



# SOUTHERN MOUNTAIN CARIBOU - INDIGENOUS KNOWLEDGE, PERSPECTIVES, AND LANGUAGES

Species At Risk Act (SARA) Consultation\*, Cooperation, and Accommodation Workshop

Jean Polfus

Robin Steenweg

Canadian Wildlife Service  
Environment and Climate Change Canada

November 26, 22 & 24, 2022

\*These workshops, the second in the series, are intended to be information sharing and planning sessions. They are not considered consultation on their own.



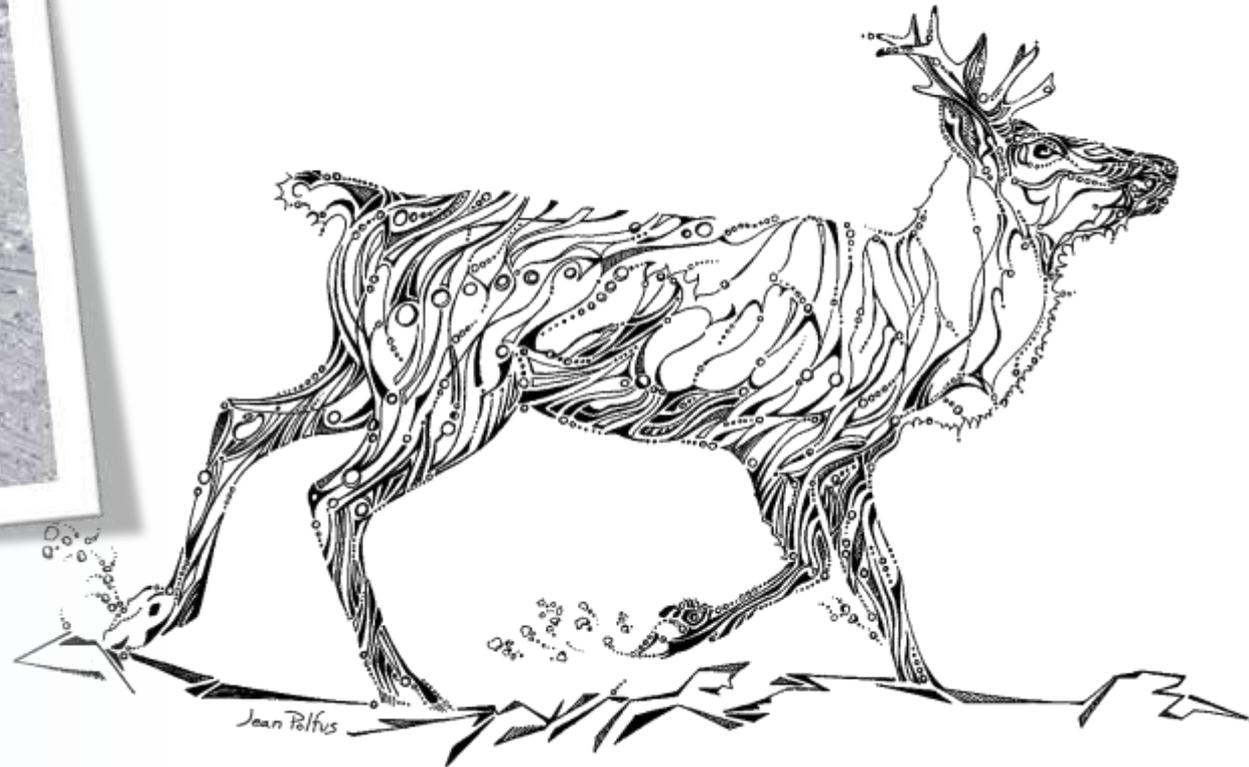
## Limləmt | Thank you

We are grateful to have the opportunity to speak today from the unceded territory of the sqilx<sup>w</sup>/syilx (Okanagan) and their peoples.

# JEAN POLFUS



- **Non-Indigenous** – white settler
- **Artist** – motivated to communicate through art
- **Family** – mom to 3 amazing kiddos
- **Winter** – enjoy cold, snow, and skiing with my family
- **The North** – lived and worked in Tulít'a, NWT on caribou projects with Sahtú communities



# ROBIN STEENWEG



- **Non-Indigenous** – white settler
- **Proud father** – of two
- **Outdoors enthusiast** – hiking, hunting, skiing, biking
- **Passionate biologist** – working on caribou since 2007, and thinking broadly about multi-species



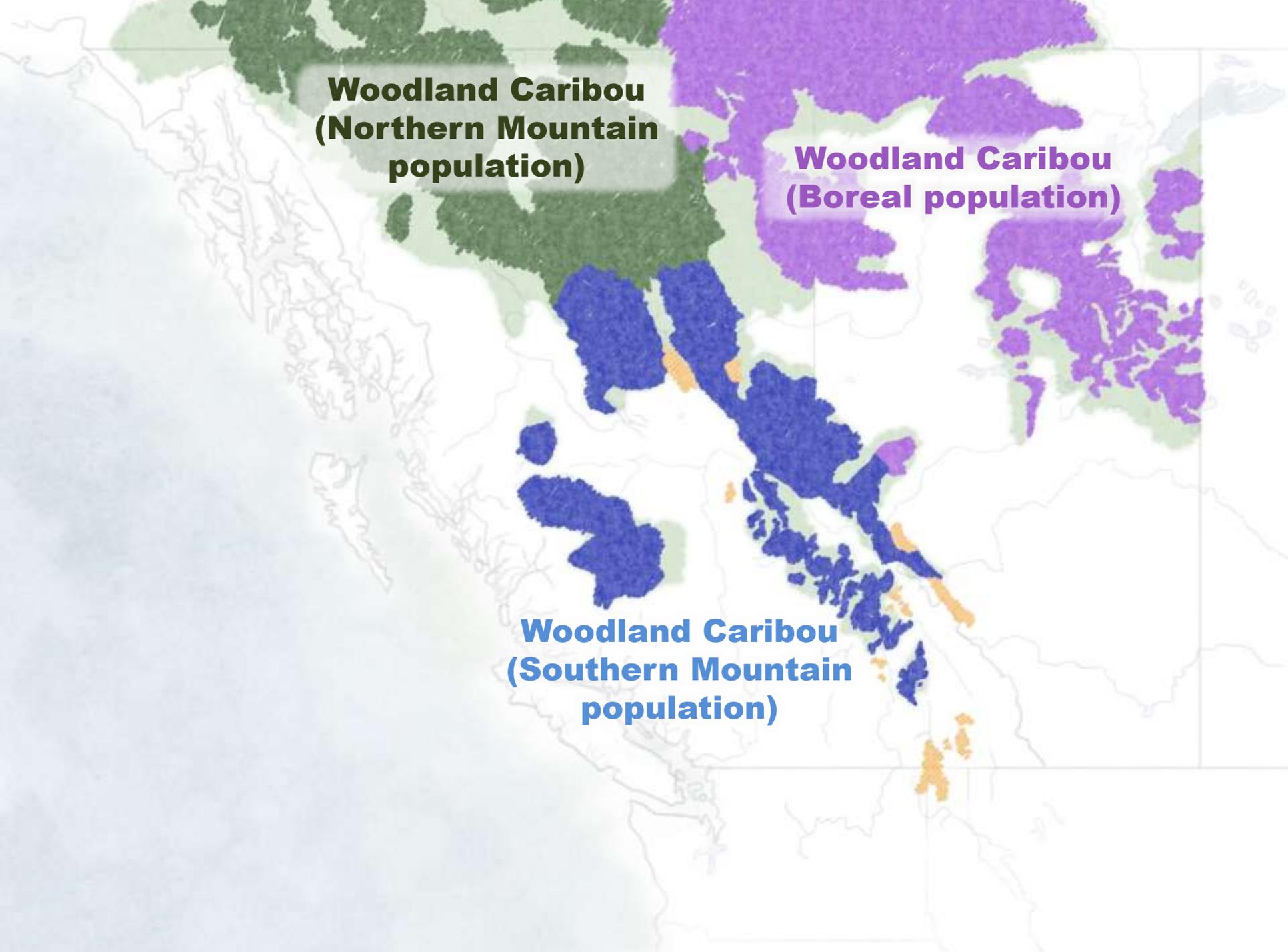
# CARIBOU

Occupy a central place in the livelihoods and identities of Indigenous peoples and display substantial biological variation across their arctic and subarctic distribution







A map of North America showing the distribution of three populations of Woodland Caribou. The Northern Mountain population is shown in dark green in the Pacific Northwest. The Boreal population is shown in purple in the northern and eastern regions. The Southern Mountain population is shown in dark blue in the western and central mountain ranges, with orange patches indicating smaller, more isolated populations. The map includes state and provincial boundaries and a grid of latitude and longitude lines.

