	6	2.5	1.8	331	14.0	2.0							5	60	25	10					p
Shell Lake	2	2.4	2.8	157	6.3	0.0	10	15	25	10			10	10		15		5			p
Snowden	16		4.0	365	3.0	5.5								40	50	10					f
South Lady Lake	2	5	2.0	365	6.0	2.0				35			10	50	5						f
Swift Current	17	9.0	4.8	385	18.5	13.0								20	10	68		2			p
Torch River Valley	15	1.0	0.5	191	11.5	9.0		40		20				20	20						p
Turtleford	19	7.0	1.5	365	6.0	18.0				45			50			5					
Watrous	7	2.0	0.5	150	6.5	1.5				15	5	5	5	35	5	30	5				f
Weyburn	13	0.0	0.0	30	9.0	2.0				15			10	50	5	15		5			p
White Bear	5	2.0	1.3	248	9.0	0.0						5	5	60	30						p
Whitewood	16	3.0	1.5	462	17.0	35.0				10				15	5	70					f
Wingard	1													5	95						
Young	2	0.0	0.0	198	6.0	0.0				20	5	5	10	50		10					p



**TABLE 3. Species found on 5 or more counts; ( ) = seen during Count Period (CP); CP totals include CP birds listed in Table 4.**

SPECIES	ARCHERWILL 30 DEC 2021	AVONLEA 2 JAN 2022	BALGONIE 2 JAN 2022	BIGGAR 16 DEC 2021	BORDEN - RADISSON 2 JAN 2022	BROADVIEW 1 JAN 2022	BROOKSBY 3 JAN 2022	CANDLE LAKE 2 JAN 2022	CHATSWORTH 4 JAN 2022	CHRISTOPHER LAKE 30 DEC 2021	CLARK'S CROSSING 18 DEC 2021	CRAVEN 18 DEC 2021	CROOKED LAKE 14 DEC 2021	CROOKED RIVER 29 DEC 2021	CYPRESS HILLS P.P. 30 DEC 2021	DAVIDSON-CRAIK 2 JAN 2022	DENHOLM 3 JAN 2022	DUNDURN 30 DEC 2021	E. B. CAMPBELL DAM 3 JAN 2022	EASTEND 19 DEC 2021	ESTEVAN 4 JAN 2022
Canada Goose										(25)		450							10		350
Mallard										5		26								3	485
Common Goldeneye										12		9							89		
Ruffed Grouse	(1)					1	6				(1)	2							2		
Sharp-tailed Grouse		17	160	28	13	55				68	10				22		1	6	1	2	(40)
Gray Partridge	(1)	42	78	34	6	49			12	32	51					40	15	26	(6)		43
Ring-necked Pheasant															1						72
Rock Pigeon		25	176	167	2	2			4	437	70	47				18	72	115	(5)	30	102
Eurasian Collared-Dove		9	9	16	5	6				3	9						1	11		2	1
Golden Eagle	(1)					(1)					1	2			2					2	
Sharp-shinned Hawk						(1)					1							1			(1)
Northern Goshawk								1		1	(1)						1				(2)
Bald Eagle				(2)	6					(1)	3	1			1			1	3	4	1
Rough-legged Hawk											1	1									
Great Horned Owl				2	1				1	5	1						(1)	1			
Snowy Owl			1	2						2	3					1	1			(7)	1
Northern Hawk Owl								1											(1)		
Great Gray Owl	(1)							2													
Short-eared Owl		(10)	2																		
Northern Saw-whet Owl	1			(1)																	
Downy Woodpecker	4	2	13	7	10	3		3	2	1	21	22	1	2	4		1	4	1	1	3
Hairy Woodpecker	4	(1)	5	3	8	2		4	1		10	15	3	4	2		2	5	2		1
Pileated Woodpecker				1				1											(1)		
Northern Flicker		1		2							(1)									1	1
Merlin			1	1											1						
Northern Shrike			1									3									
Canada Jay								3											2		
Blue Jay	16		5		2	1		10		1	10	17	4	7				1	35		
Black-billed Magpie	5	14	85	146	69	18	4	6	6		241	169	29	2	14	20	31	97	27	64	3
Common Raven	1	1	73	63	51	9	13	48	3		232	119	8		2	13	42	31	21	8	2
Black-capped Chickadee	51	3	121	45	45	19		61	10	12	137	140	33	10	28		8	33	20	5	3
Boreal Chickadee	3							8													
Horned Lark		20	7	16		16									12		(1)			33	17
Red-breasted Nuthatch		1	32	7	1	2		2			5	1	2		55			2	4		2
White-breasted Nuthatch	2	2	7	2		5		2	2	1	3	19	1	2			1				2
Brown Creeper																		1			
European Starling		4	41	2	1						41	52									1
Townsend's Solitaire										1								1			
American Robin																				(1)	
Bohemian Waxwing			491	37	200	110					40	12			20	24	(40)	297			
House Sparrow		397	601	606	476	335			30		1974	469	24	2	27	137	48	312		163	167
Evening Grosbeak	50							59						(1)					24		
Pine Grosbeak	153				27			67	2					9					45		
House Finch		32	21	28		2					78	2						2		13	25
Common Redpoll	114	11	455	1287	353	204		78	30	16	1129	1320	25	9	10	10	749	300	7	133	343
Hoary Redpoll	16			9		1					6			16				3		50	4
White-winged Crossbill			17			6		2													
Pine Siskin				8																	
American Goldfinch												1									
Snow Bunting	(150)		55	1701	96	18	200		150		653	1717	(30)	(12)	25	8	991	1714	(25)	196	38
Dark-eyed Junco		4		8		1					1	1								2	
White-throated Sparrow																					
TOTAL BIRDS COUNT DAY	420	581	2403	2518	1276	846	23	358	103	31	4493	2511	668	63	210	262	973	1252	295	514	1629
TOTAL BIRDS ONLY IN CP	3	12	0	3	0	2	0	0	0	0	26	3	0	1	0	0	42	0	13	8	43
TOTAL SPECIES COUNT DAY	13	16	24	23	18	20	3	18	12	5	24	28	18	10	16	7	14	23	17	16	22
TOTAL SPECIES ONLY IN CP	3	3	0	2	0	2	0	0	0	0	2	3	0	1	0	0	3	0	4	2	3

SPECIES	ESTUARY NORTH 2 JAN 2022	FENTON 3 JAN 2022	FLORAL 21 DEC 2021	FORT QU'APPELLE 19 DEC 2021	GARDINER DAM 14 DEC 2021	GOOD SPIRIT LAKE 2 JAN 2022	GREENWATER 3 JAN 2022	HARRIS 15 DEC 2021	HUDSON BAY 26 DEC 2021	INDIAN HEAD 29 DEC 2021	KENASTON 17 DEC 2021	KENOSEE LAKE 19 DEC 2021	KETCHEN 26 DEC 2021	KINLOCH 2 JAN 2022	KYLE 22 DEC 2021	LA RONGE 27 DEC 2021	LOVE-TORCH RIVER 26 DEC 2021	LUSELAND 2 JAN 2022	MACDOWALL 2 JAN 2022	MEADOW LAKE 26 DEC 2021	
Canada Goose			8	1	6422																
Mallard					1625					2											
Common Goldeneye					168																
Ruffed Grouse				(1)					3	6				3	1			1			1
Sharp-tailed Grouse	19			7		1		9	(19)	14					(1)		7				
Gray Partridge	34			39		1		9		18	23				12		(15)	56			
Ring-necked Pheasant				1																	
Rock Pigeon		37	31	57	123			62		75	188				7		48	30			
Eurasian Collared-Dove	5		7	5	2			2							12				3		
Golden Eagle					2										(1)						
Sharp-shinned Hawk																					(1)
Northern Goshawk	2														(1)			1			
Bald Eagle				(1)	17					2					1		(1)				
Rough-legged Hawk	4														1						
Great Horned Owl	4		1	1	3			5			2				6				3		
Snowy Owl	3		1		2					1	1				3		(1)	3			
Northern Hawk Owl																					1
Great Gray Owl	(1)																	3			3
Short-eared Owl															2						
Northern Saw-whet Owl	1																				
Downy Woodpecker	6	3	7	14	5		1	3	11	16	1	1	4	5	1	5	25	1	4		
Hairy Woodpecker	2	6	4	8	3		6		12	14		5	4	5	1	5	18	2	3		
Pileated Woodpecker				(1)								(1)					1				1
Northern Flicker	3				1																
Merlin				(1)	1										(1)						
Northern Shrike				(1)															(1)		
Canada Jay																					
Blue Jay	6	17	3	11	5	16	29		33	7		6		8	2			3		1	
Black-billed Magpie	37	50	70	91	81	29	7	138	8	39	3	19	5	10	55	8	64	136	58	9	
Common Raven	4	42	18	109	30	55		23	136	36	8	11	83	4	21	87	100	9	35	34	
Black-capped Chickadee	25	38	41	125	29	38	32	13	46	117		40	11	47	3	23	141	3	30	5	
Boreal Chickadee									6								10	6			
Horned Lark	12			2						17	(10)				26						
Red-breasted Nuthatch	1		1	7	3				4	49		1			2	6	9	2			
White-breasted Nuthatch	3	1	4	17	1	2	3		16	9		2	(1)	5		2	12	3	4		
Brown Creeper																					
European Starling	10		2	12	2										17		6	(1)			
Townsend's Solitaire																					
American Robin																					
Bohemian Waxwing	10	22	2		31			9		54					550	(18)		110			
House Sparrow	220	15	376	201	1107	1		470	15	317	50	217									



**TABLE 3. Species found on 5 or more counts; ( ) = seen during count period (CP); CP totals include CP birds listed in Table 4.**

SPECIES	MELFORT 23 DEC 2021	MOOSE JAW 19 DEC 2021	MOOSE MOUNTAIN P.P. 2 JAN 2022	MORSE 15 DEC 2021	NEILBURG-MARSDEN 18 DEC 2021	NIPAWIN 30 DEC 2021	NSIBET FOREST NORTHWEST 26 DEC 2021	NSIBET FOREST WEST 2 JAN 2022	ODESSA 20 DEC 2021	OUTLOOK 2 JAN 2022	PIKE LAKE 3 JAN 2022	PRINCE ALBERT 19 DEC 2021	QU'APPELLE 2 JAN 2022	QU'APPELLE DAM 19 DEC 2021	REGINA 26 DEC 2021	ROSCOMMON S.D. 2 JAN 2022	ROSETOWN 18 DEC 2021	ROSTERN 18 DEC 2021	ROULEAU 2 JAN 2022	ROUND LAKE (Q.V.) 22 DEC 2021	SALTCOATS 18 DEC 2021		
Canada Goose		(1)		353										221	408						1		
Mallard		(3)				1								4	2690							3	
Common Goldeneye						1								11	8								
Ruffed Grouse	3				3			(3)	4		3	3	4			3						1	
Sharp-tailed Grouse			27	111					30		28	1	61	20	19		(15)	1			34	6	
Gray Partridge	13	66		624		10			20	5	8		4	12	702	(13)	12		111			12	
Ring-necked Pheasant		1		3													1						
Rock Pigeon	21	516	17	41	51	177		30	15	105	136	148	105	95	227		29	19	45	2	25		
Eurasian Collared-Dove		68		30						5				22	8		1	14	2			1	
Golden Eagle				1											(1)						1		
Sharp-shinned Hawk		2													1								
Northern Goshawk													1										
Bald Eagle				4		2			2	1	1	1		3	1					1		2	
Rough-legged Hawk															2					1			
Great Horned Owl		4	1	14					2			(1)	(1)	5	3		3		4				
Snowy Owl		14		4					2				(1)		20		5		16			1	
Northern Hawk Owl																	1					1	
Great Gray Owl							(1)										(1)						
Short-eared Owl		(1)													(4)	(1)	6		5				
Northern Saw-whet Owl				(1)																			
Downy Woodpecker	8	9	5	1	6	3	2	2	6		34	8	18	5	19	11	2	8	1	4	18		
Hairy Woodpecker	8	7	4	(1)		5	2	3	4	2	18	10	15	4	(1)	10		5	1	2	12		
Pileated Woodpecker	1		1					1	2		2	2			2								
Northern Flicker										(1)			1	1	2			1					
Merlin		4										1	1		1		1		1	1			
Northern Shrike				1							2			1	1							1	
Canada Jay									1														
Blue Jay	10	2	6		6	7	2	16	2		19	25	2		2	18	1	12		7	17		
Black-billed Magpie	18	80	34	53	28	20	(1)	21	40	18	80	125	82	74	100	48	53	38	5	44	22		
Common Raven	40	20	14	15	5	288	1	47	25	15	89	349	65	13	178	11	12	40	42	46	45		
Black-capped Chickadee	55	75	24		54	31	20	16	30	5	467	186	70	40	97	71	1	36		76	96		
Boreal Chickadee																							
Horned Lark				943									12		(6)		1	4					
Red-breasted Nuthatch	4	16		1		10		1		1		5	4	1	42		1	7			17		
White-breasted Nuthatch	3	14	3		4	2	1			(1)	18	17	3	1	6	5	1	5			20		
Brown Creeper		3													3			(1)					
European Starling		38		7		35			25		60	7	13	19	134								
Townsend's Solitaire		(1)												2									
American Robin		2							2			1			2							1	
Bohemian Waxwing	150	(70)		1	490			(1)		(300)	281	4455	24	314	(43)			(7)					
House Sparrow	184	1243	29	1611	188	103			60	75	323	707	205	446	2001	56	807	198	98	161	265		
Evening Grosbeak						53	3	100			1	21			1	2							
Pine Grosbeak	12				1	34	6	23			22	47		19	59		11						
House Finch		82		7						50		12		9	82						146		
Common Redpoll	58	18	11	862	80	113	40	90		27	542	309	935	409	2	103	334	153		31			
Hoary Redpoll	15			4					4		6	2		3			3						
White-winged Crossbill		(1)				3									4			(3)					
Pine Siskin												22											
American Goldfinch					1						11												
Snow Bunting	45	101		1800	140	5		95	40	81	1064	234	716	140	376	390	956	281	92		190		
Dark-eyed Junco		(7)									2	1	1		6							1	
White-throated Sparrow		2						1					1		3	(1)							
TOTAL BIRDS COUNT DAY	603	2284	176	4691	913	900	78	352	275	309	2140	6479	1647	1741	6757	399	1274	554	332	414	709		
TOTAL BIRDS ONLY IN CP	0	77	0	2	0	0	2	4	0	302	0	2	2	0	55	14	15	11	0	0	0		
TOTAL SPECIES COUNT DAY	17	22	13	22	12	19	9	14	18	12	21	28	21	27	28	13	19	18	13	15	20		
TOTAL SPECIES ONLY IN CP	0	6	0	2	0	0	2	2	0	3	0	2	2	0	5	2	1	3	0	0	0		

SPECIES	SASK LANDING P.P. 21 DEC 2021	SASK RIVER FORKS 20 DEC 2021	SASKATOON 26 DEC 2021	SHAMROCK 4 JAN 2022	SHELL LAKE 31 DEC 2021	SNOWDEN 3 JAN 2022	SOUTH LADY LAKE 19 DEC 2021	SWIFT CURRENT 14 DEC 2021	TORCH RIVER VALLEY 28 DEC 2021	TURTLEFORD 28 DEC 2021	WATROUS 18 DEC 2021	WEYBURN 18 DEC 2021	WHITE BEAR 3 JAN 2022	WHITEWOOD 29 DEC 2021	WINGARD 30 DEC 2021	YOUNG 5 JAN 2022	TOTALS COUNT DAY	TOTALS ONLY IN COUNT PERIOD	# COUNTS COUNT DAY	# COUNTS ONLY IN COUNT PERIOD	
Canada Goose			47														8271	26	11	2	
Mallard			186														5030	3	11	1	
Common Goldeneye			221														519	0	8	0	
Ruffed Grouse						(1)	3		2					10			65	7	21	5	
Sharp-tailed Grouse	12	10	14	46			(29)		7	10		80	21	11			989	104	38	5	
Gray Partridge	20	12		350			(6)	(12)		1		322	75	29			3028	53	40	6	
Ring-necked Pheasant				8								136					223	0	8	0	
Rock Pigeon	2	3	924	48	5	8		687	16			103	32	91		6	5654	5	55	1	
Eurasian Collared-Dove			15	5				20			43	6		15			363	0	33	0	
Golden Eagle	1																13	4	9	4	
Sharp-shinned Hawk			1								1						7	2	6	2	
Northern Goshawk									(1)	1				1			10	5	9	4	
Bald Eagle	1		3							1							63	5	24	4	
Rough-legged Hawk												1					11	0	7	0	
Great Horned Owl	4	(1)	1	13				3		2		3	5	(1)			103	5	29	5	
Snowy Owl	4											3	2	(1)			99	10	26	4	
Northern Hawk Owl			(1)														4	2	4	2	
Great Gray Owl																	10	3	5	3	
Short-eared Owl	1			1									(3)				21	19	7	5	
Northern Saw-whet Owl			(1)														1	4	1	4	
Downy Woodpecker	2	1	55			4	1	4	5	10	6	2		24	1	3	506	0	70	0	
Hairy Woodpecker		4	15		4	3	2		2	14	6		2	22	1	1	357	3	61	3	
Pileated Woodpecker		3	3			(2)				1				1			24	5	16	4	
Northern Flicker			12						7								33	2	12	2	
Merlin	(1)		1						2			1					18	3	14	3	
Northern Shrike	1				1												13	2	10	2	
Canada Jay						6			11								58	0	12	0	
Blue Jay		7	50		39	49	2	2	16	21	9			7	6		762	0	57	0	
Black-billed Magpie	22	33	871	21	56	18	34	87	28	62	21	42	73	47		33	4398	1	75	1	
Common Raven	4	18	263	2	16	12	24	1	48	42	12	91	2	72		16	3568	0	74	0	
Black-capped Chickadee	11	45	456		55	68	8	14	88	86	54			163	6	29	4124	0	70	0	
Boreal Chickadee		3			7				2								47	0	9	0	
Horned Lark	82			122					18								1495	17	22	3	
Red-breasted Nuthatch			49</																		



