

Revelstoke Caribou Rearing in the Wild Society

2018 Capture Meeting

To meet FOI requirements, the names of companies and personnel have been removed and generic titles in blue script have been added.

Principles

1. Reduce risk to staff:
 - a. **Avalanche safety** – A professional member of the Canadian Avalanche Association will provide briefings to all field staff on avalanche safety and emergency response, as well as provide stability forecasting and capture site assessment for capture crews. The avalanche technician has the authority to halt field operations if avalanche hazard is deemed too high for safe field operations.
 - b. **Helicopter safety** - Transport Teams and any pen staff working around the transport helicopter landing pad must attend helicopter safety briefing (at the pen morning of capture). This briefing is provided by the pilot.
 - c. **Communications protocol** – Each team has a single point through which they communicate to other teams. Communications protocol is as follows: Team Members report to >> Team Leader reports to >> Incident command.
 - d. **First Aid** – An OFA level 3 first aid attendant is on site located at Muster Point – Helispot A in Appendix 2. ETV is located at the highway pullout (51 44' 12.16" N 118 39' 24"W).
2. Reduce risk to caribou:
 - a. **Vet #1** and **Vet #2** oversee animal care.
 - b. Veterinarians will brief team members on safe animal handling procedures.
 - c. Follow protocols outlined in this document, follow team leader instructions. Roles are clearly defined, and people are expected to remain in their working area. Please do not crowd the processing area – goal is to minimize animal exposure to people and noise.
 - d. Do not take unnecessary risks in the name of speed.
 - e. Follow capture permit guidelines
 - I. Keep the caribou HEAD UP/NOSE DOWN, sternal positioning. Keep blindfold on throughout transport.
 - II. Limit noise and talking and minimize handling. No petting – it does not help.
 - III. Follow protocols and ensure that you communicate any changes/issues to your team leader.

Revelstoke Caribou Rearing in the Wild Society

2018 Capture Meeting

Overview

One transport helicopter (A-star C-XXXX) with pilot ([Transport Helicopter Pilot Name](#)) and 2 team members ([Avalanche Technician/Wrangler Name](#)) and [Transport Team Wrangler Name](#) will first assess terrain from a distance for avalanche risk and make a call on go/no for targeted group. Recommendations will be made on safe approaches and concerns for safety of caribou and team members. If avalanche risk is acceptable, the capture machine (Hughes 500 C-XXXX) with [Capture Machine Wrangler/Capture Team Lead Name](#), [Capture Team Pilot Name](#) and [Capture Machine Net Gunner Name](#) will select caribou for capture (2 animals), and will net gun, hobble, assess and sedate. After captured caribou are immobilized, the capture crew will arrive in transport helicopter and load the animals. The transport helicopter holds two caribou and one staff member; one of the transport crew will stay on the ground at capture site to be picked up once caribou are delivered to pen. This remaining team member must have a working portable radio and an emergency overnight pack with them.

Transport helicopter flies to camp at helipad (see revised landing location for 2018) – caribou are removed from helicopter and held in a stable position until the helicopter clears the site. Once clear, skimmer/snowmobile approaches, caribou are loaded into skimmer onto lap of attendant and transported to the pen. Caribou are processed and marked in the pen and released. Two caribou are caught in each capture cycle and the capture crew waits to ensure operations are complete at the pen before initiating another cycle.

I/C will ensure that the Pen Teams and Capture Teams are ready to accept more caribou to the pen before giving the go ahead to the capture and transport helicopters to start their next capture cycle.

