



Revelstoke  
**Caribou** Rearing  
in the Wild  
Society



REVELSTOKE  
**Maternity Pen**  
FINAL PROJECT REPORT 2021



Cover design and photos by Rob Buchanan

We acknowledge and honour the four nations on whose traditional land this project was undertaken: the Secwepemc, Sinixt, Syilx and Ktunaxa. We respectfully honour their traditions, cultures and connections to the land and caribou through time immemorial.

We specifically recognize our partnership with Splatsin of the Secwepemc Nation and thank them for sharing resources for this project as well as their Indigenous ways of knowing with caribou.

## Yucwmenlúcwu (Caretakers of the Land)



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## EXECUTIVE SUMMARY

The Revelstoke Caribou Rearing in the Wild Society (RCRW) is a community-based partnership, consisting of a cross representation of individuals and organizations committed to the recovery of southern mountain caribou (*Rangifer tarandus caribou*) in the Revelstoke, British Columbia area. RCRW is a collaborative, not-for-profit society that was incorporated in 2013. The partnership consists of a wide diversity of First Nations, governmental and non-governmental individuals and organizations. RCRW's goal and primary focus was to fundraise, plan and conduct a maternity penning pilot project to increase caribou calf survival in the Columbia North subpopulation over a five-year period.

In the fall of 2013, RCRW initiated the pilot project by constructing a 6.4-hectare maternity pen in a sparsely restocked clear-cut at 580 m elevation next to Lake Revelstoke (near Ruddock Creek). The pen was expanded to 9.3 hectares in the fall of 2015. The maternity pen was established with the short-term goal of increasing first year calf survival from 20% to between 40–60%. The longer-term goal was to increase the population growth rate of this subpopulation, but this was dependent on the success of the pilot study.

From 2014 to 2018, 72 adult females were placed in the predator proof pen; 64 of these were pregnant (88.9%), and 47 calves were released from the pen. Adult females were transported to the pen in late March and released in mid-July, when calves had gained the strength and agility to effectively escape predators. Adults and calves were monitored post release via radio-collars and aerial flights. RCRW investigated all known mortalities in the field post release. In the March following each penning cycle, RCRW conducted aerial surveys to establish how many of the released calves survived their first year.

Based on late March calf survival surveys, the RCRW project met the short-term objective of doubling calf survival to 10 months of age. However, due to a combination of factors (higher than anticipated mortality of adults and calves in the pen), meeting the longer-term population level objective by penning a higher number of females to increase the rate of population change did not occur (see Serrouya et al. Final Report for Revelstoke Caribou Rearing in the Wild June 2021 analysis of the project results for greater detail). Compared to other penning projects, the RCRW pen location was not within the typical subalpine calving range but rather located in the valley bottom, which has higher temperatures and a lower snowpack and likely contributed to the in-pen mortalities. If maternal penning is to proceed in this ecosystem, the site should be located at higher elevation; this will be a challenging task given the deep snow load that occurs in the Columbia Mountains.

This report summarizes the many facets of this project and includes information on the finances, school education program, outreach activities, fact sheets and project developed protocols, procedures, handbooks and guidelines. Many other project related resources are also included.

Finally, RCRW funded three separate reports, which are included in this document. They are

- RCRW Society Final Report: Social Structure and Function (The Social Report) by Alice Weber (2019),
- Final Report for Revelstoke Caribou Rearing in the Wild (The Science Report) by Serrouya et al. (2021), and
- The post-captive movement ecology of endangered mountain caribou (The Post-Captive Movement Analysis Report), an un-peer-reviewed preliminary report by Adam Ford et al. (2021).



*PHOTO CREDIT: Cory Legebokow*

## 1.0 INTRODUCTION

### 1.1 THE RCRW SOCIETY

The Revelstoke Caribou Rearing in the Wild Society (RCRW) is a community-based partnership, consisting of a cross representation of individuals and organizations committed to the recovery of southern mountain caribou (*Rangifer tarandus caribou*) in the Revelstoke, British Columbia area. RCRW is a collaborative, not-for-profit society that was incorporated in 2013. RCRW's goal and primary focus was to fundraise, plan and conduct a maternity penning pilot project to increase caribou calf survival in the Columbia North caribou subpopulation over a five-year period.

The partnership consists of diverse governmental and non-governmental individuals and organizations. Board members for the 2018/2019 and 2019/2020 terms (and their affiliations) were:

President:	Jody Lownds, BA, LL.B. North Columbia Environmental Society
Vice President:	Marnie Graf, MSc, RPBio Mica Heliskiing
Treasurer:	Kevin Bollefer, BSc, RPF, RPBio Revelstoke Community Forest Corporation
Secretary:	Jennifer Greenwood, MSc, RPBio Unaffiliated Individual
Director:	Robyn Laubman, BSc, RPBio Splatsin
Director:	Daniel Kellie Revelstoke Snowmobile Club and BC Commercial Snowmobile Operators Association

A list of the former RCRW Board Members can be found in [Section 9.2](#) of this report.

### 1.2 CARIBOU IN THE REVELSTOKE AREA

Southern mountain caribou are listed as a threatened species under Schedule 1 of the Canadian Federal Government *Species at Risk Act*. Their populations started to decline dramatically starting around 2002, and many herds continue to decline. Today, two of three herds in the Revelstoke-Shuswap Local Population Unit (LPU) are extremely small and, without intervention, are likely to be extirpated in the near future. The Columbia South herd size was approximately 120 animals in 1994 and declined to 4 animals in 2020, while the Frisby-Boulder-Queest herd was 36 animals in 1994 and declined to 6 animals in 2020. The Columbia North herd is the largest and most stable herd within the LPU. Although this subpopulation has declined substantially since the 1990s (from approximately 210 animals in

1994 to 120 animals in 2011), the implementation of other recovery action measures likely contributed to its current stability of approximately 184 animals in 2021.

Southern mountain caribou within the Revelstoke-Shuswap LPU have been extensively studied since the mid-1990s, and much is known about mortality, population trends and habitat use. Current threats include habitat loss, altered predator-prey dynamics, direct and indirect physical disturbances, climate change and small population effects. Southern mountain caribou are behaviourally adapted to the deep snows of the interior wet belt where they feed almost exclusively on arboreal lichens in late winter. They exhibit seasonal vertical migrations by descending into valley bottoms in the spring to forage on emergent vegetation and in the fall to avoid unconsolidated alpine snow. They are dependent on old growth forests for forage and to spatially separate themselves from other ungulates and their predators.