**TABLE 4. Species found in fewer than 5 counts.**

SPECIES	LOCALITY AND NUMBER (*=SEEN DURING COUNT PERIOD)
Snow Goose	Regina (1)
Cackling Goose	Gardiner Dam (1800)
Tundra Swan	Crooked Lake (1)
Wood Duck	Regina (1)
Blue-winged Teal	Saskatchewan Landing (1)
Green-winged Teal	Gardiner Dam (1)
Canvasback	Gardiner Dam (4)
Redhead	Gardiner Dam (6), Regina (7)
Ring-necked Duck	Crooked Lake (1)
Greater Scaup	Gardiner Dam (10)
Lesser Scaup	Crooked Lake (2), Gardiner Dam (17), Regina (1*)
Bufflehead	Gardiner Dam (5), Regina (1)
Barrow's Goldeneye	Crooked Lake (1)
Hooded Merganser	Gardiner Dam (3)
Common Merganser	E. B. Campbell Dam (1), Ft. Qu'Appelle (4), Gardiner Dam (88), Saskatoon (1)
Red-breasted Merganser	Gardiner Dam (1)
Ruddy Duck	Gardiner Dam (1)
Spruce Grouse	Candle Lake (2), La Ronge (1)
Horned Grebe	Gardiner Dam (1)
Mourning Dove	Biggar (1)
American Coot	Gardiner Dam (4)
Wilson's Snipe	Swift Current (1)
Herring Gull	Gardiner Dam (24)
Glaucous Gull	Regina (1)
Turkey Vulture	Estuary North (1)
Red-tailed Hawk	Rosetown (1)
Ferruginous Hawk	Kyle (2*)
Long-eared Owl	Saskatchewan Landing (2), White Bear (2)
Boreal Owl	Rosetown (1)
Red-bellied Woodpecker	Watrous (1)
American Three-toed Woodpecker	E.B. Campbell Dam (1), Prince Albert (2), Shell Lake (1)
Black-backed Woodpecker	Love-Torch River (2), Prince Albert (1), Shell Lake (2)
American Kestrel	Broadview (1*), Qu'Appelle Dam (1)
Gyr Falcon	Biggar (1*), Saskatchewan Landing (1*), Saskatoon (1*), White Bear (1*)
Prairie Falcon	Craven (1), Qu'Appelle Dam (1)
American Crow	Moose Jaw (1), Pike Lake (1), Saskatoon (6), Weyburn (2)
Golden-crowned Kinglet	Biggar (1), Moose Jaw (2), Prince Albert (2), Swift Current (2)
Varied Thrush	Clark's Crossing (1), Prince Albert (1), Regina (1*)
Cedar Waxwing	Saltcoats (7), Saskatoon (4)
Purple Finch	Craven (1*), Estuary North (1), Moose Jaw (2), Saltcoats (5)
Red Crossbill	Eastend (7), MacDowall (3)
Lapland Longspur	Rosetown (2), Weyburn (50)
American Tree Sparrow	Eastend (1), Qu'Appelle Dam (2), Whitewood (2)
White-crowned Sparrow	Prince Albert (1*), Weyburn (1)
Harris's Sparrow	Morse (1)
Rusty Blackbird	Borden (2)
Brewer's Blackbird	Kyle (1)
Common Grackle	Kinloch (1), Moose Jaw (2), Watrous (1), Weyburn (1)



Snowy Owl. Photo credit: Anne C. Brigham.



Sharp-tailed Grouse. Photo credit: Anne C. Brigham.

**TABLE 5. Birds not identified to species.**

CATEGORY	LOCALITY AND NUMBER (*=SEEN DURING COUNT PERIOD)
Scaup sp.	Gardiner Dam (20)
Accipiter sp.	Saskatoon (1)
Hawk sp.	Saskatoon (1)
Eagle sp.	Denholm (1*), Shamrock (1*)
Falcon sp.	Craven (1), Gardiner Dam (1)
Woodpecker sp.	Craven (1), Saskatoon (3), Shell Lake (1)
Sparrow sp.	Archerwill (1*)
Finch sp.	Saskatoon (40)

**TABLE 6. New (in bold and italics) and tying high counts for individual species 2021.**

LOCATION	2021 COUNT	SPECIES	PREVIOUS HIGH	LOCATION, YEAR
<b>Gardiner Dam</b>	<b>1800</b>	<b>Cackling Goose</b>	<b>140</b>	<b>Saskatoon (26 Dec 2016)</b>
Crooked Lake	1	Barrow's Goldeneye	1	5 previous records north to E.B. Campbell Dam
Gardiner Dam	1	Horned Grebe	1	7 previous records north to Saskatoon
<b>Kyle (Count period)</b>	<b>2</b>	<b>Ferruginous Hawk</b>	<b>1</b>	<b>1 previous record, Leader South (18 Dec. 1999)</b>
Rosetown	1	Boreal Owl	1	Many previous records south to White Bear and Indian Head
Watrous	1	Red-bellied Woodpecker	1	6 previous records north to Nipawin and Yorkton

# 49TH ANNUAL SASKATCHEWAN CHRISTMAS MAMMAL COUNT - 2021

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Of the 78 Christmas Bird Counts conducted last winter, 73 were accompanied by a Mammal Count — a decrease from last year's 81. The drop was at least partly responsible for a decline in the number of mammals seen or heard, from 4,512 to 3,664.

White-tailed Deer, with 1,589 individuals, and Mule Deer, with 778 animals, were by far the most commonly encountered mammals. Another ungulate, the Pronghorn, with 534 animals, took third place, a position usually held by the Coyote.

In fact, the Coyote, with only 108 animals, fell to fifth place behind the White-tailed Jackrabbit and Eastern Fox Squirrel. Almost half (77) of the 159 jackrabbits were, however, on the Regina count.

The ever-expanding Eastern Fox Squirrel numbered 141 animals. One wonders how the 36 Eastern Gray Squirrels in Swift Current will fare if and when the "competition" arrives from the east?

On the other end of the spectrum, rarities included a "should be hibernating" Least Chipmunk on 16 December at Fort Qu'Appelle, and a Cougar in Cypress Hills Provincial Park on 30 December.

Odessa had the most species seen or heard with 13, and the runner-up was Craven with 11.

No new species were added this past winter so the all-time provincial total remains at 51 species seen or heard (plus three species found dead

and three others recorded only on the basis of tracks).

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

## Explanation of entries in Table 1.

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

For species only detected by tracks or by other means, or that are seen

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



White-tailed Jackrabbit. Photo credit: Randy McCulloch.



**TABLE 1. 49th Saskatchewan Christmas Mammal Count - 2021.**

SPECIES	ARCHERWILL 30 DEC 2021	AVONLEA 2 JAN 2022	BALGONIE 2 JAN 2022	BIGGAR 16 DEC 2021	BORDEN - RADISSON 2 JAN 2022	BROADVIEW 1 JAN 2022	BROOKSBY 3 JAN 2022	CANDLE LAKE 2 JAN 2022	CHATSWORTH 4 JAN 2022	CLARK'S CROSSING 18 DEC 2021	CRAVEN 18 DEC 2021	CROOKED LAKE 14 DEC 2021	CROOKED RIVER 29 DEC 2021	CYPRESS HILLS P.P. 30 DEC 2021	DAVIDSON-CRAIK 2 JAN 2022	DENHOLM 3 JAN 2022	DUNDURN 30 DEC 2021	E. B. CAMPBELL DAM 3 JAN 2022	EASTEND 19 DEC 2021	
Shrew species																				
Nuttall's Cottontail														3						1
Snowshoe Hare	c			t	t			t			5	t				1	2	t		
White-tailed Jack Rabbit			7	t		t				2	1					c	1	c		
Least Chipmunk																				
Eastern Grey Squirrel																				
Eastern Fox Squirrel		2	18			3					10	t	1							
American Red Squirrel	1				5					t	10	4		4		1		1		
Northern Flying-Squirrel																1				
American Beaver						L						L								
Deer Mouse						t						t								
Muskrat												1								
Gapper's Red-Backed Vole																1				
Meadow Vole																				
Vole species				t						t		t					t			
House Mouse																				
Mouse species										t	1								t	
American Porcupine	c		2		t	1					1			1	1	t	c			
Coyote	c		2	t	1	t				1	8	t				1	4			
Gray Wolf																				c
Red Fox	t		1	1		2	1	t		1	1	2		t		1	2			
Raccoon												2								
American Marten																				t
Fisher																				t
Ermine																				
Long-tailed Weasel					1															
Least Weasel																				1
Weasel species	c									t										
American Mink							t													
American Badger																	d			
Striped Skunk																				s
River Otter												t								
Mountain Lion														1						
Canada Lynx								t												
Woodland Caribou																				
Mule Deer		9	21	55	10	12	2			15	24	c		27	12	17	4			47
White-tailed Deer	27	5	41	13	26	32	5	36	12	35	21	c	8	80	16	24	3	42		58
Deer species					2															
Moose	c		4	5		3					1	t	c		4	2	t	t		3
Elk	c																	t		
Pronghorn														14						c
TOTALS SEEN/HEARD ON COUNT DAY	28	16	96	74	45	53	8	36	12	54	83	9	9	130	32	49	11	49		110
TOTAL SPECIES SEEN/HEARD	2	3	8	4	5	6	3	1	1	5	11	4	2	7	3	9	5	4		5
TOTAL SPECIES RECORDED BY TRACKS	1	0	0	4	2	4	0	3	0	3	0	7	0	1	0	0	3	6		0
TOTAL SPECIES OTHERWISE RECORDED	0	0	0	0	0	1	0	0	0	0	0	1	0	0	0	1	1	1		0
SPECIES RECORDED COUNT PERIOD	6	0	0	0	0	0	0	0	0	0	0	2	1	0	0	1	0	3		1
TOTAL SPECIES COUNT PERIOD AND DAY	9	3	8	8	7	11	3	4	1	8	11	14	3	8	3	10	9	14		6

SPECIES	ESTEVAN 4 JAN 2022	ESTUARY NORTH 2 JAN 2022	FENTON 3 JAN 2022	FLORAL 21 DEC 2021	FORT QU'APPALLE 19 DEC 2021	GARDINER DAM 14 DEC 2021	GOOD SPIRIT LAKE 2 JAN 2022	GREENWATER 3 JAN 2022	HARRIS 15 DEC 2021	INDIAN HEAD 29 DEC 2021	KENOSEE LAKE 19 DEC 2021	KETCHEN 26 DEC 2021	KYLE 22 DEC 2021	LA RANGE 27 DEC 2021	LOVE-TORCH RIVER 26 DEC 2021	LUSELAND 2 JAN 2022	MACDOWALL 2 JAN 2022	MEADOW LAKE 26 DEC 2021	MELFORT 23 DEC 2021	MOOSE JAW 19 DEC 2021	
Shrew species																					
Nuttall's Cottontail		14				1							t								1
Snowshoe Hare				t	c		t	3			t			t	t						
White-tailed Jack Rabbit				t		t	t			t	4		1		t	1					1
Least Chipmunk					c																
Eastern Grey Squirrel																					
Eastern Fox Squirrel						1															19
American Red Squirrel			1		6			2		3	1			2	1		3		2		
Northern Flying-Squirrel																					
American Beaver											L										
Deer Mouse																					
Muskrat																					
Gapper's Red-Backed Vole																					
Meadow Vole						1	t														
Vole species				t																	
House Mouse													t								
Mouse species																					
American Porcupine		5				1				3											
Coyote		3	t	t	2	11	t		1	13	c		2	1	3	2	1				2
Gray Wolf																					
Red Fox			4							3	1		c	t	t	1					2
Raccoon																					
American Marten																					
Fisher																					
Ermine																					
Long-tailed Weasel						1															
Least Weasel		t																			
Weasel species																					
American Mink																					
American Badger		1																			
Striped Skunk																					
River Otter															4						
Mountain Lion																					
Canada Lynx																					
Woodland Caribou																					
Mule Deer	6	20	5			2	13		30	11			5			30	3				41
White-tailed Deer	3	53	4	14	34	37	16	12	33	46	11	3	15		34	3	4	5	14		10
Deer species																					
Moose		5				1	3	c					3		t	c					
Elk																					
Pronghorn		200																			95
TOTALS SEEN/HEARD ON COUNT DAY	9	301	14	15	46	64	20	17	64	83	13	3	154	7	39	37	11	5	16		171
TOTAL SPECIES SEEN/HEARD	2	8	4	2	6	6	3	3	7	3	1	6	3	4	5	4	1	2			8
TOTAL SPECIES RECORDED BY TRACKS	0	1	1	4	0	2	5	0	3	0	1	0	2	2	6	0	0	0	0		0
TOTAL SPECIES OTHERWISE RECORDED	0	0	0	0	0	0	0	0	0	1	0	1	0	1	0	0	0	0	0		0
SPECIES RECORDED COUNT PERIOD	0	0	0	0	3	0	0	1	0	0	1	0	1	0	0	1	0	0	0		0
TOTAL SPECIES COUNT PERIOD AND DAY	2	9	5	6	9	8	8	4	6	7	6	1	10	5	10	6	4	1	2		8



SPECIES	MOOSE MOUNTAIN P.P. 2 JAN 2022	MORSE 15 DEC 2021	NEILBURG-MARSDEN 18 DEC 2021	NIPAWIN 30 DEC 2021	NISBET FOREST NORTHWEST 26 DEC 2021	NISBET FOREST WEST 2 JAN 2022	ODESSA 20 DEC 2021	OUTLOOK 2 JAN 2022	PIKE LAKE 3 JAN 2022	PRINCE ALBERT 19 DEC 2021	QU'APPELLE 2 JAN 2022	QU'APPELLE DAM 19 DEC 2021	REGINA 26 DEC 2021	ROSCOMMON S.D. 2 JAN 2022	ROSETOWN 18 DEC 2021	ROSTHERN 18 DEC 2021	ROULEAU 2 JAN 2022	ROUND LAKE (Q.V.) 22 DEC 2021	SALTCOATS 18 DEC 2021	
Shrew species										c										
Nuttall's Cottontail												1								
Snowshoe Hare			t	t		t	2		t	t	t	1	1					t		
White-tailed Jack Rabbit		5					6		1		t	1	77	1			9			
Least Chipmunk														2						
Eastern Grey Squirrel							4							2						
Eastern Fox Squirrel							2	1			13	1	50	3						1
American Red Squirrel			3	2		1			2	7		t		7		2		2	1	
Northern Flying-Squirrel																c				
American Beaver										L	L								L	
Deer Mouse											t		1							
Muskrat																	L			
Gapper's Red-Backed Vole																				
Meadow Vole																				
Vole species									t		t	t	t	t						
House Mouse							4													
Mouse species										t				t	t					
American Porcupine	1						2					3		4						
Coyote	1	7	t	t			4		2	t	2	3	5	4	3	1	3	2		
Gray Wolf																				
Red Fox			t	1		1	2	1	t	t	1	t	t	1	t	c	2			
Raccoon							2									c				
American Marten																				
Fisher																				
Ermine										t										
Long-tailed Weasel					c		1				t				t					
Least Weasel										t										
Weasel species				t									t	t						
American Mink															t					
American Badger																				
Striped Skunk																				
River Otter										t						c				
Mountain Lion																				
Canada Lynx										t										
Woodland Caribou																				
Mule Deer		32					25	3	t		3	34	37		21	26			5	
White-tailed Deer		66	12	15	c	3	40	2	21	12	27	10	26	31	5	3	2	163	6	
Deer species																				
Moose	1					t	4	1	3		c	3		4			1	2	1	
Elk															c					
Pronghorn		69																		
TOTALS SEEN/HEARD ON COUNT DAY	3	179	15	18	0	5	98	8	29	19	46	56	199	56	29	32	17	174	9	
TOTAL SPECIES SEEN/HEARD	3	5	2	3	0	3	13	5	5	2	5	8	8	9	3	4	5	5	4	
TOTAL SPECIES RECORDED BY TRACKS	0	0	3	3	0	2	0	0	4	8	5	4	3	4	2	0	0	1	0	
TOTAL SPECIES OTHERWISE RECORDED	0	0	0	0	0	0	0	0	0	1	1	0	0	0	0	0	1	1	0	
SPECIES RECORDED COUNT PERIOD	0	0	0	0	2	0	0	0	0	1	1	0	0	2	0	3	0	0	0	
TOTAL SPECIES COUNT PERIOD AND DAY	3	5	5	6	2	5	13	5	9	12	12	12	11	15	5	7	6	7	4	

