

Wildlife Viewing

Yukon rodents and lagomorphs




Yukon



Least Chipmunk

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We offer a special thank you to Cameron Eckert for the use of his beautiful photographs. Text reviews by Piia Kukka, Mark O’Donoghue, and Tom Jung were very helpful.

Capital letters and common names

In this guide, accepted common names of animals begin with capital letters to help readers distinguish between species. For example, a Red Squirrel is a species of squirrel, not necessarily a squirrel that is red.

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Cover illustration by Catherine Deer.

Yukon rodents and lagomorphs

Yukon’s 28 species of native rodents and lagomorphs make up a sizable portion of the territory’s small mammal diversity. From the familiar Red Squirrel of our boreal forests to the alpine-dwelling Collared Pika, rodents and lagomorphs are found across Yukon’s diverse landscape.

This guide first describes the general biology and natural history of Yukon rodents and lagomorphs. Species descriptions follow. Unconfirmed species and exotic species, such as the House Mouse, are not included.

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Meadow Vole



What are rodents and lagomorphs?

Rodents and lagomorphs are two groups of relatively small mammals. All rodents and lagomorphs have prominent front teeth (incisors) used for gnawing, and sturdy cheek teeth for grinding food. Incisors grow continuously throughout the animal's life.

Teeth can also help distinguish members of these two groups. Rodents have one pair of incisors in the upper jaw while lagomorphs have two sets, the second being smaller and tucked behind the first. Other mammal species generally have six incisors in each jaw; humans have four.

Rodents

Rodents are a large and diverse group of some 2,000 species, comprising about 44 per cent of all mammal species in the world. Twenty-six native species of rodents are confirmed to live in Yukon.



Snowshoe Hare

Lagomorphs

Sometimes called "rabbits", this order is much less diverse with about 80 species worldwide. Only two species are found in Yukon, neither of which are true rabbits.



Collared Pika

Jukka Jantunen

Getting around

Rodents and lagomorphs have many ways of getting around their environments.

1. Walking on four limbs: the most common way of moving about.

2. Climbing: Red Squirrels are superb climbers, with powerful limbs and a long tail to help balance when jumping between tree branches. Porcupines are also skilled climbers, with sharp claws and rough foot pads to grip branches.

3. Hopping: Snowshoe Hares leap using their large, powerful hind legs and land on their smaller front limbs. Tiny jumping mice also propel themselves into a hop using long hind limbs and feet, and a long tail for balance.

4. Swimming: While all Yukon rodents and lagomorphs can swim, only two species are highly adapted for moving through water – beavers and muskrats. These animals use their webbed hind feet and large tails to swim efficiently.

5. Gliding: Only the Northern Flying Squirrel uses this specialized form of travel. Thin membranes of skin stretch between the front and hind limbs, and smaller membranes join the cheeks to the front limbs. By stretching all four limbs to their full extent, flying squirrels can leap from trees and glide gently to the ground or to other trees.

6. Digging: Many rodents actively excavate underground burrows. They use these tunnels and chambers for protection from predators, shelter from extreme weather, rearing young, and hibernating. Marmots and ground squirrels are particularly effective at digging.

American Beaver



Jukka Jantunen

Food and eating

Rodents and lagomorphs eat mostly plants, including leaves, buds, bark, seeds, and fruit. Fungi (mushrooms and truffles) are an important food source for some species. Some rodents also eat insects, other invertebrates, and young birds and hares.

Food so nice they eat it twice

All lagomorphs and many rodents practice **coprophagy**. This is when an animal eats its own feces to extract additional nutrients.

Incisor teeth

These prominent front teeth grow continuously and feature a hard, outer surface called enamel. This enamel contains iron, which gives a yellow or orange colour to incisors. The inner tooth surface is softer. Unequal wear on these surfaces creates a sharp edge, useful for removing bark and clipping off twigs, grasses, and sedges.

Cheek pouches

Chipmunks and ground squirrels have spacious pouches inside their mouths. This allows them to carry seeds and other food to their burrows for eating later.

Every last drop...

Extracting sufficient energy and nutrients from green plants is difficult. Like all mammals, rodents and lagomorphs do not have enzymes to break down cellulose, the main sugar in plants. Instead they rely on fermentation in their caecum – an enlarged part of the intestine – where micro-organisms break down cellulose into usable sugars.

Shelter and space

Shelter is important for rodents and lagomorphs. Dens and burrows provide protection from predators and extreme weather, and are a safe space for raising young and storing food.

