

Manitoba Envirothon

# Mammals of Manitoba



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Manitoba has a great diversity of mammals, reflecting the wide diversity of ecosystems within this large province. Manitoba contains prairie, parkland, boreal forest, and tundra. Over 89 mammal species live within these terrestrial and aquatic ecosystems and the coastal waters of the Hudson Bay.

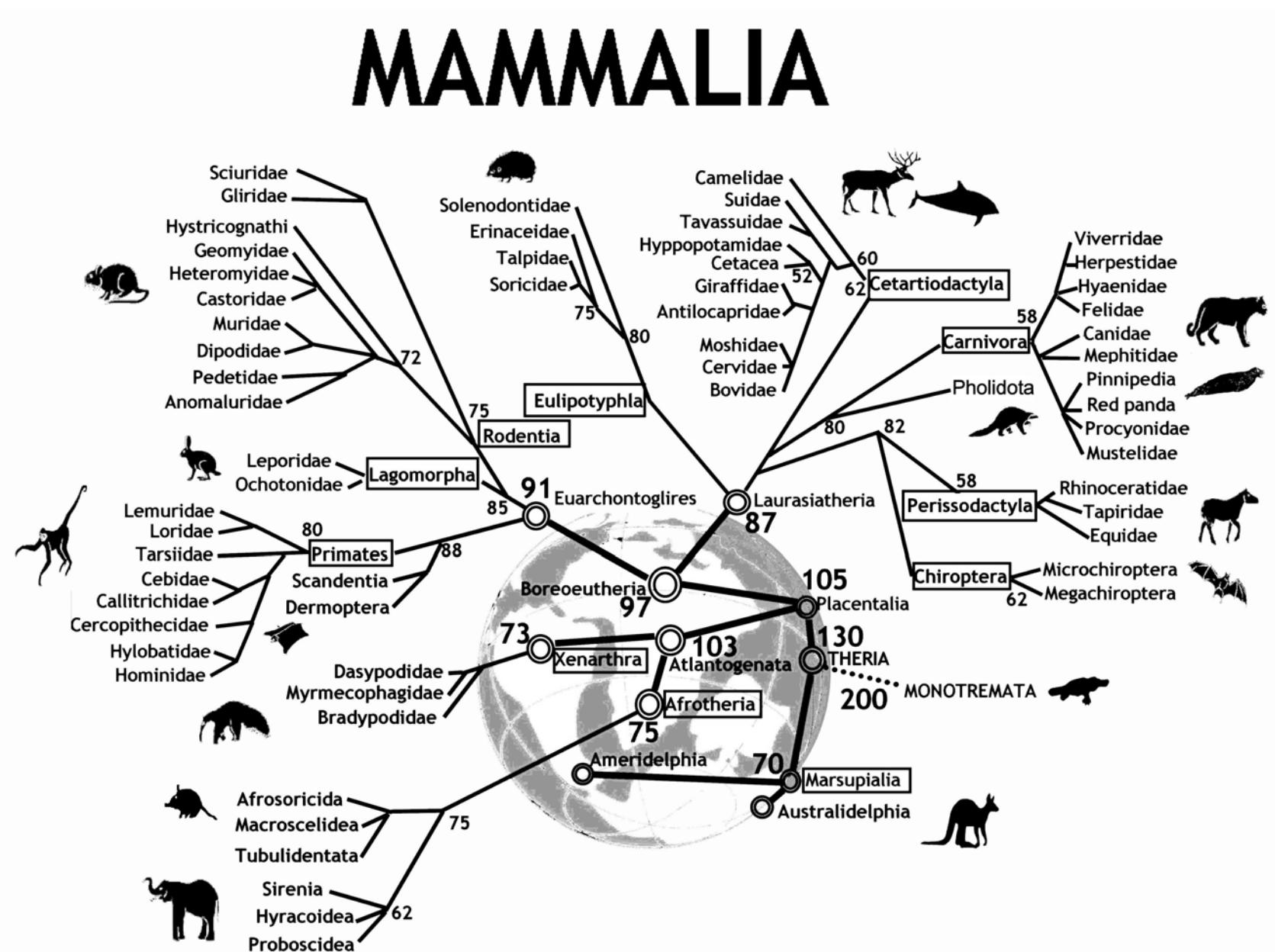
Mammals are a clade of endothermic animals distinguished from other vertebrates by the possession of hair, three middle ear bones, mammary glands, tooth replacement (teeth are replaced once or not at all, rather than being replaced continually throughout life) and a neocortex (a region of the brain). Hair has several functions, including insulation, color patterning, and aiding in the sense of touch. The mammalian brain regulates body temperature and the circulatory system, including the four-chambered heart. Most mammals are viviparous, giving birth to live young. However, the five species of monotreme, the platypuses and the echidnas, lay eggs. All female mammals produce milk from their mammary glands in order to nourish newborn offspring. As such, female mammals invest a lot of energy caring for their offspring, which has important ramifications in many aspects of mammalian evolution, ecology, and behavior.