**Woodland Caribou  
(Northern Mountain  
population)**

**Woodland Caribou  
(Boreal population)**

**Woodland Caribou  
(Southern Mountain  
population)**

**Woodland Caribou  
(Northern Mountain  
population)**

**SPECIAL CONCERN**  
(listed in 2005)

**Woodland Caribou  
(Boreal population)**

**THREATENED**  
(listed in 2003;  
confirmed in 2014)

**Woodland Caribou  
(Southern Mountain  
population)**

**THREATENED**  
(listed in 2003)

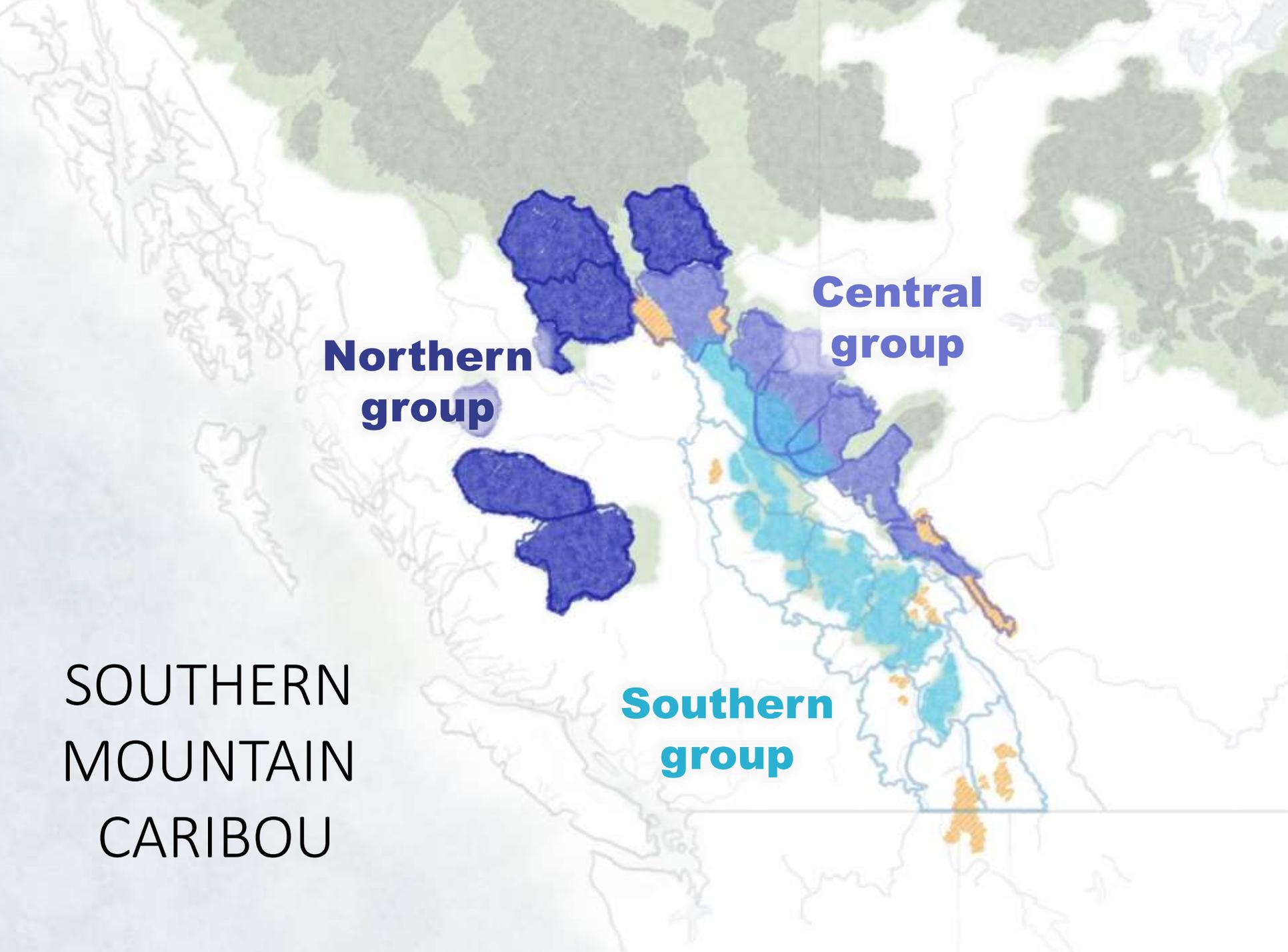
SCHEDULE 1  
OF THE  
SPECIES AT RISK ACT

SOUTHERN  
MOUNTAIN  
CARIBOU

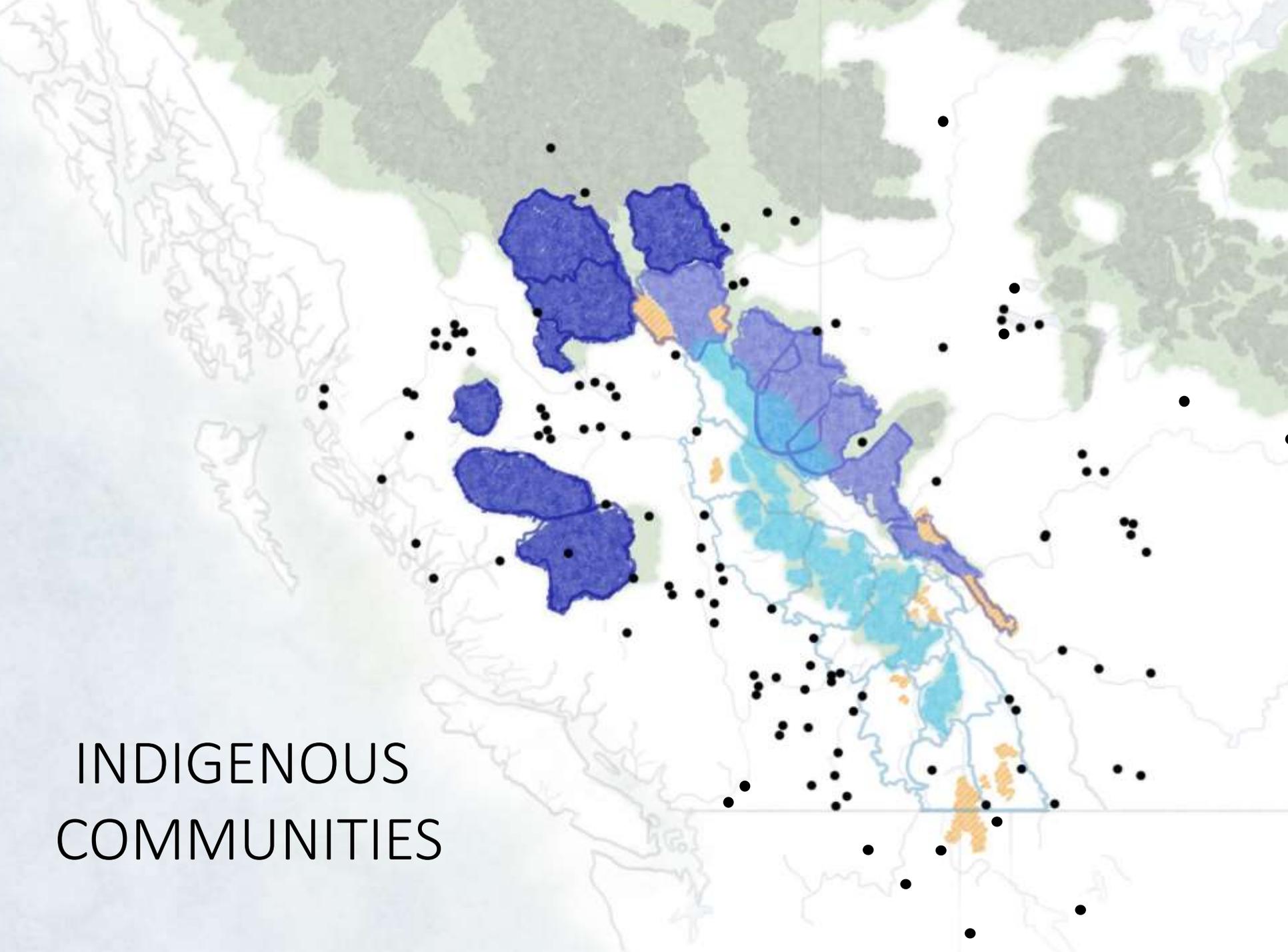
**Northern  
group**

**Central  
group**

**Southern  
group**



INDIGENOUS  
COMMUNITIES



# CONSIDERATIONS

- We are here to listen and learn together
- Opportunities
  - many perspectives
  - many cultural protocols
  - many valid approaches
- Limitations
  - our own cultural biases
  - our own privileges
  - how to find balance
- Timeline
  - Important work proceeded our involvement



