

Alaska's

Wild Wonders



Read all about...

Alaska's Amazing Antlered Ungulates!

In This Issue

Sitka Black-tailed Deer	p. 2
Moose	p. 3
Caribou	p. 4
Elk	p. 5
Working with Wildlife	p. 6
Alaska's Wild Foods	p. 7
Ungulate Activities	p. 8

Welcome to **Wild Wonders**, a magazine for kids about animals, plants and all things wild in Alaska. In this issue, we introduce you to some of Alaska's ungulates. Ungulates are mammals with hooves, or horny coverings over the lower part of their feet or toes. Ungulates are classified or split into two groups – those with horns and those with antlers. In this issue, we focus on ungulates with antlers.

What is the difference between antlers and horns? Antlers grow new each year after being shed or dropped while horns remain in place and continue to grow year to year. Another difference is that with most antlered animals – except for caribou – only the males grow antlers. With horned species, both males and females have horns.



Caribou

Chances are if you live in Alaska, you've seen an ungulate. Alaska's varied ecosystems, which range from wetlands and forests to tundra, support large numbers of ungulates, as well as a wide variety of species. Ungulates are a common prey species, which means they are often eaten by other animals. Many top predators, including wolves, bears and humans, depend on these hooved animals for food.

What do you already know? Can you name some of Alaska's ungulates? Write down all the different species you can think of below. Then turn the page upside down to find out which ungulates live in Alaska.

My Ungulate List:


A writing area with a red vertical line down the center and horizontal lines for writing. There are some faint green circular marks on the left side.

Wild Ungulates of Alaska: Caribou, Dall Sheep, Moose, Mountain Goat, Muskox, Reindeer, Elk, Bison, Sitka Black-Tailed Deer



Moose

Fun Fact: Can you imagine walking or running on your toenails? That's what ungulates do, even without the help of ballet toe shoes. Most ungulates are extremely fast runners.

Wildlife Hunt: This little caribou  is roaming the magazine. Can you find it on each page?



Sitka Black-tailed Deer



Fun Deer Facts



Not everything is big in Alaska:

Sitka black-tailed deer are smaller than black-tailed deer found elsewhere. Adult deer range in size from 80 pounds (adult female or doe) to 120 pounds (adult male or buck). Their antlers are also relatively small compared to other antlered species.



A coat for each season: Deer have two coats. The summer coat is reddish and the hairs are solid. Surprisingly, there is more hair on the summer coat than the winter one. This extra hair protects against biting insects. A deer's winter coat is grey/brown and the hairs are hollow, providing increased insulation. It's like wearing a down jacket.



Baby Deer:

Fawns, or baby deer, are born in late spring. A doe giving birth the first time will usually have one fawn, and twins from then



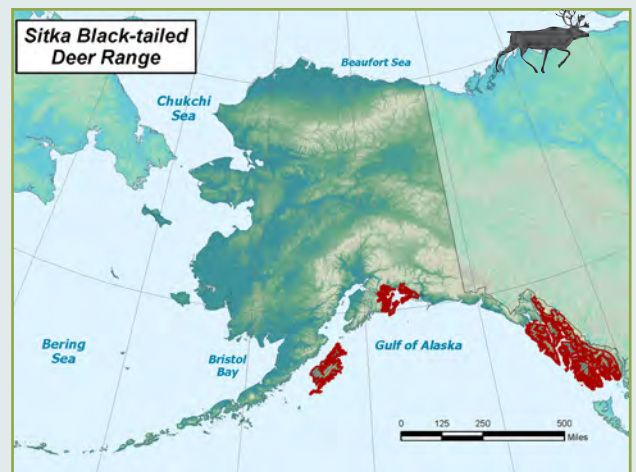
on. When first born, fawns do not give off any smell, making it difficult for predators such as bears and wolves to find them. The spots on a fawn's coat provide additional protection. This camouflage resembles filtered sunlight and shadows on the forest floor.

Dinner for a deer: Did you know deer swallow food and then spit it up to chew all over again? This is called ruminating. Deer, like many ungulates, have four-chambered stomachs. This digestive system allows deer to eat a lot of food quickly and then chew and digest it later when they are less exposed to danger from predators.

Deer are herbivores, which means they eat plants. They eat a wide variety of plant species but can't just eat anything. Deer depend on microscopic organisms in their stomachs to break down food. These microbes are specially adapted to a deer's natural diet. If a deer eats something outside its normal diet, it can become really sick. In fact, deer have died of starvation on a full stomach!