The mammals include the largest animals on the planet, the whales, as well as some of the most intelligent, such as elephants, some primates, and cetaceans. The basic body type is a four-legged land-borne animal, but some mammals are adapted for life at sea, in the air, in the trees, or on two legs. The largest group of mammals, the placentals, have a placenta

which feeds the offspring during pregnancy. Mammals range in size from the 30–40 mm bumblebee bat to the 33 m blue whale.

This document is designed to give a brief overview of many of the important mammal species living within Manitoba. The document is by no means an exhaustive list of all the species within the province, as many of the small mammals (e.g. rodents, bats, shrews, and moles) are not included. Each entry aims to give a brief description of the appearance and size of the organism, some life history characteristics, current population status, as well as any unique features of the specific species.

O.C. Friesen, B.Sc. (hons), M.Sc.



# Soricomorpha



Star-nosed mole (*Condylura cristata*)  
© National Geographic

"For weeks he's tunneled his intricate need  
Through the root-rich, fibrous, humoral dark,  
Buckling up in zagged illegibles The cuneiforms  
and cursives of a blind scribe."

- Wyatt Prunty

Shrews and moles (Order Soricomorpha) have a long, slim rostrum, small eyes, and short ear pinnae. Shrews are very abundant and thrive in high latitudes. Due to their small body size and surface area to mass ratio, most soricomorphs must consume large amounts of food and do not hibernate. Many shrews and moles are fossorial species, meaning they are adapted to living underground; this is reflected in their fusiform body and short powerful limbs. Shrews must remain near wet areas due to their small body size and the resulting high rate of desiccation.

## Star-nosed mole (*Condylura cristata*)

Star-nosed moles are one of the most distinct mammalian species. They have hairless noses that are ringed by a unique 'star' made of 22 pink, flesh tentacles. The 'star' is bilaterally symmetrical, with 11 appendages per side, measuring between 1-4 mm long. As they are fossorial, they have heavily-built forelimbs, with broad feet and large claws.

**Size** – Mass: 35-75 g; Length: 0.175-0.204 m.

**Lifespan** – 3-4 years (estimate)



© Todd Pusser (ARKive)

**Diet** – Primarily on invertebrates, such as earthworms, and aquatic species such as leeches, and aquatic insects

**Denning and Habitat** – Star-nosed moles are found in varied habitat, all characterized by moist soil. They prefer areas of poor drainage, including coniferous and deciduous forests, wetlands, and banks of streams, lakes and ponds.

**Special features** – Star-nosed moles are a fossorial mammal, digging a tunnels throughout moist soil. Typically, if the moles are foraging, the tentacles are constantly being used to feel around the surroundings, moving so quickly they appear as a blur (touching as many as 12 objects per second). The tentacles are so supersensitive, they can identify prey in under half a second.

