

CARIBOU PATROL

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EduKit

JUNIOR VERSION



Aseniwuche Winewak
Nation of Canada



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WHY DO WE CARE?

Caribou are an indicator species.

They indicate the health of their habitat. As damage to the land from activities like logging, oil and gas, mining, and some recreation increases, caribou populations decrease. Because they depend on the health of old growth boreal forests, the decline of woodland caribou reflects the many destructive changes to the land that have happened in our lifetime.

Caribou are culturally important.

They are very important to Indigenous Peoples like Aseniwuche Winewak Nation of Canada (AWN), who used caribou for food and clothing at one time. Caribou are a living connection to our cultural heritage, which goes back for many hundreds, even thousands, of years.

INDICATOR SPECIES

an animal or plant species that can be used to understand conditions in a particular habitat.





WHAT ARE CARIBOU?

Caribou are an **Ungulate** and member of the deer family, **Cervidae**. Their scientific name is *Rangifer tarandus*.

Reindeer and caribou are the same animal. In Europe, they are called reindeer. In North America, the animals are called caribou if they are wild and reindeer if they are **domesticated**.

DOMESTICATED

(DE'MESTE, KĀDED)

tame and kept as a pet or on a farm.

There are a number of caribou subspecies world-wide. Alberta only has one subspecies, the woodland caribou, which has two ecotypes, the boreal ecotype which does not migrate and the mountain ecotype which does.

At one time, caribou were considered one of the most abundant large ungulates on earth, with more than 5 million worldwide.

COMPARING CARIBOU POPULATIONS

50 YEARS AGO

100



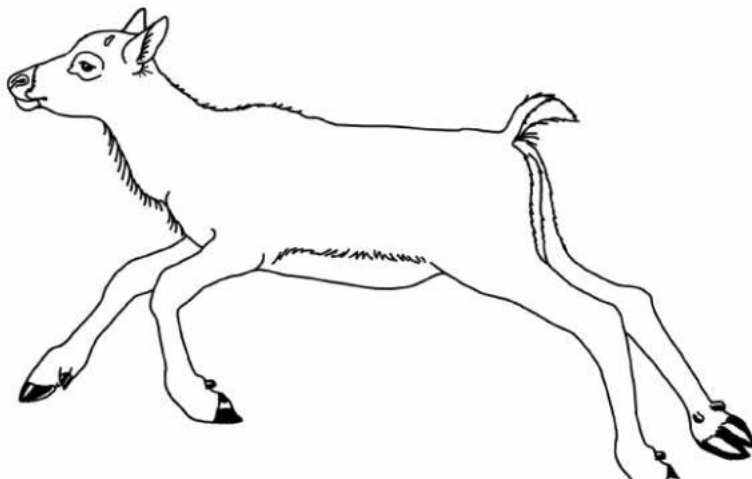
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In Alberta, over the past 50 years, woodland caribou population estimates have decreased by more than two thirds of what they were.

COLOUR THE CARIBOU CALF RUNNING



UNGULATE

(UN-GYUH-LAYT)

A hoofed mammal

CULTURAL IMPORTANCE OF CARIBOU

Aseniwuche Winewak Nation of Canada (AWN) Perspective on Caribou

Our concern for the caribou is in the belief that the Creator made all things and that all living things have a right to be here. We believe that wellness lies in the balance of all things.

We believe in wakhôhtowin (Wah-KOH-toh-win) and manâcihtâwin (Maa-nah-CHEE-toh-win), where everything is connected, and we must treat the land with respect, that we must have respect for all living creatures.

Traditional knowledge is learned over countless generations on the land and has a vital role in managing a healthy landscape. It is listening to our Elders when they tell us that we need to think of our children and grandchildren. It is knowing that all things are connected, and one thing can't be changed without changing the whole. It is sharing our stories and our history because we have always been here.

As caretakers of the earth, we have a unique role in responding to declining caribou populations. We have stories of where caribou used to be, and we can now share that knowledge to help paint the current picture. The joining of traditional Indigenous knowledge and western scientific knowledge can reduce **environmental impacts** and create balance on the land.



ENVIRONMENTAL IMPACTS

changes people's actions
have on the environment

WAHKÔTOWIN (WAH-KOH-TOH-WIN)

Cree principle and related laws that govern relationships and guide conduct. Within this concept is the recognition that all beings are related in the world and it encourages ALL peoples to show respect for one another and for all other relations, including plants, animals, the land, and spiritual beings.



MANÂCIHTÂWIN

Cree principle and related doctrines of respectful relationships between all beings, animate and inanimate. Respect and reciprocity guide the relationship that Cree people hold with the land; natural laws dictate that there are consequences to the treatment of the land which may have an impact on future generations.

We work with the Governments of Alberta and Canada to share information about caribou. For decades, our Elders have been speaking up for the protection of caribou to anyone who would listen as they have seen a dramatic decline in the woodland caribou population. Our people have traditionally hunted caribou for food and other items made from the animals, such as hides and tools. In Alberta, only Indigenous Peoples are still allowed to hunt caribou, but some do not. AWN decided to voluntarily stop hunting caribou decades ago in response to the decline.