Skunk cabbage is one of the best high-energy foods for deer in spring. Because skunk cabbage is armed with sharp microscopic crystals, it's painful and dangerous for people to eat. But deer can digest it, and it provides a great source of protein. Deer also eat blueberry and huckleberry, but these are not as nutritious as bunchberry and five-leaf bramble. These forbs are evergreens that provide food for deer in the winter when other foods are not available. However, forbs grow low to the ground and are easily covered by snow. That's why old-growth forests are so important to deer in Alaska.

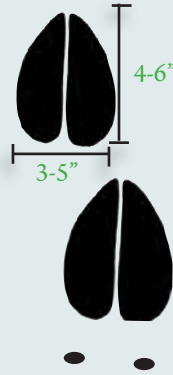
Old-growth forests have trees of different ages and heights. This creates layers of branches in the forest canopy, which block most of the winter's snow. Less snow on the ground means more food available to deer. Even when there is lots of snow, the ground beneath old-growth trees can be relatively snow-free, providing a great dining spot for deer!



The Sitka black-tailed deer is native to the wet coastal rainforests of Southeast Alaska and north-coastal British Columbia. Its range has been expanded by introductions and now populations exist near Yakutat, in Prince William Sound, and on Kodiak and Afognak islands.

A Map Full of Moose

Moose are found throughout much of Alaska. Moose sightings are common but even more common is seeing their tracks and scat (poop). Many people mistake soft summer moose scat for bear poop. Moose scat is in pellet form in winter because that is when moose eat dry bark and twigs. In summer, when moose eat green vegetation, their scat gets more mushy, and looks more like bear poop. Check out the different types of moose scat below!



About 175,000 to 200,000 moose are widely distributed throughout Alaska.

Winter  Summer



Moose are the largest member of the deer family. Adult moose range in size from 800 pounds (small adult female) to 1,600 pounds (large adult male), and they can be up to 6 feet tall! Moose range in color from golden brown to almost black. Only male moose grow antlers. Most male calves develop a hair-covered, bony knob by the end of summer that lasts through their first year. Antlers are then grown new each summer and shed each winter throughout a bull's life.

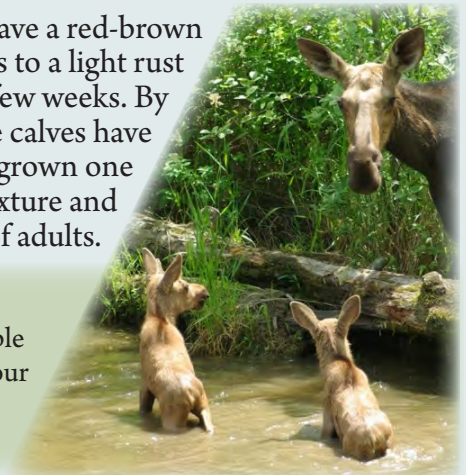


During the fall and winter, moose browse on large quantities of willow, birch and aspen twigs. In the spring, moose graze on ground plants and also browse on shrubby plants and trees. During the summer, moose feed on herbs, vegetation in shallow ponds and the leaves of birch, willow and aspen.

Some areas of the state have lots of moose; other areas have few or none. The number of moose living in a certain area depends on habitat quality, weather and predation by other animals such as wolves and bears. Fire and other disturbances are important for moose in many areas of the state because fire can create new vegetative growth for moose to feed upon for many years.

Female moose are called "cows." They generally breed when they are two years old. Calves are born any time from mid-May to early June after a pregnancy of about seven and a half months. A cow moose defends her newborn calf vigorously. Healthy cows often give birth to twins. Newborn calves weigh about 28 to 35 pounds. Calves begin nursing within the first few hours following birth and take solid food a few days later. During their first five months, calves will grow to more than 10 times their birth weight, occasionally weighing more than 500 pounds at fall time.

Newborn calves have a red-brown coat that fades to a light rust color within a few weeks. By late summer, the calves have shed this coat and grown one that is similar in texture and color to that of adults.



Can you guess? Moose are eaten by bears and wolves but are also an important source of food for Alaskans. Take a guess: 1) How many moose are harvested by people in Alaska each year? 2) How many pounds of meat do those moose provide? Write your answers below and then turn the page upside down to see how well you guessed.