Underground

Many rodents dig underground burrows using their strong front limbs. Burrows often have more than one entrance and some have multiple tunnels and chambers. Arctic Ground Squirrels construct elaborate burrows used nightly for shelter, housing young, and for winter hibernation.

Above-ground nests

Collared Pika build nests and food caches under fields of rock in alpine areas. Bushy-tailed Woodrats construct dens of sticks in rock crevices and abandoned buildings.

Lodges

Both beavers and muskrats build sturdy lodges along waterbodies using sticks and branches. Underwater entrances allow year-round access to the dry nest chamber inside. Where water flows are too high for lodges, beavers and muskrats will burrow into banks instead.

Tree dens and nests

Red Squirrels often build conspicuous nests of twigs, leaves, and grass. The squirrels use these nests year-round and they often house newly-born squirrels in late winter. Chipmunks, tree squirrels, and deer mice sometimes use tree cavities for temporary shelter.

The Northern Flying Squirrel will also nest in tree cavities and “witches’ brooms” – dense clusters of branches and twigs, caused by a localized growth disorder in a tree.

Red Squirrel nest



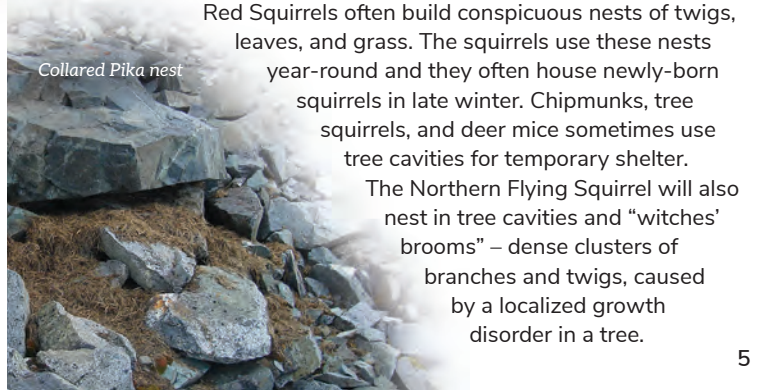
Kieran O'Donovan

iStock/ReedDaigle



Least Chipmunk

Collared Pika nest



Beaver skull



Surviving winter

Winter is a challenging time for rodents and lagomorphs in Yukon due to low temperatures and reduced access to food. Animals use various strategies to survive the cold, dark season.

Hibernation and torpor

Most species remain active through the winter. However, some rodents reduce their activity, body temperature, and metabolic rate to save energy. These strategies are called hibernation and torpor. The Arctic Ground Squirrel is a “deep hibernator” and can reduce its body temperature to below 0° Celsius.

Hibernation and torpor, what's the difference?

	Hibernation	Torpor
Lower body temperature	Yes	Yes
Lower metabolic rate	Yes	Yes
Duration	Long term (days to weeks)	Short term (hours to days)
Examples	Arctic Ground Squirrel Hoary Marmot Woodchuck Meadow Jumping Mouse	Least Chipmunk North American Deer mouse

Red Squirrel midden

Food caching

This tactic is critical to many species. It reduces the need to search for food during cold, harsh weather – an energy-wasting activity.

Collared Pikas spend late summer and fall collecting grasses and other small plants to build “hay piles” for winter feeding. Pikas are territorial and will defend their hay piles from intruders.

Beavers and muskrats collect plant material, typically from aspen trees, and build floating rafts of food for winter. These caches are accessible from underwater so the animals are not exposed to severe winter weather.

Red Squirrels gather cones from spruce trees and store them in large piles called “middens”, which they aggressively defend from other squirrels.

Northern Flying Squirrels and Red Squirrels are known to cache mushrooms in trees.

Other strategies for surviving the winter

- ▶ Growing thick winter fur.
- ▶ Building insulated nests.
- ▶ Nesting together in groups.
- ▶ Confining activity to areas under the snow.

Arctic Ground Squirrel

Pika hay pile

Bruce Bennett

Jukka Jantunen

Importance to humans

Humans have a long and sometimes complicated relationship with rodents and lagomorphs.

As a food source

Indigenous people in Yukon have used these animals for sustenance for a very long time. Snowshoe Hare, Arctic Ground Squirrel, American Beaver, and North American Porcupine were all consumed. Today, Yukoners still hunt and trap these species for food, especially Snowshoe Hare.

For clothing

Beavers and muskrats are the most important furbearing rodents in the territory. Soft, warm, and water-repellant, the hairy hides of these animals have been highly valued for centuries in making hats, mitts and jackets. Today, the hides and fur of these rodents (and other species) are sold and used in Yukon, nationally, and around the world.