SPECIES	SASK LANDING P.P. 21 DEC 2021	SASK RIVER FORKS 20 DEC 2021	SASKATOON 26 DEC 2021	SHAMROCK 4 JAN 2022	SHELL LAKE 31 DEC 2021	SNOWDEN 3 JAN 2022	SOUTH LADY LAKE 19 DEC 2021	SWIFT CURRENT 14 DEC 2021	TORCH RIVER VALLEY 28 DEC 2021	TURTLEFORD 28 DEC 2021	WATROUS 18 DEC 2021	WEYBURN 18 DEC 2021	WHITE BEAR 3 JAN 2022	WHITEWOOD 29 DEC 2021	YOUNG 5 JAN 2022	# INDIVIDUALS SEEN/HEARD COUNT DAY	# COUNTS SEEN/HEARD	# COUNTS RECORDED AS TRACKS	# COUNTS RECORDED AS OTHER	# COUNTS COUNT PERIOD	# COUNTS COUNT PERIOD & COUNT DAY
Shrew species						1										1	1	0	1	1	3
Nuttall's Cottontail	t			c			2						1			24	8	2	1	1	12
Snowshoe Hare		t	t			t	t		t	t				1		16	8	25	2	2	37
White-tailed Jack Rabbit	t		25	5								9	1	1		159	20	9	2	2	33
Least Chipmunk																0	0	0	1	1	2
Eastern Grey Squirrel								36								42	3	0	0	0	3
Eastern Fox Squirrel											7	8		1		141	17	1	0	0	18
American Red Squirrel		2	3		2	4	t		5	1				6		97	32	3	0	0	35
Northern Flying-Squirrel																1	1	0	1	1	3
American Beaver										L						0	0	0	7	0	7
Deer Mouse																1	1	3	0	0	4
Muskrat										L						1	1	0	2	0	3
Gapper's Red-Backed Vole																1	1	0	0	0	1
Meadow Vole			t				t									1	1	3	0	0	4
Vole species												t				0	0	12	0	0	12
House Mouse							t									4	1	2	0	0	3
Mouse species										t				t		1	1	11	0	0	12
American Porcupine	t															30	17	3	2	2	24
Coyote	t	t	1	2					c	1	5		2	2	1	108	35	11	3	3	52
Gray Wolf																0	0	0	1	1	2
Red Fox	1	2	1	1				t		1	2			1		41	28	12	2	2	44
Raccoon																4	2	1	1	1	5
American Marten																0	0	1	0	0	1
Fisher													t			0	0	2	0	0	2
Ermine														t		0	0	3	0	0	3
Long-tailed Weasel														t		3	3	4	1	1	9
Least Weasel																1	1	3	0	0	4
Weasel species													t	t		0	0	8	1	1	10
American Mink																1	1	3	1	1	6
American Badger														d	d	1	1	0	0	0	1
Striped Skunk																1	1	0	1	0	2
River Otter																5	2	2	1	1	6
Mountain Lion																1	1	0	0	0	1
Canada Lynx																0	0	2	0	0	2
Woodland Caribou															t	0	0	1	0	0	1
Mule Deer		9	9	29	2									31		778	42	1	1	1	45
White-tailed Deer	11	2	22	77	9	t			9	21		10	91		1589	64	1	2	2	69	
Deer species																2	1	0	0	0	1
Moose	t	3	1		5			t		t	3		1	3		70	26	8	5	5	44
Elk		5								t				t		5	1	4	2	2	9
Pronghorn	2															534	7	0	1	1	9
TOTALS SEEN/HEARD ON COUNT DAY	14	23	64	114	19	5	0	105	28	37	77	110	5	77	1	3664					
TOTAL SPECIES SEEN/HEARD	3	6	9	5	5	2	0	6	4	5	3	5	4	9	1	29					
TOTAL SPECIES RECORDED BY TRACKS	5	2	4	0	0	4	7	0	7	2	1	0	1	3	1			25			
TOTAL SPECIES OTHERWISE RECORDED	0	0	0	0	0	0	0	1	0	3	0	0	1	0	0				5		
SPECIES RECORDED COUNT PERIOD	0	0	0	1	0	0	1	0	0	0	0	0	0	0	0					19	
TOTAL SPECIES COUNT PERIOD AND DAY	8	8	13	6	5	6	7	8	11	10	4	5	6	12	2						40



# NOTEWORTHY BIRD SIGHTINGS IN WEST CENTRAL MANITOBA IN 2021

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A handful of noteworthy bird sightings occurred near The Pas, Manitoba in 2021. Gulls, a wren, thrushes, and waterfowl all made visits to an area where they are seldom seen.

On 12 May, the author found three California Gulls (*Larus californicus*) among the ring-billed gulls (*Larus delawarensis*) that frequent the dock area on the Saskatchewan River in The Pas. On 4 June, a lone California Gull was located at Sunset Beach in Clearwater Lake Provincial Park about 17 km north of The Pas. Though The Pas is at, or just north of the range indicated for California Gull in *The Birds of Manitoba*, and *Birds of The World, 2021* is the first year that I have located this species in the area, with more than 15 years of fairly diligent searching.<sup>1,2</sup> A search of eBird Canada only produced two recent nearby records for California Gull.<sup>3</sup>

On 20 June 2012, five were reported at Gyles Campground in Grass River Provincial Park, Manitoba, and two days later, 30 were reported at Denare Beach, Saskatchewan.<sup>3</sup>

On 22 May, the author photographed a Rock Wren (*Salpinctes obsoletus*) in a former gravel extraction area 14 km south of The Pas, Manitoba. As this was an unfamiliar species, and the individual was in worn plumage, identification assistance was sought and received from the manitobabirds@groups.io listserv. In a 2003 publication, the Manitoba Avian Research Committee mentions about a dozen occurrences



A Rock Wren was observed and photographed on 22 May 2021 in a former gravel extraction area 14 km south of The Pas, Manitoba. Photo credit: David Raitt.

for this species in southern Manitoba, including some multi-individual, and some multi-day records.<sup>1</sup> This publication also noted six occurrences for Rock Wren in the Churchill area including nesting evidence in 1956 and 1988.<sup>1</sup> A search of eBird Canada for Rock Wrens reported in Manitoba since 2003 revealed several sightings that can likely be grouped into four occurrences, the furthest north of which occurred in the southern part of Riding Mountain National Park, about 350 km south of The Pas.<sup>3</sup>

On 17 October, in a gravel pit 19 km northwest of The Pas, the author noticed two unfamiliar birds land

in a white birch (*Betula papyrifera*). Digital photographs were recorded and revealed a Townsend's Solitaire (*Myadestes townsendi*) and possibly a bluebird. Identification assistance was sought from the listserv manitobabirds@groups.io. Members of the group confirmed the second bird was a Mountain Bluebird (*Sialia currucoides*). A range map in a 2003 publication from the Manitoba Avian Research Committee indicates the Mountain Bluebird is a "rare migrant or visitor" in this area.<sup>1</sup> The same publication shows the Townsend's Solitaire as a "rare migrant of visitor" in Manitoba south of Riding



A Townsend's Solitaire was observed and photographed on 17 October 2021 in a gravel pit 19 km northwest of The Pas. Photo credit: David Raitt.

Mountain National Park, but also notes two Townsend's Solitaires at The Pas in 1994 from 11 to 17 December.<sup>1</sup>

On 30 October, the author observed a large number of Hooded Mergansers (*Lophodytes cucullatus*) on Grace Lake just east of The Pas. The birds were primarily in two large groups with some smaller groups also visible. Diving birds complicated the counting process, but after several scans with a spotting scope, a minimum count of 280 Hooded Mergansers was confidently achieved. Later in the day, the significance of this number of Hooded Mergansers

together became apparent with searches of reference material. *The Birds of Manitoba* states "flocks rarely exceed 20 birds at any season", and notes two concentrations in Manitoba of 65 birds, and a high count of 214 on 31 October 1998.<sup>1</sup> Regarding reports of large flocks, *Birds of the World* mentions 225 in Massachusetts in November 1964, and 730 in Minnesota in November 1993.<sup>4</sup> Viewing the birds on 31 October was complicated by near-freezing temperatures, snow, and poor visibility, but still produced a minimum count of 214 Hooded Mergansers. On 1 November, viewing

conditions were greatly improved, but many of the birds had either left the lake or retreated from the viewable area. A video recorded that day (showing the bulk of the visible Hooded Mergansers) shows that at least 125-130 Hooded Mergansers were still in the area.

On 1 November, while at Grace Lake documenting the Hooded Merganser group detailed above, the author observed five Surf Scoters (*Melanitta perspicillata*). This adds to the five records of this species in west central Manitoba detailed in a previous article.<sup>5</sup>

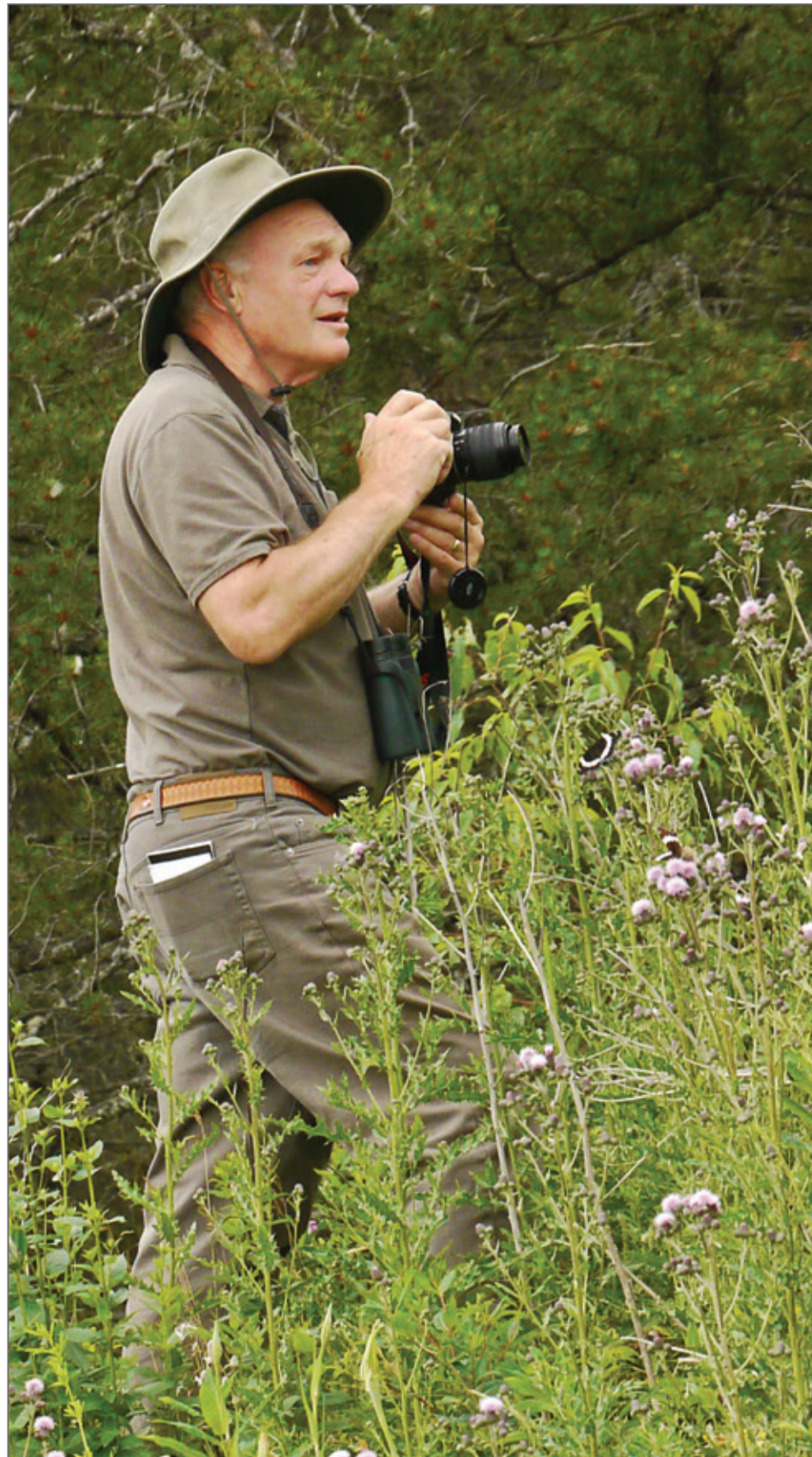
## Acknowledgements

Thank you to the administrators and participants in the manitobabirds@groups.io listserv who confirmed identifications, and volunteer their expertise for the better understanding of birds in Manitoba.

1. Manitoba Avian Research Committee (2003) *The Birds of Manitoba*. Manitoba Naturalists Society, Winnipeg, Manitoba.
2. Winkler DW (2020) California Gull (*Larus californicus*), version 1.0. In *Birds of the World* (A. F. Poole and F. B. Gill, Editors). Cornell Lab of Ornithology, Ithaca, NY, USA. <https://doi.org/10.2173/bow.calgul.01> (accessed February 18, 2022).
3. eBird (2022) eBird: An online database of bird distribution and abundance [web application]. eBird, Cornell Lab of Ornithology, Ithaca, New York. Available: <http://www.ebird.org>. (accessed Feb 22, 2022).
4. Dugger BD, Dugger KM, Fredrickson LH (2020) Hooded Merganser (*Lophodytes cucullatus*), version 1.0. In *Birds of the World* (A. F. Poole, Editor). Cornell Lab of Ornithology, Ithaca, NY, USA. <https://doi.org/10.2173/bow.hoomer.01> (accessed February 22, 2022).
5. Raitt D (2021) Noteworthy bird sightings in west central Manitoba in 2020. *Blue Jay* 79.2:5. 🐦



# A TRIBUTE TO RICHARD JOHN STANIFORTH (1946-2022)



Photographing butterflies, Agassiz Road near Milner Ridge, Manitoba, 2 July 2017. Photo credit: Peter Taylor.

Compiled by Peter Taylor with contributions from Garry Budyk, Andy Courcelles, Deanna Dodgson, Anita Drabek, Rudolf Koes and Gene Walz

With the passing of Richard Staniforth on 12 January 2022, Manitoba lost one of its pre-eminent naturalists, a friend and mentor to many.<sup>1</sup> Richard was born on 2 October 1946 in Sidmouth, England, and his mother instilled a lifelong, broad interest in nature for him and his siblings through long walks in the Devonshire countryside. Richard obtained his BSc in botany at the University of North Wales in Bangor. Here he met his future wife, Diana (Di), and they moved together to Canada in 1969. Richard attended the University of Western Ontario in London, receiving his PhD in Plant Biology in 1975. Richard and Di then moved to Winnipeg, where he taught botany and ecology for 32 years at the University of Winnipeg (UW). Richard made major contributions to the then-limited UW herbarium by collecting, cataloguing, and storing more than 6,500 specimens during his tenure. In recognition of this, the herbarium was named in his honour.<sup>2</sup> He was further recognized by UW with the Clifford J. Robson Memorial Award for Teaching Excellence, and eventually with the status of Professor Emeritus.

Richard inspired many students to take an interest in ecology and some made it their career. He was always a teacher, leading students to learn, and the teacher-student relationship was often a lifelong connection. More than 40 years ago, Anita Drabek attended his classes in his second year of teaching; three of her fellow students continued



Atlasing at Bain Lake, Manitoba with Rudolf Koes, 10 July 2013. Photo credit: Ken Poitras.

careers in botany and ecology. Anita undertook a 4th-year botany project with Richard, and reminisces that she owes her love of both plants and coffee to long, coffee-fueled discussions with him and another student. Over the years, they bumped into each other through other botanists and more recently through Nature Manitoba outings. He was a “people person,” remembering not just the plants, birds, and butterflies he saw but many of the people who crossed his path as well.

Richard’s interests in nature were varied, but ferns and other “primitive” plants drew his special attention. Our selective list of references includes several major, recent (post-retirement) publications on plant distribution in Manitoba,<sup>3-6</sup> as well as some earlier papers that may be of particular interest to readers.<sup>7-9</sup> A literature search — for example, using Google Scholar — will quickly reveal many of his more technical botanical papers. Richard’s knowledge of both plants and birds made him the ideal person to write an important chapter in *The Birds of Manitoba* on the province’s ecosystems and bird habitats, providing the botanical context that underpins most bird distribution.<sup>10</sup> He

also served on the Data Verification Sub-committee of the Manitoba Breeding Bird Atlas following completion of fieldwork in 2014 (see below).

From 2015 to 2019, Richard coordinated a project to compile a “five-year snapshot” of butterfly sightings in southeastern Manitoba. He spent countless hours converting emailed butterfly lists from many observers into a standardized format, and co-authored a resulting series of online articles.<sup>11</sup> Sadly, more detailed data analysis was incomplete at the time of his passing, though he remained engaged in this and other research interests right up to Christmas 2021.

While it is important for us to recognize Richard’s contributions to teaching, Canadian botany, and wider natural history, we also wish to share a few reminiscences of time spent with him.