*PHOTO CREDIT: RCRW*

The following are the key reasons the North Columbia herd was chosen for the maternal penning pilot project:

- a. There was existing data and a knowledge base regarding mortality issues and population trends dating back to the mid-1990s.
- b. Other smaller subpopulations in the planning unit had a reduced likelihood of recovery success.
- c. The existing population trend of the North Columbia subpopulation was stable, and other caribou recovery measures and processes were already underway in the area.
- d. The proximity of the herd to Revelstoke, where a passionate group of volunteers were ready to initiate this community-led project.

Previous investments in habitat protection in the area also meant this subpopulation had the highest potential to recover to a self-sustaining state, particularly if the protected habitat was maintained and enhanced together with an increase in calf recruitment.

### 1.3 PROJECT GOALS AND OBJECTIVES

The overarching goal of the project was to improve survival rates of calves and females through maternal penning (ideally to double or triple calf survival over that of wild-born calves) and to increase population size. The specific scientific objectives of the project are set out in the Introduction (Section 1) of the Science Report located in [Section 3.2.1](#) of this report. A time frame of five years was selected for the project as this allowed for averaging of calf survival results, which vary annually due to factors such as weather events, predation and accidents.

The social objective for the project was to develop a model for a multi-stakeholder community-based implementation of a project of this nature. The Social Report located in [Section 3.1.2](#) of this report provides an in-depth analysis of these objectives.

### 1.4 PROGRAM OVERVIEW

Maternal penning is a method that has been used in the Yukon and Alberta to increase calf survival. Pregnancy rates for southern mountain caribou are consistently high; however, the number of calves surviving to 10 months of age within the Columbia North herd has declined over the years, and calf numbers are too low to sustain the subpopulation. Therefore, increasing calf survival rates is considered a key tool in the conservation and recovery of southern mountain caribou.



PHOTO CREDIT: RCRW



PHOTO CREDIT: Terry Anderson

Maternal penning consists of capturing healthy pregnant females in late March and transporting them a short distance to a predator proof pen within the herd's home range. The highest standards of animal welfare and care are employed; females are fed a healthy diet, receive veterinary care and are monitored 24 hours a day. The cows and calves are released approximately one month after birth (mid-July), when they are larger and more capable of escaping predators. Post release from the maternity pen, adult and calf survival is monitored via GPS radio-collars and aircraft observations, and there are field investigations of all known mortalities. The following March post release from the maternity pen, calf survival surveys are conducted to determine the number of calves that have survived to 10 months of age. This monitoring can also lead to a better understanding of the factors limiting calf survival.

RCRW's operations commenced in 2014 and the project concluded its fifth season of the five-year pilot project in 2019. Further details on RCRW's pen construction, the annual penning cycle, caribou capture and handling, animal care and monitoring can be found in the Methods section (Section 2) of the Science Report located in [Section 3.2.1](#) of this report.

## 1.5 CONTRIBUTORS

We are grateful to the many funders, partners and dedicated volunteers of all ages that made this project possible. To see a full list of supporters please refer to [Section 7.0](#) of this report.

## 1.6 RCRW'S ROLE IN CARIBOU RECOVERY

The RCRW pilot project contributed important ground truthing to the feasibility, challenges and logistics involved in using maternal penning as a recovery measure for southern mountain caribou in the North Columbia Mountains. We hope that the lessons we learned throughout the five years of operations will be applied as broadly as possible to future maternal penning efforts as well as to other multi-stakeholder based organizations and conservation projects.

RCRW believes that maternity penning is a viable recovery tool, but recognizes it is only one of a suite of recovery action measures that needs to be applied simultaneously to recover southern mountain caribou. RCRW recognizes the important work conducted by other organizations, governments, First Nations and stakeholders to protect and recover mountain caribou and their habitat. We hope that recovery actions will continue in the North Columbia Mountains and that maternal penning will continue in an optimal location (selected in accordance with the conclusions drawn in the Science Report found in [Section 3.2.1](#) of this report).

RCRW will continue to work with First Nations and Government to ensure that all our institutional knowledge is passed down and that the best possible use will be made of all the lessons learned from our project. Our hope is that our efforts will be put towards giving future projects, and the iconic mountain caribou of this ecosystem, the absolute best chance of success.

## 1.7 OVERVIEW OF FINAL REPORT STRUCTURE

The Final Project Report provides a financial overview of the project costs and lists all of the funders ([Section 2.0](#)) as well as direct links to the reports prepared for RCRW ([Section 3.0](#)). In addition, [Section 4.0](#) and [Section 8.0](#) provide project resource and operational documents developed by the team over the term of the pilot project. All the documents contained in this report can be found at the following websites:

- the Alberta Biodiversity Monitoring Institute (ABMI) — Caribou Monitoring Unit (CMU) web page located at <https://cmu.abmi.ca/testing-recovery-options/revelstoke-caribou-rearing-in-the-wild/>

- the British Columbia Government *Species Inventory Web Explorer* site (Project ID 5898) located at <http://a100.gov.bc.ca/pub/siwe/details.do?projectId=5898&surveyId=42978&pageOffset=0>

After the conclusion of the operational phase of this project, RCRW produced

- a Social Report (Revelstoke Caribou Rearing in the Wild Society Final Report – Social Structure and Function — Weber 2019) that describes the overall structure and functioning of the society governing this project,
- a Science Report (Final Report for Revelstoke Caribou Rearing in the Wild — Serrouya et. al. 2021) that evaluates how well the pilot project came to achieving the stated goals, and
- a Post Captive Movement Analysis Report (The post-captive movement ecology of endangered mountain caribou — Ford et al. 2021) studying the effects the pen had on post penning distribution of cows and calves released from the maternity pen site.

These reports are found in [Section 3.0](#) of this report.

## **2.0 PROJECT FINANCIAL SUMMARY**

This section provides a financial summary of the Cash and In-Kind Revenue Contributions from Funders and details the Project Expenditures.

The costs are summarized by fiscal year (April 1 to March 31), from the project start in 2012 to project completion in 2020. RCRW has retained a residual amount of revenue to cover final report costs, maintenance of websites, storage of project data and other small overhead expenditures required to distribute project information into the future.

Upon winding-up or dissolution of the society, any remaining funds and project assets will be distributed in accordance with the society's bylaws, with preference given to any charities or Provincial, Federal or First Nations programs aimed at caribou recovery efforts.