As a pest

Unfortunately, our native mice and voles sometimes get dismissed as harmful “rats”. However, very few actually use human buildings; examples include deer mice and the Bushy-tailed Woodrat. Voles and mice can cause superficial damage to lawns as they travel beneath the snow. Gardeners also report crop damage from mice, voles, and hares.

However, rodents and lagomorphs also produce many benefits for the environment humans depend on (see **Why they matter:**

ecological importance and conservation on page 9).

Health risk: hantavirus

Hantavirus pulmonary syndrome is a rare but serious illness. It is believed to be caused by breathing in a virus carried by airborne particles of rodent urine, droppings, or saliva. In Canada, the primary carriers of hantavirus are believed to be deer mice.

For more information about hantavirus contact Government of Yukon Communicable Disease Control at 867-667-8323.

Why they matter: ecological importance and conservation

Rodents and lagomorphs play a critical, foundational role in ecosystems and natural food webs in the territory.

Food for many

Many carnivores prey on mice, voles, and lemmings. In particular, members of the canid family (coyote, wolf, and fox) and the weasel family (marten, fisher, ermine, and mink) benefit greatly from small rodents.

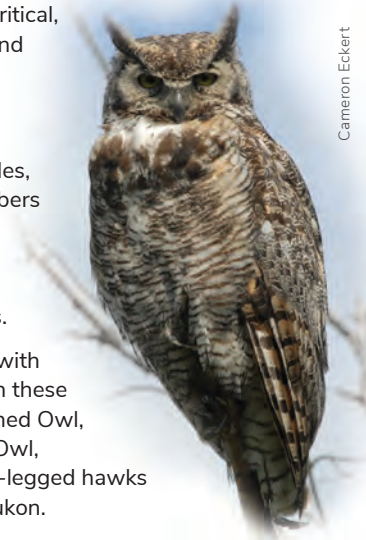
Raptors – birds of prey that hunt with their feet – also depend heavily on these small rodents for food. Great Horned Owl, Northern Hawk Owl, and Boreal Owl, along with Red-tailed and Rough-legged hawks are common avian predators in Yukon.

Snowshoe Hares are the preferred prey of Canada Lynx and population cycles of these two species are closely linked. Great Horned Owls and Northern Goshawks also have a preference for hares. When hare populations are low, lynx will prey more on rodents, such as Red and Arctic Ground squirrels.

Spreading seeds and spores

Chipmunks, voles, and squirrels eat mushrooms.

The reproductive spores pass through the animals, unharmed, leading to new fungal growth on the forest floor. Tree squirrels also collect and cache mushrooms for winter use, spreading fungal spores as they work.



Great Horned Owl

Cameron Eckert



Aiding in soil health

Tunnels made by burrowing species, such as the Arctic Ground Squirrel and voles, allow air, water and nutrients to penetrate soil. The droppings of these species also contain nutrients, which enrich the soil for plant and fungi growth.

You can help Yukon's wildlife

Tell us what you see!

The Yukon Conservation Data Centre tracks the territory's plants and animals. Five rodents are currently of particular interest:

- ▶ **Collared Pika** is threatened by climate change and is legally listed as a species at risk in Canada.
- ▶ **Ogilvie Mountains Collared Lemming** is endemic to central Yukon, which means it is found nowhere else in the world!
- ▶ **Woodchuck** distribution in Yukon is poorly understood.
- ▶ **Southern Red-backed Vole** and **Western Jumping Mouse** both have a restricted range and a small number of observations in the territory.

You can report sightings of these and other species by:

- ▶ Using the free the **iNaturalist.ca** website or app.
- ▶ Contacting yukoncdc@gov.yk.ca or 867-667-3684, toll free in Yukon 1-800-661-0408, ext. 3684.

*Ermine carrying a
Brown Lemming*



Kluane Boreal Forest Ecosystem Project



Southwestern Yukon is known as the Kluane region. It is a diverse landscape home to the highest mountains in Canada, glaciers, several large lakes and rivers, and large tracts of boreal forest. It was here that Yukon's largest field study of the inner workings of an ecosystem occurred.

From 1986 to 1996, researchers looked at this ecosystem from many angles. They studied the composition and changes in plant communities, including herbs, grasses, shrubs, and trees. They examined herbivores dependent on these plants, and their predators.

Researchers studied relationships between these three trophic levels – plants, herbivores, and predators – in detail. For example, “who eats whom?” was a simple question to ask, but challenging to answer in a remote wilderness landscape with multiple species that change food habits throughout the year.