FIND THE MISSING CARIBOU PATROL WORDS

C O N S E R V A T I O N E A T
 M M O G X L L M T D Z L T N R
 L A E R O B L O D D I S A T O
 B X H F A X U J R C Y D L L P
 D E N E T A E R H T R M U E E
 C A R I B O U E M E A E G R R
 C T X Q R D N M H B F P N S H
 B L A D R D J F R X H E U T Z

ANTLERS
 BOREAL
 CARIBOU

CONSERVATION
 HERD
 LICHEN

PATROL
 REPORT

THREATENED
 UNGULATE

WHAT DO CARIBOU LOOK LIKE?

They have two layers of fur—fine, crinkly underfur and a thick coat of guard hairs on top. The guard hairs are hollow and have air inside the hair that acts like insulation, keeping the caribou's body heat in. They are covered in hair from their nose to the bottom of their hooves. The hairy hooves give reindeer a good grip when walking on frozen ground, ice, mud, and snow.



The ability to regulate body temperature through their muzzles. The muzzle acts as a heat exchanger, warming and cooling air to reduce heat and moisture loss as they breathe in and out.

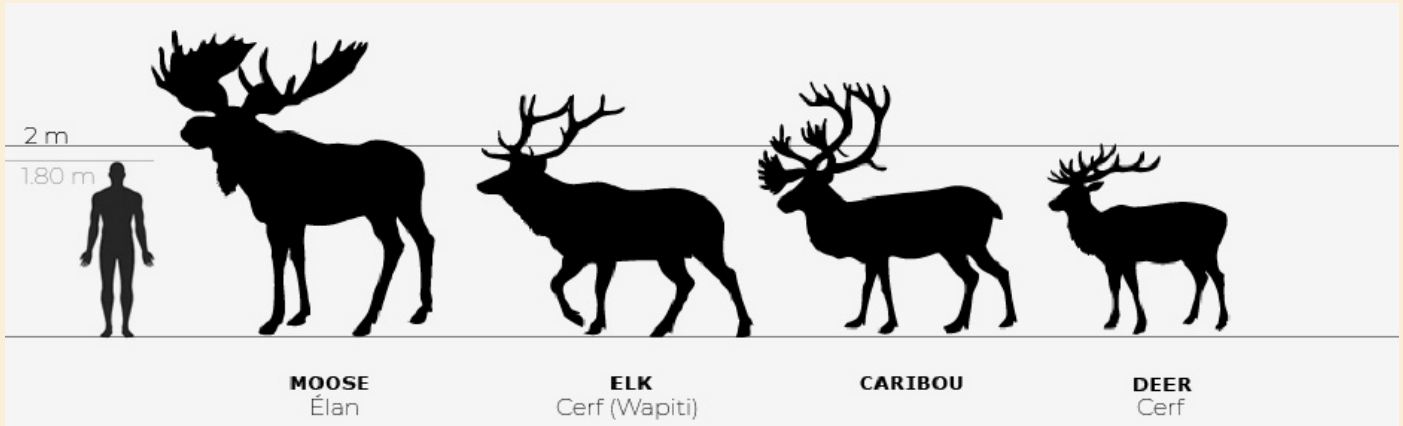
Caribou have a short, stocky body with short ears that help conserve heat, but its legs are long to help it move through the deep snow.

Caribou have a creamy-white neck, mane, tail, and rump. Their body is browner in the summer but changes to greyer in the winter.

The size of their hooves and the length of their legs help them when they travel over muskeg and snow covered areas.



Large, wide hooves. Caribou hooves work like snowshoes in the snow and paddles in the water. In the winter, the hooves are good for pawing and digging out lichen from under the snow. In the summer, they make caribou efficient swimmers, which allows caribou to jump quickly into the water to escape from predators.



Caribou antlers are really big, and they curve forward. One thing that sets them apart from other members of the deer family is that the female woodland caribou has antlers too, although hers are smaller than those of the male. A males antlers can grow to be more than 1m long. Compared to their body size, caribou have the largest and heaviest antlers of all living deer species. Female antlers only reach half of a meter in length.

Non-pregnant females will lose their antlers during the winter, but pregnant females will not drop their antlers until they give birth in the spring. Because animals with antlers are dominant over those without, this adaptation allows pregnant a female to protect her food resources during scarce winter conditions, ensuring adequate nutrition for the continued development of her fetus.

	Spring	Summer	Fall	Winter
MALE				
Male and female caribou both grow antlers every year. However, they shed them at different times. Males lose them in the winter while females lose them after calving.				
FEMALE				