# COLLABORATION FOR CARIBOU RECOVERY

- Collaborations are key – many degrees
  - Sec 11s
- Jurisdictions vary
- Provincial recovery programs
  - Wildlife, land management
- Federal government
  - SARA, National Parks
- Communities
  - Partnership agreement



# FEDERAL SPECIES AT RISK ACT PROCESS

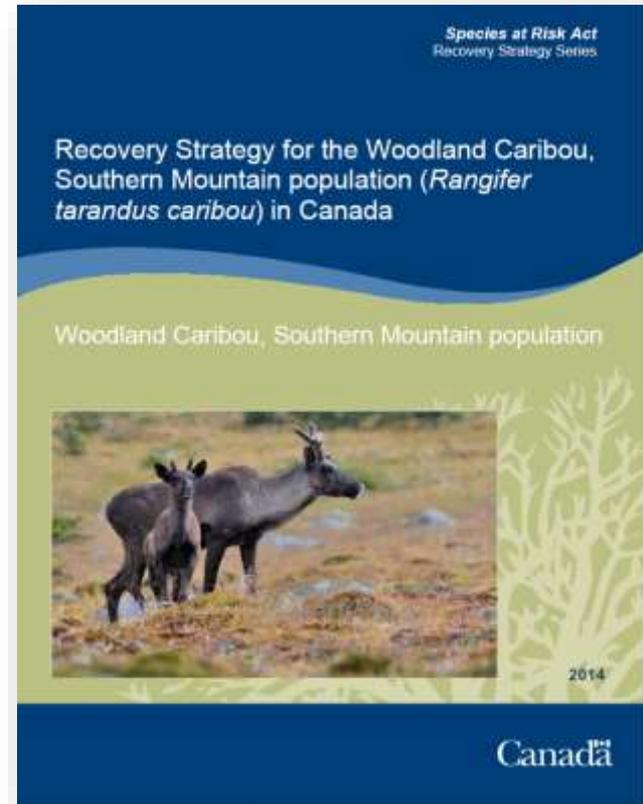
## SOUTHERN MOUNTAIN CARIBOU



# FEDERAL RECOVERY STRATEGY

## SOUTHERN MOUNTAIN CARIBOU (2014)

- A federal Recovery Strategy is a planning document that identifies what needs to be done to reverse the decline of a species
- Recovery Strategies inform and guide work by federal, provincial, and Indigenous governments



# RECOVERY STRATEGY AMENDMENT (2020 - PRESENT)



# THREE MAIN PURPOSES OF THE AMENDMENT

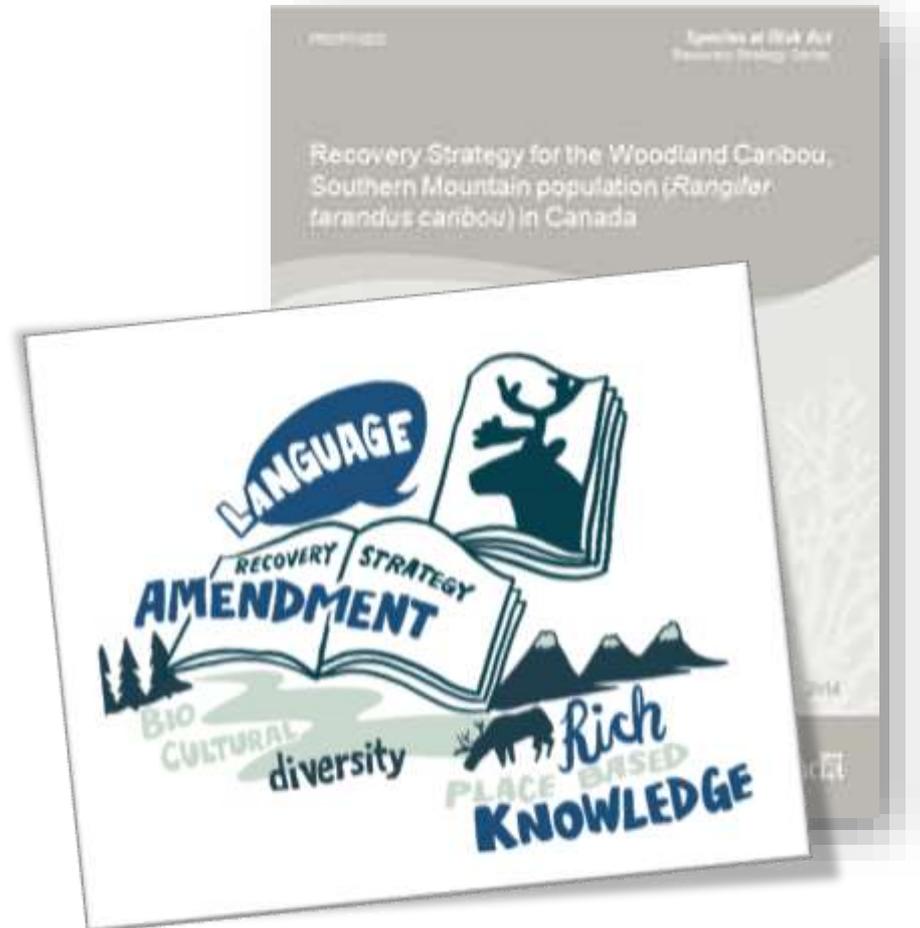
1	Indigenous Knowledge (IK)	Improve the inclusion and representation of Indigenous knowledge systems, languages, and perspectives that respect the historic relationships that Indigenous people continue to maintain with caribou
2	Critical Habitat (CH)	Complete the detailed identification and mapping of critical habitat to meet the population and distribution objectives
3	General Updates	Other edits to update factual information, include recent research and published data since 2014, and/or improve internal consistency within the document

# 1

## IMPROVE THE INCLUSION OF INDIGENOUS KNOWLEDGE, LANGUAGES AND PERSPECTIVES

### what

Center Indigenous voices, knowledge, and languages in the recovery strategy (and other recovery documents) where appropriate and supported by communities





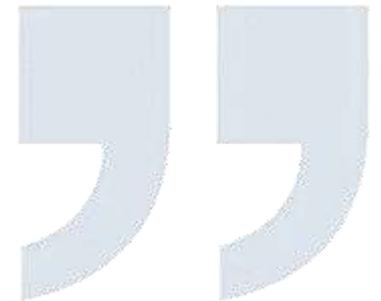
# EXECUTIVE SUMMARY

## **2014**

Southern mountain caribou occur in the southern two-thirds of British Columbia and in west-central Alberta, with one subpopulation ranging into northern Idaho and Washington in the United States.