Researchers manipulated some ecosystem components to test predictions of these relationships. For example, they installed fences in some areas to prevent access by mammal predators such as lynx. The scientists could then study the impact of predators on prey species, such as Snowshoe Hares, by comparing fenced sites to natural sites.

Northern ecology research is daunting. Field work is expensive and long-term funding is difficult to obtain. Short, brutally cold winter days, and study sites blanketed in deep snow make field work particularly challenging.

In this context, the Kluane Boreal Forest Ecosystem Project was significant in its time scale (ten years) and spatial scale (one square kilometre blocks of boreal forest were experimentally manipulated). The studies have greatly increased our understanding of what influences the abundance of plants and animals in the boreal forest.

The research findings and experimental designs of this project have also laid the groundwork for more research in Yukon's boreal forest. Inquisitive scientists continue to work with Yukon communities to learn more about our natural world.



Red Squirrel

Jukka Jantunen



North
American
Porcupine

Jukka Jantunen

Yukon's rodents and lagomorphs

(species accounts)

Average, adult weights are provided, where available.
Source: *Rodents & Lagomorphs of British Columbia*.

Weights vary widely with the season
and with pregnant animals.



Collared Pika

Cameron Eckert



Tundra Vole

Cameron Eckert

Lagomorphs

Snowshoe Hare

Lepus americanus | 1.3 kg

The only hare in Yukon has long ears and large, furry hind feet, which allow it to travel on top of deep snow. Its hair is mostly brown in summer and mostly white in winter – an effective camouflage in the boreal forest.

Young are born in spring after a gestation period of about 36 days. Females may have up to four litters each year and sizes vary. Two to five young is average. Care of the young is limited to daily feedings from the mother for about a month.

Viewing

The Snowshoe Hare is found in forests with dense, thick cover of young trees and shrubs, where it spends its days concealed and resting. When wary, hares tend to stay still rather than flee. They re-use the same pathways through the forest, creating corridors of packed snow or leaf litter known as “rabbit runs”.

Collared Pika

Ochotona collaris | 150 g

The Collared Pika or “rock rabbit” lives in mountainous areas, finding refuge in the cracks and crevices of rock fields and slides. Small and greyish, with small round ears, pikas blend into their rocky habitat.

Pikas are not explorers, typically remaining within 10 metres of their rock pile. They spend their days collecting plant material including grasses, sedges, herbaceous plants, and shrubs. Pikas store this food in “hay piles” which sustain them through the long alpine winter.



Jukka Jantunen

Viewing

Search for Collared Pikas in alpine areas at the edges of rock slides and piles. Sites with lush plant growth are preferred. Listen for its call – a distinct “meeeeeep” – used to maintain its territory and communicate alarm. Pikas are very difficult to see unless they are moving.

Report Collared Pika sightings to the Yukon Conservation Data Centre (see page 10).

Porcupine

North American Porcupine

Erethizon dorsatum | 9 kg

Chunky and slow, the North American Porcupine is well suited to a life in the forest, with long, sharp claws and rough foot pads, excellent for climbing trees. Long, sharp, barbed quills cover porcupines – up to 30,000 on an adult. Quills usually lie flat along the body, but stand up straight when the porcupine feels threatened. While quills easily and passively become dislodged into would-be predators, they are defensive weapons. Porcupines cannot launch their quills at threats.

Porcupines eat a wide variety of plants, but are specialized bark-eaters. They remove the rough outer bark of conifer trees with the incisors – the lips close behind the teeth to prevent the animal from swallowing this material. The porcupine then eats the softer, more nutritious inner bark.

Viewing

During May and June at dawn and dusk are excellent times to look for porcupines in and along forested areas. Drive carefully along Yukon’s highways – porcupines like the salt left over from winter road maintenance.



Cameron Eckert



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Aquatic rodents

American Beaver

Castor canadensis | 20 kg

Yukon's largest rodent has a large, flat tail, small eyes and ears, and webbed hind feet. Its reputation as "nature's engineer" is well-deserved – beavers construct large dams and lodges in and along waterways throughout the territory. Beavers topple trees by chewing through the stem with sharp incisor teeth. They use sturdy branches as building material and eat the softer twigs, leaves, and buds.

Unlike most other rodents, beavers establish tight family groups based on a monogamous pair of adults. Young stay with the family for two years, usually dispersing when that year's young are born.

Viewing

Look for dams, lodges, and chewed tree stumps to find beavers nearby. The animal is most active at dawn and dusk, so slowly paddling through beaver habitat at these times often results in sightings. Listen for the loud sound of a tail slapping the water – the beaver alarm signal to other family members.



Jukka Jantunen

Beaver or muskrat?