Photo credits: Celine Interring



MATCH THE ANIMAL TO ITS PICTURE

Caribou



Deer



Elk

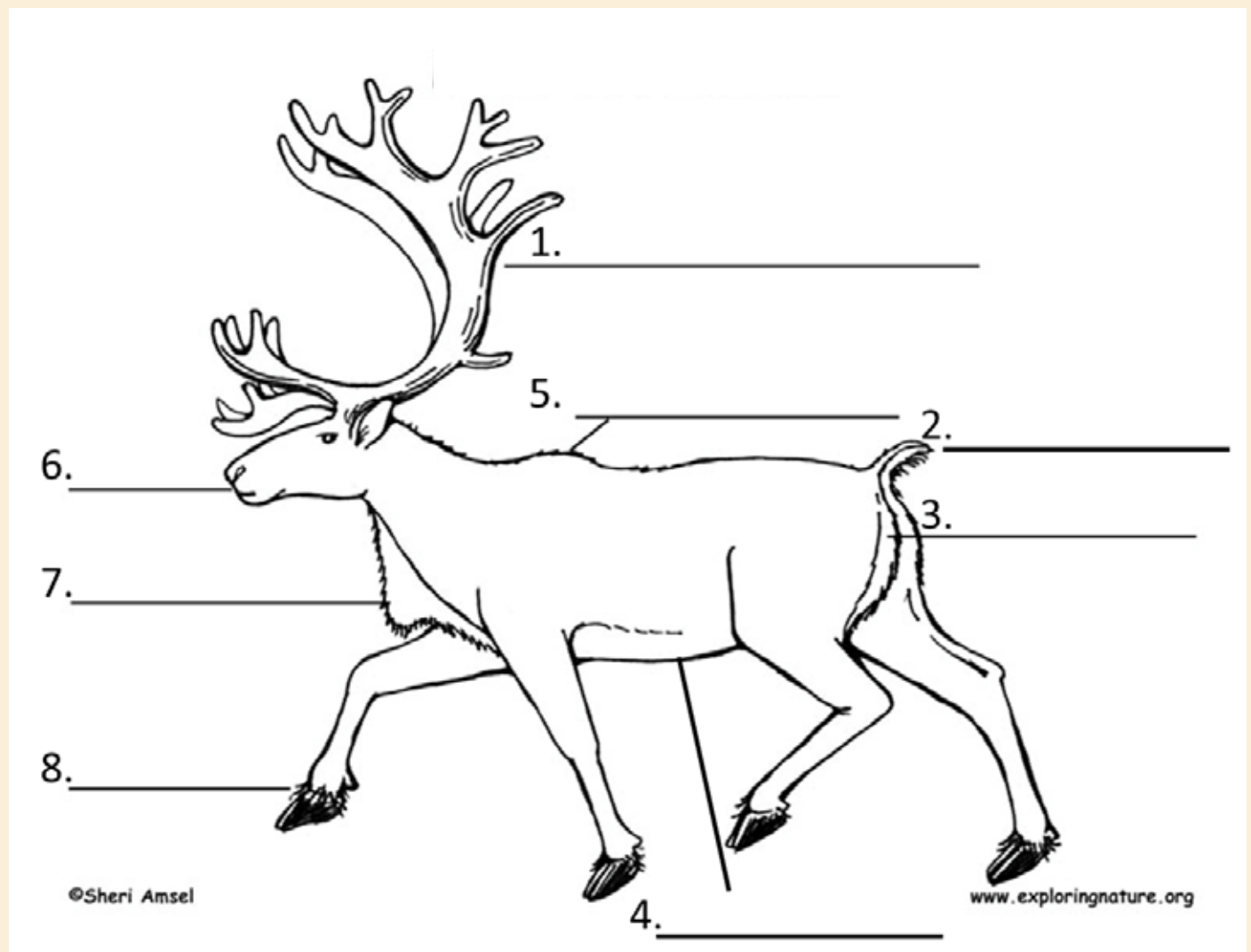


Moose



CARIBOU ADAPTATIONS

Can you name the parts of a caribou that make them so well adapted to their environment?



- | | |
|--------------------|-------------------|
| a) Antlers | e) White Belly |
| b) Brown-Grey Coat | f) White Backside |
| c) Fuzzy Nose | g) White Tail |
| d) Hooves | h) White Mane |

NEW LIFE

In late September to mid-November, males, called bulls, engage in frequent and furious sparring battles with their antlers before the most dominant male gets opportunity to mate with the females, called cows. This is called the **rut**.

Pregnancy in female caribou, lasts around seven and a half months or 230 days, and baby caribou, called calves, are normally born in mid-June. Cows almost only ever have one calf per year, so each one is precious and important.

Woodland caribou are more solitary than their northern counterparts. Pregnant cows may separate from the herd before giving birth and raise their calves in secluded patches of forest, small islands, or in **muskeg**, because those areas are safer. Calves are very small when they are born, barely larger than a full-grown house cat, and that makes them very helpless.

On average, 50-70% of caribou calves die in their first year, meaning if 100 calves are born, 50-70 of them will die before they turn 1. That is not good for caribou survival.

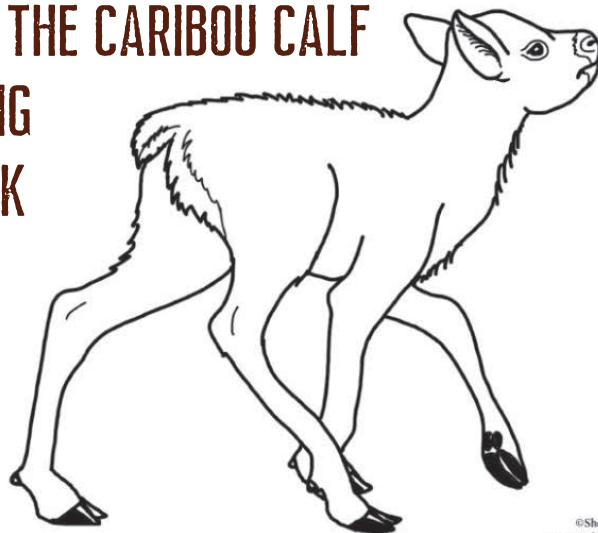


Some things that can affect calf survival are:

- quality and amount of food for females while pregnant and the calves during their first year,
- the number of predators,
- the weather.