In June 2020, RCRW transferred ownership of the Ruddock Creek maternity pen and airtime credits for the telemetry caribou collars to the Province of BC. In return, the Province of BC agreed to continue with the ongoing field monitoring and investigations that RCRW was conducting up until signing off the agreement.

RCRW has transferred the project data and documents to the BC Provincial "Species Inventory Web Explorer" (SIWE) as well as the ABMI — CMU websites so that they can be easily accessed by users.

## 2.1 REVELSTOKE CARIBOU REARING IN THE WILD SOCIETY – PROJECT CASH REVENUE SOURCES

Funder	12/13	13/14	14/15	15/16	16/17	17/18	18/19	19/20	Total 2013–2020
Government of Canada — Habitat Stewardship Program		\$115,000	\$169,384	\$96,153	\$106,100	\$98,071	\$94,930	\$8,695	\$688,333
Province of BC <sup>1</sup>	\$48,738	\$48,000	\$58,480	\$94,822	\$9,012	\$99,356			\$358,409
BC Hydro Fish and Wildlife Compensation Program			\$64,000	\$58,460	\$76,488	\$75,029	\$15,530		\$289,508
Columbia Basin Trust		\$34,995	\$65,000	\$50,000	\$50,000	\$52,767		\$7,600	\$260,362
Government of Canada — Aboriginal Fund for Species at Risk <sup>2</sup>				\$43,800	\$31,415	\$61,183	\$49,808		\$186,206
Parks Canada			\$59,000	\$23,485	\$20,000	\$20,000	\$2,000		\$124,485
Shell Canada — Fuelling Change		\$100,000							\$100,000
Habitat Conservation Trust Foundation (HCTF)					\$24,000	\$29,708		\$6,000	\$59,708
Downie Timber			\$10,000	\$5,000					\$15,000
Golder and Associates			\$15,000						\$15,000
Selkirk Tangiers Heliskiing		\$2,400	\$7,876						\$10,276
Selkirk Mountain Helicopters		\$5,902							\$5,902
Mustang Powder				\$1,000		\$4,450			\$5,450
HeliCat Canada			\$3,500						\$3,500
Mustang Helicopters		\$2,400							\$2,400
BC Hydro Firstwave Program				\$1,632					\$1,632
Eagle Pass Heliskiing				\$1,000					\$1,000
Canadian Mountain Holidays			\$1,000						\$1,000
Revelstoke Alarm		\$955							\$955
Sure-Haul Transport		\$765							\$765
Begbie View School				\$667					\$667
Private Donator				\$86					\$86
Miscellaneous Cash (refunds, sale of surplus equipment)			\$24	\$343	\$763	\$121	\$9,109	\$200	\$10,560
<b>Total Project Revenue Received</b>	<b>\$48,738</b>	<b>\$310,417</b>	<b>\$453,265</b>	<b>\$376,447</b>	<b>\$317,778</b>	<b>\$440,686</b>	<b>\$171,377</b>	<b>\$22,495</b>	<b>\$2,141,203</b>

<sup>1</sup> Province of BC contributions were for capture funding and the purchase of tangible assets that were retained by the Province of BC post project completion.

<sup>2</sup> This fund was applied for and administered by Splatsin and was used to pay for some of the maternity pen operations.

## 2.2 REVELSTOKE CARIBOU REARING IN THE WILD SOCIETY – IN-KIND CONTRIBUTIONS TO THE PROJECT

In-Kind Funder <sup>3</sup>	12/13	13/14	14/15	15/16	16/17	17/18	18/19	19/20	Total 2013– 2020
BC Hydro			\$2,600	\$2,600					\$5,200
Beaumont Timber				\$4,000		\$4,000			\$8,000
Big Eddy Fuels			\$300	\$200	\$220	\$285			\$1,005
Big Horn Helicopters			\$1,000	\$500					\$1,500
Canadian Mountain Holidays			\$500						\$500
EMCO			\$10,792						\$10,792
EMCON					\$1,500				\$1,500
FD Productions						\$1,004			\$1,004
Government of Canada — Habitat Stewardship Program				\$2,880					\$2,880
Joe Kozek Sawmills					\$387				\$387
K3 Powder						\$2,000			\$2,000
Monashee Outfitting						\$1,050			\$1,050
Mustang Powder			\$650						\$650
Parks Canada	\$19,678	\$19,678	\$19,501	\$10,910	\$14,040	\$34,261	\$8,720	\$938	\$127,725
Province of BC	<sup>4</sup> \$104,653	\$110,000	\$70,087	\$70,087	\$127,689	\$137,258	\$112,800	\$7,155	\$739,729
Rachel Cook				\$3,000		\$3,010			\$6,010
RCRW board and volunteers	\$15,560	\$15,560	\$15,560	\$20,605	\$12,181	\$13,893	\$5,789	\$4,964	\$104,110
Revelstoke Community Forest Corporation	\$13,289	\$32,654	\$25,098	\$25,098	\$28,013	\$16,283	\$13,780	\$11,153	\$165,366
Revelstoke Mountain Resort			\$300	\$300	\$300	\$1,589			\$2,489
Revelstoke Snowshoe Company						\$555			\$555
Selkirk Tangiers Heliskiing			\$3,861						\$3,861
Splatsin			\$26,550	\$57,558	\$1,080	\$25,419	\$19,845	\$3,611	\$134,062
Sure-Haul Transport						\$803			\$803
University of Calgary				\$1,000					\$1,000
<b>Total In-Kind Support</b>	<b>\$153,180</b>	<b>\$177,891</b>	<b>\$176,798</b>	<b>\$198,737</b>	<b>\$185,410</b>	<b>\$241,409</b>	<b>\$160,933</b>	<b>\$27,819</b>	<b>\$1,322,178</b>

<sup>3</sup> In Kind support included donations of time, equipment, materials and facilities (warehouse and boardrooms)

<sup>4</sup> Blue italics indicate where values were unavailable from project records and estimates were used.