While beavers are bigger than muskrats and have a larger, paddle-like tail, these features can be difficult to see on a swimming animal. Muskrats swim high in the water, exposing much of their head and back. Beavers swim lower, with only the head usually visible.

Common Muskrat

Ondatra zibethicus | 1 kg

Slow and ungainly on land, the Common Muskrat is a strong swimmer, using its partially-webbed hind feet to push through the water. Its long, hairless tail is distinct – scaly and flattened side-to-side with a keel. While similar in many ways to beavers, muskrats are more closely related to voles.

Three to nine young are born in spring after a gestation period of about a month. Young muskrats remain near their parents until at least their first autumn and often spend the winter as a family unit in their first year.

Viewing

You can find muskrats swimming along the shores of small ponds and lakes, often with aquatic vegetation in their mouths. May is a great month for viewing – shorelines are free of ice, but the bulk of the waterbody's surface is still frozen. The narrow swath of open water along shore is a "highway" for cruising muskrats.

In winter look for "pushups" of vegetation in the frozen surface of lakes and ponds. Muskrats chew a hole in early-season thin ice and stuff plant material into it, which often freezes into a dome with a small air pocket within. This creates a small, protected area for a single muskrat to feed in.

Jukka Jantunen

Squirrels, marmots and more

Six species from the squirrel family (Sciuridae) are found in the territory. Some of these rodents are routinely seen in Yukon, such as the Red Squirrel and the Hoary Marmot. Others, such as the Woodchuck, are less familiar.

Northern Flying Squirrel

Glaucomys sabrinus | 155 g

Unmistakable yet rarely seen, the Northern Flying Squirrel has large eyes and a loose patch of skin stretching from wrist to ankle on both sides of its body. By jumping and extending its limbs and skin flaps, flying squirrels can glide up to 50 metres through the forest, although 10-20 metre glides are more typical.

Being firmly nocturnal makes flying squirrels vulnerable to other creatures of the night, particularly Great Horned Owls. Flying squirrels primarily eat a wide variety of fungi and will switch to lichens growing on trees, when fungi is not available.

Viewing

Sightings of Northern Flying Squirrel are a rare treat in Yukon. Watch for small shapes floating through mature forests at night and the occasional nocturnal raid on bird feeders.



Red Squirrel

Tamiasciurus hudsonicus | 225 g

The Red Squirrel is often encountered in Yukon forests and settlements. You can instantly make out the prominent bushy tail and white ring around the eye.

Red Squirrels are highly territorial, with a food “midden” (cache) being the central feature in the territory. They prefer to eat seeds of spruce trees. A squirrel will heap cones into piles, forming a midden, which sustains the squirrel through the winter. Red Squirrels are known to dry and cache mushrooms on tree branches. They also prey on bird eggs, young birds, and young Snowshoe Hares.

Viewing

Forests with White Spruce trees are a good place to look for Red Squirrels. Listen for their staccato chattering in the branches overhead. These squirrels commonly raid seed from bird feeders, much to the dismay of feeder-watchers.

Kluane Red Squirrel Project

Since 1987, researchers have studied Red Squirrels near Kluane Lake in southwestern Yukon. Affectionately known as “Squirrel Camp”, this long-term field experiment examines many aspects of Red Squirrel ecology. Studies have focused on changes in food availability and its impact on squirrel behavior, survivorship, and reproduction.

redsquirrel.biology.ualberta.ca

Least Chipmunk

Tamias minimus | 45 g

Substantially smaller than both the Red Squirrel and the Arctic Ground Squirrel, the Least Chipmunk displays five dark and four light stripes along its back. Chipmunks survive winter using periods of torpor lasting 80 to 110 hours. However, they remain underground during this season, building nests in excavated tunnels. Summer dens are typically in hollow logs or stumps, rock piles, or excavated burrows such as old Arctic Ground Squirrel tunnels.

Viewing

Search open forests of poplar and spruce for Least Chipmunks. A few hours after sunrise and from mid-afternoon to sunset are good times to look.

Arctic Ground Squirrel

Urocitellus parryi | 460 g

A common sight along some portions of Yukon highways, the Arctic Ground Squirrel is usually brownish-grey with light-coloured spots, although black-coloured individuals occur as well. While abundant in alpine and tundra areas, ground squirrel populations in boreal forests of the Kluane region declined in the late 1990s.

Arctic Ground Squirrels are active, social rodents, typically travelling up to 500 metres throughout the day during spring and summer. This contrasts with its winter behavior – a long, deep hibernation lasting seven to ten months. Some individuals begin hibernating in late July

Viewing

Roadsides, alpine meadows, clearings, and open forests are all good places to look for Arctic Ground Squirrels. Search for their burrow entrances – fresh, loose soil at an opening indicates the burrow is likely being used. April to August are the prime months.