Richard was an active contributor to the Manitoba Breeding Bird Atlas from 2010 to 2014. Rudolf Koes recalls atlas trips with him to a number of fishing lodges at remote northern lakes. “Besides looking for birds, Richard also usually acted as the driver of the boats we used, as well as entering data at the day’s

end. Whenever we landed at an island or shore, he would keep an eye open for ferns and other primitive plants. He discovered a new taxon for Manitoba, Northern Wood-Fern, as well as several other rare and localized ferns.<sup>6</sup> Among the memorable adventures we had was watching a wolf trot by while we were quietly resting on the ridge of an esker, landing on an island and finding Grizzly Bear tracks that were larger than the footprints of our boots, and having to be evacuated at a moment’s notice when a forest fire threatened our camp.” A note from one atlas trip about a Common Nighthawk feeding on year-old wolf scats, apparently as a source of calcium, is a testament to Richard’s inquiring mind.<sup>12</sup>

Richard was an eager participant in many field trips during the five-year butterfly project. On one such trip, a Bog Copper was found during lunch break. Richard was every bit as entertained by Peter Taylor’s efforts to communicate this find with a mouthful of ham sandwich as he was enthused by the butterfly itself. On another outing, on his home turf at Birds Hill Provincial Park, Richard led us to the intriguing local population of Alberta Arctic, considered by some to be a distinct subspecies or even a separate species. Richard was often in knee- to waist-high grass along a forest edge or in a ditch, which no doubt contributed greatly to the wood-tick count in any car he was traveling in! Invitations to a casual get-together in the Staniforths’ garden following some of these outings were graciously extended and immensely enjoyed by all.

Despite his battle with cancer and the almost fatal chemotherapy treatments, Richard retained his inspiring optimism, adventurous spirit, and sense of humour. Though he walked with great difficulty, he



continued to camp regularly in un-serviced campgrounds and to search for plants, birds and butterflies he'd not seen, boundlessly curious as always. If you were lucky enough to be with him and Di and found something he'd missed, he'd be quick with a compliment rather than a complaint about his misfortune. "Good for you!" he'd say with genuine enthusiasm. His sense of humour could be mischievous — as evident from the story Di told of the first weeks of their marriage. "How do you like your bacon cooked?" she asked. "In milk," he responded casually, to her eventual consternation. On any trip or outing Richard was the ultimate "boon companion."

Some of those trips had their hiccups. Richard had to MacGyver a fix for a broken trailer spring while on the road in Mexico, using duct tape and a piece of roadside rubber. A day or two down the road from that incident, he and Di talked their way out of a traffic ticket for making

a left turn on a questionably red light, all while speaking little Spanish. These stories and others were retold later with great humour and many laughs.

There was always a sense of adventure on these trips. Richard climbed the Mayan ruins in Palenque while Howler Monkeys roared, got up close and personal with a young *cocodrilo* in the mangrove swamps along the Tecolutla River, and searched a humid Costa Rican jungle for Great Green Macaws. He saw the magnificence of Machu Picchu, roamed the ancient Incan streets of Cusco, and walked among the ferns in an Andean cloud forest. And then there was the hair-raising 180-kilometre drive on the Manu Road down to the Rio Madre de Dios where boats waited to go further into the Upper Amazon Basin.

Underlying all those adventures was Richard's insatiable and infectious curiosity for the world around him. He is survived by Di, their four sons and five

grandchildren. We will all miss his enthusiastic words of encouragement and his sunny outlook on life.

1. Richard John Staniforth, October 2, 1946 - January 12, 2022. Obituary, Ethical Death Care, Winnipeg. <https://www.ethicaldeathcare.com/staniforth-richard>.
2. Avila G (2017). Richard Staniforth Herbarium (UWPG). University of Winnipeg. Occurrence dataset <https://doi.org/10.5886/ptli1e> accessed via GBIF.org on 2022-02-17.
3. Staniforth RJ (2011). Ophioglossid Ferns in Manitoba: moonworts, grapeferns and Northern Adder's-Tongue. *Blue Jay* 69(2):75-87.
4. Staniforth RJ (2012). The Lycopods (Phylum Lycopodiophyta); clubmosses, firmosses, spikemosses and quillworts, in Manitoba. *Blue Jay* 70(2):82-104.
5. Staniforth RJ (2013). Horsetails and scouring-rushes (*Equisetum* Spp.) in Manitoba. *Blue Jay* 71(1):48-67.
6. Staniforth RJ (2016). A new annotated list of Manitoba ferns (Spring, 2016). *Blue Jay* 74(3):6-11.
7. Staniforth RJ, Frego KA (1980). Flowering rush (*Butomus umbellatus*) in the Canadian prairies. *Canadian Field-Naturalist* 94(3):333-336.
8. Frego KA, Staniforth RJ (1986). Brittle Prickly-pear cactus, *Opuntia fragilis*, in the boreal forest of southeastern Manitoba. *Canadian Field-Naturalist* 100(2):229-236.
9. Staniforth RJ (2002). Effects of urbanization on bird populations in the Canadian Central Arctic. *Arctic* 55(1):87-93.
10. Staniforth RJ (2003). Ecosystems and bird habitats in Manitoba. Chapter in *The Birds of Manitoba*, Manitoba Avian Research Committee, Winnipeg, pp. 34-55.
11. Staniforth R, de March L, Dodgson D, Taylor P (2020-2021). A Snapshot of Butterflies in Southeast Manitoba: a citizen science project to record butterfly and skipper species and numbers (2015-2019). Compilation available online, courtesy of Nature Manitoba, at <https://www.naturemanitoba.ca/resources>.
12. Staniforth R, Koes R (2013). An observation of ground feeding and coprophagy by a Common Nighthawk in NW Manitoba. *Blue Jay* 71(3):132-134. 🦉



Up close and personal with a young crocodile, Tecolutla River, Mexico, 22 January 2008. Photo credit: Sam Courcelles.

## SNAIL SHELLS IN TREE SWALLOW NEST BOXES INTEREST THREE GENERATIONS OF BIRDERS

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My grandparents live on a property in the boreal transition zone on the north side of the Thickwood Hills, SK. The land has mixed forests as well as wetlands and hay fields. To supplement the natural habitat, 13 nest boxes have been installed, which have often been used by House Wrens (*Troglodytes aedon*) and Tree Swallows (*Tachycineta bicolor*). These nest boxes have been maintained and monitored for more than a decade. The authors are familiar with the stick nests of the House Wrens, as well as the grass and feather nests of the Tree Swallows. However, an unusual item was observed when cleaning out the nest boxes in November 2021. One of the Tree Swallow nests (Figure 1) included a number of snail shells, which were both spiral and planospiral in shape (Figure 2).

This was the first time that snail shells were observed in any of the nest boxes on the property. However, the Cornell Lab of Ornithology notes that Tree Swallows eat high-calcium items like fish bones, crayfish exoskeletons, clamshells, and eggshells during the breeding season.<sup>1</sup> Snail shells, being made of calcium carbonate, contain high levels of calcium.<sup>2</sup> There are seasonal wetlands approximately 200 m and 400 m from the nest box site. The water levels in these wetlands were much lower in 2021 than in past years and were mostly dry, save for a few puddles in the low spots. Although snails are not usually part of the Tree Swallow diet, we suggest that the low water levels in nearby wetlands presented an opportunity for these birds to collect the snails.



FIGURE 1: Tree Swallow nest removed from nest box. Photo credit: Jennifer Froese.



FIGURE 2: Snail shells retrieved from Tree Swallow nest. Dimple in paper towel is 2 mm. Photo credit: Jennifer Froese.

1. Cornell Lab of Ornithology. All About Birds, Tree Swallow. [https://www.allaboutbirds.org/guide/Tree\\_Swallow/lifehistory](https://www.allaboutbirds.org/guide/Tree_Swallow/lifehistory). Accessed November 15, 2021.

2. Toronto Public Library. Why do snails have shells? <https://kids.tpl.ca/wonders/1297>. Accessed December 28, 2021. 🦉



# A CONCERNED NATURALIST'S PERSPECTIVES ON SASKATCHEWAN'S AMENDED TRESPASS ACT

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With the 1 January 2022 enforcement of stringent amendments to Saskatchewan's *Trespass to Property Act*,<sup>1</sup> I recognize that elements of the federally enabled bird banding and hunting of migratory birds will be compromised. Having banded birds for 41 years and hunted waterfowl for as long and continuing, I recognize that the opportunistic or incidental element of banding and hunting will

be difficult if not impossible. This conflict would have been apparent to regulators only if they had consulted the people who actually hunt or band birds. If these and many other citizen-science and nature-related activities need to be curtailed in Saskatchewan, what are the reasons for it?

Wishing to save these activities in the province, I consulted my lawyer friend, Jake Watters, Watters Law Office, for what might be done to revise the legislation/regulations where they infringe on federal programs or the broader public good in Canada. I thought that the *Saskatchewan*

*Natural Resources Act* of 1930 may provide an obligation on the part of the Province to enable federal programs. This is apparently not so, on the contrary.

In the following, I describe the compromised opportunities. I also list other citizen science and nature experiences that will be difficult in practice and may be abandoned. I cite the impetus for the stringent amendments and explore their relations to governance and a democratic tradition in Saskatchewan. Finally, I provide 10 recommendations for reflection and further discussion, broadly including: reinstate support for enforcement, health and related services to address the determinants of crime; foster education and discussion by all people of Saskatchewan to explore solutions; find ways to identify people and their purposes when on the land through ATV licence plates, vehicle decals and personal identification; make a distinction between obligations and privileges on the part of land users and visitors on deeded compared to Crown land; and create an arbitration body to help resolve conflicts.

## Infringements on federal programs: Hunting and bird banding

Hunting of waterfowl falls under Canada's Migratory Birds Hunting Regulations. The federal permit states "Most provinces and territories have additional licence requirements for hunting migratory birds and/or to carry firearms. To know what you require and if there are further restrictions for hunting migratory birds, please verify the applicable regulations for the province/territory where you will be hunting. Municipalities may have additional restrictions on discharging firearms. Note that all required

permits and licences must be in your possession while you are hunting."<sup>2</sup>

It appears that the Federal Government assumes no responsibility to ensure that the activities it enables by selling a licence can actually be carried out. Where the amended *Trespass Act* reduces hunting opportunities, should the Federal Government then provide some accommodation: fewer licences sold in Saskatchewan, lower licence fees, an arbitration body to resolve conflicts?

An infringed waterfowl hunter's scenario can be as follows:

- Not shooting within the already excluded 500 m of an occupied dwelling without permission goes without saying (e.g. recommendation 7).
- Most, if not all, hunters obtain permission as they scout for flocks of geese/ducks and plan to get up the next morning to set up hundreds of decoys before sunrise. Permission ensures that hunters have the use of the field without interfering with one another.
- Much waterfowl hunting, however, is 'incidental.' Under the new *Trespass Act*, hunters would likely stop hunting in this incidental way; or, assume that their impact is so benign that basic human decency would accept it. In this way, hunters could become 'entrapped' by their own erring-on-the-generous-side reasoning.
- Personally, I have bagged many ducks while en route to or from my regular hunting area. When I spot ducks on a nearby pond that is not 'posted' and far from any dwelling, I park the vehicle and with dog at heel sneak up to the pond.
- Such 'incidental' hunting is also employed by upland bird hunters and big game hunters. It is one of the many ways in which hunters exercise their craft. Under the amended legislation:
  - I would need a cell phone.
  - The landowner must not be a

numbered company.

- I'd need an RM map or buy the iHunter app for my region along with a smart phone, and have enough signal strength.
- I'd need to be lucky enough to find the land-line phone number for the parcel, find the owner home and have him/her actually take the call.
- The landowner or lessee (25 per cent leased in 2018) would have to feel inclined to give permission when there is no incentive for a landowner to do so, apart from social tolerance/responsibility.
- It is not clear to me or my hunting friends whether we'd need permission from the owner, the lessee or both.
- In reality, there will only be a fraction of cases in which contact is made.
- While I look up and telephone, the ducks might have left.
- The attempt to reach a person will take as long or longer than some of these incidental hunting events themselves.

When the Minister is quoted saying "This government has worked hard to balance the rights of landowners in rural Saskatchewan with those of recreational land users," he is not setting a good example for Saskatchewan.<sup>1</sup>

Hunting provides economic benefit in Saskatchewan<sup>3</sup> and Canada.<sup>1</sup> Out-of-province hunters are cautioned to avoid Saskatchewan<sup>4</sup> and U.S. hunters do so citing difficulty of access.<sup>5</sup> Locally and internationally, hunters provide a voice for conservation,<sup>6</sup> they aid in managing crop damage, disease spread and road accidents,<sup>7</sup> they contribute to food security by harvesting and caring for their own meat<sup>8</sup> and their outdoor activity contributes to their own health and well-being.<sup>9</sup>

Although the North American model of wildlife management by strict public ownership has been successful, the prevailing hunter culture in Canada is struggling. As the

legislation illustrates, hunters are easily marginalized. Hunters suffer from too few youths entering the craft<sup>10</sup> and hunting appeals to fewer than 10 per cent of women.<sup>11,12</sup> Hunters would do well to expand their positive roles in society and strive for greater inclusivity socially and morally.

Canadians seem to be more accepting of hunting by Indigenous Peoples, possibly because the sustenance roles and more complete usage of animal parts are recognized and admired. In Canada's south, some hunted species thrive (e.g. geese) while others are in slow declines (e.g. pronghorn antelope). Wildlife is stressed by greater human densities and intense resource use, while climate change affects wildlife North and South.

There is a need for greater coordination of the two wildlife management cultures, the Indigenous built on experiential knowledge and the settler culture relying on rigorous but short-term surveys, for example. Combining both ways of knowing without one co-opting the other "... will help to achieve better-informed and more timely and effective decision-making on wildlife health and conservation."<sup>13</sup>

The conflict that exists between Indigenous and settler hunters in the south needs to be ameliorated for all of our benefits. It will require more genuine engagement from and toward both hunter approaches, and good governance and leadership more so than was exhibited in the current amended trespass scenario.

Can the people of Saskatchewan encourage future leaders to heal the divisions between Treaty rights, landowners/lessees and settler hunters? Can we foster a quality of life and wealth derived from the rural landscapes without marginalizing both hunting cultures, bird banders and all other nature enthusiasts? What can we learn from the events leading up to the amendment and how would we proceed?



FIGURE 1: On a hunting trip, Sharp-tailed Grouse flew across the road into an abandoned farm shelterbelt. The family was able to bag one more upland bird for supper, incidentally. Photo credit: G. McKay.



Bird Banding is also a federally regulated citizen-science activity with a valued history in North America. For an example of the benefits accruing to society, *Birds of Saskatchewan*<sup>14</sup> lists 225 Saskatchewan bird banders whose results are cited in the American Ornithologists Union's 716 species accounts. About three decades ago, the ornithologists union invited experts to produce 12-48 pages summarising the biology and conservation for each North American bird species.

Some of the detailed banding realities and conflicts are:

- When I asked the late Stuart Houston,<sup>15</sup> he said that overall he had permission to access land in rural Saskatchewan for about 80 per cent of his banding. As with hunting, driving to a tree or cliff nest with ladders, climbing ropes and other banding tools year after year, banders 'want' to let the landowner/lessee know. These banders have the landowner/lessee on speed dial and the children sometimes come along.
- As with duck hunting, nests found incidentally while driving from A to B can offer a quick stop for banding.
- There will be times when a bander has permission, and lo and behold, the pair of birds nested across the fence. Or, a nestling may fly prematurely and fly across the fence. This puts a bander into a moral/legal bind, a trap.

I asked Martin Gerard who had taken over Stuart Houston's Great-horned Owl banding area. Martin has devoted his own precious time and money to band; some 160 young owls in 2021 alone. He expects the updated legislation to affect his banding negatively.

The new legislation will 'needlessly' hinder hunting, citizen science and enjoyment of our outdoors. The updated act apparently includes no consideration of the negative

consequences arising from stopping people's legal activities in nature. There is no onus on the landowner/lessee, even on public land, to consider permission responsibly. There is no democratic recourse if benign access is needlessly denied.

In a related science scenario, a researcher from the University of Saskatchewan asked for permission to study grassland recovery from the fires in southwest Saskatchewan in 2017. The lessee denied access citing privacy as a reason.

The five legal experts I had asked various specific questions were clear. Given existing legislation, there is little a non-Indigenous person can do by way of a legal challenge. They all reminded me that the solution lies in the political arena not the legal one. If a person is charged, it is advisable to keep careful records of the event because at times the process is flawed and can be challenged in that way.

Several of the above concerns were also echoed by five interviewees representing First Nation, rural

administration and sociologists in Saskatchewan.<sup>16</sup> The Crown's failure violates my own sense of pride of living in Saskatchewan. It erodes my feeling of social capital. I'm deeply disappointed in what strikes me as a misplaced sense of entitlement in rural Saskatchewan.