### 2.3 REVELSTOKE CARIBOU REARING IN THE WILD SOCIETY – PROJECT CASH EXPENDITURES<sup>5</sup>

Project Cost Category	12/13	13/14	14/15	15/16	16/17	17/18	18/19	19/20	Total 2013–2020
Overhead (insurance, society costs, bank charges, WCB)	\$0	\$2,490	\$4,206	\$3,822	\$2,405	\$6,841	\$3,166	\$2,982	\$25,912
Media and Outreach	\$0	\$2,172	\$1,912	\$9,568	\$472	\$15,771	\$0	\$808	\$30,704
Project Management and Reporting (Contractors/Staff)	\$0	\$11,464	\$27,668	\$39,972	\$36,055	\$57,509	\$45,115	\$49,955	\$267,737
Pen Construction (including water and security systems)	\$1,474	\$122,084	\$55,398	\$75,620	\$24,530	\$2,802	\$0	\$0	\$281,908
Pen Operation (staff, accommodation, food, travel, caribou feed, lichen picking and pen supplies)	\$6,469	\$45,103	\$156,861	\$147,307	\$154,281	\$153,332	\$128,868	\$128	\$792,349
Caribou Capture	\$0	<sup>6</sup> \$58,702	\$87,322	\$80,104	\$1,782	\$128,849	\$0	\$0	\$356,758
Field Monitoring of Collared Caribou	\$40,796	\$4,604	\$99,822	\$40,448	\$66,928	\$68,743	\$24,460	\$0	\$345,801
<b>Total Expenditures</b>	<b>\$48,738</b>	<b>\$246,619</b>	<b>\$433,189</b>	<b>\$396,840</b>	<b>\$286,453</b>	<b>\$433,847</b>	<b>\$201,609</b>	<b>\$53,874</b>	<b>\$2,101,169</b>

### 2.4 REVELSTOKE CARIBOU REARING IN THE WILD SOCIETY – TOTAL PROJECT REVENUES

	12/13	13/14	14/15	15/16	16/17	17/18	18/19	19/20	Total
Project Cash Revenue	\$48,738	\$310,417	\$453,265	\$376,447	\$317,778	\$440,686	\$171,377	\$22,495	\$2,141,203
Project In-Kind Revenue	\$153,180	\$177,891	\$176,798	\$198,737	\$185,410	\$241,409	\$160,933	\$27,819	\$1,322,178
<b>Total Project Revenue</b>	<b>\$201,918</b>	<b>\$488,308</b>	<b>\$630,063</b>	<b>\$575,184</b>	<b>\$503,188</b>	<b>\$682,095</b>	<b>\$332,310</b>	<b>\$50,314</b>	<b>\$3,463,381</b>

### 2.5 REVELSTOKE CARIBOU REARING IN THE WILD SOCIETY – TOTAL PROJECT EXPENDITURES

	12/13	13/14	14/15	15/16	16/17	17/18	18/19	19/20	Total
Project Cash Expenditures	\$48,738	\$246,619	\$433,189	\$396,840	\$286,453	\$433,847	\$201,609	\$53,874	\$2,101,169
Project In-Kind Support Received	\$153,180	\$177,891	\$176,798	\$198,737	\$185,410	\$241,409	\$160,933	\$27,819	\$1,322,178
<b>Total Project Cost</b>	<b>\$201,918</b>	<b>\$424,511</b>	<b>\$609,987</b>	<b>\$595,577</b>	<b>\$471,863</b>	<b>\$675,255</b>	<b>\$362,542</b>	<b>\$81,693</b>	<b>\$3,423,347</b>

<sup>5</sup> The costs shown in this table are unaudited cash expenditures. In-kind contributions were not tracked by Project Cost Category and are not shown in this table.

<sup>6</sup> In the 2013/14 fiscal year, the BC Government paid \$48,000 for capture costs. No receipts were available to determine cost breakdowns.

## 3.0 REPORTS

Following the conclusion of the five-year pilot project, RCRW prepared a series of reports that looked at the functioning of the society, the success of the project in achieving the objectives and the post penning movement of caribou released from the maternity pen. This section provides links to these reports.

### 3.1 ANALYSIS OF THE RCRW MODEL

The RCRW Final Report – Social Structure and Function – Weber 2019 (the Social Report) was prepared and completed by Alice Weber in December 2019 after the field operations for the project were completed. The Social Report was intended to evaluate the overall functioning of the RCRW ‘model’ for delivering this type of project. This section provides background to the structure of the society and the detailed Social Report.

#### 3.1.1 SOCIETY STRUCTURE

At the initiation of the project in 2013, RCRW formed a society and established an energetic and diverse board of directors to govern the activities of the project. Over the term of the project, the board of directors’ positions have been filled by

- HeliCat Canada,
- Mica Heliskiing,
- North Columbia Environmental Society,
- Parks Canada,
- Splatsin,
- Revelstoke Community Forest Corporation,
- Revelstoke Snowmobile Club,
- Province of BC — Forests, Lands, Natural Resource Operations and Rural Development and
- unaffiliated members of the public.

A complete listing of Board of Directors for RCRW can be found in [Section 9.2](#) of this report.

Within the bounds of the society’s bylaws, the board of directors provided the guidance and decision making for the implementation of the project.

In 2015, RCRW hired an Executive Director to manage the project. The society continued with the Executive Director position throughout the remainder of the project. The Revelstoke Community Forest Corporation, through an in-kind donation for their financial controller’s time, managed the finances for the project.

Throughout the term of the project, RCRW had

- field biologists that performed the field monitoring of released caribou,
- a project science advisor with extensive caribou research background,
- access to other caribou wildlife scientists for consultation, evaluation and analysis of project data,
- wildlife veterinarians to provide training, assess the health of animals at capture and during their time in the maternity pen,
- trained shepherds from Splatins and other individuals with extensive wildlife management backgrounds,
- wildlife capture contractors for the capture of the caribou for the maternity pen, and
- avalanche technicians in the third, fourth and fifth capture seasons to help manage snow safety during capture operations.



*PHOTO CREDIT: Alice Weber*

Following the Province of BC's in-kind contribution of staff time in 2014 to manage the maternity pen, in 2017 the society entered into an agreement for the remainder of the project with the Province of BC to formalize the duties/costs for their in-kind contribution.

RCRW received direct financial and in-kind support from a variety of different funders throughout the project (refer to [Section 2.2](#) of this report for a complete listing). Splatins applied for and administered Federal Contribution Agreements that contributed directly to the maternity pen operations. Greater detail to the extent of these contributions can be found in [Section 2.1](#) of this report.

Volunteers were invaluable in the overall effectiveness of the society. They contributed their time to help with the field capture operations of the penned caribou, picked lichen for feeding the penned caribou and performed maintenance to the pen as well as many other tasks.