Chipmunks sometimes use the same tunnel systems as ground squirrels.



Cameron Eckert

Hoary Marmot

Marmota caligata | 4.6 kg

in mountainous areas. This marmot is known to make seven different vocal sounds, the most familiar being a high-pitched whistle signaling alarm to other marmots.

Hoary Marmots live in family groups of an adult male, one or two adult females, and their young. Family members often share burrows through the summer and typically hibernate together for about eight months of the year.

Viewing

Marmots live in alpine and sub-alpine regions. They are diurnal (active during the day) and are most active in early morning and late afternoon. Watch for interactions among family members including play-fighting, chasing, and grooming.

A large, chunky rodent with black-and-white hair, the Hoary Marmot is often seen and heard



Jukka Jantunen

Woodchuck

Marmota monax | 1.6 kg

Resembling a large ground squirrel, the Woodchuck is usually frosted-brown or reddish-blond in colour. Unlike its close relative the Hoary Marmot, the Woodchuck is found in lower-elevation forests, meadows, and road embankments. Relatively rare in Yukon, its range is thought to be a diagonal swath from Watson Lake to Dawson.

Woodchucks are fairly solitary creatures. Young animals usually leave their mothers after weaning at about two months of age. Adults are generally territorial, with males maintaining exclusive home ranges. Unlike Hoary Marmots, Woodchucks almost always hibernate alone.

Viewing

Watch for Woodchucks at low elevations in well-drained open land. Roadside meadows and fields are favourite spots for this rodent.



Cameron Eckert

Report
Woodchuck sightings
to the Yukon Conservation
Data Centre (see page 10).



Lemmings, voles, mice and more

Yukon is home to 16 native species of lemmings, voles, mice, and jumping mice. Two additional species – the larger Bushy-tailed Woodrat and Common Muskrat – are closely related to this group. These rodents typically have a small body size – well under 50 grams for most species.

Together, these species fill a critical role in Yukon ecosystems as a primary food source for dozens of mammal and bird predators. Species such as weasels, foxes, owls, and hawks depend on small rodents for survival. The populations of these predators often fluctuate in direct relation to the populations of their prey.

Lemmings

1. **Nearctic Collared Lemming** | *Dicrostonyx groenlandicus*
2. **Ogilvie Mountains Collared Lemming** | *Dicrostonyx nunatakensis*
3. **Brown Lemming** | *Lemmus trimucronatus* | 65 g
4. **Northern Bog Lemming** | *Synaptomys borealis* | 26 g

The Nearctic Collared Lemming is the world's most northerly rodent, found throughout the Arctic tundra of Canada, Alaska, and the north coast of Greenland. This lemming lives in the extreme north of Yukon, surviving winters with a thick, white winter coat. Its summer fur is thinner and a mix of dark and light colours.

Populations of Nearctic Collared Lemming cycle drastically about every four years. Females produce up to three litters per year and young lemmings develop quickly.

Little is known about the Ogilvie Mountains Collared Lemming. The only records are from two sites in Tombstone Territorial Park in central Yukon. It was previously considered to be a sub-species of the Nearctic Collared Lemming, but differs in hair colour and skull size.

Report Ogilvie Mountains Collared Lemming sightings to the Yukon Conservation Data Centre (see page 10).

Nearctic Collared Lemming

The Brown Lemming is found across the territory. It uses moist meadow habitats in alpine and sub-alpine areas, as well as Arctic tundra. This lemming prefers to eat fresh vegetation, year-round. This is not a challenge during the lush summer growing season, but in winter it resorts to eating mosses and frozen shoots of grass and sedge. This diet creates green scat, rather than the black and brown droppings typical of other lemmings and voles.

The Northern Bog Lemming is a boreal species, found across Yukon except in the far north of the territory. It prefers wetland habitats and riparian sites (areas beside waterbodies), but is sometimes found in drier locations. This lemming is perhaps the least studied and understood of all Yukon rodents.

Viewing

In spring and summer search for Brown Lemming “runways” – conspicuous travel paths worn throughout winter under the snow, littered with plant clippings. Northern Bog Lemmings are thought to use similar runways created by Meadow Voles.

Look closely at the feet of any hawks and owls you encounter. You might see a lemming tightly clutched in the talons.

Ermine and a Brown Lemming



Myth:

Lemmings routinely hurl themselves from cliffs into the sea.