No. of Moose Harvested _____ Pounds of Meat _____

Answer: At least 7,000 moose are harvested annually in Alaska, amounting to about 3.5 million pounds of meat.

Bunches of Caribou

Caribou live in the arctic tundra, mountain tundra and northern forests of Alaska. There are 32 herds and approximately 900,000 wild caribou in Alaska (compare that to only about 700,000 people)!

Caribou calving areas, where baby caribou are born, are usually located in the mountains or on open coastal tundra. In the early summer, after calves are born, caribou gather together in large aggregations (see photo on the right). Scientists believe caribou do this to avoid insects and minimize predation on calves. It is an ideal time for biologists to conduct a census, or population count. After the aggregation period, caribou disperse to find food for the summer. Then in the fall, they begin migrating to the winter areas.

Once caribou begin to migrate, they can travel up to 50 miles a day. Caribou apparently have a built-in compass, like migratory birds, and can travel through areas that are unfamiliar to them to reach their calving grounds.

Caribou populations are somewhat cyclic but the size to which a herd grows is not very predictable. Today, factors such as varying weather patterns (climate), disease outbreaks and predation by wolves and grizzly bears determine whether most herds increase or decrease.

Human activities may also adversely affect caribou. Biologists managing caribou herds must consider the habitat needs of caribou to ensure caribou remain a healthy part of our landscape.

Many people confuse caribou with reindeer. They are the same species; a reindeer is simply a domesticated form of caribou.



Fun Caribou Facts

Flexible Munchers: In summer, caribou eat leaves of willows, sedges, flowering plants and even mushrooms. In the winter they switch to a diet mostly consisting of lichen, a hearty plant that gives them adequate nutrients when other plants are not available. Caribou use their shovel shaped hooves to dig for lichen under the snow.

Hooves and Antlers: Caribou have large, concave hoofs that spread widely to support them in snow and soft tundra. Caribou are the only member of the deer family in which both sexes grow antlers. Antlers of bulls are large and massive, those of cows are much shorter and are usually slender and irregular. Adult bulls average 350-400 pounds. Adult cows are smaller and average 175-225 pounds.



Have you seen these sign of caribou?
Caribou scat (poop) left, and a caribou track (right)



Introducing Elk

Sometimes humans bring wildlife species into Alaska that once thrived here or introduce to an area a new species that people want to hunt. This should be done after careful study so we do not create problems or conflicts with other plants and animals. This is called “introducing” or “reintroducing” a species. Elk were brought to Alaska so people could hunt them and are considered an introduced species, although fossilized bones indicate elk once lived in Interior Alaska many thousands of years ago. Two types of elk can be found in Alaska today: Roosevelt elk and Rocky Mountain elk.

Elk, which are a member of the deer family, were first released into the wild on Afognak Island near Kodiak Island in 1929 and then to Etolin Island near Petersburg in Southeast Alaska in 1987. Both of these new Alaska populations began with a small number of elk brought in from Washington and Oregon. The herds eventually grew in size. Today, elk are provide an important source of meat for people.

Elk now live on Afognak and Raspberry Islands and number about 900 elk in eight herds. They can swim in the ocean to Kodiak Island but have never established a herd there. Southeast elk now live mainly on Etolin Island and nearby Zarembo Island, and number about 400.

Elk share many similarities with moose, deer and caribou. They are usually smaller than moose and larger than deer or caribou. Bulls (the males) stand about five feet tall at the shoulder; cows (the females) are about six inches shorter. The legs and neck of elk are usually darker in color than their body. Elk also have a distinctive light beige or yellow patch on their rump.



How can you tell elk scat from deer or moose scat? It's smaller than moose poop but bigger and longer than deer.



Fun Elk Facts



Big to Little: Newborn elk calves are born in late May and early June and start out weighing about 35 pounds. Adult bull elk on Afognak Island can weigh up to 1,300 pounds!



Prize-Winning Teeth: An elk's top two canine teeth are called ivories. Though smaller than they used to be, scientists believe they are the remains of saber-like tusks that elk used long ago for fighting.



A New Hunt: A hundred or so years ago, there were only six land mammals on islands of the Kodiak Archipelago: tundra vole, short-tailed weasel, little brown bat, river otter, red fox and brown bear. Because people wanted animals to hunt for meat, they introduced Sitka black-tailed deer and elk.



Big Eaters: Elk need lots of food to survive! From late spring through fall, elk are grazers, meaning they feed on grass and other leafy vegetation. In fall, they become browsers and eat sprouts and the branches of shrubs and trees.