The calves who do survive grow up really fast. They can stand and walk a few steps about an hour after they are born. After a day, they can run, and after a couple of days, they can even swim across streams and small rivers.

COLOUR THE CARIBOU CALF LEARNING TO WALK



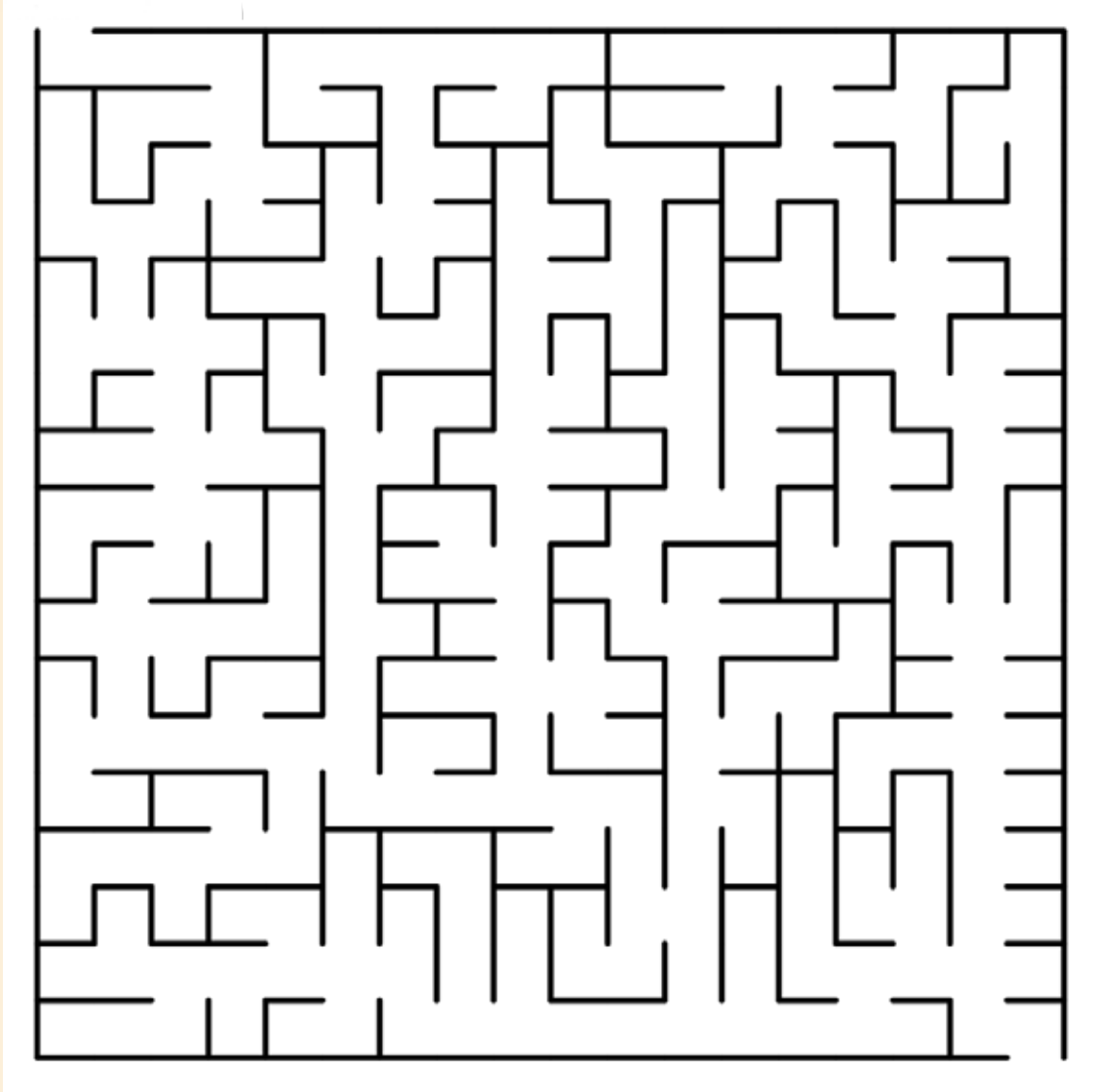
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MUSKEG

a North American swamp containing a mixture of water and partly dead plants. It is usually covered by a layer of moss