## **POTENTIAL AMENDMENT EXAMPLE**

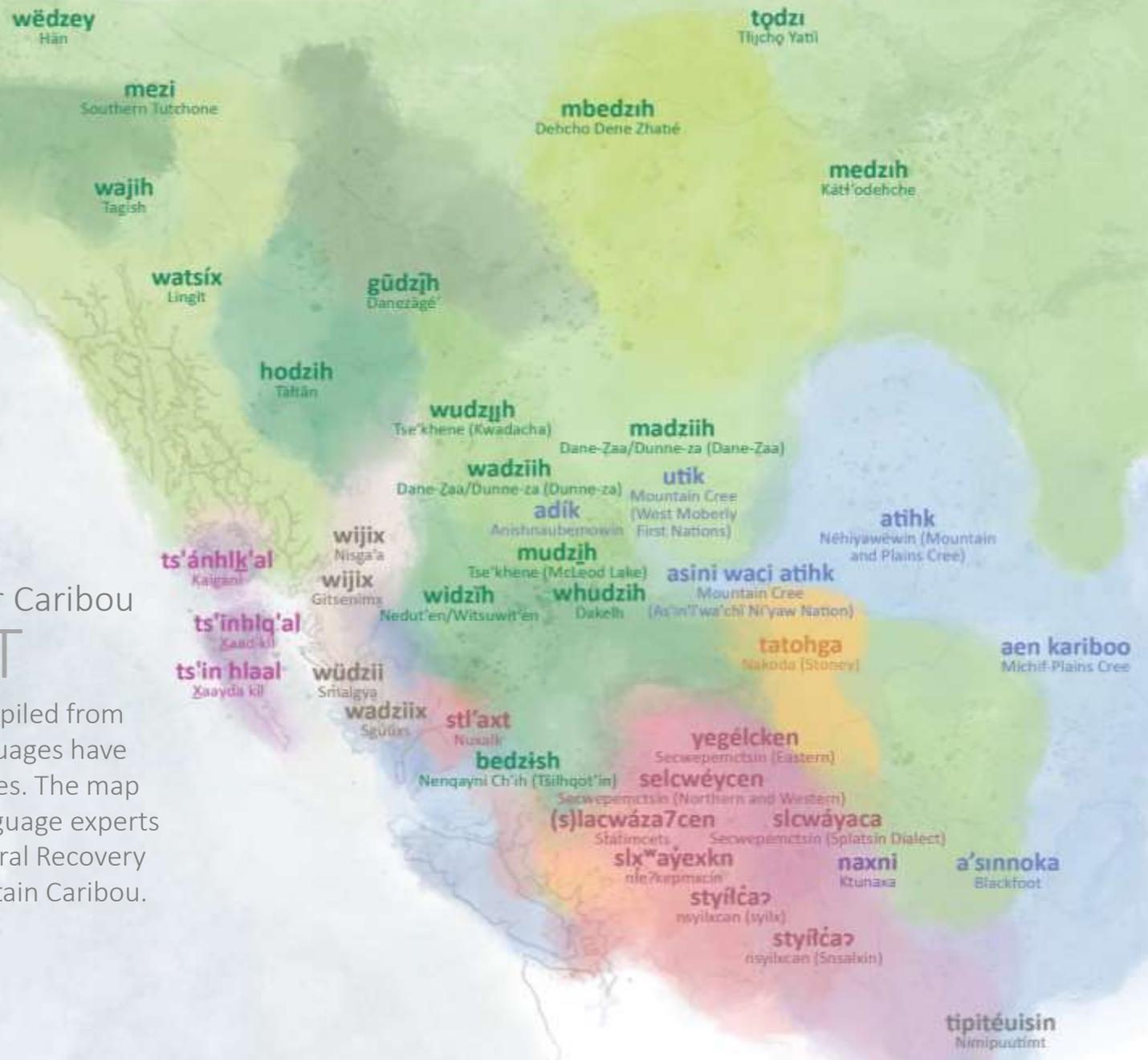
Indigenous peoples have maintained historic relationships with the caribou that occur in the southern two-thirds of what is now known as British Columbia and west-central Alberta, and which previously ranged into northern Idaho and Washington in the present day United States.



# Indigenous Words for Caribou

## DRAFT

Words were originally compiled from public sources. Some Languages have been verified by communities. The map will be further verified by language experts prior to inclusion in the federal Recovery Strategy for Southern Mountain Caribou.



# 1

## IMPROVE THE INCLUSION OF INDIGENOUS KNOWLEDGE, LANGUAGES AND PERSPECTIVES

### how

- 2021 virtual workshops – series one
- **2022 virtual workshops – series two**
- Individual feedback and validation meetings
- 2023 in-person regional workshops



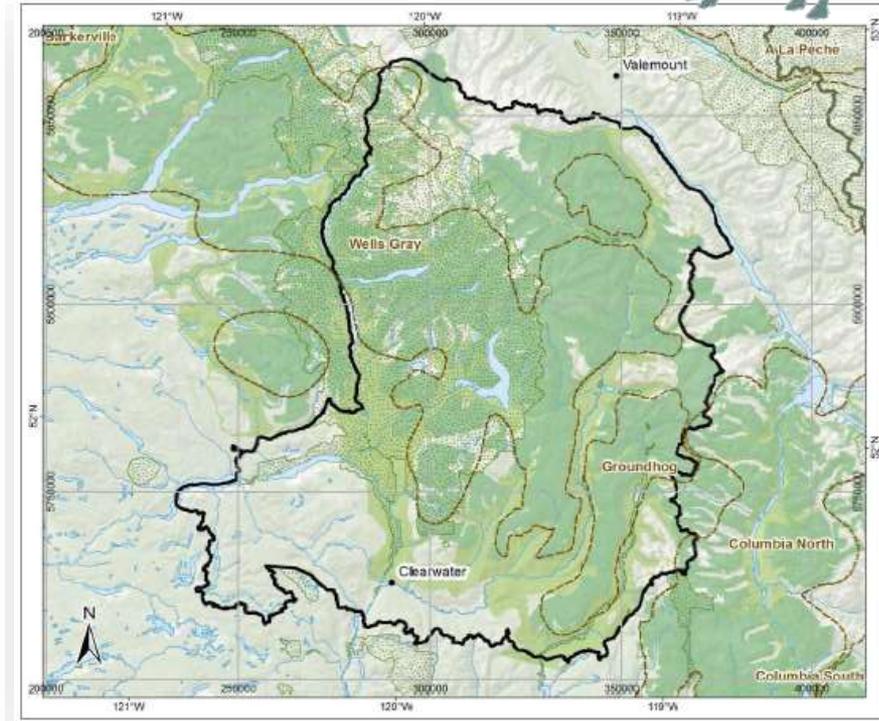
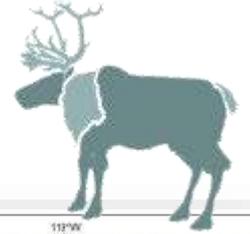
# 2

## CRITICAL HABITAT

### definition

the habitat that is necessary for the survival or recovery of a listed wildlife species and that is identified ... in the recovery strategy or in an action plan for the species

SOUTHERN MOUNTAIN  
**CARIBOU**



# 2

## CRITICAL HABITAT

### what

Complete the detailed identification and mapping of critical habitat to meet the population and distribution objectives

Components	
<b>Linework</b>	update Local Population Unit and Critical Habitat boundaries to improve alignment with caribou population boundaries of BC, AB, and PCA
<b>Critical Habitat Categories</b>	update and simplifying critical habitat categories and associated management prescriptions, to improve their utilization
<b>Disturbance Thresholds</b>	update the seasonal and range-specific disturbance thresholds for critical habitat

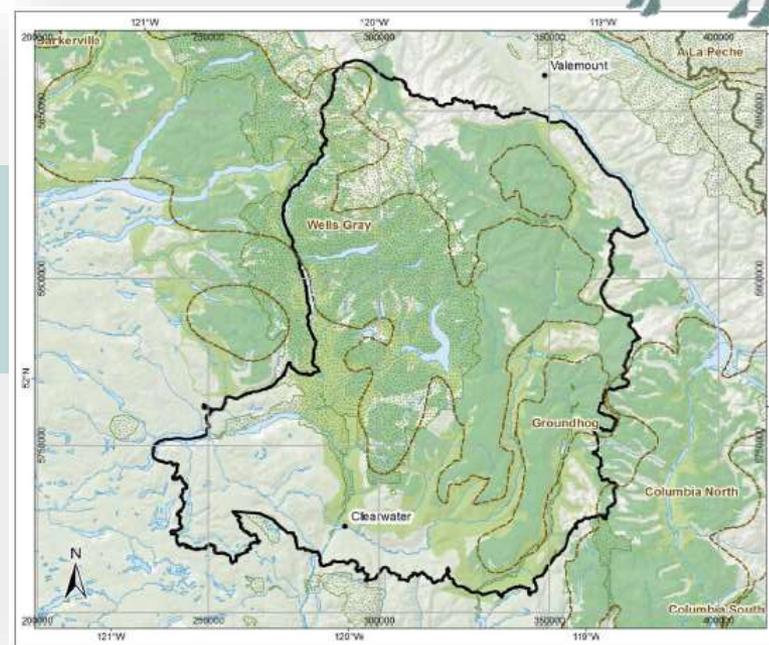
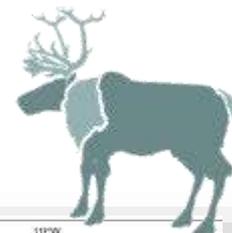
# 2

## CRITICAL HABITAT

### how

- Collaboration with the provinces of BC and AB and Parks Canada Agency
- **2023 virtual workshops – series three**
  - *tentatively* Feb 22, 28, & March 2
- Individual feedback and validation meetings
- 2023 in-person regional workshops

SOUTHERN MOUNTAIN  
**CARIBOU**



# 3

## GENERAL UPDATES

### General Updates

Other edits to update factual information, include recent research and published data since 2014, and/or to improve internal consistency within the document