**Conservation status** - Least Concern

# 2

## Chiroptera



Brown bat (*Eptesicus fuscus*)

© Harpy-Eagle via Flicker

"If I could hide inside this cave, What wondrous sight  
I'd see; Brown bats all hanging upside down  
Like dark leaves on a tree. Their mouths wide open as  
they fly, Shouting sounds as they go by; The echoes  
bounce off rocks and things. to help them steer their  
hunter's wings." - Unknown

Bats (Order Chiroptera) are the only mammals to have achieved powered flight. Their arms are spindly, with membranes stretched between the fingers on each hand. This arrangement makes their wings quite different from those of birds. Bats also differ from other flying animals in their reliance on hearing for navigation. Many bats use sonar to find their way around. Despite their resemblance to rodents, bats are not closely related to mice at all. Though their exact placement is still uncertain, there is recent evidence that they may be more closely related to the primates. Whatever their relationships, bats are among the most successful groups of mammals: there are nearly 1,000 species of bats, making up about one quarter of all mammal species.

### Brown Bat (*Eptesicus fuscus*)

Brown bats are medium sized bats with large skulls, broad noses and fleshy lips. Their ears are rounded and the tragus (prominence on the inner side of the external ear, important in echolocation) is broad with rounded tip. Their fur coloration depends on the location and subspecies, with the dorsal side ranging from pink tans to chocolates and the ventral fur lighter from pink to olive.

**Size** – Mass 23 g; Length: 0.11-0.13 m long; Wingspan: 0.33 m.

**Lifespan** – Up to 19 years (males longer lived than females)



**Diet** – Insects, primarily beetles, but also moths, flies, wasps, flying ants, and dragonflies.

**Denning and Habitat** – Located in cities, towns, and rural areas but sometimes within heavily forested regions. They require stable, highly insulated areas to hibernate.

**Special features** – Brown bats will hibernate during the winter in order to preserve energy and fat so they can survive.

**Conservation status** – Least Concern

## Eastern Red Bat (*Lasiurus borealis*)

Red bats are fast medium sized flying bats that live throughout the Americas. Their fur ranges from a brick brown to a yellowish red with white at the tips, giving the red bat a frosted appearance. The white tips are more prominent in female bats giving males a more red appearance. The head of the red bat is relatively small and heavily constructed.

**Size** – Red bats weigh between 7-13 g and range in length between 0.09-0.12 m. The wingspan is between 0.36-0.46 m.

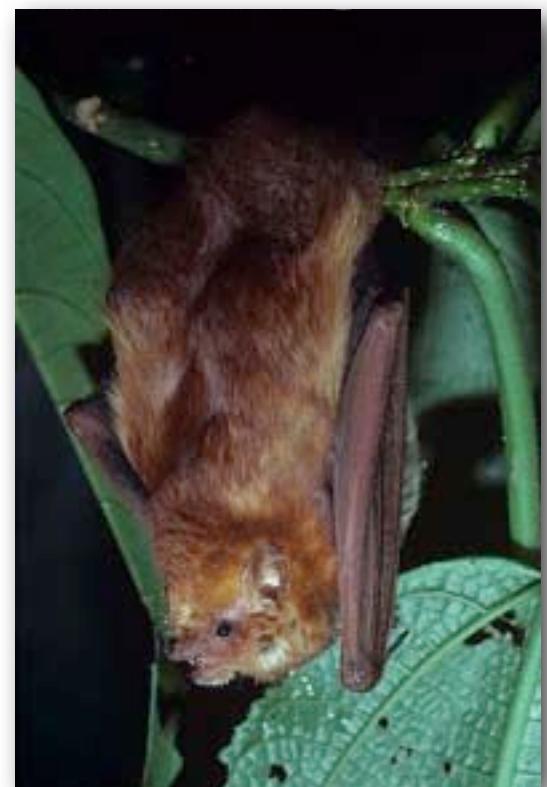
**Lifespan** – unknown

**Diet** – Insectivorous, capturing insects such as moths, beetles, ants, and flies, while flying.

**Denning and Habitat** – Forested regions, and other regions that are moderately populated by humans. Red bats use hollow trees to hibernate and areas with dense foliage for roosting sites.

**Special features** – Red bats are a mainly solitary migratory species, moving north in the spring and migrating south in the fall. They also hibernate to preserve energy and fat stores during the winter. Red bats use echolocation to locate their prey, using both broadband and narrow band calls.