Revelstoke Caribou Rearing in the Wild Society

2018 Capture Meeting

Resources (Total Staff = 30)

Incident Command: IC #1 (Primary) and IC#2 (Alternate)

First Aid: Attendant: Contract First Aid Attendant Name /Driver: Driver #1 Name

Capture and Transport Team (Capture Team Lead Name, 6 people total):

Capture:

Capture Machine Pilot Name (Hughes 500, pilot)

Capture Machine Wrangler/Capture Team Lead Name (Hughes 500 wrangler)

Capture Machine Net Gunner Name (Hughes 500, net gunner)

Transport:

Transport Team Pilot Name (A-Star, pilot)

Avalanche Technician/Wrangler Name (A-Star, avalanche technician, wrangler)

Transport Team Wrangler Name (A-Star, wrangler)

Pen Processing Teams (Vet #1 Name lead; 12 people total)

Processing team 1

Vet #1/Team Lead Name

Assistant #1 Name

Assistant #2 Name

Recorder #1 Name

Processing team 2

Vet #2 Name

Assistant #1 Name

Assistant #2 Name

Recorder #1 Name

Processing team 3 (ultrasound)

Research Vet #3 Name

Assistant #1 Name

Assistant #2 Name

Assistant #3 Name

Transport Team (Transport Team Lead Name, 8 people total)

Snowmobile Drivers: Snowmobile Driver #1 Name and Snowmobile Driver #2 Name

Animal Attendants on Skimmer: Skimmer Attendant #1 Name and Skimmer Attendant #2 Name

Animal Handlers: Animal Handler #1 Name, Animal Handler #2/Transport Team Lead Name; Animal Handler #3 Name; and Animal Handler #4 Name.

Revelstoke Caribou Rearing in the Wild Society

2018 Capture Meeting

Communications

1. Incident Commander=“**RCRW IC**” = **IC/1 (Primary)** or **IC/2 (Alternate)** will oversee operations.
2. Communication within teams at pen (line of sight) is **MOF Gold (on Channel 1)**
3. Communications between IC (pen) and capture operations is via **MOF Orange (on Channel 2)**. Copies of the radio communications map for the capture area will be available at the Capture Meeting.
4. Communications should be limited and as follows: Team Members report to >> Team Leader reports to >> Incident command.
 Primary Radio Contacts for I/C will be:
 - Capture Team – Helicopter Pilots – **Capture Machine call sign (Capture Pilot)** and **Transport Machine call sign (Transport Pilot)**
 - Transport Team – **Transport Team Lead Name**
 - Pen Processing Teams – **Assistant #1 Name** (Day 1); **Assistant #2 Name** (Day 2)
 - First Aid – **First Aid Attendant Name** (call sign“Foxtrot Alpha 1”)
5. Emergency resources – see Appendix 3 “Emergency Contacts”
6. **Pen operations muster point = Helispot A (See Appendix 2)**
7. Each field team has a GPS tracker in the helicopter – In the event of an emergency, the helicopter can be located by calling the emergency number in the table below. Indicate that the helicopter hasn’t checked in, and a location is required.

Helicopter type	Call sign	Emergency phone number
Hughes 500D	C-XXXX	xxx-xxx-xxxx
A-Star B3	C-XXXX	xxx-xxx-xxxx

8. Crew in field will report capture location (UTM or lat/long), temperature, whether sedation has been administered, injuries etc. of animals to I/C ASAP. Data Card to be handed transport crew at the changeover, and then on to Veterinarians (**Vet #1** and **Vet #2**).
9. I/C conveys information about incoming animals to pen processing team as soon as there is information.
10. If you are uncertain about something (or have a concern) - please ask for clarification. You can talk to your team leader or a communications committee member (**Names of Communications Team Members**).

Responsibility	Team Leader	Location
Overall I/C	IC #1 (Primary)/IC#2 (Alternate)	Helipad
Field operations	Capture Team Lead Name	Hughes 500 – Capture/Transport
Pen Processing	Vet #1 Name	Processing area
Transport	Transport Team Lead Name	Helipad/Processing area

Revelstoke Caribou Rearing in the Wild Society

2018 Capture Meeting

Logistics

1. Early morning weather check. If weather is poor at pen I/C will notify helicopter pilots via radio repeater channel 2 by 0715 and request that they hold in Revelstoke. Rest of capture team will assemble and hold at the pen until final decision to proceed or cancel is made.
2. For those traveling together, meet at the [Location in Revelstoke](#) at **6:15**. From here, travel 107km north on highway 23 to the boat launch (lat/long: 51.736797°/-118.656602°). Boat launch is ~ 9km north of the Goldstream river bridge. Park at highway pullout unless you have gear which needs to be transported across the reservoir.
3. Arrive on west side of the lake at the pen by 8 am. Pilots will conduct helicopter briefing at pen. [Boat Operator #1 Name](#), [Boat Operator #2 Name](#) or [Boat Operator #3 Name](#) will operate the boat across the lake.
4. Avalanche technician will provide avalanche conditions update for all staff and review protocols for field crews.
5. Lunch/water is provided.