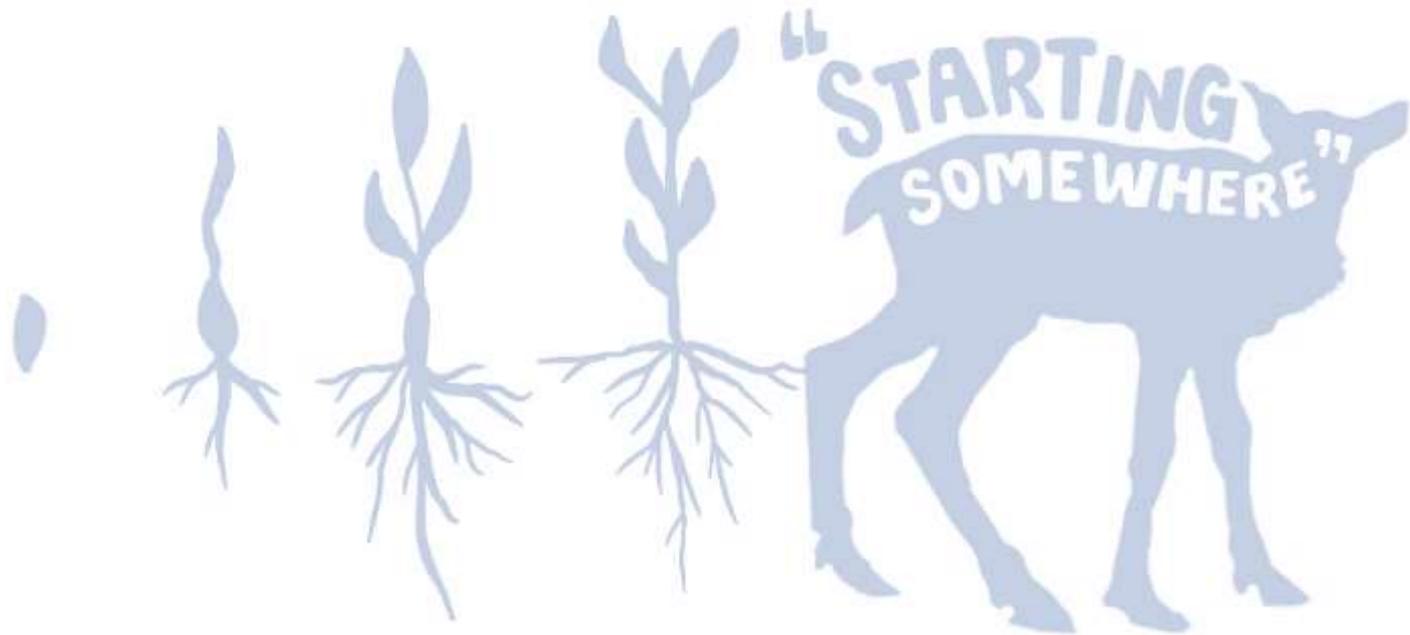
# 1

## IMPROVE THE INCLUSION OF INDIGENOUS KNOWLEDGE, LANGUAGES AND PERSPECTIVES

1	Indigenous Knowledge (IK)	Improve the inclusion and representation of Indigenous knowledge systems, languages, and perspectives that respect the historic relationships that Indigenous people continue to maintain with caribou
2	Critical Habitat (CH)	Complete the detailed identification and mapping of critical habitat to meet the population and distribution objectives
3	General updates	Other edits to update factual information, include recent research and published data since 2014, and/or improve internal consistency within the document

1

# IMPROVE THE INCLUSION OF INDIGENOUS KNOWLEDGE, LANGUAGES AND PERSPECTIVES



# 1

## IMPROVE THE INCLUSION OF INDIGENOUS KNOWLEDGE, LANGUAGES AND PERSPECTIVES

### today's goal

- **Discuss** examples of how we can respectfully include IK and language
  - ALL changes require verification and individual follow-up meetings
- **Co-develop** our approach to verification going forward
- **Identify** barriers and supports that are needed to facilitate participation

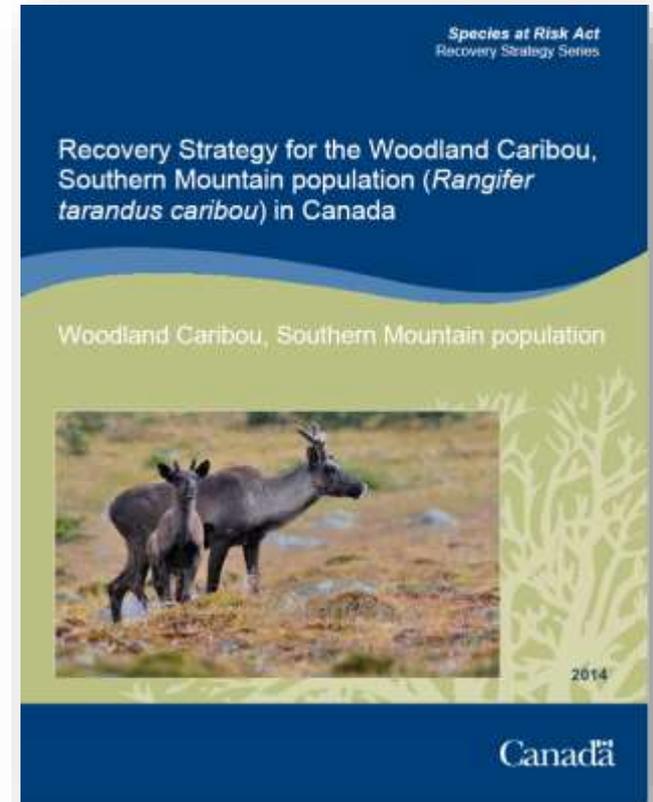




# RECOVERY STRATEGY SOUTHERN MOUNTAIN CARIBOU (2014)

## main contents

- Background info (on species, distribution)
- Threat assessment
- Population & Distribution Objectives
- Broad strategies for recovery
- Identify Critical Habitat
- Activities likely to destroy critical habitat

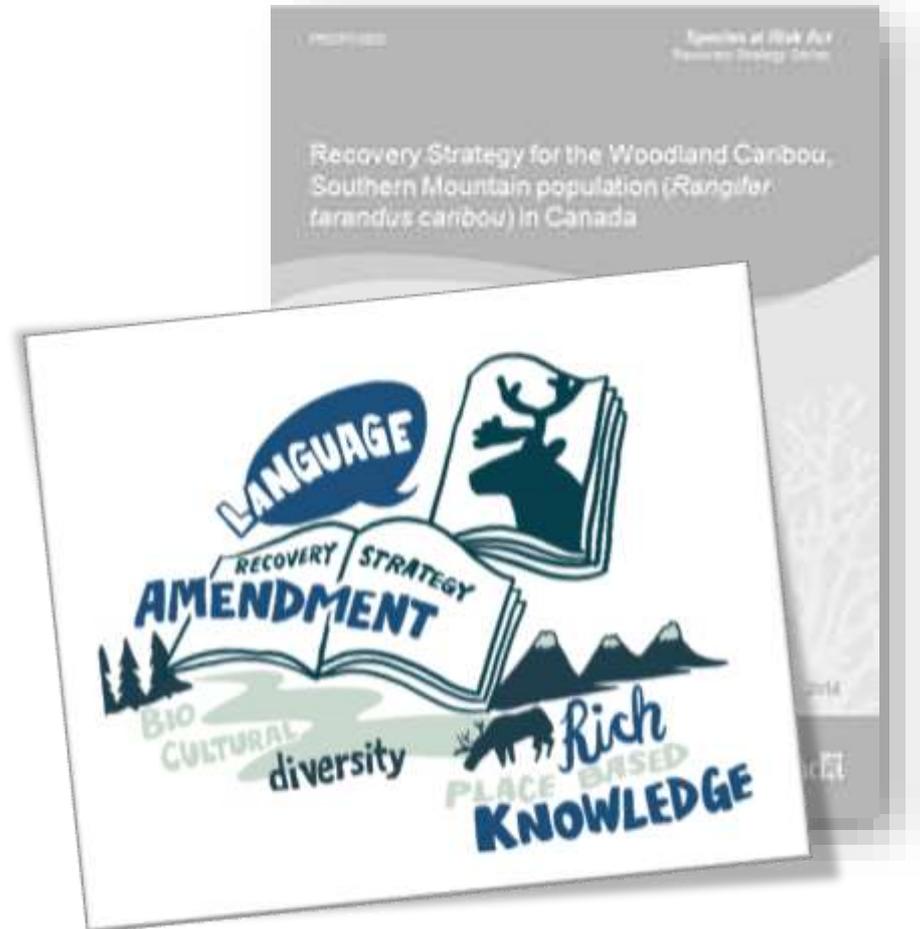


# 1

## IMPROVE THE INCLUSION OF INDIGENOUS KNOWLEDGE, LANGUAGES AND PERSPECTIVES

### past engagement

- 2014 engagement/consultation
- Other direct feedback
- 2021 virtual workshops
  - 3 multi-species overview workshops
  - 6 half-day workshops
- language verification meetings
  - 16 meetings, 8 languages verified
- We have been working on summarizing previous input and feedback for potential verification and inclusion