### **3.1.2 SOCIAL REPORT**

The RCRW board recognized early in the project that our model for deploying a project of this nature was somewhat unique. As the project was nearing completion, the board decided to do a review of the society model to obtain feedback on its effectiveness and identify areas where it could be improved. In 2019, after the project field work had been completed, Alice Weber was retained to prepare the Social Report, which evaluated the RCRW model.

The Social Report is available at [RCRW Social Report — Weber 2019](#)

## **3.2 ANALYSIS OF THE RCRW DEMOGRAPHIC AND TELEMETRY DATA**

### **3.2.1 SCIENCE REPORT**

The Final Report for Revelstoke Caribou Rearing in the Wild – Serrouya et al. 2021 (the Science Report) was completed in June 2021. This report was authored by Robert Serrouya, Kevin Bollefer, Rachel Cook, Sophie Gilbert, Ryan Gill, Cory Legebokow, Bryan MacBeth, Helen Schwantje and Caeley Thacker.

Robert Serrouya, PhD filled the role of Science Advisor to the RCRW board during the term of the pilot project and has been involved with the project from its initiation.

The Science Report has been peer reviewed by

- Layne Adams, PhD (Research Wildlife Biologist, U.S. Geological Survey, Alaska Science Centre) and
- Heiko Wittmer, PhD (Associate Professor, Victoria University of Wellington, New Zealand).

The Science Report is an in-depth analysis of the telemetry and demographic data that was generated by the five-year pilot project. The Science Report looks at how the project performed in achieving the goals that were set at the project outset and makes recommendations regarding future maternity penning projects.

The Science Report is available at [RCRW Science Report June 2021](#)

### **3.2.2 POST CAPTIVE MOVEMENT ANALYSIS REPORT**

The Post Captive Movement Ecology of Endangered Mountain Caribou – Ford et al. 2021 (the Post Captive Movement Analysis Report) was completed in February 2021.

This report was authored by Adam Ford, Michael Noonan, Kevin Bollefer, Ryan Gill, Cory Legebokow and Robert Serrouya.

RCRW contracted Adam Ford, PhD (Assistant Professor of Biology, University of British Columbia Okanagan, Faculty of Science) and Michal Noonan, PhD (Assistant Professor of Biology, University of British Columbia Okanagan, Faculty of Science) to analyze the telemetry and demographic data from the project. Along with co-authors from the RCRW project team, they prepared the un-peer reviewed Post Captive Movement Analysis Report.

The Post Captive Movement Analysis Report examined the post-release movements of adult female caribou that were formerly translocated to the Ruddock Creek maternity pen to bear and raise their young. They compared home range movements of N=36 formerly penned (i.e., 'penned') animals to a sympatric population of animals (N=22) that were never translocated or penned (i.e., 'unpenned').

The authors are in the process of preparing a peer reviewed manuscript for publication. With their permission, RCRW has shared their un-peer reviewed report with the proviso that it is subject to change with the publication process.

The Post Captive Movement Analysis Report is available at [Post Captive Movement Analysis Report](#)

## **4.0 PROJECT PROTOCOLS, PROCEDURES, GUIDELINES AND HANDBOOKS**

At the outset, one of RCRW's goals was to add to the institutional knowledge on caribou maternity penning by creating protocols, procedures and handbooks for other maternity penning projects to build upon. Within this section, you will find links to the documents developed during the term of the pilot project. RCRW hopes that other groups and organizations will find these documents valuable in providing guidance to future maternity penning projects.

### **4.1 PEN OPERATIONS PROTOCOLS**

The RCRW team collaborated to prepare a Maternity Pen Protocol document that provided project staff and volunteers operational guidance during project implementation as well as guidance for future maternity penning projects. Version 3.0 was the result of five years of refinement, and it outlines the animal handling, husbandry and operational procedures and protocols for the maternity penning project.

The Maternity Pen Protocol document is available at [RCRW Caribou Maternity Pen Protocols](#)

### **4.2 POST CARIBOU RELEASE MONITORING GUIDELINES**

RCRW prepared the Post Caribou Release Monitoring Guidelines to guide field biologists in their determination of post pen release calf survival and the investigation of caribou collar mortality signals. These guidelines were prepared to ensure consistent and accurate data collection methods for the project.

The post release monitoring guidelines are available at [RCRW Post Release Monitoring Guidelines](#).

### **4.3 MATERNITY PEN LICHEN COLLECTION HANDBOOK**

In each of the five years of operation, the pen used up to 280 kg of lichen to transition captured caribou onto and off the pellet diet that was fed to them throughout the penning period. RCRW developed the Lichen Collection, Handling, Storage and Feeding Handbook in 2016 that provided the guidance to undertake this task effectively.

The Lichen Collection Handbook is available at [RCRW Lichen Collection Handbook — 2016](#)

### **4.4 CARIBOU CAPTURE MANUAL AND SAFE WORK PROCEDURES**

Capturing female caribou in the field and transporting them to and releasing them in the maternity pen required a coordinated team effort. RCRW refined the Capture Manual with each successive capture season to the 2018 final version, which is shown in this section. Given the avalanche risk that exists in the terrain where the animals were captured, RCRW worked with avalanche consultants to produce the overarching Safe Work Procedures that had to be met before field capture actions could begin. A full description of the caribou capture process can be found in Section 2 of the Science Report located in [Section 3.2.1](#) of this report.

The Caribou Capture Manual and Safe Work Procedures are available at

[RCRW 2018 Capture Team Manual](#) and

[RCRW Caribou Capture Safe Work Procedures in and near Avalanche Terrain](#).

## **5.0 PUBLIC OUTREACH AND EDUCATION**

A key part of this project was outreach engagement with a diverse array of supporters and stakeholders as well as the general public and the organizations involved in caribou conservation. This section provides an overview of the outreach and education that the project provided.

### **5.1 SCHOOL PROGRAM EDUCATION**

In the 2014/15 project year, a local teacher and experienced environmental educator partnered with RCRW and received funding from Columbia Basin Trust to deliver education programs on caribou conservation and the maternity pen project. Teachers visited six grade one classes and six grade four classes to present interactive material that aligned with the curriculum. Students in grade four also participated in field trips to pick lichen for caribou in the maternity pen.