Repeat for Day 2 if necessary.

Break-out groups: Discuss strategy and operations

1. Pen Processing Team: [Processing Team Lead \(Vet#1\)](#) and [All Processing Team members](#);
2. Ground transport Team: [Transport Team Lead](#), and [All Ground Transport Team members](#);
3. Helicopter Capture Team: [Capture Team Lead](#) and [All Capture Helicopter and Transport Helicopter Team members](#).

Goals for Capture/ Permit Conditions

1. Selection of capture groups will consider avalanche risk to staff AND caribou. [Transport Helicopter Avalanche Technician/Wrangler](#) will make this assessment and determine go/no go.
2. If capture for a group is a 'go', [Capture Team Lead](#) will direct capture within avalanche risk parameters set by [Avalanche Technician/Wrangler](#) . Consideration will be given to other terrain factors. If caribou can be pushed into dangerous terrain such as cliffs, or adjacent avalanche terrain – leave them.
3. Wait for the right time - separate animals and make a clear a shot as possible. If it is not working out - leave and go elsewhere.
4. Minimize exposure of ground team to avalanche terrain (leave one machine unexposed if in avalanche terrain). Ground crews are in radio contact with

Revelstoke Caribou Rearing in the Wild Society

2018 Capture Meeting

helicopter and are left in safe location as machine transports animals. If possible, leave ground crew with an overnight bag.

Capture Parameters:

1. Max number of adults 20. Max yearlings = 1 TOTAL. Goal is healthy female adults with no calves.
2. No Bulls. Release old or unhealthy animals. **Don't separate cow/calf pairs.**
3. Max **2-3 chases per caribou group** in the field. **Max close chase time = 2 minutes.**
4. Max transport time 30 minutes.
5. Do not leave a group smaller than 3 in the field. (E.g. if there are 5, take a maximum of 2).
6. If body temperature greater than **41 degrees** Celsius (prior to bagging) OR ANIMAL HAS SIGNIFICANT INJURY – release on site. HELICOPTER SHOULD HAVE A RIFLE in case of need to euthanize.
7. Air temp at capture must be < 10 degrees.

Field Processing:

1. Record info on Field card: location (lat/long), TIME OF CAPTURE, temperature of animal, sedation (yes/no), and possible injuries and pass WRITTEN INFO on to transport crew.
2. Report any injuries to pen via I/C. I/C to update Veterinarians as soon as possible. If we know there is a possibility of injury there are possibilities for treatment.
3. TAKE TEMP BEFORE in the bag and ready to go - If 41 degrees Celsius OR GREATER - release on site.
4. Hobble, Eye lube, Blindfold and place in bag. PACK BAG WITH SNOW.
5. Sedation in the field per protocols ([Vet #1](#) to brief those administering sedative). If an animal is not sedated – flag the antlers and inform the I/C ASAP - NO REAL REASON NOT TO SEDATE.
6. Load into transport helicopter with attendant watching heads at all times.
7. Field capture crew will pause capture operations to allow processing crew to catch up.

Ground Transport

1. With the help from the transport team, the animals are unloaded from the helicopter, placed on the ground and stabilized by attendants. After the helicopter lifts off, each animal is lifted into a skimmer to be transported to the pen. At least four staff are needed at the helipad to help unload caribou.

Revelstoke Caribou Rearing in the Wild Society

2018 Capture Meeting

2. The two snowmobiles are each equipped with a skimmer, in which the caribou is transported to the pen. Each caribou is accompanied by an attendant, who holds the caribou's head on their lap in a stable position.
3. Caribou waiting for processing shall be left in the shade inside the pen.
4. Please be mindful of the helicopter doors.
5. Wear ear protection and wait for indication from helicopter pilot before approaching helicopter. Follow helicopter safety protocol when working around the helicopter landing area.