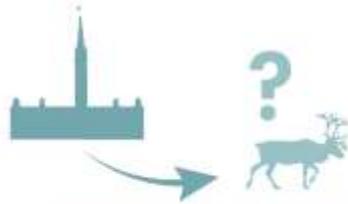
# 1

## IMPROVE THE INCLUSION OF INDIGENOUS KNOWLEDGE, LANGUAGES AND PERSPECTIVES

### past engagement



Include & educate youth



Federal gov limitations



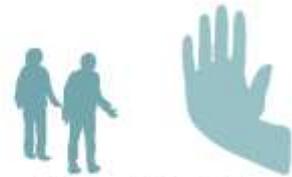
Capacity & funding



Community-led caribou plans

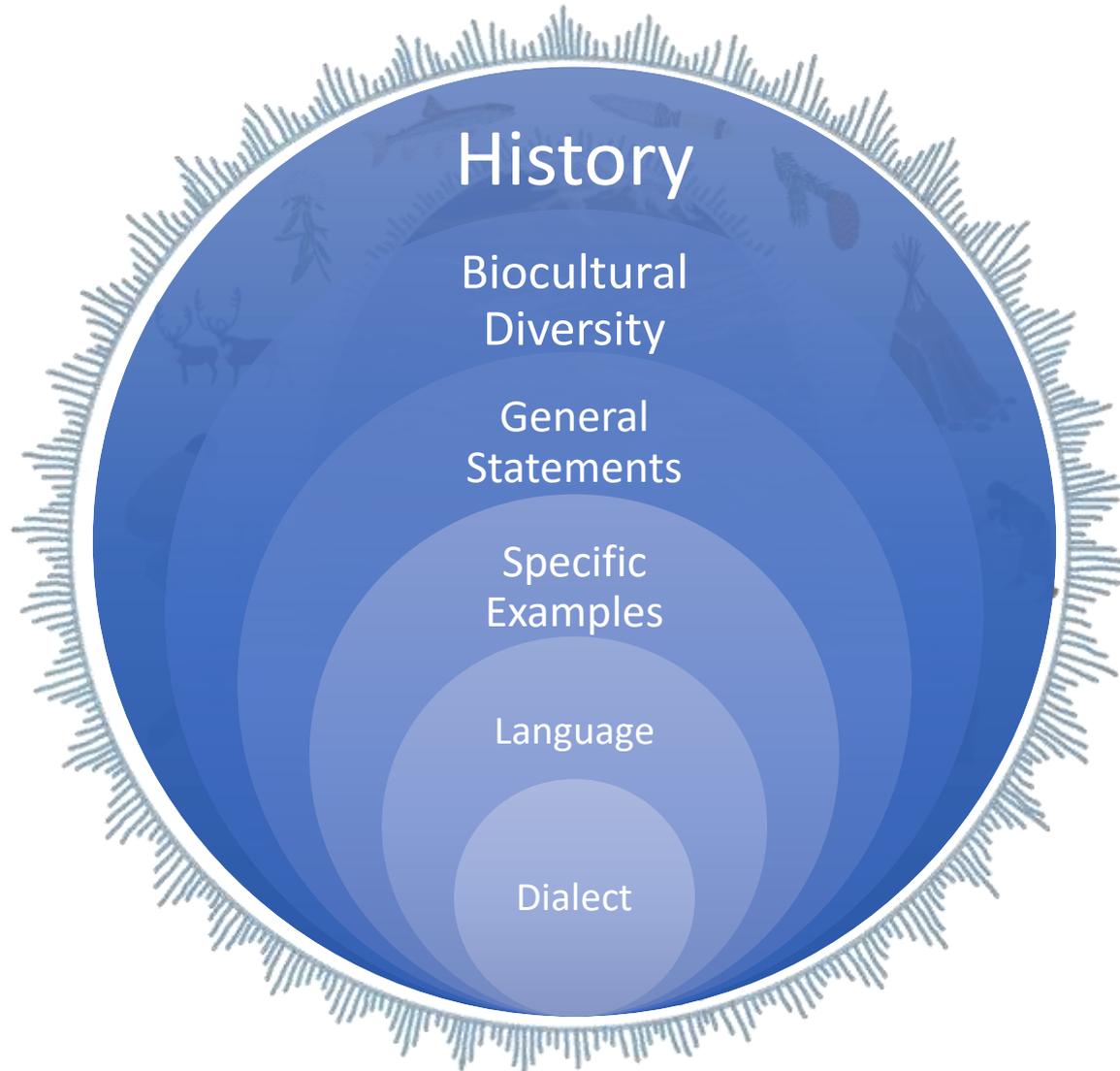


Community networking



Racism

# POTENTIAL APPROACH



# POTENTIAL APPROACH

\*Please note: any Indigenous knowledge will be verified prior to inclusion in the federal Recovery Strategy.

If a community does not want their information or language included – it will not be added to the Recovery Strategy. We intend to be as transparent as possible and work with communities to make the sure the information included is appropriate.

The follow examples are intended to represent possible ways we can include IK, language and Indigenous perspectives in the amendment to the Southern Mountain Caribou Recovery Strategy.



# EXECUTIVE SUMMARY

## 2014

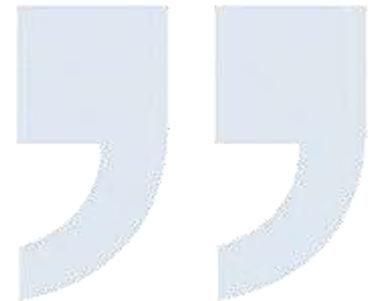
Southern mountain caribou occur in the southern two-thirds of British Columbia and in west-central Alberta, with one subpopulation ranging into northern Idaho and Washington in the United States.

Southern mountain caribou occupy ranges consisting of highly diverse topography, terrain types, and environmental conditions. They require large ranges of relatively undisturbed, interconnected habitat...

## POTENTIAL AMENDMENT EXAMPLE

Indigenous people's have maintained historic relationships with the caribou that occur in the southern two-thirds of what is now known as British Columbia and in west-central Alberta, and which previously ranged into northern Idaho and Washington in the present day United States.

These caribou have come to be referred to as southern mountain caribou and require undisturbed mountainous habitat rich in large patches of mature and old forests with abundant lichens.



# BIOCULTURAL DIVERSITY

Highlights the  
interactions between  
human diversity and the  
diversity of biological  
systems





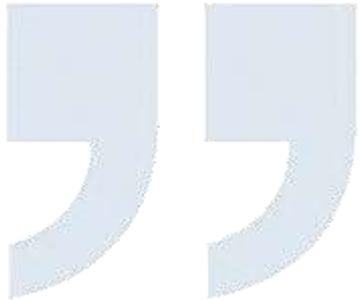
# EXECUTIVE SUMMARY

**2014**

n/a

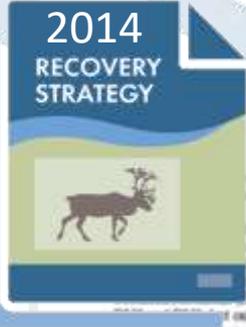
## **POTENTIAL AMENDMENT EXAMPLE**

Recovery actions that explicitly recognize and strengthen the voices of Indigenous people and that attempt to define the dynamics of biocultural landscapes from place-based observations presents an opportunity to focus on the local processes that maintain diversification and sustain variation in the world (McCarter et al. 2018).



# SPECIES INFORMATION

## ■ 3.1 Species Description



Wooded Caribou, Southern Mountain population 2014

terrestrial lichens and spend at least part of their annual cycle in the mountain 'northern' ecotype but are called 'mountain' caribou (ASDRDRACA 2010).

defined 12 Designatable Units (DUs) for caribou across Canada. DUs are rarely significant units of caribou defined to address issues with the current classification of ecotypes (COSEWIC 2011). That report splits southern 3 DUs: Northern Mountain (DU7), Central Mountain (DU8), and DU9. The current southern mountain caribou population includes all of only the southern portion of DU7. The DU structure for caribou in western Canada is being reviewed as part of the update to the COSEWIC status report and subsequent reassessment in 2014.