**Conservation status** – Least Concern



© Richard La Val (ARKive)

# 3

## Rodentia

"He flies through the air, With the greatest of ease.  
Our neighborhood squirrel, Leaping through the trees.  
His thick, bushy tail, Helps him balance and steer.  
From treetop to treetop, He flies without fear."



Red squirrel (*Tamiasciurus hudsonicus*)

© Richard Packwood (ARKive)

Order Rodentia is the largest of all mammalian orders (including over 40% of all mammals), and includes species such as beavers, porcupines, mice, lemmings, voles, gophers, and squirrels. They are characterized by a single pair of continuously growing incisors in each of the upper and lower jaws that must be kept short by gnawing. The incisors have thick enamel layers on the front but not on the back; this causes them to retain their chisel shape as they are worn down. Behind the incisors is a large gap in the tooth rows, or diastema; there are no canines, and typically only a few molars at the rear of the jaws. Rodents use their sharp incisors to gnaw wood, break into food, hunt, and bite predators. Rodents show a wide range of lifestyles, ranging from burrowing forms such as gophers and mole rats to tree-dwelling squirrels and gliding "flying" squirrels, from aquatic capybaras and muskrats

to desert specialists such as kangaroo rats and jerboas, and from solitary organisms such as porcupines to highly social organisms living in extensive colonies, such as prairie dogs and naked mole rats.

### Beaver (*Castor canadensis*)

Beavers are primarily aquatic rodents. They have a waterproof, rich, glossy, reddish brown or blackish brown coat. The beaver is also a well-known fur-bearer.

**Size** – Adults weigh between 13-32 kg, and measure about 0.9-1.17 m long (tail 0.3 m tail)

**Lifespan** – 10-20 years

**Diet** – Bark of trembling aspen tree, willows, birch and black poplar, roots, pond lilies, and other aquatic plants.

**Denning and Habitat** – Slow, winding streams and small lakes with soft banks. Willows, aspen and other deciduous trees are necessary for food. Lodges or houses are constructed from mud and sticks (as with dams). They are often either surrounded by water, on island, or found on the banks of lakes or streams. Beavers spend many months (up to six) under the ice. During this period their activity is restricted to under the ice. Lodges or houses also provide protection and warmth for the colony during the winter.



© Tom and Pat Leeson (ARKive)

**Special features** – The beaver's tail is used in water as a rudder. If the beaver becomes scared it may slap the water with its tail, warning all beavers in the vicinity of the danger. This behavior may also drive away any potential predators. Beavers can make large habitat changes by cutting down trees and constructing dams. The dams are constructed with sticks and branches and sealed with mud and stones. Beavers cut down an average of 216 trees per year with trees measuring up to 0.4 m in diameter. As beavers may need to spend months under the ice, they store these foods under the ice for access during the winter.

Beavers also have some adaptations that allow them to move underwater. They have transparent eyelids that cover their eyes, valves in the ears and nose that can close, and a flap closing behind their incisor teeth to prevent water from entering while they swim. Beavers also have two oil glands beneath their skin on their lower bellies. They comb this oil into their fur to make it waterproof. They also have two castor glands, which they use to produce a scent that they deposit on their scent mounds to mark territorial boundaries.

**Conservation status** - Least concern

## Muskrat (*Ondatra zibethicus*)

Muskrats are a large robust rodent , with a flat and scaly tail, found within the wetlands. Their fur is dense and traps air underneath, helping with insulation and buoyancy. They have valves to close off their nostrils, ears, and mouth underwater traveling and feeding.

**Size** – Adults weigh 680-1800 g and are between 0.41-0.62 m long.

**Lifespan** – 2-3 years

**Diet** – Water plants, including cattail and bulrush roots, stalks, crayfish, and clams.

**Denning and Habitat** – Wet environments, such as marshes, slow streams, ponds and lakes. Bank burrows are used for shelter and their nests, made from vegetation.



© Scott Leslie (ARKive)

**Special features** – Muskrats are well adapted to their aquatic lifestyle. Their hind feet have special hairs to make swimming easier. They can also conserve oxygen through the limiting of blood to essential organs, staying underwater for up to 17 minutes.