From 2015 to 2018, the education program continued to deliver caribou education programs to communities throughout

- School District 10 — Edgewood, Nakusp and New Denver school groups,
- School District 8 — Kaslo school groups,
- School District 19 — Revelstoke elementary schools (kindergarten to grade seven),
- the Revelstoke home school community,
- Revelstoke École des Glaciers French school, and
- the Revelstoke Girl Guides group.

Some of these education sessions included a field trip in which students picked lichen that was used to feed caribou while they were in the maternity pen. Throughout this period, the education program reached 456 students, 22 teachers and 10 parents.

The project developed a comprehensive classroom package, which is available for viewing in [Section 8.5](#) of this report.

In addition to the digital teaching materials, there are a number of hands-on materials for students available for classroom use that can be borrowed from the Parks Canada office in Revelstoke.

## 5.2 OUTREACH ACTIVITIES

Throughout the project, RCRW was in regular contact with the Province of BC, academics, biologists and resource managers in BC to update them on progress as well as share and receive advice. This included regular sharing of information with the [Klinse-Za Maternity Pen](#), which was operating at the same time.

A website ([www.rcrw.ca](http://www.rcrw.ca)) was built in 2013 and was continually updated throughout the project with press releases, photos and media factsheets. This website will not be accessible after November 2022, but all of the project information can be accessed using the links provided in [Section 1.7](#) of this report.

There have been extensive visits to the RCRW website over the term of the project. The project changed its web host in mid-2019, and as a result, usage statistics prior to that are unavailable. Since the web host switch, there were 2333 visits in the remainder of 2019, 6907 visits in 2020 and 1935 visits from January 1 to March 15, 2021.

A Facebook site was launched in December 2012 ([www.facebook.com/RevelstokeCaribou](https://www.facebook.com/RevelstokeCaribou)). During the operational phase of the project, the page was regularly updated with new funding announcements, project progress, etc.

Throughout the term of the project, RCRW's outreach activities included

- numerous interviews with news media,
- annual press releases and fact sheets,
- attendance at conferences (such as the Ktunaxa conference on Maternal Penning in Kimberly BC, the Columbia Mountains Institute for Applied Ecology Predator Prey Conference in fall 2016 and the Columbia Basin Environmental Education Network workshop in April 2016),
- project update presentations in public meetings at the Revelstoke Community Centre and with interested groups (such as the North Columbia Environmental Society, Rotary Revelstoke, the Fish and Wildlife Compensation Program board and the Selkirk College Integrated Environmental Planning Program),
- information sharing with other groups considering setting up maternity pens,
- coordination of site visits to the maternity pen with people and groups (such as the Splatsin, Downie Timber, The Calgary Zoo, re-introduction specialists from the International Union for Conservation of Nature, Devon Canada, Canadian Natural Resources Limited and members of the media), and
- participation in external reviews of caribou conservation with the Columbia Mountains Institute and the Province of BC.

The following are some examples of news articles prepared by the media during the project:

- [January 24, 2013 — Revelstoke Review](#)
- [April 8, 2016 — Revelstoke Review](#)
- [April 27, 2017 — CBC BC News](#)

Many other media interviews can be found by searching for articles on RCRW in the local Revelstoke newspapers, The Vancouver Sun, The Calgary Herald and the CBC BC news site.

In addition to these outreach activities, in 2018 RCRW commissioned a Revelstoke film production company, FD Productions, to produce a five-minute overview of the RCRW project. This film, *It Takes a Village*, was posted to the RCRW Facebook page as well as to the RCRW YouTube channel, and it has received thousands of views and hundreds of shares via Facebook.

The video can be viewed at [February 27, 2018 — RCRW Video — It Takes a Village](#).

### **5.3 LICHEN PICKING AND PEN MAINTENANCE**

Each year, a large group of dedicated volunteers (including Parks Canada staff, school classes and other groups from outside the community of Revelstoke) contributed hundreds of hours to collect a ten-day supply of lichen that was used to transition the penned caribou to a specifically formulated pellet diet. The caribou were transitioned off the pellets with supplementation of lichen near the release dates.

RCRW had several very dedicated lichen-picking coordinators who organized this group of approximately 70–80 volunteers, as well as other groups donating in-kind time, for lichen-

picking sessions over the fall and winter each year prior to penning. The volunteers would collect as much as 280 kilograms of lichen each season; the lichen was then taken to the maternity pen on capture day to start the transition to caribou pellets. Lichen was collected from active logging operations, Crown Land where there was no caribou presence and areas on Revelstoke Mountain Resort ski hill. Special thanks go to Revelstoke Mountain Resort (for donating free lift passes to lichen pickers), the Revelstoke Snowshoe Company (who donated time and equipment to volunteers for lichen picking sessions on Mt. Mackenzie) and Buddy McKenzie (for allowing us access to his Mars Creek property for lichen collection).

During these lichen-picking sessions, our lichen coordinators performed outreach to update volunteers on the project and on education regarding the important contribution this project was making to caribou conservation.

Maintenance work at the maternity pen was also provided by in-kind contributions from groups like Parks Canada and the BC Wildfire Service crews as well as from many other volunteers. These work sessions on the maternity pen provided RCRW the opportunity to answer participants' questions and provide them with updates on the project. It also provided volunteers and organizations with opportunities to directly participate in this project.



*PHOTO CREDIT: Rob Buchanan*

## **6.0 PROJECT CONCLUSIONS**

What started out as a conversation on the chair lift of the local ski hill came to fruition several years later. If it were not for passionate and driven volunteers, this project would not have happened. Ideas were gathered, modified and executed through a multi-talented board and with the help of contractors and volunteer expertise. RCRW had many hurdles to overcome but there was always someone in the wings to help. One of many challenges was attempting to get the Beaumont Timber barge off the beach in order to get a snow cat across the lake to plough the snowed-in pen fence line! We owe thanks to all the volunteers, employees, contractors, board members and organizations that contributed and made RCRW into much more than the original vision of those early, informal discussions and brainstorming sessions.

The project was successful in many ways. It united many different groups through a common goal who then stuck together for over eight years. This project will benefit future land use and wildlife decisions with the mutual respect gained through working with the various groups. Many advancements were made in understanding mountain caribou movements, behaviour and tenacity. There were many highs and lows during the project, but no one will forget their more intimate experience with the calves, especially Grace and Kirby (two of the calves orphaned during penning).