In this recovery strategy, to retain the ecological and evolutionary distinction between the 3 DUs, southern mountain caribou in the Northern Mountain (DU7), Central Mountain (DU8) and Southern Mountain (DU9) DUs will be referred to as the Northern Group, Central Group and Southern Group, respectively (Table 2).

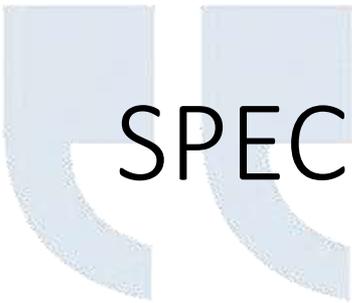
**Table 2. Relationship of provincial, SARA and COSEWIC designations for southern mountain caribou. Grey shading indicates southern mountain caribou.**

Terrain/Winter feeding strategy	Ecotype name	Location	Nationally Significant Population by National Ecological Act (SARA)	COSEWIC Designatable Unit (2011)	Southern mountain caribou Groupings
Shallow snow/terrestrial lichen	BC: Northern Alberta Mountain	Northern BC	Northern Mountain	Northern Mountain	NA <sup>1</sup>
		West central BC			Northern Group
		North central BC			Central Group
		East central BC			
West central Alberta	Southern Mountain	Southern Group			
Deep snow/coloured lichen	BC: Mountain	Southeastern BC		Southern Mountain	Southern Group

<sup>1</sup>Not applicable

### 3.1 Species Description

Southern mountain caribou are a medium-sized (1.0-1.2 m shoulder height and weighing 110-210 kg) member of the deer family (Cervidae) (Thomas and Gray 2002). Adults have a dark brown coat with a creamy white neck, mane, shoulder stripe, underbelly, underside of the tail, and patch above each hoof (Burdfield, 1974). Caribou have large, rounded hooves and large, widely spaced dew claws which help them walk on and dig through snow to gain access to lichens, their primary food during winter (Thomas and Gray 2002). Both male and female caribou have antlers during part of the year, a unique feature among the deer family (Thomas and Gray 2002). Antlers are erect and spreading with males having a flattened brow tine that points down over the forehead (BC Ministry of Environment, Lands and Parks 2000).



# SPECIES INFORMATION

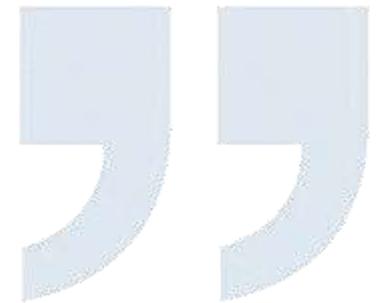
## ■ 3.1 Species Description

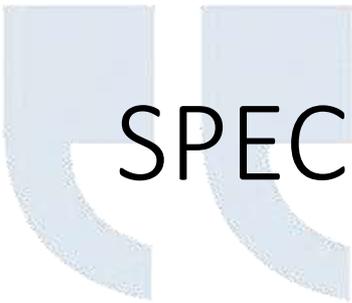
### **2014**

Southern mountain caribou are a medium-sized (1.0-1.2 m shoulder height and weighing 110-210 kg) member of the deer family (Cervidae) (Thomas and Gray 2002). Adults have a dark brown coat with a creamy white neck, mane, shoulder stripe, underbelly, underside of the tail, and patch above each hoof (Banfield, 1974) ...

### **POTENTIAL AMENDMENT EXAMPLE**

Across the range of southern mountain caribou, Indigenous peoples recognize and label (through unique classification systems) caribou diversity, appearances, life histories, population structures, and historic occurrences that are not captured by Western-based scientific frameworks, taxonomies, or policies.





# SPECIES INFORMATION

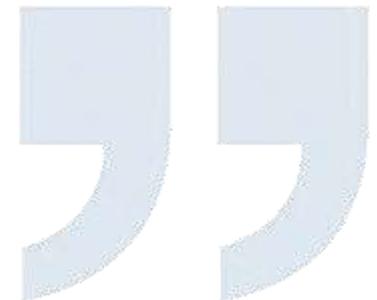
## ■ 3.1 Species Description

### 2014

Southern mountain caribou are a medium-sized (1.0-1.2 m shoulder height and weighing 110-210 kg) member of the deer family (Cervidae) (Thomas and Gray 2002). Adults have a dark brown coat with a creamy white neck, mane, shoulder stripe, underbelly, underside of the tail, and patch above each hoof (Banfield, 1974) ...

### POTENTIAL AMENDMENT EXAMPLE

Caribou sustained human populations for millennia, and one of the many places where the significance of caribou to Indigenous peoples' livelihoods and cultural identity is clearly expressed is through Indigenous language (**Language Tables**).



# SPECIES INFORMATION

## ■ 3.1 Species Description

2014

### POTENTIAL AMENDMENT EXAMPLE

LANGUAGE FAMILY	LANGUAGE	DIALECT	WORD	ENGLISH DEFINITION
Agnikuan	Mikwagan	Mikwagan (*)	akw	caribou
		Mikwagan (2)	akw	caribou
Athabaskan-Eyak-Tlingit (or Na-Dene)	Tahltan	Tahltan	akw	caribou
		Tahltan	akw	caribou

LANGUAGE FAMILY	LANGUAGE	DIALECT	WORD	ENGLISH DEFINITION
Athabaskan-Eyak-Tlingit (or Na-Dene)	Tahltan	Caribou (1)	akw	caribou
		Caribou (2)	akw	caribou (caribou)
		Caribou (3)	akw	caribou
Athabaskan-Eyak-Tlingit (or Na-Dene)	Tahltan	Mikwagan (1) (2)	akw	caribou
		Mikwagan (2) (3)	akw	caribou

LANGUAGE FAMILY	LANGUAGE	DIALECT	WORD	ENGLISH DEFINITION
Salishan	Nuxalk	Nuxalk	akw	caribou
		Nuxalk	akw	caribou
		Nuxalk	akw	caribou
		Nuxalk	akw	caribou
		Nuxalk	akw	caribou
Squamish	Squamish	Squamish	akw	caribou
		Squamish	akw	caribou
		Squamish	akw	caribou
Kwakwaka'wakw	Kwakwaka'wakw	Kwakwaka'wakw	akw	caribou
		Kwakwaka'wakw	akw	caribou
		Kwakwaka'wakw	akw	caribou
Coast Salish	Coast Salish	Coast Salish	akw	caribou
		Coast Salish	akw	caribou
		Coast Salish	akw	caribou

Caribou sustained human populations for millennia, and one of the many... the significance of... and cultural identity is... used is the... Indigenous

tail, and pat... hoof (Banfie

# SPECIES INFORMATION

## 2014

Southern mountain caribou are a medium-sized (1.0-1.2 m shoulder height and weighing 110-210 kg) member of the deer family (Cervidae) (Thomas and Gray 2002). Adults have a dark brown coat with a creamy white neck, mane, shoulder stripe, underbelly, underside of the tail, and patch above each hoof (Banfield, 1974) ...

## POTENTIAL AMENDMENT EXAMPLE

Fundamental to Indigenous peoples' relationships with caribou is a profound knowledge of caribou morphology, anatomy, and appearance. For example Secwepemctsin [Splatšín Dialect] words for **slcwáyaca** (caribou) include **txyum ygálcka** (big caribou) and **twewyags** (yearling caribou).

Caribou are described as a medium-sized (1.0-1.2 m shoulder height and weighing 110-210 kg) ungulate. Similar to other members of the deer family (Cervidae; Thomas and Gray 2002) caribou have white underbellies and rear ends, an observation that is also expressed in Mountain Cree [from As'in'î'wa'chî Ni'yaw Nation] where **wapiti** can be used to describe an “animal with white rear end” and speaks to the taxonomic relationship between **atihk** (caribou) and other ungulates like elk or deer.

# Population and Distribution

## ■ 3.1 Historical Distribution, Numbers and Trends

### **2014**

Aboriginal traditional knowledge holders stated that prior to the arrival of Europeans in north-eastern BC, caribou populations were so high that they were described to be “like bugs on the land” (Willson 2014).

### **POTENTIAL AMENDMENT EXAMPLE**

Elders and knowledge holders from West Moberly First Nation stated that, prior to the arrival of Europeans in their territory, caribou populations were so high that they were like “bugs on the land” or like “a sea of caribou” across the landscape (WMFN, 2009\*).

*\*(from the 2009 report: “I Want to Eat Caribou Before I Die”)*

# DESCRIPTION OF THREATS

## ■ 4.2.3 Roads and other linear features

**2014**

n/a

### **POTENTIAL AMENDMENT EXAMPLE**

Community X has expressed that there is significant road mortality impacting caribou in their territory. This has been attributed to specific environmental and ecological conditions in this specific region as explained by X community member (Community X, pers. comm., 2014).