HELP THE MOTHER CARIBOU FIND HER CALF

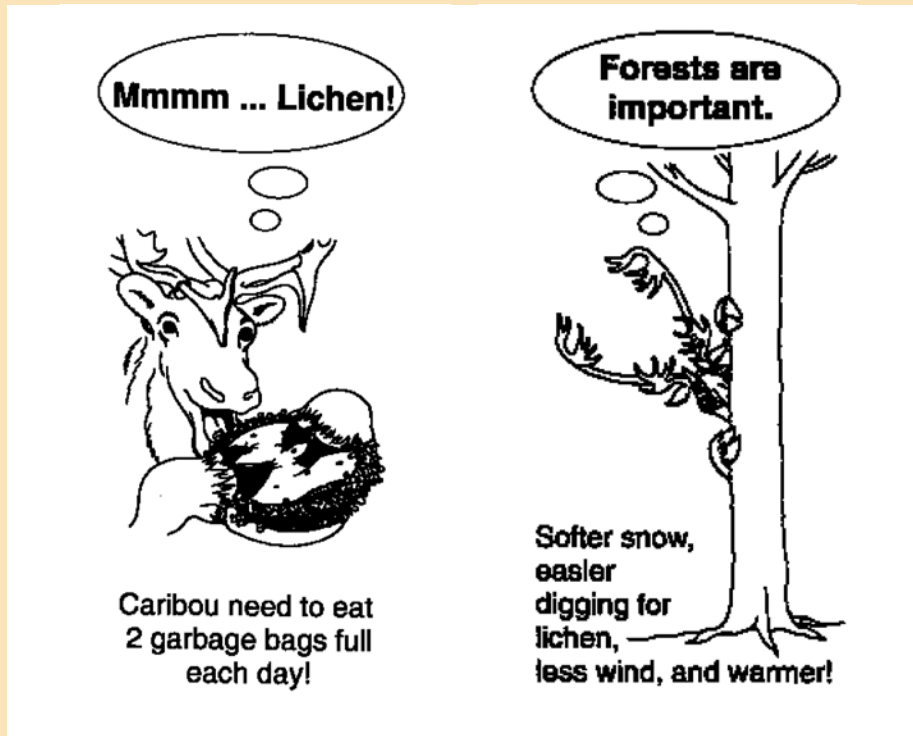


WHAT DO CARIBOU EAT?

Foothills Landscape Management Forum



Caribou need lichen. And they eat lots of it, especially in the winter. Caribou are the only large mammals that can use lichens as a main source of food. They have specialized stomachs that efficiently digest the lichens, allowing them to use this rich food source that is available during the winter when other foods are limited. The average caribou must eat at least three kilograms of food every day, which is about two garbage bags full. In the summer, they also eat grasses, willows, shrubs, mushrooms, and leaves.



Lichen is very slow growing. It typically takes forests 50-100 years to have enough lichen to support a group caribou. Therefore, large areas of unbroken mature conifer forests are essential to caribou survival.

Caribou tend to avoid cleared areas where there are more shrubs favoured by moose, deer and elk, which would result in fewer predators that might eat them.