### Who called for the draconian amendments to land access and why?

Banding birds and hunting migratory birds are unique because they are federal, really North America-wide, programs. The impediment by the amended act goes much deeper. It is potentially impacting every Saskatchewan citizen regardless of gender and age, even landowner/lessees themselves. In 1996, Canadians spent \$11.7 billion in nature-related activities.<sup>17</sup> In Saskatchewan alone, people spent \$763 annually on average, \$59 more than the Canadian average.

Nature-related activities that will be impacted/denied include:

- ATV travel
- Some species identification needs on Christmas bird counts and breeding bird surveys
- Collecting nature products for arts and crafts
- Crossing land for safety's sake (e.g. accidents), or to reach permitted areas
- Hiking, cross-country skiing, snowshoeing
- Horseback riding
- Outdoor education
- Picnicking
- Spontaneous nature exploration/observation
- Wild plant harvest (e.g., mushroom, medicinal plants, berries).

Rural, and city, misdemeanors and crimes are real and apparently increasing. Even if not a misdemeanor, it is disconcerting to hear shots fired or ATVs near ones rural home without knowing who is about, why and where. There are already good

regulations to minimize shooting discomforts and signage is the gold standard for guiding people.

Institutional support is needed to stop breaches through adequate funding for enforcement and addressing the root causes of crime (e.g. recommendation 1). It is dangerous to put enforcement into the hands of a landowner/lessee who rarely has the expertise to handle people and doesn't always know the law. For example, participants in a basket-weaving workshop were told by a nearby resident to cease willow-material collecting in a road ditch (personal communication; e.g. recommendation 6).

As an example of deliberate harm, a 2019 letter to the Editor<sup>18</sup> reported shots fired into a farm from a road after dark, by a shooter presumed to be a hunter. The author called for additional legislation when in reality at least three regulations were already broken. It is doubtful that a fourth would have deterred.

In another letter,<sup>19</sup> a farmer reported \$40,000 worth of canola stolen from his grain bin. The perpetrators in both examples were wilfully risking damage and injury to humans and livestock, and major theft. Regarding grain theft, the president of the Saskatchewan Association of Rural Municipalities suggested better community surveillance (e.g. recommendation 4), electronic monitoring devices and mixing numbered confetti with grain. Trespass legislation was hailed as a solution without explaining how so.

In the above grain-theft example, the farmer placed an ad in the local newspaper to alert other farmers of the threat in the area. Are there additional options to boost rural surveillance by enlisting visitors to land? In his letter to Minister Don Morgan, Dave Harvey wrote<sup>20</sup> "After managing the Turn-In-Poacher program for 24 years I can advise you that a great percentage of the

more than 1,000 calls generated annually through that program come from outdoor recreationalists whose numbers will be greatly reduced through this proposed legislation. It is my belief that reducing or eliminating law-abiding people such as hunters, snowmobilers and bird watchers from rural Saskatchewan will greatly reduce the 'eyes and ears' the police, conservation officers and landowners now count on to report suspicious activities" (e.g. recommendation 4).

Three agricultural industry associations and some, but not all, rural municipalities have been lobbying for stricter trespass legislation. At a policy meeting of the Agricultural Producers Association of Saskatchewan in 2019, a former board member introduced me to a sitting member of the board, with the suggestion "Could we not have a standing permission for benign access for licensed hunters..." The member simply said that commercial outfitters in his area have no problem asking for permission. Outfitters paid landowners in four per cent of access arrangements according to Bath and Engel's survey.<sup>21</sup> Actually, hunting outfitters and trappers do have concerns about access.<sup>22</sup>

The Saskatchewan Prairie Conservation Action Plan forum is a laudable initiative aiming to bring together "a diverse mix of stakeholders [to] benefit the social, cultural, economic and ecological fabric of Saskatchewan."<sup>23</sup> In a randomly executed questionnaire of people in Saskatchewan commissioned by the forum, 59 per cent stated that native prairie is "very important" to them, and 96 per cent at least "somewhat important."<sup>24</sup> When I encouraged a discussion about the amendment, a representative from the Saskatchewan Cattlemen's Association said "We've been pushing for this for so long, we are not backing down."

Biosecurity is often cited for keeping people from taking a walk in



FIGURE 2: For many Canadians, hunting waterfowl provides wild food, exercise and recreation. Photo credit: V. Marriott.





FIGURE 3: Bird banding is practiced world-wide for science and conservation. Photo credit: J. Foster.

the countryside. Intensive Livestock Operations require strict entry protocols to avoid disease agents affecting vulnerable pigs and poultry. These premises are labeled and access is prevented in various ways. It goes without saying that someone breaking into a bio-secure building with malice should be dealt with using existing laws.

Risk from weed seeds and soil borne pathogens such as clubroot is often mentioned. Clubroot is a disease of canola that arises from shortened crop rotations.<sup>25</sup> Clubroot is spread by wind and water. It does not live in grassland and can be removed from fields by seeding infested parts to hay.<sup>26</sup> Clubroot control requires coordinated action and it could be treated as a reportable disease, and then infected fields would be identified and avoided via signs (e.g. recommendation 1). Of over 700 fields

sampled in 2021, 118 had portions with clubroot. These infected fields exist in clusters primarily in the NW portion of Saskatchewan's agricultural zone. The report describes a small increase in incidence but the "...infection rate is still low."<sup>27</sup>

In sum, clubroot only occurs in the cultivated zone in Saskatchewan, only on 17 per cent of tested fields and then only on portions of these fields. On that basis it is said that 90 per cent of the people of Saskatchewan need to have their mobility restricted with threat of a \$5,000 fine for simply stepping on a field or even pasture. By all accounts, this constitutes overreach.

In contrast to clubroot, as of 2015, hantavirus pathogens have caused 27 human deaths in Canada.<sup>28</sup> The virus is carried by rodents, can become airborne particularly in and around granaries and clings to clothing or other surfaces. Yet, apparently no one

has suggested that people from farms would not be allowed to come to cities without permission.

Despite the frequent citing of biosecurity, farmers, cattle producers and ranchers surveyed by Bath and Engel,<sup>21</sup> appeared more in line with the evidence and gave biosecurity only three per cent among 18 reasons for posting land.

### Public and private, and whose freedom?

Among the 18 queries by Bath and Engel,<sup>21</sup> the highest ranked reason (37 per cent) for posting land was for "control who is on land." This suggests a feeling of vulnerability likely aggravated by increasing crime rates. Or, it may simply reflect wanting to be in control, likely both. Are there things happening on Saskatchewan's lands that need to be kept from public view?

The language commonly used

rarely gives due consideration to the impact on 'others,' that is, the 90 per cent who also live in Saskatchewan and also contribute to the provincial fabric but are not rural, nor own or lease land. When the Bath and Engel<sup>21</sup> survey asked rural participants to rank the importance of different land uses, crop, livestock and hay all received 90 per cent importance, while bird watching and hiking received barely 50 per cent importance along with ATV use. How did we come to this low level of regard for the interests of other citizens in Saskatchewan (e.g. recommendation 3)?

In their list of nine values in the website section About Us, the Saskatchewan Stock Growers Association aims to speak for all Saskatchewan producers using words: independent, unencumbered and free market, plus free or freedom four times. This is a cavalier disregard for the other 90 per cent who had their freedom diminished. Even the landowner/lessee has lost some 'freedom' because she/he can no longer decide to take a liberal approach to access without time and money spent for signage.

With regard to free markets, when Pope Francis encouraged "...all of us to take personal responsibility and redirect our relationship with nature to ensure the future habitability and sustainability of this planet,"<sup>29</sup> his call stimulated discussion worldwide. In one such radio discussion the panel concluded that truly 'free markets' only exist in the underground, the illicit drug trade.

Despite the Stock Growers Association stressing words like unencumbered and free, they are unlikely to abandon the safety net we all enjoy. Alternative visions for managing the arid prairie core in Saskatchewan exist. At one extreme, there are those who propose a version of the Buffalo Commons concept,<sup>30</sup> whereby we'd save the costs of roads, powerlines and fences in the arid core

of the Palliser Triangle, dismantle the social safety net we now have and return the region to free-roaming bison. On the other extreme are calls that if city people want native landscapes, wildlife, clean water and air, they'd better pay ranchers for it. Actually, if the predictions were right, the Buffalo Commons concepts would provide those services at less cost.

If a survey was properly constructed, I strongly suspect that the people of Saskatchewan would opt for neither extreme. Ranchers benefit greatly from our institutions and provide ecological services simply by managing cattle and grass for their livelihood. Furthermore, ranching is part of our history. It originated in Asia along with horse domestication, was expanded upon in Spain and adapted once more in North America.<sup>31</sup> It has emerged as a cultural heritage we value and support.

Saskatchewan has a tradition of bolstering its agricultural producers as a cornerstone of the provincial economy. Has this gone too far? Is this image overblown leading to overconfidence and, yes, arrogance?

The context surrounding land ownership would be different in Saskatchewan without our collective institutional support of it. For example, land grabbing is operating world-wide<sup>32</sup> and threatens to raise land prices and possibly put these out of reach for farm/ranch livelihoods. To protect landowners/lessees in Saskatchewan from this land speculation, land purchases by non-residents are restricted.<sup>33</sup> This constitutes protection of the agricultural sector by all of the people of Saskatchewan, as it should.

Due to drought, the Saskatchewan Government reached into general revenue to provide unexpected relief for crop insurance payouts and livestock producer support, to the tune of \$2.4 billion.<sup>34</sup> Most people in Saskatchewan understand that wealth is a complex and fluid entity. When

things go awry, human decency would dictate that equity is shared across sectors. It rankles, when one deeply needy sector then turns around and demands that the other 90 per cent shall not be able to photograph the sunset from a hill without permission; this even on the Crown land we all own (e.g. recommendation 5).

These and many other support programs are important and should be continued. Yet, when we talk about the rights of landholders, there is a tenuous thread we are holding onto. A heightened level of modesty and appreciation of the roles of others would be helpful (e.g. recommendation 3).

How to mesh landownership and a basic human right has been examined and re-examined. Plato rejected the notion of private property in land; the American economist Henry George called it a "...bold, bare, enormous wrong," and Chief Crowfoot of the Siksika First Nation of Alberta pointed out that land "was put there by the Great Spirit and we cannot sell it *per se* because it really does not belong to us."<sup>35</sup>

Providing labour and investment and thereby gaining a legitimate livelihood from land, surely is the crux of the matter. It's not so much about owning the 30 cm soil layers themselves. Land is the basis for wealth creation which everyone wants. No one should be allowed to stand in the way of people deriving an orderly livelihood from agricultural or range land. A landowners' equipment and security also must not be threatened (e.g. recommendation 1).

The Finns, Swedes and Norwegians seem to have the concept between self and other amazingly well worked out. All three countries permit responsible access to virtually all of the countryside. In Sweden, there is no detailed prescription of rights and responsibilities, as is the reasonable approach in Scotland. Swedish people pride themselves of having the social





**FIGURE 4:** The Treaty Land Sharing Network uses a website and related contact information to bring people together for sharing our beautiful province. Photo credit: J. Schmutz.

capital required to balance landowner needs and responsible roaming. They've made the decision and moved on (e.g. recommendation 3).

### Does it deserve to be called a consultation?

When the then Minister of Justice launched what was called a consultation, it was an invitation for the people of Saskatchewan to weigh in with their opinions; or was it? One challenge in executing proper surveys includes how to decide on the target audience that corresponds to the survey's goal, and how to reach the audience effectively. How well did the Ministry do in this regard?

The Government of Saskatchewan invited members of the public in August 2018 to "Have your say," due by 1 October 2018.<sup>36</sup> The web announcement yielded 1,601

responses. One per cent had to have some text redacted for unacceptable language; 65 per cent of respondents were in favour of requiring permission for land access, 32 per cent opposed and three per cent inconclusive.<sup>37</sup> The Ministry's website asked simply for "public input." There was no information given on how widely the responses reflected the so-called public.

A second survey, conducted by Bath and Engel,<sup>21</sup> had promise had it not been biased in favour of rural interests. In a pre-meeting to design the eventual survey questions, two Ministry of Environment directors and 30 members of the Agricultural Producers Association of Saskatchewan, the Saskatchewan Cattlemen's Association, the Saskatchewan Association of Rural Municipalities and the Saskatchewan Stock Growers Association were asked for input, but not the Saskatchewan

Wildlife Federation nor any other group.

The participant breakdown of the final survey was as follows. Bath and Engel<sup>21</sup> invited 731 respondents: 157 (21 per cent) were attendees at a Saskatchewan Association of Rural Municipalities conference, 307 (42 per cent) were members of the Saskatchewan Cattlemen's Association, 181 (25 per cent) were members of the Saskatchewan Wildlife Federation and 86 (12 per cent) were randomly drawn from the Saskatchewan Ministry of Environment hunting-license database. Only 13 per cent of the respondents were women. Fifty per cent of the respondents were 55 years or older.

With the planned inclusion of 63 per cent rural landowners/lessees who themselves lobbied for more stringent trespass legislation, the outcome was

a foregone conclusion. Bath and Engel state "In general, participants agreed that the public must ask for permission prior to entering private land and that landowners have the right to decide who enters the land."

Actually, the so-called public was never asked. Both surveys fail the standards expected for meaningful analysis. There was no attempt by the Government to ask those people in Saskatchewan who paid \$763 annually to experience nature. Were they actively avoided? The legal, social and economic experts in Saskatchewan universities and colleges were also not consulted.

Should Saskatchewan's youth have been included, or at least their interests in the outcome considered, by consulting the Saskatchewan Outdoor and Environmental Education Association and Saskatchewan Teachers' Federation? Our youths need to live with the divisions this biased consultation has brought us.

In fairness to Bath and Engel,<sup>21</sup> they did not insinuate that theirs was the last word. The authors may have had limited leeway to be objective. The landowners and limited hunter sample does not constitute Saskatchewan's public. Also, access takes many forms. Much of the land is Crown-lease and not 'privately owned.' The authors did add some required provisos and ended the report with the encouragement of more work under the heading "future directions."

One of Bath and Engel's<sup>21</sup> five recommendation called for the implementation of a new questionnaire to obtain input from Saskatchewan's First Nations. One of the reasons why the study participants denied access by posting land was "Concern with First Nations." This was the third highest response among the 18, at approximately eight per cent. Whether the response reflects a concern for the rights of First Nations in Saskatchewan, or an effort to exclude First Nations is an open

question.

Regarding the omission of First Nation input, Gunn and McIvor write: "The Crown's failure to honour the promises it made to Indigenous Peoples pursuant to the historic treaties is one of the most significant barriers to reconciliation today. This was recently made clear when the Province of Saskatchewan introduced amendments to provincial trespassing laws which would impose new limits on Indigenous Peoples' treaty right to hunt."<sup>38</sup>

On 15 February 2022, the Office of the Treaty Commissioner notified the Saskatchewan Minister of Agriculture of several Treaty breaches.<sup>39</sup> The Commissioner further stated that the First Nations will pursue litigation if these breaches and the revised trespass legislation are not ceased.

The Saskatchewan Government's consultation did not live up to governance in the 21st century. Instead of cutting rural services<sup>40,41</sup> "Why not tackle the rural crime issue by focusing on the social determinants of health? We should be talking about income inequality, the collapse of social programs, and addictions that lead people to crime."<sup>16</sup>

The highest overarching principles in Canada might be the POGG principle, Peace, Order and Good Governance. When 10 per cent of a population excludes 90 per cent, or makes it so difficult to be effectively excluded from Crown land they all own, this cannot be called order nor good governance. There are many professional people, who, by virtue of their organization's professional standards, would be in danger of losing their accreditation for violations of those standards. Do these expectations of teachers, nurses and electrical engineers carry over into industry associations also? ... to municipal governance? provincial governance?

When the Saskatchewan Government was challenged that the

survey did not use well-established procedures, the government acknowledged this shortcoming and simply said it wanted a mere "snapshot of public opinion."<sup>16</sup> Even Minister Don Morgan, who oversaw the blanket restrictions to access, agreed that we should not "... assume that this is going to cure rural crime."<sup>42</sup>

Does Minister Morgan feel the trespass amendment was the wrong choice? Did he feel coerced by the rural organization claiming to speak for all of Saskatchewan; ... coerced by his own caucus?

I'm aware of two high-profile cases where the courts became involved in administrative decisions that caused harm. After the 2012 earthquake in central Italy, seven seismologists were sentenced to six years in prison when they could see but downplayed the warning signs. The earthquake killed more than 300 people.<sup>43</sup> Also, late in 2020, relatives claimed criminally negligent homicide when a Mexican health undersecretary allegedly failed to avoid two preventable deaths by not imposing restrictions to guard against COVID-19. The attorney general declined to investigate but the judge ordered an examination of possible omissions.<sup>44</sup> Both of these cases are from outside of Canada and seem extreme attempts to apply the law. They do illustrate how people can struggle to find meaningful recourse in situations where the political arena repeatedly fails.

Murray Mandryk writes "Credit the Sask. Party government's 48 MLAs — 29 of whom are from the province's 29 rural seats — for being attuned to this rural issue. But the question is: Can a government become too attuned to the issues and/or perspectives of one particular demographic?"<sup>45</sup>

What can we do to return a province to a level of respect and social conscience that is informed by more than personal wants, rural and urban, landowner and homeless?