No, they don't. This myth has persisted for decades and appears throughout popular culture. The 1958 Walt Disney film *White Wilderness* contributed to this falsehood. The film shows lemmings toppling over a cliff into the sea. In reality, the sequence was staged using deceptive photography and humans forcedly herded the animals into the water.

Some lemming populations cyclically increase very quickly – population “booms”. The animals will then disperse across the landscape, searching for food and adequate space. Lemmings will swim across waterbodies they encounter and inevitably some individuals will drown. This may be the small kernel of truth upon which the myth was based.

Voles

1. **Long-tailed Vole** | *Microtus longicaudus* | 44 g
2. **Singing Vole** | *Microtus miurus*
3. **Tundra Vole** | *Microtus oeconomus* | 44 g
4. **Meadow Vole** | *Microtus pennsylvanicus* | 35 g
5. **Taiga Vole** | *Microtus xanthognathus*
6. **Southern Red-backed Vole** | *Myodes gapperi* | 23 g
7. **Northern Red-backed Vole** | *Myodes rutilus* | 25 g
8. **Eastern Heather Vole** | *Phenacomys ungava* | 32 g

Typically less than 50 grams, voles are coloured in different hues of browns, greys and reds. Until recently, the red-backed voles had the scientific name *Clethrionomys*.

Voles are found in a range of habitats, from wet meadows and marshy areas to forests and alpine tundra. Some species maintain travel routes called “runways”, which are marked by plant cuttings and droppings. Voles are active through the winter in the subnivean space – the small gap between the ground and the snow.

Food preferences vary by season and species. Northern Red-backed Voles have similar tastes to humans, consuming blueberries, cranberries, and crowberries in late summer and under the snow in winter. Moss is an alternate food source. Tundra Voles eat mostly sedges in summer and switch to roots and rhizomes in autumn.

Breeding often occurs under the snow in spring. Females can reproduce in their first summer, often having one to two litters. Voles are short-lived creatures – about a year is typical. Few animals survive two winters.

Viewing

Voles are found across the territory and some species develop mazes of runways under the winter snow, similar to lemmings.



Northern
Red-backed Vole

**Report Southern
Red-backed Vole sightings
to the Yukon Conservation
Data Centre (see page 10).**



North American Deermouse

Mice

1. **Northwestern Deermouse** | *Peromyscus keeni* | 26 g
2. **North American Deermouse** | *Peromyscus maniculatus* | 22 g

With large, dark eyes, sizable round ears, and a long tail, deer mice are the rodents of fairy tales. While both species are found in southern and central Yukon, recent genetic research determined that the Northwestern Deermouse is more common around Whitehorse and the North American Deermouse is more prevalent to the east and north of the city. The research also found a third potential species of deer mouse ranging from Haines Junction to Dawson.

Deer mice are extremely adaptable, occupying a wide range of habitats including forests, meadows, old burns, alpine tundra, and human dwellings. Their diet is similarly varied – they eat seeds, nuts, fruit, green vegetation, spiders, and insects.

Viewing

Deer mice are perhaps most commonly seen as winter approaches and these rodents attempt to take refuge in human buildings. Fortunately, they are easy to capture and remove; however, you must take precautions due to the health risk of hantavirus (see page 8).

Jumping mice

1. **Meadow Jumping Mouse** | *Zapus hudsonius* | 17 g
2. **Western Jumping Mouse** | *Zapus princeps* | 25 g

True to their name, these small rodents are built for jumping, with long hind limbs, large hind feet, and a long, thin, whip-like tail. These features allow them to jump up to a metre in a single bound, which they do when alarmed.

Jumping mice have an omnivorous diet of invertebrates, seeds, berries and fungi. In spring, they consume caterpillars and beetle larvae. In summer, jumping mice likely eat more high-energy plant seeds in preparation for their winter hibernation.

Viewing

The Western Jumping Mouse has only been seen three times in Yukon – all three observations were along the South Canol Road. More abundant is the Meadow Jumping Mouse, which is found in the southern half of the territory, at least as far north as Mayo. Look for it in moist, grassy, weedy meadows and in dense vegetation near water.



Western Jumping Mouse

Report Western Jumping Mouse sightings to the Yukon Conservation Data Centre (see page 10).



Bushy-tailed Woodrat

Neotoma cinerea | 375 g (male), 330 g (female)

With only a fleeting look, you could mistake the Bushy-tailed Woodrat for a Red Squirrel. However, long whiskers and light grey or tan coloured hair help distinguish it from any members of the squirrel family. Male woodrats have a gland on their chests that produces a strong and distinct odour.