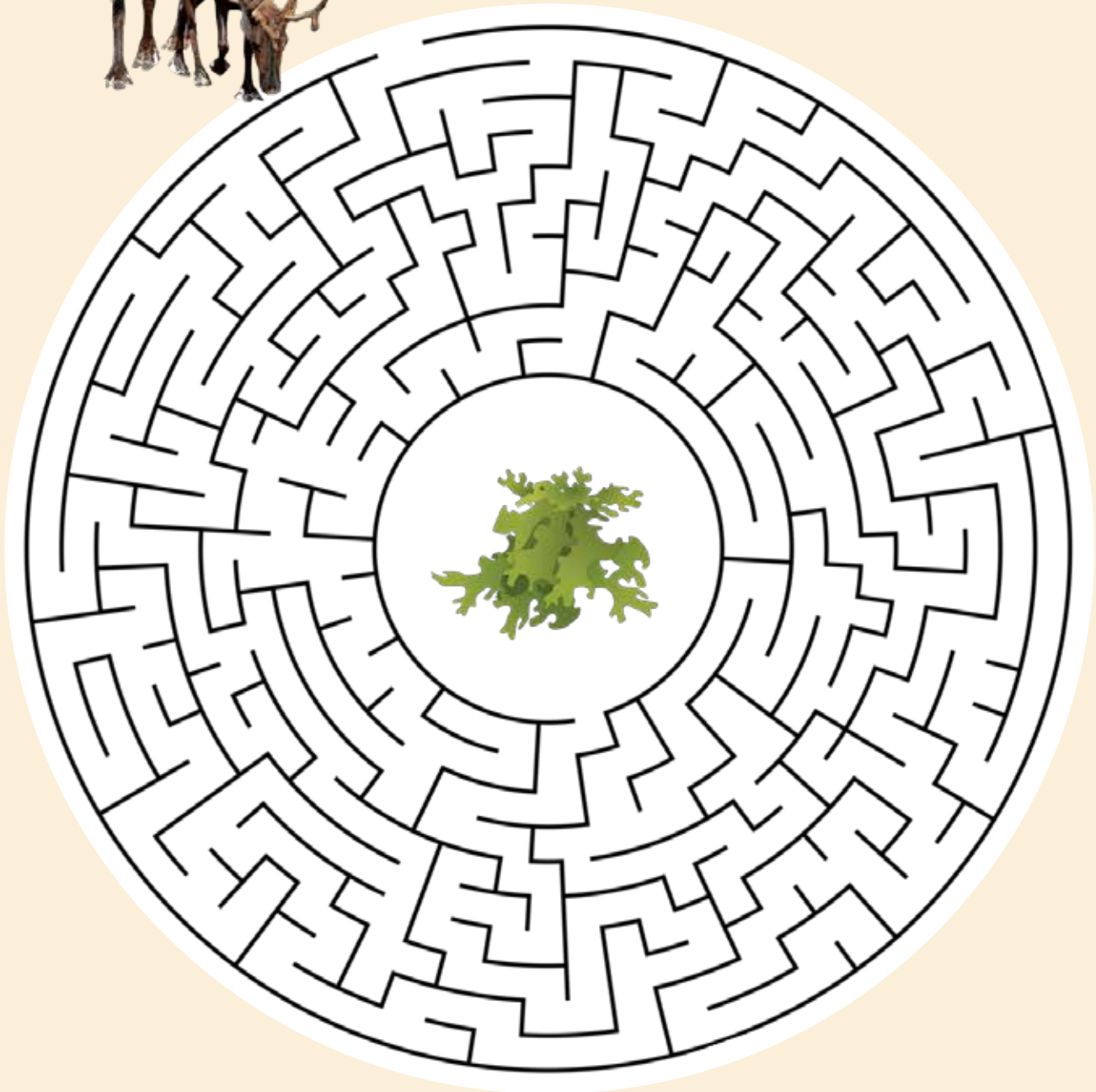
FUN FACTS

Caribou find the food that is covered by snow by pushing their long, wide snouts into the snow, searching for food smells before beginning the difficult work of digging. Just as we can smell brownies in the oven, a caribou can easily smell food under one foot (30 cm) of snow. Caribou also use their noses to recognize each other and to detect danger.

Caribou exploit habitats that enable them to survive in the face of predation and other limiting factors.



THESE CARIBOU ARE HUNGRY HELP THEM FIND THE LICHEN



LICHEN (LI·CHEN)

a plantlike organism that typically forms a low crusty, leaflike, or branching growth on rocks, walls, and trees.

THREATS

There are many threats affecting caribou survival and their **habitat**. The more people make changes to the environment, the more broken up the land that caribou can use becomes. Caribou like to live secluded (separate) from other animals. Roads, trails, oil and gas, forestry and other human developments open up access to the secluded places where caribou live, allowing other ungulates and the predators that eat them to get to these places. These developments on the land also removes areas with old growth forests and lichen that caribou need to survive. Roads can also cross the paths that caribou use while migrating. Caribou still use these paths to migrate and that means sometimes they cross busy roads and can be hit by vehicles.

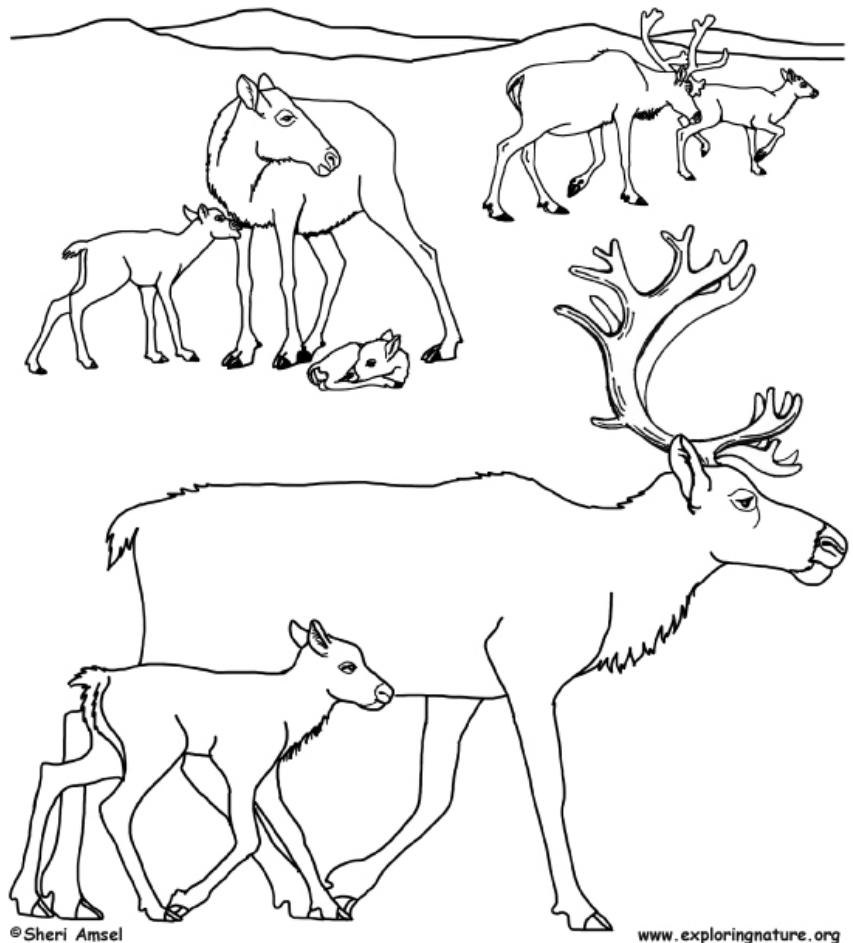
The weather is changing. Our area is seeing warmer dryer weather that is causing changes to the land we can't see yet. This is a big threat because we don't know yet how it will affect the caribou and their habitat, but we do know it is starting to affect lichen growth.

HABITAT

('HABE,TAT)

the natural home or environment of an animal, plant, or other organism.