# DESCRIPTION OF THREATS

- Dams and water management/use

**2014**

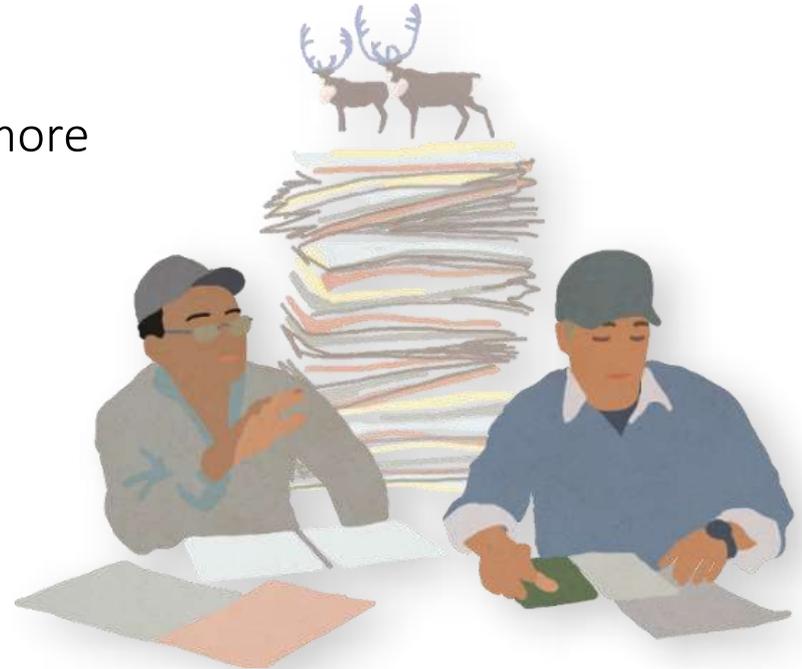
n/a

## **POTENTIAL AMENDMENT EXAMPLE**

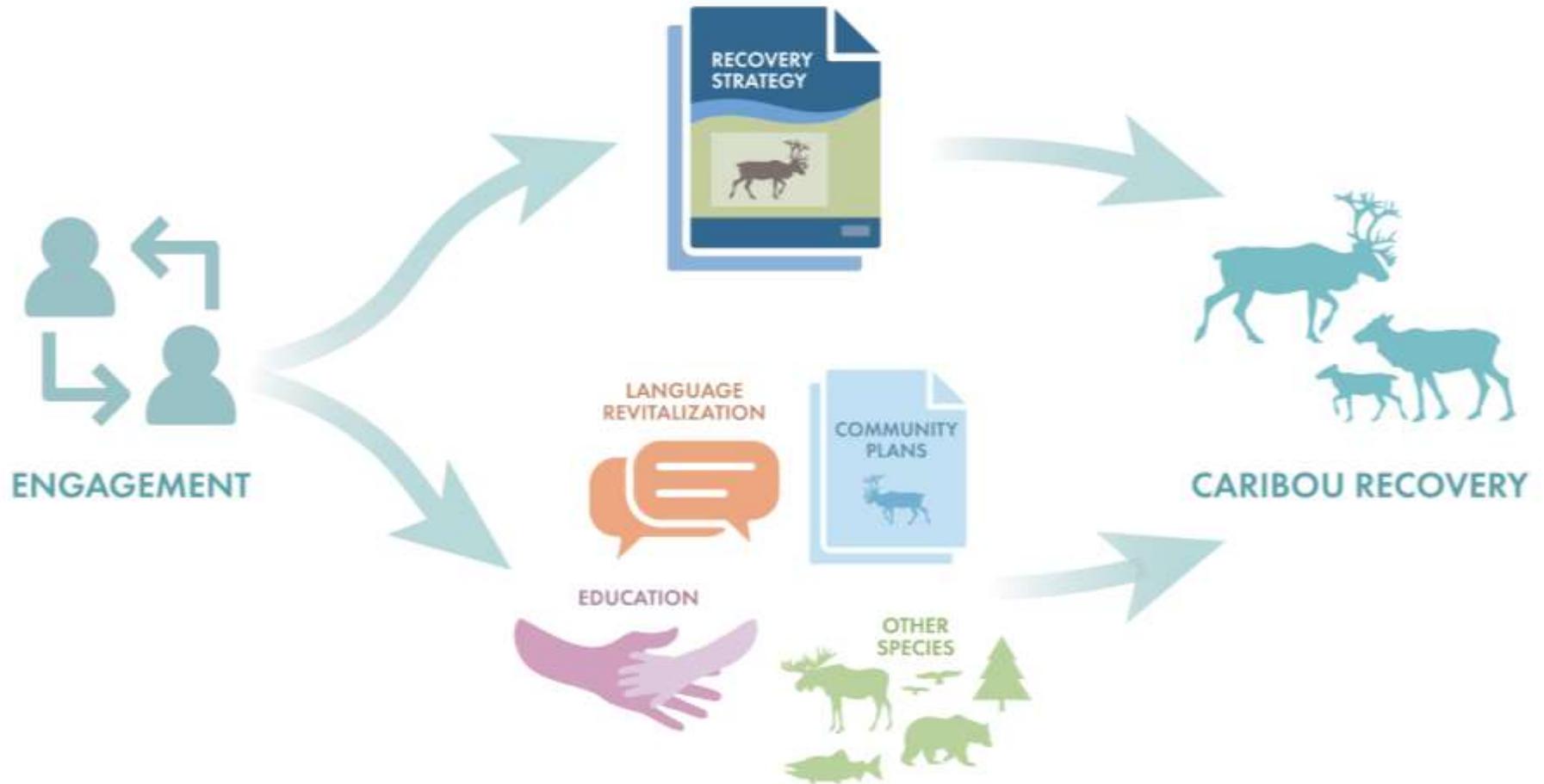
According to West Moberly First Nations, the WAC Bennet Dam flooded ancient caribou migratory routes, isolating the region's caribou from each other. A Dunneza elder recalls seeing caribou floating down the reservoir in the winter after the flooding (Polley, 2021 available online <https://www.earthisland.org/journal/index.php/magazine/entry/caribou-keepers/>).



- Are there components of knowledge that we shared today that are not appropriate for the Recovery Strategy
- Do you have advice for how to address representation of some communities more than others
- Are there other ways to represent information from communities
  - Art
  - Stories
  - Music



# MANY PATHS TO CARIBOU RECOVERY



# FUNDING - CIER

## current workshops



- The honoraria provided for attendance at these virtual workshops is:
  - one \$175 payment for each community whose members and staff attend
  - \$250 honoraria for all Elders or Knowledge Holders/Keepers who attend
- CIER will be administering the funding
  - Will disperse cheques approximately 4 weeks after the workshop to the addresses submitted in the Zoom registration form

# CAPACITY FUNDING - CIER

## action needed – this fiscal

### Need commitments by mid-December 2022

- \$2000 to \$2500 available to participate in the Recovery Strategy amendment process
  - support staff time
  - community meetings (including room rental, catering, etc)
  - language verification
  - expectation that work benefits the amendment
  - spent by end of March 2023
- 1-2 page Word Document application outlining the activities and costs
  - CIER can provide support
- 50% funding up front and 50% after report/input is submitted





June 2014  
Southern Mountain Caribou  
Recovery Strategy published

# AMENDMENT TIMELINE

## WORKSHOPS

### FIRST SERIES

- 6 virtual workshops
- Indigenous knowledge, perspectives & languages

### SECOND SERIES

- 3 virtual workshops
- Indigenous knowledge, perspectives & languages
- Engagement planning

### THIRD SERIES

- 3 virtual workshops
- Critical Habitat mapping update
- Discussion and plan for engagement & feedback

### FOURTH SERIES

- 3 in-person, regional, multi-day workshops
- Final review, feedback and discussion

### POSTING

- Proposed RS amendment posted on SAR Public Registry for 60-day public comment period

Language verification meetings

2<sup>nd</sup> jurisdictional review  
1<sup>st</sup> jurisdictional review

Final input included

Comments incorporated

FEB-MAR

NOV 16, 22, & 24

FEB 22, 28, & MAR 2

SEPT-OCT

Final posting

2021

2022

2023

2024

Language verification meetings

Individual follow-up meetings with Indigenous communities

Review and verification

1<sup>st</sup> report



2<sup>nd</sup> report



1<sup>st</sup> draft



final draft



proposed RS



final amended RS



update summary

THANK YOU!