Bushy-tailed Woodrats build dens from branches and other vegetation. These constructions are critical to protect woodrats from predators and temperature extremes in both winter and summer. Woodrats frequently occupy human dwellings including old cabins, sheds, and shelters. They are somewhat infamous for hoarding objects in their nests including animal bones, owl pellets, and shiny “human trinkets” such as tin can lids.

Viewing

Look for stick nests built in rock crevices, caves, or under rock overhangs. Old abandoned buildings and outbuildings are good locations to search as well. Their Yukon range is not well understood; however, a woodrat nest was observed in Dawson in 2003, showing a possible northern extent.

Checklist of species

Lagomorpha

Family	Scientific name	Common name	Page
Leporidae	<i>Lepus americanus</i>	Snowshoe Hare	14
Ochotonidae	<i>Ochotona collaris</i>	Collared Pika	14

Rodentia

Family	Scientific name	Common name	Page
Castoridae	<i>Castor canadensis</i>	American Beaver	16
Cricetidae	<i>Dicrostonyx groenlandicus</i>	Nearctic Collared Lemming	22
	<i>Dicrostonyx nunatakensis</i>	Ogilvie Mountains Collared Lemming	22
	<i>Lemmus trimucronatus</i>	Brown Lemming	23
	<i>Microtus longicaudus</i>	Long-tailed Vole	24
	<i>Microtus miurus</i>	Singing Vole	24
	<i>Microtus oeconomus</i>	Tundra Vole	24
	<i>Microtus pennsylvanicus</i>	Meadow Vole	24
	<i>Microtus xanthognathus</i>	Taiga Vole	24
	<i>Myodes gapperi</i>	Southern Red-backed Vole	24
	<i>Myodes rutilus</i>	Northern Red-backed Vole	24
	<i>Neotoma cinerea</i>	Bushy-tailed Woodrat	27
	<i>Ondatra zibethicus</i>	Common Muskrat	17
	<i>Peromyscus keeni</i>	Northwestern Deermouse	25
	<i>Peromyscus maniculatus</i>	North American Deermouse	25
	<i>Phenacomys ungava</i>	Eastern Heather Vole	24
	<i>Synaptomys borealis</i>	Northern Bog Lemming	23
Dipodidae	<i>Zapus hudsonius</i>	Meadow Jumping Mouse	26
	<i>Zapus princeps</i>	Western Jumping Mouse	26
Erethizontidae	<i>Erethizon dorsatum</i>	North American Porcupine	15
Sciuridae	<i>Glaucomys sabrinus</i>	Northern Flying Squirrel	18
	<i>Marmota caligata</i>	Hoary Marmot	21
	<i>Marmota monax</i>	Woodchuck	21
	<i>Tamias minimus</i>	Least Chipmunk	20
	<i>Tamiasciurus hudsonicus</i>	Red Squirrel	19
	<i>Uroctellus parryi</i>	Arctic Ground Squirrel	20

Source: Yukon Conservation Data Centre, 12 December 2018. Unconfirmed species and exotic species, such as the House Mouse, are not included.

To learn more

Rodents & Lagomorphs of British Columbia
David W. Nagorsen

The Natural History of Canadian Mammals
Donna Naughton

Ice Age Mammals of Yukon
Government of Yukon

Ecosystem Dynamics of the Boreal Forest: The Kluane Project
Charles J. Krebs, Stan Boutin, and Rudy Boonstra

Unusual Beaver, *Castor canadensis*, Dams in Central Yukon
Canadian Field-Naturalist 124(3): 274–275
Thomas S. Jung and Jennifer A. Staniforth

Common Muskrat





Not your typical beaver dam

Beaver dams in the boreal forest are usually made of wood. Beavers place branches and stems of willow, alder, and poplar trees and reinforce them with mud and a small number of rocks.

However, placer miners working north of Beaver Creek, Yukon discovered two beaver dams constructed in a very different manner – the primary building material was rock!

Miners Kate and Ian Warrick alerted Government of Yukon biologists to the curious dams. In September 2010, biologists documented the dams and later published their findings. One dam was particularly impressive, composed of 90 per cent rocks, with individual rocks typically being 20–30 centimetres across.

What motivated the beavers to use rock instead of wood? As the site was an active placer mine, much of the original forest had been removed and large, woody material was not available in the immediate area. The biologists guess the beavers simply worked with what they had easy access to: rocks.

It's also possible the small amount of willow and aspen shrub along the creek was more valuable as food to the beavers and so they used rock as an alternate building material. Regardless, these dams highlight the adaptability of beavers in altering landscapes to suit their purposes.

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Yukon