The red area to the left on this map represents Afognak and Raspberry Islands. The red area on the right is Etolin Island near Juneau.



Elk herds tend to be small and consist mostly of cows, calves, yearlings and, more rarely, mature bulls. The herd in this photo to the left is traveling through a logged area on Afognak Island. Logging has affected elk habitat but through proper management, elk on Afognak Island have continued to thrive.

Look it Up! Look on the ADF&G website, www.adfg.alaska.gov, in the species section to learn more about “nonnative” species in Alaska. Write down other introduced species besides elk below:

Working with Wildlife

Working with wildlife can be fun and exciting. It also takes a lot of work to become a wildlife biologist. You have to do well in school. Most biologists have at least a four-year college degree and many have even more advanced schooling and specialized training. Biologists in Alaska work on some of the largest animals in North America in some of the wildest places.

Interview with a Wildlife Biologist:

Kalin Kellie works for the Alaska Department of Fish and Game in the Interior and mostly works on moose. She is a wildlife biologist and a pilot. Kalin has been out capturing and radio-collaring moose calves but we caught up with her and asked her some questions about her career.



Kalin tranquilized this moose so she could fit it with a collar to study its movements.

Wildlife Wonders: How long have you been a wildlife biologist?

Kalin: 5 years

Wildlife Wonders: Why did you pick this career?

Kalin: Because I like to be outside and I like to figure out how the pieces of nature go together.

Wildlife Wonders: What animals do you work with?

Kalin: moose

Wildlife Wonders: What is the best part of your job?

Kalin: Flying the airplane and looking at moose that have newborn calves with them.

Wildlife Wonders: What is the hardest part of your job?

Kalin: Sitting still in front of the computer!

Wildlife Wonders: How long did you go to school to get your job?

Kalin: 8 years of college

Jr. Journalist: Conduct your own interview with a wildlife biologist or a person who works with plants and animals in Alaska. Write it up and send it to the editors of Wildlife Wonders. We will post the best entries online with your byline, or name, on the story! Send entries to brenda.duty@alaska.gov.



Students in Southeast Alaska worked with ADF&G biologists on a black-bear study. In this photo, they are using a VHF receiver to track a black bear's movements. The bear is fitted with a radiocollar that sends a signal to the receiver. Using this technology, biologists can know where a study animal is even when they can't see it.

Why do we study wildlife? In the late 1800s to early 1900s, wildlife in our country was in trouble. European settlers did not know about wildlife biology and management and there were no regulations to control the harvest and sale of animals and birds.

Fortunately, concerned groups of hunters had the wisdom to realize that our wildlife was disappearing and decided to take action to stop it. Some of our species were lost forever, but most recovered and are doing well. Hunters were some of our nation's first conservationists working to protect and preserve wildlife resources.

Today, we study wildlife so that we do not repeat mistakes of the past. Many factors affect the health and abundance of wildlife populations including habitat loss, disease, predators and hunting, among other factors.

By studying wildlife we learn what we must do to ensure that healthy populations of all species are with us forever. That's what conservation is – the wise use of our natural resources so they will always be here for future generations.



It isn't easy to weigh a moose!

Alaska's Wild Foods

Do you eat any wild food? For many Alaskans the answer to that question is **yes**. People all over our state value the high quality wild foods that have been sustaining life here for thousands of years.

Alaskans around the state eat a wide variety of animals:

moose	mtn. goat	beaver
deer	caribou	porcupine
bear	hares	muskrat
muskoxen	grouse	whales
bison	ptarmigan	seals
Dall sheep	ducks	



Hunters help pay for the cost of managing wildlife through their purchase of hunting licenses and through a tax on ammunition and hunting equipment.

What other wild foods do you eat?

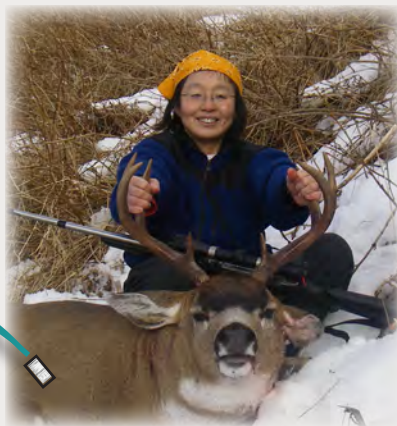


Nutrition Facts

Amount Per Serving		
Calories	134	Calories from Fat 24
% Daily Value*		
Total Fat	3g	4%
Saturated Fat	1g	5%
Trans Fat		
Cholesterol	95mg	32%
Sodium	46mg	2%
Total Carbohydrate	0g	0%
Dietary Fiber	0g	0%
Sugars	0g	
Protein	26g	
Vitamin A	0%	Vitamin C 0%
Calcium	1%	Iron 21%


*Percent Daily Values are based on a 2,000 calorie diet. Your daily values may be higher or lower depending on your calorie needs.