**Conservation status** - Least Concern

## Porcupine (*Erethizon dorsata (dorsatum)*)

Porcupines are a very distinctive large rodent species with a coat of sharp spines, known as quills. They use their quills to defend and camouflage themselves from predators. Overall, porcupines appear dark brown to black with bands of yellow on their dorsal guard hairs and quills and a white fringe on the quills within the black area.

**Size** – Males are larger than females. Mass 5-14 kg and length 0.6-0.9m.

**Lifespan** – 6-7 years

**Diet** – Generalist herbivores, with variation in diet seasonally



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**Denning and Habitat** – Variety of habitats. Within its extensive range it is found within varied climates, elevation, including tundra forests, and deserts. Porcupines spend their winters within rock dens or trees.

**Special features** – Porcupines are nocturnal. They are distinguished with quills, or modified hair, with microscopic barbs on the tip. They are generally around 0.08 m long and each has ~30 000 quills. They are also adapted to live within the trees.

**Conservation status** - Least Concern

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## Collared Lemming (*Dicrostonyx richardsoni*)

Collared lemmings are small stocky fossorial rodents found within the tundra regions, living in tunnels in the soil. They go through two annual molts. During the winter, they grow a long, thick white coat. During the summer they remain brown with a black line down the centre of their dorsal side.

**Size** – Adults weigh between 30-90 g and are 0.065-0.1 m long (spine length).



© Olwyn Friesen

**Lifespan** – 1 year

**Diet** – Herbivorous, consuming plants, especially willows, but also including berries, flowers, and the roots of other plants

**Denning and Habitat** – Tundra habitats, in dry areas, avoiding areas with high moisture. They burrow to create tunnels in which they live and breed. They create nests, made from grasses that they use during the winter and are placed beneath the snow.

**Special features** – As one of the few rodents (and the most abundant) living within the tundra, they are an important food source for many of the predators living within the region. They are active throughout the year, and during the summer active throughout the day, reflecting the long hours of sunlight in an arctic summer.

**Conservation status** - Least Concern

## Northern Pocket Gopher (*Thomomys talpoides*)

Northern pocket gophers are highly adapted to their fossorial lifestyle. They have thick tapering bodies with short limbs and strong claws, loose skin, and highly reduced ears and eyes. They have grayish brown to yellowish brown fur.

**Size** – Adults range in mass between 60-160 g. They range in length between 0.165-0.265 m long.

**Lifespan** – 1-2 years



© Unknown

**Diet** – Generalist herbivores, including roots, corms, rhizomes, stems.

**Denning and Habitat** – Large range of habitats, from mountain meadows, tundra, grasslands, steppe, and agricultural fields. They are a fossorial rodent and live in tunnels underground.

**Special features** – Northern pocket gophers are well adapted to their solitary fossorial life; their senses of touch and smell are heightened, with their vision and hearing remaining very poor. They create elaborate tunnel networks with different areas.

**Conservation Status** - Least Concern

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## Plains Pocket Gopher (*Geomys bursarius*)

Plains pocket gophers are a pale brown to black fossorial rodents. Their skull is heavily reinforced and they have strong jaw muscles. They have long tails with very little hair and large foreclaws that grow rapidly.

**Size** – Adult mass ranges between 300-450 g. They are between 0.18-0.36 m long.

**Lifespan** – 2-3 years (estimate, little information available)



© Unknown

**Diet** – Generally herbivorous, feeding primarily on underground roots and tubers

**Denning and Habitat** – Open to sparsely wooded regions, preferring sandy soils (range limited by soil type)

**Special features** – Plains pocket gophers are primarily solitary and territorial. They dig burrows that are shallow in the summer, but deeper in the winter. The piles of soil that are left nearby an excavation can help locate plain pocket gopher burrows. They are also well adapted to their fossorial life history with enlarged claws and reduced eyes and ears.

**Conservation Status** - Least Concern

## Eastern Gray Squirrel (*Sciurus carolinensis*)

Eastern gray squirrels are mostly gray with long bush tails. They are arboreal, commonly seen running between trees, jumping from branch to branch, chasing or following individuals, and making a racket sitting in trees.