CARIBOU HERD AND CALVES



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HABITAT LOSS/ FRAGMENTATION

PREDATION & POACHING

VEHICLE COLLISION

CLIMATE CHANGE

Increased development, logging, oil and gas and wildfires reduce the amount of mature forest available to caribou.

Increased road, trail and seismic line densities facilitate travel for other ungulates, predators and human hunters into caribou habitat.

A La Peche caribou migrate across Highway 40 to travel between their winter and summer ranges.

Changes in climate negatively affect the production of lichen as well as increase chances of extreme weather, wildfire avalanches, and forest pests.

Adaptations increase the animals' likelihood of surviving in their habitat. When a habitat changes, either slowly or disastrously, the species of animals with adaptations that allow them many options are the ones most likely to survive. Species that have adapted to a very narrow range of habitat conditions are extremely vulnerable to change and may be more susceptible than other animals to death or extinction.

Caribou are adapted to very specific conditions, which make them very vulnerable when those conditions change.

Although each threat is discussed separately, the **cumulative impact** adds to the overall effects on caribou populations and habitats.

CUMULATIVE IMPACT

(KYOO-MYUH-LUH-TUHV IM-PAKT)

The combined effects from past, present, and reasonably foreseeable future activities

FUN FACTS

DID YOU KNOW: Woodland Caribou in North America are the largest and darkest and grow the heaviest antlers. They can weigh up to 700 pounds.

DID YOU KNOW? Caribou shed their antlers and grow a new set every spring. It only takes them 120 days to grow new antlers.

DID YOU KNOW? Caribou recycle their own shed antlers by chewing on them to get calcium.

DID YOU KNOW? Caribou make a sharp clicking noise resulting from the movement of the tendons snapping over a bone just above their hooves. This noise is heard most clearly on calm cold days as groups of animals travel together.

WHY DO CARIBOU MOVE?

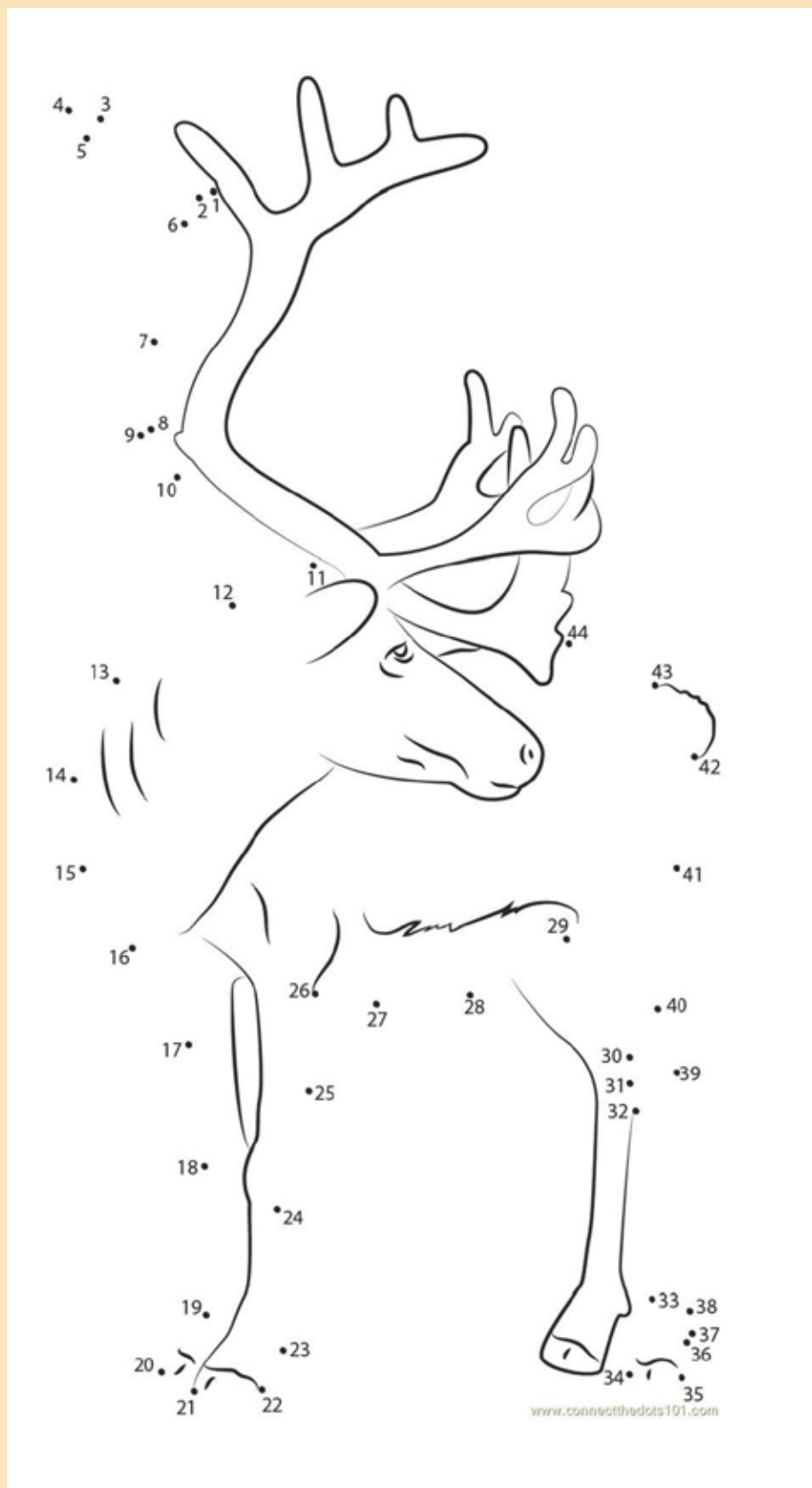
Mountain caribou make short seasonal movements from summer to winter ranges, and boreal caribou tend to stay in the forest, either alone or in small groups, moving around in the same area. Caribou cows travel to safe, secluded places where they go to have their calves.