©www.NutritionData.com





Look up the nutrition of your own wild foods at nutritiondata.self.com. Compare wild foods to what you might find in a grocery store. Venison (deer meat), for example, is an organic meat that is high in protein and iron and low in sodium.


Hunting is good for you and your community. Hunting wild foods can help us **physically**, **mentally** and **culturally**.


 Hunting provides a source of free-range, organic meat that is low in saturated fat.

 Hunting provides you with a sense of accomplishment and pride when you bring home food to share with family and friends.

 Hunting gets you outside and provides you with fresh air and exercise.

 Hunting teaches you where food comes from and the natural process of life and death.

 For many families, hunting provides a cost-effective way of feeding the family. Especially in rural areas, where meat from the store is very expensive, hunting helps families survive.

 Hunting provides you with an intimate connection to the land.



Want to learn more about hunting in Alaska? www.hunt.alaska.gov

Ungulate Activities



If you were a member of the deer family, would you eat... (circle one)
Meat Fish Plants Insects or 4th Graders?

horns vs. antlers
which fall off?

Write your answer here: _____

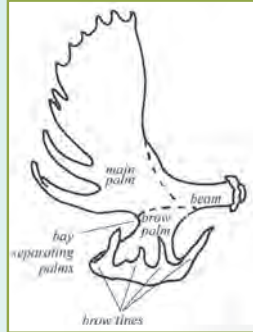
All About Antlers

What do antlers do? What is their purpose? (Circle the best answer).

1. They help ungulates attract a mate.
2. They help moose hear better.
3. Big antlers help biologists know the habitat is of good quality.
4. Among males, antlers help show who is the most dominant.
5. All of the above

Did you Know?

When antlers are growing, they are covered with a soft skin covering called **velvet**. This covering supplies oxygen and nutrients to the growing bone in the antler. Once the antlers are fully grown, the **velvet** is lost and the bone dies. Most ungulates shed antlers in the fall or winter and regrow them in spring or summer.



The parts of an antler

Word Search



c a r i b o u y y v m v u t t h
t l n m i g r a t i o n l j u b
o s v c b x e x p o k n b h v y
w q g j k d e e r u i b h b v f
c s x d r t l n x e l x z n p w
c r x e b c k x w e q s a z c k
m a n t l e r s w s x y t r a s
p z o a l k m c c e x b u l l e
o e i l u i t a c v x u z e f w
j i t u u t v t i o u c c x s e
m b a g i l d f g o s k x r t y
p o v n v n m c w h a b i t a t
i e r u w m o o s e q h m y e n
w c e u q e c v i r o p t o v k
q o s o s n v c x b z a d w q n
p u n w n h u n t i n g t r e d
x z o o p n j g p v l k y w q m
e r c i k w q n c o x t z k i o
b r q b v x h a y r a n g e h q
l k h m n y t r e e s f z u i o

Mystery Animal

I am a small mammal with hooves, long legs, reddish brown fur, a black tail and antlers, if I'm a male. I live in coastal hemlock-spruce forests. Old growth forests help me survive in the winter. Who Am I? _____

Compare and match the ungulate tracks (draw a line between a track and the animal that made it).

1



2



3



4



Find these words in the word search:

ungulate	browse	buck
caribou	graze	doe
deer	antlers	bull
moose	scat	calf
conservation	migration	cow
herbivore	habitat	elk
hunting	hooves	range

Wildlife Wonders Issue No. 1, July 2011, photos courtesy of ADF&G and USFWS.

The Alaska Department of Fish and Game administers all programs and activities free from discrimination based on race, color, national origin, age, sex, religion, marital status, pregnancy, parenthood, or disability. For information on alternative formats for this and other department publications, please contact the department ADA Coordinator at (voice) 907-465-6077, (TDD) 907-465-3646, or (FAX) 907-465-6078.