Over the years, protocols were formulated and modified to result in fine-tuned guidance on all aspects of day to day activities by the end of the project. RCRW has organized and provided these documents in this report in the hope that future projects won't have to

experience the same trials and tribulations. We were lucky enough to learn from the Chisana Caribou Recovery Project in the Yukon ([Three Decades of Caribou Recovery Programs in Yukon: a Paradigm Shift in Wildlife Management](#)); Rick Farnell graciously helped us out with the first-year capture here in Revelstoke.

We are proud of our accomplishments and hope future projects will learn from and improve on our learnings. As we show in our video, it took a village. Through the countless hours, dedication and commitment of all who were involved, RCRW in its broadest sense grew into a community.

## **7.0 ACKNOWLEDGEMENTS**

The Board of Directors of RCRW would like to acknowledge the support of the many partners, financial supporters, in-kind contributors, paid staff/contractors and volunteers that made this pilot project a success. Without the effective collaboration of this diverse and dedicated group, our project would never have succeeded in fulfilling its objectives.

We would like to specifically acknowledge the following:

### Project Partners

- Columbia Mountains Caribou Research Project,
- HeliCat Canada,
- Mica Heliskiing,
- Monashee Outfitting,
- North Columbia Environmental Society,
- Parks Canada,
- Province of BC,
- Revelstoke Community Forest Corporation,
- Revelstoke Snowmobile Club, and
- Splatsin.

### Financial (cash) Contributors (listed alphabetically)

- BC Hydro (First Wave and Fish and Wildlife Compensation Program),
- Begbie View School,
- Canadian Mountain Holidays,
- Columbia Basin Trust,
- Downie Timber Revelstoke,
- Eagle Pass Heliskiing,
- Golder and Associates,

- Government of Canada (Aboriginal Fund for Species at Risk and Habitat Stewardship Program),
- Habitat Conservation Trust Foundation,
- HeliCat Canada,
- Mustang Helicopters,
- Mustang Powder,
- Parks Canada,
- Private cash donators,
- Province of BC,
- Revelstoke Alarm,
- Selkirk Mountain Helicopters,
- Selkirk Tangiers Heliskiing,
- Shell Canada, and
- Sure-Haul Transport.

#### In-kind Contributors (listed alphabetically)

Contributors of donated time, equipment, materials and services to the project that exceeded \$1000 in value:

- BC Hydro,
- Beaumont Timber,
- Big Eddy Fuels,
- Big Horn Helicopters,
- EMCO Plumbing and Heating Supplies,
- EMCON Services,
- FD Productions,
- Government of Canada — Habitat Stewardship Program,
- K3 Powder,
- Monashee Outfitting,
- Parks Canada,
- Province of BC,
- Rachel Cook (US National Council for Air and Stream Improvement — NCASI),
- Revelstoke Community Forest Corporation,
- Revelstoke Mountain Resort,
- Selkirk Tangiers Heliskiing,

- Splatsin, and
- University of Calgary.

We also wish to thank the many other organizations, businesses and people that contributed less than \$1000 in goods and services.

### Volunteers

“It takes a village” accurately describes the efforts of the many volunteers who committed their time and personal equipment to make this project a success. Volunteers helped by collecting lichen for the penned caribou, maintaining and constructing the pen, assisting in project capture days and fundraising as well as with a multitude of other tasks. The pilot project would never have succeeded without your collective efforts! We cannot thank you enough.

### Contributors of In-kind Time to the Board of Directors and the Project

Special thanks go to the individuals, organizations and businesses that donated time to serve on the RCRW Board. These included:

- B. Jody Lownds Law Corporation,
- HeliCat Canada,
- Jennifer Greenwood,
- Kelsey Furk,
- Mica Heliskiing,
- North Columbia Environmental Society,
- Parks Canada,
- Province of BC,
- Revelstoke Community Forest Corporation,
- Revelstoke Snowmobile Club,
- Revelstoke Rod and Gun Club, and
- Splatsin.

We also wish to thank the following people and teams for their collective guidance to the board:

- Science Advisor (Rob Serrouya),
- Veterinary Team (Helen Schwantje, Brian MacBeth and Caeley Thacker),
- Wildlife Technicians (Kelsey Furk, Mandy Kellner, Corey Bird and Ryan Gill),
- Full-time Pen Shepherds (Len Edwards, John Flaa, Adam Christie, Tara Harris, Kelsey Furk, Dylan Wilson, Bert Marchand and Troy Duteau),
- Executive Directors (Kelsey Furk and Bill Beard),

- Board Sub-committee Chairs (Cory Legebokow, Sarah Boyle, Jody Lownds, Kevin Bollefer, Rob Serrouya, Corey Bird and Kelsey Furk),
- Pen Operations Managers (Cory Legebokow and Kelsey Furk),
- Caribou Lichen Coordinators (John Flaa and Cat Mathers),
- Education Program Coordinators (Sylvia Wood and Janette Vickers),
- Parks Canada Liaisons to the Board (Sarah Boyle, Brian Chruszcz, Briana Burley, and Lisa Larson),
- External Scientific Advisors (Layne Adams and Scott McNay), and
- Report Editor (Tara Sylvestre).

### Letters of Support

Thanks for the initial letters of support we received to get this project started. They included letters from the following:

- Beaumont Timber,
- Canadian Mountain Holidays,
- City of Revelstoke,
- Downie Timber,
- Eagle Pass Heliskiing,
- HeliCat Canada,
- K3 Catskiing,
- Ktunaxa Nation,
- Louisiana Pacific,
- Mica Heliskiing,
- Mustang Powder,
- North Columbia Environmental Society,
- Parks Canada,
- Province of BC,
- Revelstoke Community Forest Corporation,
- Revelstoke Rod and Gun Club,
- Revelstoke Rotary Club,
- Revelstoke Snowmobile Club,
- Selkirk Tangiers Heliskiing,
- Splatsin, and
- Stella Jones.

## Peer Reviewers

Finally, thanks to Layne Adams (US Geological Survey — Alaska Science Centre) and Heiko Wittmer (Victoria University of Wellington, New Zealand) for the peer review of the Science Report.

## **8.0 PROJECT DOCUMENTS**

This section is intended to provide access to additional administrative and operational documents developed during the term of the pilot project. There are other documents in the previous sections of this report that are not included in this section.

The documents referenced in this report can be accessed using the embedded links, which lead to the Alberta Biodiversity Monitoring Institute (ABMI) — Caribou Monitoring Unit (CMU) page where they are stored. The ABMI website is located at <https://cmu.abmi.ca/testing-recovery-options/revelstoke-caribou-rearing-in-the-wild/>.