MIGRATION

(MI·GRA·TION)

seasonal movement of animals from one region to another.

In our area, some of the caribou winter range is in the same place as roads and highways, and that is very dangerous for caribou. The A la Peche herd migrates across Highway 40 in spring and fall. The Caribou Patrol crews reduce the potential of vehicle collisions with caribou by driving down local roads and moving caribou away from the roadways.



CARIBOU PATROL WORDSEARCH

The following words all relate to our local caribou and Caribou Patrol. Find the words in the word search then read farther to find out how they relate.



Find the following words in the puzzle.
Words are hidden and .

A La Peche	Collision	Little Smoky	Reindeer
Antler	Conservation	Migration	Report
Aseniwuche	Cougar	Mountain	Threatened
Atih	Cow	Narraway	Ungulate
Avalanche	Cree	Old Growth	Wolf
Bear	Disturbance	Patrol	Wolverine
Boreal	Forests	Predation	Woodland
Bull	Herd	Protect	
Calf	Highways	Red Rock Prairie	
Caribou	Lichen	Creek	

WHICH ANIMALS ARE KNOWN TO PREY ON CARIBOU?

Grizzly Bear



Wolverine



Coyote



Lynx



Red Fox



Wolf



Black Bear



Cougar



Answers: Grizzly Bear, Wolverine, Wolf, Black Bear, Coyote, Cougar

FUN FACTS

While caribou occasionally snort, grunt, pant, and bellow, they are generally silent animals. The most common sound associated with them is a curious clicking noise. This clicking sound is produced when caribou walk. It is caused by tendons slipping over bones in the feet.

Hear it here:

<https://vimeo.com/81341806>



TRUE OR FALSE

- | | | |
|---|------|-------|
| 1. Caribou are also known as reindeer. | TRUE | FALSE |
| 2. Caribou are herbivores. | TRUE | FALSE |
| 3. Male and female woodland caribou all migrate together. | TRUE | FALSE |
| 4. Caribou can swim. | TRUE | FALSE |
| 5. Only male caribou have antlers. | TRUE | FALSE |
| 6. All caribou migrate. | TRUE | FALSE |
| 7. Caribou keep their antlers year-round. | TRUE | FALSE |
| 8. Baby caribou are called calves. | TRUE | FALSE |
| 9. Only pregnant caribou have antlers in the winter. | TRUE | FALSE |
| 10. Caribou mainly eat lichen in the winter. | TRUE | FALSE |

Answers: 1T, 2T, 3F, 4T, 5F, 6F, 7F, 8T, 9T, 10T

HOW YOU CAN HELP

- Remind drivers to slow down to 70 km/hour when travelling through marked wildlife corridors.
- Help drivers be aware by helping to scan the sides of the highway for caribou or other wildlife that may be too close or trying to cross.
- Report your caribou sightings as soon as possible to the Caribou Patrol website, Facebook or Instagram.
- Learn more about caribou at your local library or on the Internet.
- Share what you know about caribou with your family and friends.



When our Caribou Patrol crews are alerted to caribou lingering on a roadway, they put up these signs a few kilometres apart and patrol the area until the caribou have moved away. They may also incorporate other diversion tactics.

PLEASE report all caribou sightings in west-central Alberta!

www.facebook.com/CaribouPatrol

www.cariboupatrol.ca

info@cariboupatrol.ca

toll free: 1.877.CPHWY40

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Page 1 = Caribou Patrol logo design by Kayla Bellerose @ Artist Page - bb iskew — The Works International Visual Arts Society

Page 4 = Status of the woodland caribou (*Rangifer tarandus caribou*) in Alberta : update 2010 - Open Government

Pages 5, 16, 17, 20 = Aseniwuche Winewak Nation of Canada (AWN) Home - Aseniwuche Winewak Nation

Pages 6 and 7 = AWN Perspective on Caribou @ Information and Resources | AWN's Caribou Patrol, *7 Cree Principles: Language Bundles* created by Johanne Johnson in partnership with the Wahkohtowin Law & Governance Lodge and AWN

Pages 8, 11, 12, 14 = Project Caribou @ Information and Resources | AWN's Caribou Patrol

Pages 9 and 17 = Celie Interling, former Aseniwuche Environmental Corporation CP crew leader

Pages 14, 16 = Caribou (Our Wild World series) by Julia Vogel

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Aseniwuche Winewak
Nation of Canada



CARIBOU PATROL

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Caribou Patrol Program

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