Saskatchewan was the province with strong social traditions and care for people's security, livelihoods and quality of life. How can we revive the social democratic principles that put Saskatchewan on the map in the Tommy Douglas years?<sup>46</sup>

### Fortunately for Saskatchewan

I sense a disconnect between people and the organizations purporting to speak for the members' interests. If 10 per cent of Saskatchewan's million-plus people are farmers and ranchers, and 731 responded to the Bath and Engel survey, how do the other 9,269 farmers and ranchers feel? ...how do the 90 per cent of people in towns, cities and Saskatchewan's North feel?

On two recent hunting outings, I approached landowners who'd placed aggressively worded signs on the pasture's gate. Both were perfectly amenable to grant hunting access. There appears to be a sense of vulnerability bolstered by too many incidents of misdemeanors in rural areas. The root causes of these uncertainties and vulnerabilities need to be addressed.

In my Saskatchewan experience hunting, living in the country, working closely with other academics, farmers and ranchers in the Prairie Ecosystem Study<sup>47</sup> and helping lead the Important Bird Areas Program in Saskatchewan,<sup>48</sup> all is not lost.

I've met many Saskatchewan people with a healthy sense of care and responsibility, a great sense of humour and a willingness to listen to an alternative way of looking at things. I've met many rural people who have taught me valuable lessons and new perspectives. There is hope for us all. We must not let purely private and angry interests sway the course. Can we put the protection of persons and property in rural (and urban) Saskatchewan back on a professional and responsible course?

### Recommendations

The following recommendations are intended for reflection and further discussion.

1. Reinstate<sup>40</sup> and expand professional and administration support and social services to combat disturbances, theft and crime in rural areas.<sup>49,50</sup>
2. Review education curricula and expand opportunities for an exploration of privilege and responsibility in society, democracy, multiculturalism and the voluntary sector in Saskatchewan.
3. Encourage open communication between the people of Saskatchewan. People should find common ground and hold their organizations and all levels of government to account for the decisions they make. The people of Saskatchewan must not let narrow self-interest predominate in decision making that affects us all and future generations. Provide quality information for landowners/lessees and visitors how to be good neighbours.
4. Find ways to make identity and purpose for being on land explicit: licence plates for quads and snowmobiles. Use vehicle stickers to identify licence holders' number such as hunters, bird banders; orange hats with insertable licence numbers and the like. Strengthen the role of observers on the land.
5. Make a distinction between deeded land and Crown land in the way privilege and responsibilities are allocated and land is shared.
6. Create an arbitration body to prevent unwarranted denial of access to Crown land, see traffic court model.
7. Expand from 0.5 to 1 km the distance from occupied dwellings within which shooting is prohibited without permission.
8. Explore and possibly adopt promising European approaches to managing land access.<sup>35</sup>

9. Keep wildlife in the public domain, under evidence-based management serving a comprehensive sweep of needs, from local to international.
10. Tie eligibility for agricultural support programs (e.g. insurance for crop damage) and other privileges to access for hunting, hiking, wild food collection, nature experiences and outdoor education.<sup>51</sup>

### Acknowledgements

I am grateful to 23 individuals who have provided helpful advice on earlier versions of this article.

1. Sciarpetti L (2021) Changes to Sask. trespassing laws come into effect Jan. 1, will require permission to access land: Hunters, fishers, hikers, snowmobilers could be affected by amendments to provincial trespassing act. <https://www.cbc.ca/news/canada/saskatchewan/people-must-ask-rural-sask-property-owners-for-permission-to-access-property-1.6288061> (accessed 16 December 2021).
2. <https://www.canada.ca/en/environment-climate-change/services/migratory-game-bird-hunting/regulations-provincial-territorial-summaries/saskatchewan.html> (accessed 22 January 2022).
3. Cross B (2007) Hunters spend big bucks in Saskatchewan. *Western Producer* 85(2):33.
4. Schwanky T.J (2019) Entry issues: A revamp of Saskatchewan's trespass laws could hurt hunters. *Outdoor Canada* 47(2):11-12.
5. Wildlife Habitat Canada (2021) Previous Poll Results. <https://mailchi.mp/whc.org/fall-2021?e=c04b274fdd> (accessed 22 January 2022).
6. Keim B (2018) As hunting dwindles, who will pay for wildlife conservation? <http://www.anthropocenemagazine.org/2018/09/do-birders-buy-duck-stamps> (accessed 26 September 2018).
7. Ascensão F, Barrientos R, D'Amico M (2021) Wildlife collisions put a dent in road safety. *Science* 374(6572):1208.
8. Saladino D. (2022) Eating to Extinction. Farrar Straus and Giroux, New York, 464 pp.
9. Calum N, Gerard J, Arbuthnott KD (2018) Nature contact and mood benefits: contact duration and mood type. *Positive Psychology*. <https://www.tandfonline.com/doi/full/10.1080/17439760.2018.1557242> (accessed 16 December 2018).
10. Nelson D (2008) Hunter participation continues long-term retreat. *Delta Waterfowl* 14(1):36-43.
11. Filion FL, DuWors E, Boxall P, Bouchard P, Reid R, Gray PA, Alistair Bath A, Jacquemot A, Legare G (1993) The importance of wildlife to Canadians: Highlights of the 1991 survey. Environment Canada, Supplies and Services, Ottawa, 60 pp.
12. Heberlein TA, Serup B, Ericsson G (2008) Female Hunting Participation in North America and Europe. *Human Dimensions of Wildlife* 13:443-458.
13. Kutz S, Tomaselli M (2019) "Two-eyed seeing" supports wildlife health. *Science* 364(6446):1135-1137.
14. Smith AR, Houston CS, Roy JF, Eds (2019) The Birds of Saskatchewan. Nature Saskatchewan, Regina, SK. 765 pp.
15. Dekay W (2021) Doctor had lifelong love of birds. *Western Producer* 99(32):12.
16. CBC News (2018) Opinion: 5 takes on tougher rural trespassing laws in Saskatchewan. <https://www.cbc.ca/news/canada/saskatchewan/5-takes-on-tougher-rural-trespassing-laws-in-saskatchewan-1.4915183> (accessed 22 November 2018).
17. DuWors E, Villeneuve M, Filion FL, Reid R, Bouchard P, Legg D, Boxall P, Williamson T, Bath A, Meis S (1999) The importance of nature to Canadians: Survey highlights. Environment Canada, Supplies and Services, Ottawa. 55 pp.
18. Jansen D (2019) Letters: Laws not working on wayward hunters. *Western Producer* 97(16):12.
19. Dekay W (2022) Farmer issues warning after theft. *Western Producer* 100(4):1 & 4-5.
20. 9 December 2018, 3 pp.
21. Bath A, Engel M (2018) Public Opinions About Access on Private Land in Saskatchewan. Bath and Associates Ltd., Middle Cove, NL, 31 pp.
22. Pearce N (2020) Reduced access to wildlife lands worries some trappers, outfitters. <https://thestarphoenix.com/news/local-news/reduced-access-to-wildlife-lands-worries-some-trappers-outfitters?fbclid=IwAR2CTIX13NOlyBCcNe8qvlVYbrpxmUfxOxdZ98i55vd4VF16DEyflQjxfJk> (accessed 30 September 2020).
23. <https://www.pcap-sk.org> (accessed 16 Feb 2022).
24. Saskatchewan Prairie Conservation Action Plan (2013) Public Awareness of Saskatchewan's Native Prairie and Ecological Goods and Services. SK Prairie Conservation Action Plan Newsletter (accessed 30 March 2013).
25. Duckworth B (2019) Balance urged with rotation between profit, productivity. *Western Producer* 97(16):62.
26. Dekay W (2019) RMs told they play a key role in clubroot battle. *Western Producer* 97(16):57.
27. Cross B (2022) Clubroot infection rate grows slightly. *Western Producer* 100(2):3.
28. <https://www.canada.ca/en/public-health/services/diseases/hantaviruses.html> (accessed 2 March 2022).
29. McNutt M (2014) The Pope tackles sustainability. *Science* 345(6203):1429.
30. <https://gprc.org/research/buffalo-commons/> (accessed 2 March 2022).
31. Jordan TG (1993) North American Cattle-ranching Frontiers: Origins, Diffusions and Differentiation. University of New Mexico Press, Albuquerque, NM. 439 pp.
32. Rulli MC, Saviori A, and D'Odorico P (2013) Global land and water grabbing. *Proceedings of the National Academy of Sciences* 110(3):892-897.
33. Farm Land Security Board (No Date) Saskatchewan Farm Ownership Exemption Information Package (accessed 22 February 2022).
34. Anton J (2021) Crop insurance claims push Sask. into record \$2.7B deficit: mid-year financial report. <https://www.cbc.ca/news/canada/saskatchewan/crop-insurance-claims-push-2-7b-deficit-1.6266420> (accessed 29 November 2021).
35. Ilgunas K (2017) This Land is Our Land: How We Lost the Right to Roam and How to Take it Back. Penguin Random House LLC, New York. 272 pp.
36. [https://pubsaskdev.blob.core.windows.net/pubsask-prod/107841/107841-Consultation\\_Paper\\_on\\_Trespass\\_to\\_Property\\_-\\_August\\_7\\_2018.pdf](https://pubsaskdev.blob.core.windows.net/pubsask-prod/107841/107841-Consultation_Paper_on_Trespass_to_Property_-_August_7_2018.pdf) (accessed 22 February 2022).
37. Fraser DC (2018) New trespassing law will mean you have to seek permission before accessing land. <https://leaderpost.com/news/saskatchewan/new-trespassing-law-will-mean-you-have-to-look-for-permission-before-accessing-land> (accessed 27 November 2018).
38. Gunn K, Mclvor B (2018) Trespassing on Treaty Rights: Saskatchewan's Proposed Restrictions on Access. <https://www.firstpeopleslaw.com/index/articles/380.php> (accessed 12 October 2018).
39. Pearce, N (2022) "FSIN, Treaty Commissioner signal possible legal challenge to Sask. trespassing law. <https://thestarphoenix.com/news/local-news/fsin-treaty-commissioner-signal-possible-legal-challenge-to-sask-trespassing-law> (accessed 23 February 2022).
40. Spasoff P (2019) "Changes To Service Delivery For Environment Offices " <https://www.saskatchewan.ca/government/news-and-media/2019/march/14/environment-office-changes> (accessed 22 February 2022).
41. Booker R (2019) Report weighs rural crime problem. Former prosecutor finds inadequate response from law enforcement when crime occurs. *Western Producer* 97(14):66-67.
42. Taylor S (2018) Majority surveyed in Sask. want consent mandatory to go on rural land: government. <https://www.cbc.ca/news/canada/saskatchewan/saskatchewan-trespassing-law-1.4906887> (accessed 15 November 2018).
43. Cartlidge E (2014) Human activity may have triggered fatal Italian earthquakes, panel says. *Science* 344(6180):141.
44. Science-News Staff (2022) Mexico's COVID-19 chief probed. *Science* 375(6579):363.
45. Mandryk M (2019) Mandryk: Appeasing country and irritating cities strange Sask. Party strategy. <https://leaderpost.com/opinion/columnists/appeasing-country-and-irritating-cities-strange-sask-party-strategy> (accessed 1 December 2018).
46. Houston CS, Waiser B (2010) Tommy's Team: The People Behind the Douglas Years. Fifth House Ltd., Markham, ON. 249 pp.
47. Irvine DG, Kristjanson JA, Robertson SM (1997) PECOS: 150 person-years experience in teaching, learning and conducting interdisciplinary research on ecosystem sustainability." Pages 95-113 in JL Usó, CA Brebbia and H Power, Eds. Ecosystems and Sustainable Development. Volume 1, Advances in Ecological Science, Computational Mechanics Publication, Boston, MA. 704 pp.
48. Schmutz JK (2003) Important Bird Areas of Saskatchewan. *Blue Jay* 61(4):193-198.
49. Simes J (2018) Rural crime rate drops in Alberta. <https://www.producer.com/2018/11/rural-crime-rate-drops-in-alberta> (accessed 22 February 2022).
50. Hutchins A (2018) What's killing rural Canada. Crime, opioid abuse, boarded-up businesses and fleeing populations are destroying the country's heartland. Can small-town life be saved?" <https://www.macleans.ca/killing-rural-canada/> (accessed 5 January 2019).
51. Glen B (2019) Alta. extends grazing leases. Producers must show exemplary stewardship to qualify for 20-year leases on public land. *Western Producer* 97(31):52. 🐾



# STEWARDS OF SASKATCHEWAN PROGRAMS WELCOME SUMMER STAFF FOR 2022

Each summer, the Stewards of Saskatchewan (SOS) staff are busy connecting with land stewards, surveying for species at risk, and promoting awareness of our disappearing prairie parkland landscapes and their biological diversity. This work is supported by hard working summer staff and, in 2022, we are pleased to welcome Alora Sweeney, Brynne McMaster, Cory Tufts, Jesse Patterson and Thomas Dubbin to the SOS team.

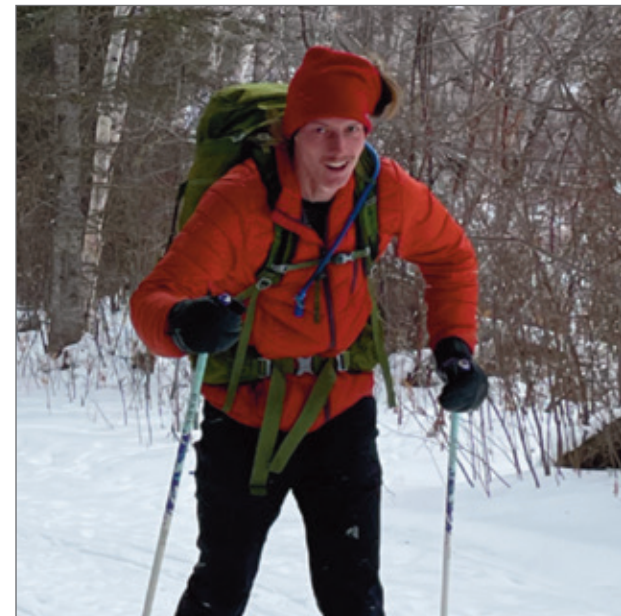
**Alora Sweeney, Habitat Stewardship Assistant (Rare Plant Rescue Program)** Alora was born in Regina and grew up spending time with family in Regina and Saskatoon. Her passion for the outdoors and wildlife started early on as she enjoyed camping, hiking, and fishing trips with her family. Many summers were spent exploring the boreal wetlands surrounding her family's cabin at Candle Lake, SK where she grew a love and appreciation for the 'unloved' creatures such as insects, frogs and snakes. In her spare time, she enjoys hiking with her dog, as well as camping, fishing, nature photography and painting. She is also a rescue volunteer with the Wildlife Rehabilitation Society of Saskatchewan, which has given her incredible one-on-one experiences with some of the province's most beautiful animals. In 2019, she was selected to participate in the Canadian Conservation Corps, a three-stage conservation program through the Canadian Wildlife Federation. The program inspires youth to build a connection and commitment to nature and the environment through wilderness adventure and training, internships with conservation-based organizations, and implementation of community outreach projects. Alora was placed in Ontario, along Lake Huron, for her internship where she worked on field research projects for species-at-risk as well as organized several community outreach events. She currently studies Environmental Sciences at Lakeland College in Vermilion, AB where she majors in Fisheries and Wildlife Conservation. Living out-of-province has made her realize just how diverse Saskatchewan is, and she is very excited to be a part of the Nature Saskatchewan team as she helps advocate for our province and our wildlife.



**Brynne McMaster, Habitat Stewardship Assistant (Bird Species at Risk Programs)** Brynne grew up in Regina, but spent her summers surrounded by nature at her cabin in Northwestern Ontario. Being raised by an avid outdoorsman, she spent a lot of time learning about nature with her family, through canoe trips, backpacking trips in the Rocky Mountains, and days exploring the Winnipeg River. Through her high school outdoors program, Brynne was lucky to meet her best friends and experience the outdoors with them, which further cemented her love for all that nature has to offer. Brynne is also an avid fisher and enjoys swimming with the fish just as much as she enjoys catching them. When she's not outdoors, Brynne spends time reading, caring for her plants and occasionally dabbling in some arts and crafts. In the winter, she can be found hiding from the Saskatchewan cold or making her way to the mountains to go downhill skiing. Brynne is nearing completion of her biology degree at the University of Regina and has loved her ecology and conservation-focused classes thus far. She is excited to join Nature Saskatchewan this summer and to work toward conserving the habitats and species we share our province with.



**Cory Tufts, Habitat Stewardship Assistant (Bird Species at Risk Programs)** Cory is a student in the Renewable Resource Management program at Lethbridge College, learning about ecosystems and how best to manage them. Growing up, he would play 'Crocodile Hunter', which involved patrolling nature, flipping over rocks or wading into waters to capture any manner of frog, snake or minnow. After prattling on about the creature in his best Steve Irwin impression, the animals would be released back where they were found, confused but certainly unharmed. Having learned the error of his ways, Cory took up more respectable means of appreciating nature, such as birdwatching, and has discovered a particular affinity for prairie and wetland species. His passion for birds has encouraged him to vacation in unique areas around his home province of Alberta as well as the Great Sandhills of Saskatchewan. It was his trip to the Sandhills that opened his eyes to the hidden gems that Saskatchewan has to offer. As a result, he is very excited to join Nature Saskatchewan for the opportunity to work in conservation and to explore more of the beautiful natural areas in Saskatchewan.