Related videos and PowerPoint presentations can be accessed at [RCRW YouTube Channel](#)

The project documents may also be found at the British Columbia Government *Species Inventory Web Explorer* site (Project ID 5898) located at <http://a100.gov.bc.ca/pub/siwe/details.do?projectId=5898&surveyId=42978&pageOffset=0>

### **8.1 PROJECT FACT SHEETS, NEWS RELEASES AND PROJECT OVERVIEW INFORMATION**

RCRW developed a full set of fact sheets and news releases as well as an introductory document entitled *Who We Are*.

These documents can be viewed at [RCRW Project Fact Sheets, News Releases and Overview Information](#).

### **8.2 STRATEGIC PLANNING DOCUMENTS**

RCRW produced two strategic planning documents, which are outlined below.

These documents can be viewed at [RCRW Strategic Planning Documents](#).

#### **8.2.1 RCRW STRATEGIC PLAN**

As the final operational year of the project was approaching, the RCRW board undertook (with the help of the Columbia Basin Trust, Non-profit Advisors Program funding) a strategic review of continuing the maternity penning project beyond the five-year project mandate. This review recommended winding up the pilot project (at the end of the five-year mandate) by distributing the scientific and operational outcomes in a final report document.

## 8.2.2 SPLATSIN ALERTNATE PEN SITE INVESTIGATION

In 2020, Splatsin applied for and were successful in receiving Canadian Federal Government funding to investigate potential alternative sites for a new maternity pen in the North Columbia caribou herd habitat. Splatsin and RCRW worked collaboratively to identify potential maternity sites by using some of the preliminary findings of the Science Report in [Section 3.2.1](#). Should there be a decision to continue with maternity penning for the North Columbia caribou herd, it is our hope that the findings of this report help with decision making on a new location.

## 8.3 STAFFING DOCUMENTS

RCRW developed job descriptions for key operation staff, which included

- Executive Director,
- Wildlife Technician,
- Lead Shepherd and
- Assistant Shepherd.

These documents can be viewed at [RCRW— Job Descriptions](#)

## 8.4 2018 CAPTURE SUMMARY, FORMS AND CHECKLISTS

RCRW produced forms for the capture day and a detailed summary reporting on the 2018 capture process. The documents available include

- 2018 Animal Reference Table,
- Equipment Checklist for Pen Processing Teams and
- 2018 caribou capture report.

These documents can be viewed at [RCRW Capture Day Documents](#)

## 8.5 PROJECT CARIBOU EDUCATION KIT RESOURCES

RCRW developed comprehensive classroom presentations for teachers, which were used to deliver the school caribou presentations during the project.

These documents can be viewed at the RCRW YouTube channel (videos and PowerPoint presentations) [RCRW Youtube Channel](#) and the ABMI—CMU webpage located at [RCRW Caribou Education Kit for Educators](#).

The classroom presentation resources that are available for teachers are

- Maternity Video Clips from 2015 for classroom presentations:
  - 2015 Caribou release from the pen,
  - 2015 Caribou transfer to pen for veterinary assessment and collaring,

- Caribou with lichen in antlers and
- Trough troubles.
- PowerPoint Presentations, Caribou Games, an Education Material Checklist and a Reference Guide for Educators including activities by the Yukon Government —Project Caribou:
  - Primary classroom PowerPoint education presentation,
  - Secondary classroom PowerPoint education presentation,
  - Parks Canada caribou PowerPoint presentation,
  - Outdoor caribou game — predator/prey,
  - Caribou education kit inventory list (stored at Parks Canada office in Revelstoke) and
  - Reference Guide for Educators including Activities by the Yukon Government — Project Caribou.
- Worksheets and Answer Keys:
  - Worksheet to complete after watching the feature film *Being Caribou* (source video online),
  - Grade 11 worksheet and answer key,
  - Grade 6 worksheet and answer key,
  - Grade 4 worksheet and answer key,
  - Worksheet food web caribou and answer key and
  - Worksheet crossword and answer key.

## 8.6 PROJECT ANNUAL REPORTS

RCRW produced annual reports for funders and members at the end of each fiscal year that the maternity pen operated. An annual report for the 2018–19 fiscal year was not prepared as the results for this year were summarized in the Science Report.

These documents can be viewed at [RCRW Annual Reports](#).

## 9.0 PROJECT SPONSORS AND BOARD MEMBERS

With the completion of this project, RCRW will close its existing website and create a new webpage on the ABMI—CMU website. This section is intended to capture some of the information on the RCRW webpage that will not migrate to the ABMI—CMU site.

### 9.1 MAJOR SPONSOR AND PARTNER LOGOS

This project was undertaken with the financial support of the Government of Canada.

Ce projet a été réalisé avec l'appui financier du gouvernement du Canada.

Canada 



Parks  
Canada

Parcs  
Canada



**FWCP**  
Fish & Wildlife  
COMPENSATION PROGRAM



northcolumbia  
environmental society





## 9.2 LIST OF SERVING MEMBERS ON THE RCRW BOARD OF DIRECTORS

RCRW was incorporated as a society (Incorporation Number S-0060728) by the Province of BC Registrar of Companies on January 10, 2013. The board members that served since incorporation are listed alphabetically by member name below.

<b>BOARD MEMBER</b>	<b>AFFILIATION</b>	<b>YEARS SERVED<sup>7</sup></b>
Kevin Bollefer	Revelstoke Community Forest Corporation	2013 to report publication
Sarah Boyle	Parks Canada	2013
Kelsey Furk	Unaffiliated Individual	2014 and 2016
Marnie Graf	Mica Heliskiing	2014 to report publication
Jennifer Greenwood	Unaffiliated Individual	2016 to report publication
Daniel Kellie	Revelstoke Snowmobile Club and BC Commercial Snowmobile Operators Association	2016 to 2019
Robyn Laubman	Splatsin	2016 to report publication
Stuart Lee	Splatsin	2014 and 2015
Cory Legebokow	Province of BC	2013 to 2015
Jody Lownds	North Columbia Environmental Society	2014 to report publication
Ian Thomm	HeliCat Canada	2015
Virginia Thompson	North Columbia Environmental Society	2013
Angela Threatful	Revelstoke Snowmobile Society	2013
Gary Van Os	Revelstoke Snowmobile Club	2014

<sup>7</sup> Source: BC Societies Act Registry – RCRW Statement of Directors and Registered Office annual filings