Processing

1. The two processing teams, and ultrasound research team will be positioned in the pen. The max pen temp is +10C.
2. See Appendix 1 for information to be collected during processing. There is a platform scale to weigh caribou. All caribou to be ear tagged (bilateral) and adults to be radio collared. Ear tags correspond to numbers and are with the collar bags.
3. EAR TAGS = YELLOW LEFT, RED RIGHT.
4. No caribou will be reversed/released without the ensuring that all samples and information is recorded. Recorder is responsible for ensuring this happens WITH CONSULTATION WITH VETS.
5. DON'T FORGET TO REMOVE ALL MAGNETS FROM COLLARS.

Revelstoke Caribou Rearing in the Wild Society

2018 Capture Meeting

Appendix 1

CARIBOU PENNING - ANIMAL RECORD SHEET

DATE: March 2016 Time:

RECORDER:

CAPTURE: GPS LOCATION: _____

WEATHER CONDITIONS: _____

TIMES:

Capture at: _____

Helicopter load at: _____

IDENTIFICATION: Animal WLH #: 16 - _____

Eartag colour and #s: Right _____ Left _____

Radiocollar # _____
colour _____ Frequency: _____

IMMOBILIZATION DRUGS:

Sedation drug(s):

Drug(s) + dose _____ ; Method

Time given _____

Reversal drug:

Drug + dose _____ ;
Method _____

Time given: _____ Time up: _____

PHYSICAL EXAM:

Age: est. years Sex: _____ Body temperature: C

Weight: est. or actual kg Body condition score: 1 2 3
4 5

Revelstoke Caribou Rearing in the Wild Society

2018 Capture Meeting

Appendix 2: Helipad and route to pen



Revelstoke Caribou Rearing in the Wild Society

2018 Capture Meeting

Appendix 3: Emergency Contacts

Name	Phone Number	Radio Contact	Lat/Long (degrees/minutes/seconds)
Maternity Pen (Company Name and Primary Contact)	XXX-XXX-XXXX (primary) XXX-XXX-XXXX (cell)	"RCRW Maternity Pen" Gold simplex TX/RX: 163.83	51 degrees 45' 14" North; 118 degrees 40' 24" West
Helicopter Ski Lodge Name (Fuel Available)	XXX-XXX-XXXX	TX/RX: XXX.XXX Tone XXX.X	[Lodge latitude/longitude]
Revelstoke FLNRO Office Radio Dispatch	250-837-7611	"XLT 78 Revelstoke" <u>Orange Repeater (at Pen)</u> TX: 163.275 RX: 164.145 Tone 3: 131.8 <u>Green Repeater (at Airport)</u> TX: 163.125 RX: 163.995 Tone 3: 131.8	N/A
Parks Canada Revelstoke Office	250-837-7500	N/A	N/A
Hughes 500 Tracking Call Sign X-XXXX	XXX-XXX-XXXX	N/A	N/A
Astar AS350B3 Tracking Call Sign X-XXXX	XXX-XXX-XXXX	N/A	N/A

Revelstoke Caribou Rearing in the Wild Society

2018 Capture Meeting

Name	Phone Number	Name	Phone Number
Arrow Helicopters	250-837-6288	RCMP emergency	911
Selkirk Mountain Helicopters	250-837-2455	RCMP non-emergency Revelstoke	250-837-5255
Glacier Helicopters	250-837-9569	Ambulance	911
		Parks Canada Dispatch	1-877-852-3100
Mica Heli Skiing Lodge	604-343-2930 (primary) 250-869-8694 (alternate)	Coroner Service (Interior)	250-861-7429
Selkirk Tangiers (office)	250-837-5378	BC Conservation Officer Service	1-877-952-7277
CMH Gothics Lodge	250-837-4204	Pacific Region Joint Coordination Rescue Centre Victoria	1-800-567-5111
CMH Adamants Lodge	250-837-4245		
CMH Monashee Lodge	250-834-7223		
Eagle Pass (office)	250-837-3734		