**Jesse Patterson, Search and Monitoring Crew Member (Rare Plant Rescue Program)** Jesse is a student of Environmental Biology at the University of Saskatchewan, aspiring to help preserve and protect Canada's wilderness and wildlife. His favourite creatures to study currently are insects, and he finds astonishment in how integral they are to the Prairie, Wetland and Forest biomes despite being typically underappreciated. Jesse is also an outdoor enthusiast and daydreams about rock climbing cliff faces, speeding down slopes on his mountain bike, or backpacking in the bush for days at a time. When inside, he composes songs on the piano as he is certified in jazz. Jesse is hugely excited for the opportunity to work with Nature Saskatchewan this summer and looks forward to encountering and protecting many rare and endangered plants out in the beautiful Saskatchewan landscape.

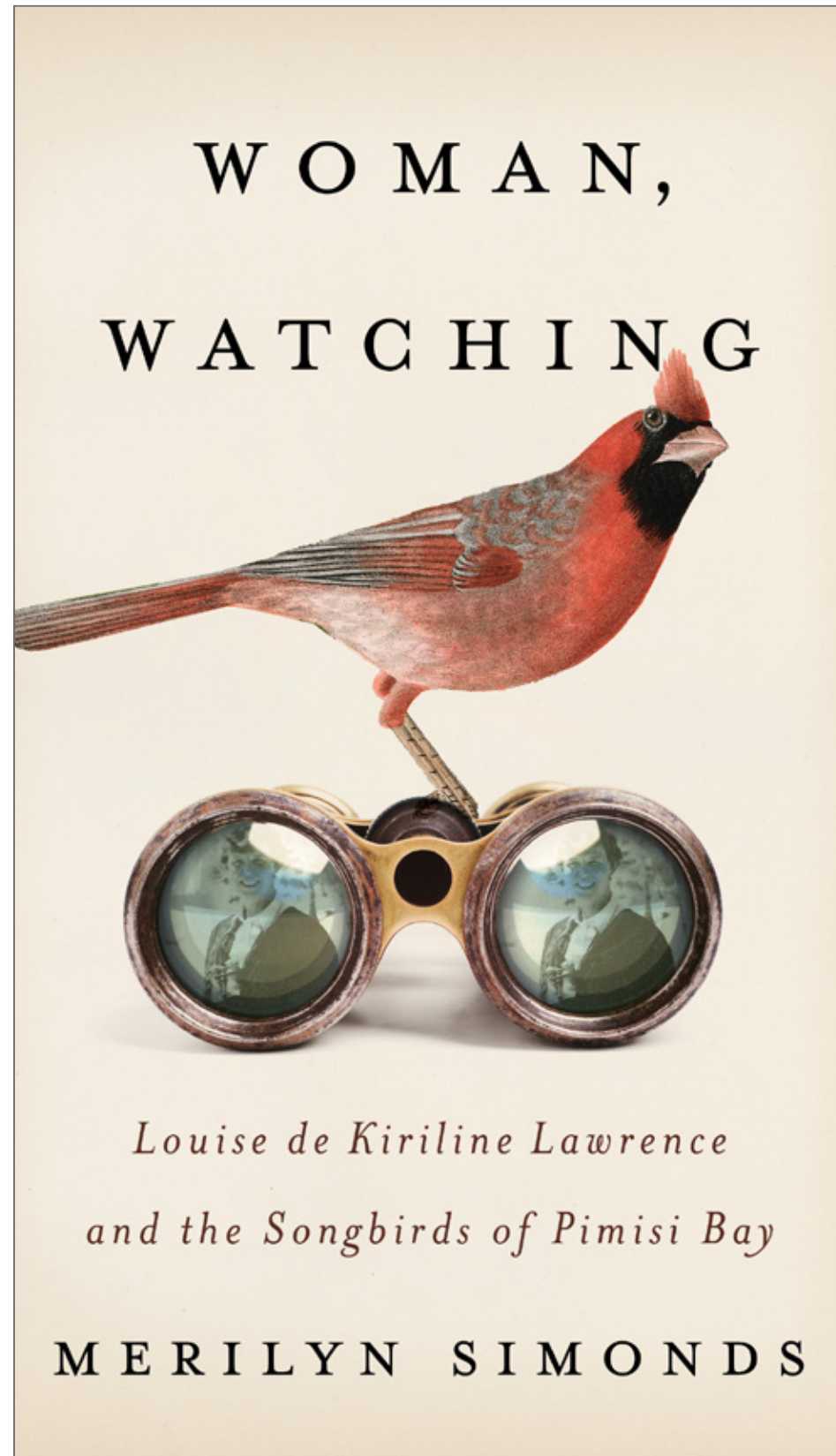


**Thomas Dubbin, Search and Monitoring Crew Member (Rare Plant Rescue Program)** Thomas was born in Saskatoon and quickly developed an appreciation for wilderness conservation during summer visits to the boreal forest. A fascination with Saskatchewan's varied ecosystems grew into a lifestyle of backcountry adventure, canoeing, hiking, birdwatching and gardening. He is currently studying Biology at the University of Regina, with a particular interest in Botany and Horticulture. Paddling as much as possible when the ice is gone takes him all over the province, but his favourite places to canoe and camp include the Missinipe area, Narrow Hills Provincial Park, and Prince Albert National Park. Whether it is practicing 'leave no trace' camping, or combating an invasive species in his garden, he cares deeply about biodiversity and the continued success of native habitat. He is very excited to have the opportunity to help with conservation efforts in Saskatchewan and to work with likeminded people. 🐦



# WOMAN, WATCHING

LOUISE DE KIRILINE LAWRENCE AND THE SONGBIRDS OF PIMISI BAY  
 MERILYN SIMONDS. MAY 2022. ECW PRESS. ISBN: 9781770416598. 416 PP. \$28.95.



Joel Cherry  
 Regina, SK  
 joeldcherry@gmail.com

In the introduction to *Woman by the Shore*, a collection of poems dedicated to Louise de Kiriline Lawrence, Robert Nero quoted his friend, the Saskatchewan naturalist (and former *Blue Jay* associate editor) Margaret Belcher: “there are only two subjects for lyric poetry — nature and love.”

Nature and love resound throughout *Woman, Watching: Louise de Kiriline Lawrence and the Songbirds of Pimisi Bay*, Marilyn Simonds’ new biography of the woman sometimes referred to as the Canadian Rachel Carson.

Louise, as Simonds refers to her (I will do the same here), lived a prolific and multifaceted life. She was a nurse to the famous Dionne Quintuplets, an award-winning author, and the first Canadian woman to be an elected member of the American Ornithologists’ Union. An amateur, she made lasting contributions to the field — notably, her count of a male Red-eyed Vireo making an astonishing 22,197 distinct calls in a single day remains a record.

In *Woman, Watching*, Simonds draws heavily from decades of Louise’s personal correspondence to bring to life the brilliant, curious woman behind the accolades — a loving daughter and wife, a steadfast friend, and a passionate bird watcher. The book is personal for Simonds, who lived near Louise near North Bay in northern Ontario, and had the opportunity to know her toward the

end of her life. Simonds is present with the reader throughout the book, relating Louise’s experiences and observations to her own, sharing the joy and the burden of telling the life story of a woman she so clearly admires.

Born to an aristocratic Swedish family, Louise’s early life was shaped by the tumultuous first half of the 20th century. Serving as a nurse in Russia during the revolution, Louise met her first husband, Gleb Kirilin, who fought for the Tsarist forces before being captured and killed by the Bolsheviks. It was while working as a nurse in Russia that Louise was treating a British airman who told her of his cabin in the Cypress Hills of Saskatchewan, sparking her desire to move to Canada and live among the trees following Gleb’s death.

After relocating to Canada, Louise took a nursing job in Northern Ontario, where she played an important role in caring for the Dionne Quintuplets during their tenuous first year of life. It was this experience that prompted her earliest forays into writing, but the intense media attention also drove her to the woods. At her small property near Pimisi Bay, Louise established a simple life, raising chickens and living in her “Loghouse Nest” without electricity, plumbing or telephone, and marrying Len Lawrence, a local woodsman. When Len left for Europe at the outset of World War II, his war pay afforded Louise the time and solitude to begin the detailed daily bird observations on her property, which would change the course of her life.

I found Louise’s excitement at the constant surprises and charms of the avian world to be highly relatable, perhaps especially in our troubled times. Despite being alone in wartime and an ocean away from her husband and mother, the birds provided consolation and joy. “Blessed be the

birds!” she said in a letter. “With them it is quite impossible to feel one instant of loneliness or boredom.”

Her daily walks and detailed observations of nesting birds on her property led to curiosity from the outside world, and she soon established correspondence with many of the biggest names in ornithology. Some of them, such as Doris Speirs and Margaret Morse Nice, would become close lifelong friends. Her relationships with fellow ornithologists and her efforts to have her ornithological and literary works published form a significant part of the book.

A careful observer of bird behaviour, she wrote life histories of birds at a time when ornithology was increasingly moving from the field to the laboratory. Louise’s approach, hours of close observation to try to understand the bird’s lived experience, is presented by Simonds as generally a more feminine approach, compared to the standard science, which saw birds as raw data, expressed in those days by collecting birds with the shotgun, and perhaps today by ‘ticking off a box’ on a life list. “Because you see a bird,” Louise said, “you do not know it.”

Engaging with the natural world can bring joy and consolation, but also sorrow. No sooner had Louise started watching birds in her little patch of forest did she start to notice a decline. She fell into a depression in 1956 when a bitterly cold May killed thousands of migrating insect-eating songbirds. In addition, during her 40-plus years of observation, the songbird population on her property fell by 25 per cent. In the years since she passed away the trend has continued. With permission of the current owner, Simonds put the finishing touches on *Woman Watching* at the Loghouse Nest, Louise’s cabin at Pimisi Bay. The

area has been “developed,” with a provincial rest area and a busy highway nearby, and birdlife relatively scarce.

Ultimately however, Louise’s story is a hopeful one. Yes the natural world is diminished and diminishing, but the birds will never lose their ability to surprise and inspire, which is why so many of us, like Louise, are out with binoculars every day. *Woman, Watching* is a well-written and loving tribute worthy of its subject, and I would recommend it to anyone interested in Canadian natural history or birding. 🐦



Louise de Kiriline Lawrence.  
 Photo credit: Library & Archives Canada.



**Friday, June 17**

**6:30 p.m.**  
Registration at The Atlas Hotel in Regina. Refreshments will be available; coffee, tea, baking.

**7:30 p.m.**  
"Conserving the Legacy: Conservation in Saskatchewan 1905-2005" G. Wayne Pepper, author. Book launch and signing.

**Saturday, June 18**

**7:45 a.m.**  
All gather at The Atlas Hotel

**8:00 a.m.**  
Depart from The Atlas Hotel for Avonlea in two groups: Bus Riders & Drivers (see separate schedules)

**5:00 p.m.**  
Cocktails at Avonlea Hall

**6:00 p.m.**  
Banquet at Avonlea Hall

**7:00 p.m.**  
"The Ecological Buffalo" with Wes Olson, author, and Johanne Janelle, photographer. The complex, interwoven relationship of bison and the grassland species they share time and space with.

*Please note: publication of "The Ecological Buffalo" is expected in early July, pre-orders will be available at the meet*

**8:30/9:00 p.m.**  
Bus departs Avonlea for Regina, arriving at The Atlas Hotel

**Sunday, June 19**

**8:30 a.m.**  
The Early Bird Breakfast Buffet at The Atlas Hotel

**9:00 a.m.**  
Annual General Meeting

BUS RIDERS	
9:00 a.m.	Avonlea Badlands Tour
11:00 a.m.	Avonlea Museum
12:00 p.m.	Lunch at Wilkinson Bar & Grill, aka Rockin' Robin's
1:30 p.m.	Field Presentation of "The Ecological Buffalo" with Wes Olson and Johanne Janelle - Cactus Hills
3:30 p.m.	Missouri Coteau additional stop
5:00 p.m.	Avonlea Hall

DRIVERS	
9:15 a.m.	Field Presentation of "The Ecological Buffalo" with Wes Olson and Johanne Janelle - Cactus Hills
11:00 a.m.	Missouri Coteau additional stop
12:00 p.m.	Lunch at Wilkinson Bar & Grill, aka Rockin' Robin's
1:15 p.m.	Avonlea Badlands Tour
3:15 p.m.	Avonlea Museum
5:00 p.m.	Avonlea Hall

**SUGGESTED ACCOMMODATIONS**

**Regina**  
**The Atlas Hotel**  
4177 Albert Street  
1-306-586-3443  
Nature Saskatchewan's rate is \$134.95/night (book by May 27)  
Block code: 061722NAT

**Avonlea**  
**The Blue Hills Motor Inn**  
306-868-2088  
**Dunnet Regional Park**  
(306) 868-7664  
www.dunnetpark.ca

**COVID-19 POLICY**  
As per COVID-19 recommendations, please refrain from attending if you or someone in your household is feeling unwell.

**REFUND/CANCELLATION POLICY**

Cancellations due to COVID-19 will receive a complete refund.

Please contact us if you need to cancel for circumstances beyond your control and we can discuss options.

Nature Saskatchewan  
206-1860 Lorne Street  
Regina, SK S4P 2L7  
306-780-9273  
1-800-667-4668  
email: info@naturesask.ca  
website: www.naturesask.ca

**REGISTRATION FORM**

<b>Name(s)</b>	
<b>Address</b>	
<b>Phone #</b>	
<b>Email</b>	

**Spring Meet Fees** \*Includes lunch and supper on Saturday, and breakfast Sunday

**Early Registration (prior to May 27)**

Members: **\$131.25**  
Non-Member **\$147**

**Late Registration (after May 27)**

Member: **\$147**  
Non-Member **\$162.75**

*\*All prices include the return bus trip from Regina to Avonlea. If you are not comfortable taking the bus this year, due to COVID-19, please indicate below and subtract \$26.25 from your registration fee. Please note: you will be required to wear a mask on the bus.*

Will you be riding in the bus?  YES  NO

Any food allergies or dietary needs?  YES  NO

If yes, please describe: \_\_\_\_\_

Member Registration: **\$131.25** (early)/ **\$147** (late) x \_\_\_\_ = \$ \_\_\_\_\_  
Non-Member Reg: **\$147** (early)/ **\$162.75** (late) x \_\_\_\_ = \$ \_\_\_\_\_  
\*Opting out of bus trip subtract **\$26.25/person** x \_\_\_\_ = \$ - \_\_\_\_\_  
Total Due: = \$ \_\_\_\_\_

Credit card: \_\_\_\_/\_\_\_\_/\_\_\_\_/\_\_\_\_ exp \_\_\_\_/\_\_\_\_ CVC \_\_\_\_\_

**\*All prices include GST**  
**Pay by cheque (payable to Nature Saskatchewan)**  
**VISA or M/C**

Mail, email, call our office, or visit our website to register today!

**PLEASE NOTE: Due to the ever-changing situation with the COVID-19 pandemic, this event may be restructured or cancelled at any time. We thank you in advance for your patience and understanding.**

206-1860 Lorne Street Regina, SK S4P 2L7 306-780-9273 or 1-800-667-4668  
Email: info@naturesask.ca website: https://www.naturesask.ca



## NATURE SASKATCHEWAN VOLUNTEER LIST

The Nature Saskatchewan office is in the process of updating the volunteer list! If you are interested in volunteering with Nature Saskatchewan and wish to have your name included, please fill in the online form at [www.naturesask.ca/get-involved/volunteer-information-and-opportunities](http://www.naturesask.ca/get-involved/volunteer-information-and-opportunities) or contact the office at [info@naturesask.ca](mailto:info@naturesask.ca) or 1-800-667-4668 (306-780-9273). Even if you have previously volunteered you are encouraged to re-submit your volunteer application, as some questions have changed.

## POETRY

I dreamt  
I was a mushroom  
Cloaked in warm humus  
Waiting to emerge  
Patiently, silently

**Brian K Jeffery**  
5800 - 4th Avenue  
Regina, SK S4T 0K3

# NATURE SASKATCHEWAN FUNDERS LISTING

## 2021-22 FISCAL YEAR

### THANK YOU TO OUR FUNDERS!

#### Saskatchewan Conservation Data Centre

- Government of Saskatchewan – Ministry of Environment Fish and Wildlife Development Fund
- Government of Canada through the Federal Department of Environment and Climate Change
- Nature Serve (Parks Canada/ Canadian Wildlife Service)
- Schad Foundation
- South of the Divide Conservation Action Plan
- The Resources Legacy Fund

#### Naturehood

- Nature Canada
- City of Regina

#### Important Bird Areas

- Government of Saskatchewan- Ministry of Environment Fish & Wildlife Development fund
- Nature Canada

#### Last Mountain Bird Observatory

- Government of Saskatchewan- Ministry of Environment Fish & Wildlife Development fund
- Canadian Wildlife Service
- Government of Canada Environment & Climate Change
- Lorne & Evelyn Johnson Foundation
- SaskEnergy

#### Nature Quest

- TD Friends of the Environment Foundation

#### General

- SaskCulture
- Nature Canada

#### Stewards of Saskatchewan Programs

- This project was undertaken with the financial support of the Government of Canada through the federal Department of Environment and Climate Change / Ce projet a été réalisé avec l'appui financier du gouvernement du Canada agissant par l'entremise du ministère fédéral de l'Environnement et du Changement climatique
- Government of Saskatchewan - Ministry of Environment and Fish and Wildlife Development Fund
- Support for this project was provided through a grant by U.S. Fish and Wildlife Service, Neotropical Migratory Bird Conservation Act
- The Mosaic Company
- This project is funded in part by the Government of Canada's Canada Summer Jobs program
- R. Howard Webster Foundation
- TC Energy
- Nature Conservancy of Canada
- ELSA Wild Animal Appeal of Canada
- SaskTel

**Nature Saskatchewan would also like to thank the many generous individual donors throughout the year.**

## MEMBERSHIP FORM



Name

Full Address

Postal code  Phone

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I would like to be contacted electronically only

Yes, I would like to subscribe to the e-newsletter

	Print Version	Electronic Version
Individual	<input type="checkbox"/> \$42.00	<input type="checkbox"/> \$26.25
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Senior 65+	<input type="checkbox"/> \$36.75	<input type="checkbox"/> \$26.25
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\*If you are interested in purchasing a **Life Membership** please contact the Nature Saskatchewan office.

I wish to make a one time tax-deductible donation in support of:

- General Programs
- Last Mountain Bird Observatory
- Scholarship Fund
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*All prices include 5% GST*

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# NATURE SASKATCHEWAN AWARDS:

Each year at the Fall Meet, Nature Saskatchewan recognizes outstanding service and contributions that Society members, and/or affiliate and partner organizations have made towards Nature Saskatchewan's objectives and goals.

Clear criteria have been established in terms of purpose, eligibility, and nomination procedure. This year, we are seeking nominations for three classes of awards – **Volunteer Recognition Award, Fellows Award, and Conservation Award.**

The Volunteer Recognition Award and Conservation Award can be conferred on the same individual or organization more than once.

The Cliff Shaw Award will also be presented at the Fall Meet. The recipient is chosen by the Blue Jay editors.

Local societies throughout Saskatchewan play an important role in furthering conservation and appreciation of nature at the local level. There are always those who step up to the plate to organize meetings and outings, go the extra mile to help others connect with nature, or work silently and tirelessly behind the scenes. It's time those contributions were recognized. We encourage anyone from a local society to consider nominating someone from your local group who is a Nature Saskatchewan member, who deserves recognition for any of these awards. Note that nominees for the Volunteer Recognition Award and Fellows Award must hold a current membership with Nature Saskatchewan.

## Nomination Procedure

The nomination procedure is the same for all three awards. The criteria and names of past recipients can be found on the website at [www.naturesask.ca/what-we-do/awards](http://www.naturesask.ca/what-we-do/awards). The office can also send you a copy by mail, if requested.

- Nominations can be made by Nature Saskatchewan members, directors, and staff. Local societies should consider nominating someone from their local group.
- Self-nominations will not be accepted.
- Nominations are to be made in writing and submitted by the published deadline.
- Nominations are to include the following information: the nominee's name, address, and phone number; the nominator's name and contact information; details of the nominee's efforts.
- The Awards Committee will independently rate the nominations, and confirm that the nominee holds a current membership with Nature Saskatchewan.
- Chairperson of the Awards Committee will bring the recommendations to the Board.
- If ratified, the President or his/her delegate shall confer the respective Awards to the recipients at the Fall Meet.

## The deadline to submit nominations for awards is August 26, 2022.

All Nature Saskatchewan Awards consist of the following:

- The announcement of the recipient's name at the Fall Meet.
- The presentation of a certificate recognizing the contribution.
- An announcement in *Blue Jay* recognizing the distinction.

## VOLUNTEER RECOGNITION AWARD

This award was created in 1996 to acknowledge an individual Nature Saskatchewan member who has devoted significant time and energy to promoting the objectives of the Society, including contributions made at the local society level. Priority for this award will be given to a Nature Saskatchewan member whose volunteer work has helped to enhance the public awareness of the Society (this may include contributions to a Society conservation project or program). It may be appropriate in some years to have this award shared by more than one person, if they have worked together on the same project, or on closely related projects.

### Eligibility

Nature Saskatchewan members who have provided valuable time and effort in contributing to the Society are eligible. Local societies are encouraged to nominate someone from their local group who is a Nature Saskatchewan member, recognizing that Nature Saskatchewan values their contributions to the overall goals of the Society. The nominee must be a current member of Nature Saskatchewan. This award can be conferred on the same person more than once.

# CALL FOR NOMINATIONS

## FELLOWS AWARD

A motion was passed at the 1987 Annual General Meeting creating a new class of honorary membership entitled "Fellows of the Saskatchewan Natural History Society". This award recognizes an extensive and continuing contribution of time over many years to the Society and its objectives. Up to five recipients may be chosen annually. Once selected, Fellows hold that title as long as they remain members of the Society. It is the highest honour the Society can bestow upon a member.

### Eligibility

Eligible individuals are members of Nature Saskatchewan who have provided an outstanding time and work contribution to the Society over many years. These contributions have been significant, and may have come in the form of leadership, communication, authorship, social media outreach, research, and other areas. The contributions have been cumulative or ongoing, and represent long-standing service or commitment to Nature Saskatchewan and its objectives.

## CONSERVATION AWARD

In addition to advocacy and other forms of conservation action, it is important that Nature Saskatchewan recognize, as it has done since 1953, those both within and beyond the organization who have done "meritorious work in the interest of conservation in Saskatchewan."

Nature Saskatchewan's Conservation Award will be presented to an individual or organization whose total contribution to conservation is outstanding, whether in relation to a particular project or in a number of roles over a period of years.

### Eligibility

Individuals, affiliate and/or partner organizations, not-for-profit associations, institutions, community groups, businesses, government and non-government organizations that have contributed significantly to conservation in Saskatchewan.

This award can be conferred on the same individual or organization more than once.

# CALL FOR RESOLUTIONS

The resolutions considered during the Business Meeting at each year's Fall Meet are important expressions of member concerns on environmental issues. The Nature Saskatchewan Board of Directors is responsible for acting on all resolutions that are passed by the members. This includes sending resolutions directly to the responsible government ministry and pursuing further action and/or meetings with government and others, as deemed appropriate.

Anyone wishing to submit a resolution for consideration at the 2022 Business Meeting, is asked to send a written draft to the Nature Saskatchewan Office ([info@naturesask.ca](mailto:info@naturesask.ca)) no later than **Friday August 19, 2022**. This provides an opportunity to receive feedback from members of the resolutions committee that can help us prepare for the meeting. Please note that resolutions not submitted to the Nature Saskatchewan office by **5 p.m. on Friday September 9, 2022** will be considered only with the agreement of a two-thirds majority of those attending the business meeting.

### Resolution Guidelines:

1. Resolutions must be in keeping with the Society's mandate, bylaws and goals.
2. All resolutions must be submitted in writing.
3. A resolution is, essentially, an exercise in communication. Simple, clear language and focus on one topic or issue is most effective.
4. Supporting information presented in "Whereas" statements must be accurate and factual.
5. Resolutions should be no longer than one page, and preferably less.

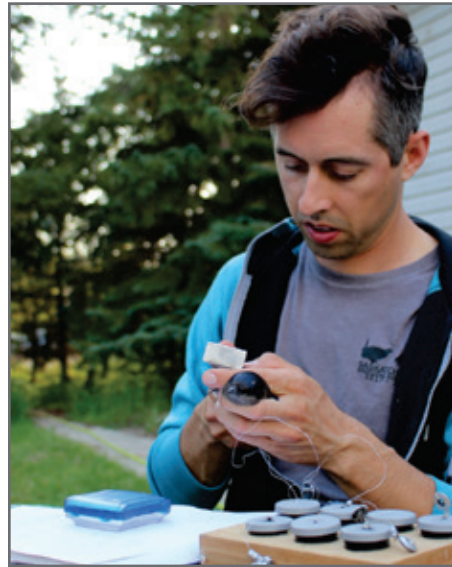
## NATURE SASKATCHEWAN 2022 FALL MEET SAVE THE DATE

Join Nature Saskatchewan for the 2022 Fall Meet in Duck Mountain Provincial Park from September 23-24. Details will be posted to [naturesask.ca](http://naturesask.ca) and on our social media channels as they become available.

A complete agenda and registration form will also be available in the Fall 2022 issue of *Blue Jay*.



# THE NATURE NOTEBOOK: SHINING A LIGHT ON FIREFLIES



Jared Clarke

When I used to operate the Wascana MAPS banding station in the Habitat Conservation Area of Wascana Centre in Regina, we would set up our 10 mist nets in the evening so the nets were ready when we started banding at dawn. We'd time the set up so that we'd be finishing up just as it got dark, so as to reduce the chances that people would come across the nets. This meant we were at Wascana Marsh at a time of day I would otherwise never be. During our first two banding sessions of the season each year, at that time of night, Wascana Marsh was a magical place to be!

Why? Because there were fireflies! Right in the middle of the city! The first time we saw them was also the first time I had ever seen fireflies and there were hundreds of them flashing their tiny beacons all around us. I was absolutely gob-smacked that these little critters existed right within Regina. Since then, we have been lucky to see them at our farm as well, and it is during the same timeframe

as when we saw them at Wascana Marsh, from June 10-30.

Recently, the Xerces Society for Invertebrate Conservation published the State of the Fireflies of the United States and Canada. This was the first assessment to look at populations of fireflies in North America. Fascinatingly, there are 171 described species of fireflies on this continent. In Saskatchewan, our most common species are the Boreal Firefly (*Pyroctomena borealis*) and the Common Eastern Firefly (*Photinus pyralis*). Did you know that fireflies are not a type of fly? Instead, they are beetles!

Unfortunately, the State of the Fireflies report shows that, in general, fireflies seem to be declining. However, half (53 per cent of the 171 species) of all fireflies have insufficient data to assess their risk of extinction with certainty. Of the remaining species, 14 per cent are either vulnerable, endangered or critically endangered according to criteria of the IUCN Red list, two per cent are near threatened and 32 per cent are Least Concern.

Interestingly, light pollution is one major factors for the beetles' decline. Light pollution affects their ability to communicate with their glow. If fewer males attract mates, then fewer fireflies will hatch the next year. Loss of habitat is another major cause of decline, as is climate change. In my last column, I wrote about how dry and hot it was around the farm last summer. I don't know how this affected the fireflies but if they need moisture, then it likely was not good.

As this issue of the Blue Jay is hitting your mailbox, it will be close

to the perfect time to go searching for these magical beetles. Fireflies like areas around water with long grass. It seems for now, the best thing we as naturalists in Saskatchewan or the Prairie provinces can do to help fireflies is upload our observations onto iNaturalist. This will at least start to bring in some data about them and their abundance and help the Xerces Society and other researchers start to understand our prairie golden sparklers! Have fun out there!

*Jared Clarke is a grade 6/7 teacher and biologist who lives on a small farm near Edenwold, SK with his family. He has been bird watching since the age of five after a Spotted Towhee visited his yard. Follow him on Twitter @jaredthebirdguy. 🐦*



**Cypress Hills Tour**  
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306-652-5975

# HUMAN NATURE NARROWS ROAD

Brodie Aikman  
Regina, SK

Prince Albert National Park has been a part of the fabric of my family for three generations; an annual pilgrimage that rejuvenates my soul and connects me to the land and the people I love. From a child visiting every summer, to going every autumn with my own family, my relationship with the park has grown deeper and stronger. It's become a part of me that I need to return to regularly to feel whole. And there's one area in particular that holds a special place in my heart above all else — The Narrows Road.

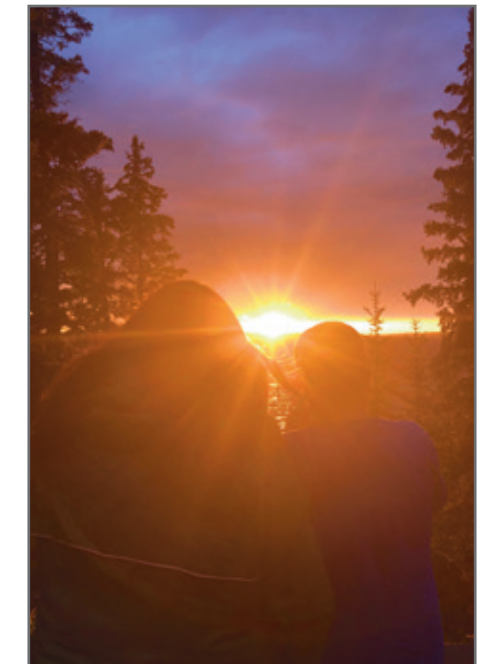
This 20-ish km stretch of road runs right along Waskesiu Lake, ending at the Narrows campground and Marina, with many beautiful

stops along the way. As a child the road was paved and the campground and beach were full and bustling. The road is gravel now and the campsite a little more rustic, but the whole area is no less magical.

Growing up I would spend two weeks every summer camping at Namekus Lake with my parents, three siblings and two dogs squeezed into a little trailer. It's a quiet campground of a dozen or so sites, just outside of Waskesiu. Our days were spent on the beach, swimming, splashing and diving underwater to dodge the horseflies. We would canoe the quiet waters, reeling in pike while my dad tried to keep our small, tippy boat steady. Or we would get lost in the woods, picking blueberries and making up whatever adventures would pop in

our heads. Of course, with four kids we would also make regular trips into town for a Big Olaf sundae, or to spend our allowance at the Wishing Well Gift Shop. The park in summer is bursting at the seams with people, so we enjoyed being able to take in the hustle and bustle, while returning to a quieter escape at Namekus. But my favourite times were our night drives.

My folks would pile us into our old Chevy panel van and go for a twilight drive, taking in the sunset and looking for wildlife. The Narrows Road was always one of our favourite destinations, slowly rolling down the road, mouths full of sunflower seeds, with Willie Nelson or The Beatles softly playing in the background. Tired from a day of sun and swimming, the usual scraps and sounds of four kids was replaced by quiet contentment, excitedly scanning the trees for wildlife, hoping you'd be the first one to spot something. It's one of my favourite memories of my family together.





As I grew up and had kids of my own I was excited to introduce them to the park, but our experience is totally different. Instead of visiting in the summer, we have always gone in the fall. The town is still open but

the throngs of people have left. As the park quiets down you appreciate it on a whole other level — the beautiful colours of the changing leaves; the thick aroma of autumn in the air; the bugle of an elk echoing



through the trees; it was different but still familiar. I loved introducing my boys to a place that means so much to me and loved even more that it was a special to them too. And we traded the beaches and bustling town of my youth for the many hiking trails in the park. This allowed me to experience the park in a completely different way, and my love only grew. And Narrows Road is central to it.

We wake early in the morning, pack up the car and head down Narrows to Paignton Beach for a camp kitchen breakfast on the water (stopping for some pre-breakfast cinnamon buns in town of course, the best ever!). After a leisurely breakfast, a few games of crib and some shore fishing we usually head to a trail and walk off the breakfast. Treebeard trail is right up the road and my favourite trail in the park — a winding walk through a prehistoric forest, with aspen trees and birch larger than I thought could exist. Then we usually make our way to the Narrows Marina to try our luck with a few casts. Our days are full but the night drives are still my favourite, and as my kids pile into our car, weary from the trail instead of the water. It has the same feeling — quiet contentment, all of us excitedly scanning to be the first to spot the elk or bear making its way through the trees, the crackle and pop of the gravel road providing a soundtrack to some wonderful memories.

This place has become a part of my family's DNA and holds a special place in my soul. I'm not sure if there is a heaven, but when I pass I hope to wake up behind the wheel, slowly rolling down a never-ending Narrows Road, with my wife beside me and my boys in the back. And I hope from time to time I drive by an old Chevy van filled to the brim, sharing a wave with my Dad as we pass. 🐦

# MYSTERY PHOTO



Photo credit: Annie McLeod.

## SUMMER 2022

QUESTION: What bird is shown in this picture?

Hint: While this bird will sometimes bathe in the shallows of rivers, dust-bathing is likely more common due to the overall scarcity of standing water within its habitat.

Please send your answers to the *Blue Jay* editor, Annie McLeod, by email at [bluejay@naturesask.ca](mailto:bluejay@naturesask.ca) or by letter mail (address on page 4). Those with correct answers will be entered into a draw for a prize from Nature Saskatchewan.

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.



Photo credit: Bob Gehlert.

## SPRING 2022

ANSWER: The feather shown in the Spring 2022 Mystery Photo belonged to a Pileated Woodpecker (*Dryocopus pileatus*). Pileated Woodpeckers are year-round residents in deciduous, coniferous, or mixed forests in southern Canada and in the western, midwestern and eastern parts of the United States. Due to their size and the shape of their bill, they are expert excavators and use this skill to create nest and roost cavities and to find food. They dig characteristically rectangular holes in trees to find their primary food source — carpenter ants. 🐦





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SASKATCHEWAN

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