**Size** – Adult gray squirrels weigh between 338-750 g and are between 0.38-0.53 m long.

**Lifespan** – 12-13 years

**Diet** – Nuts, flowers and buds, seeds, bulbs, flowers, insects, as well as fungi. They may also eat bird eggs and nestlings as well as frogs.

**Denning and Habitat** – Mature continuous woodlands with diverse understory vegetation.

**Special features** – Gray squirrels are adapted to an arboreal life, having long tails that assist in balance and communication. Dominance hierarchies form during the breeding season between males. They do not hibernate but their activity levels change throughout the seasons. Gray squirrels also cache seeds and other foods to assist in surviving the winter.

**Conservation status** - Least Concern



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## Red Squirrel (*Tamiasciurus hudsonicus*)

Red squirrels are deep red tree squirrels, with strong territorial aggressive behavior and a smaller body size. A white eye ring is present year round and ears become tufted during the winter. They have a smaller and flatter tail than most other tree squirrels with a band of black extending its entire length. Their ventral side is white or cream.

**Size** – Adult mass between 197-285 g and are between 0.27-0.39 m long.

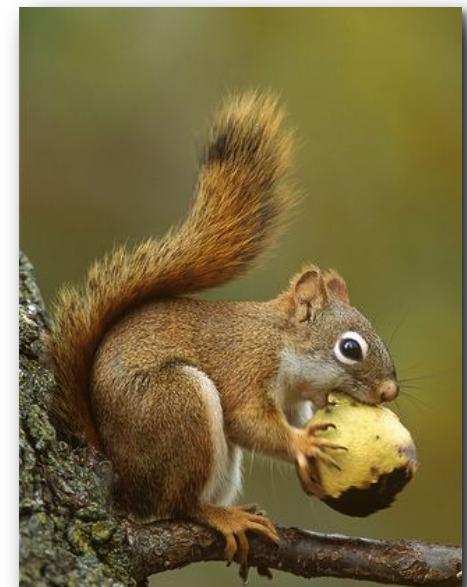
**Lifespan** – 5-6 years

**Diet** – Varies extensively with habitat. They commonly consume seeds of conifers but are also known to eat insects, bird eggs, nestlings, young snowshoe hares, fungi, and plants.

**Denning and Habitat** – Northern boreal forests, abundant with conifer seeds, fungi, and interlocking canopies.

**Special features** – Red squirrels are larder hoarders. In late summer to autumn they harvest cones and store them in one or more middens, which they will defend from competitors.

**Conservation Status** - Least Concern



© Dominique Braud (ARKive)

## Richardson Ground Squirrel (*Spermophilus richardsonii*)

Richardson's ground squirrels are a tan, small ground squirrel found in the prairie regions of North America. Living in colonies of burrows, this social species are hibernators, only active throughout the spring and summer periods.

**Size** – Adult males range between 440-745 g pre-hibernation and 290-500 g post-hibernation. Females range between 330-590 g pre-hibernation and 120-290 g post-hibernation. Males measure 0.28-0.33 m and females between 0.26-0.32 m long.

**Lifespan** – 2-4 years

**Diet** – Seeds, nuts, grains, bulbs, green vegetation, insects and other small invertebrates



© Wildlifenorthamerica.com

**Denning and Habitat** – Richardson's ground squirrels live in open plains with short grasses.

**Special features** – Richardson's ground squirrels create large complex burrows, with several chambers and many entrances. They hibernate for seven months a year, from early fall to spring.

**Conservation Status** - Least Concern

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## Thirteen-Lined Ground Squirrel (*Spermophilus tridecemlineatus*)

Thirteen-lined ground squirrels are small and slender distinguished with alternative longitudinal stripes of dark brown and tan from the neck to the end of the tail.

**Size** – Adult mass 110-140 g and between 0.17-0.31 m long

**Lifespan** – 2-4 years

**Diet** – Omnivorous, consuming the seeds as well as insects, small vertebrates, bird eggs, and carrion



© Unknown

**Denning and Habitat** – Open areas with short grasses and well-drained sandy or loamy soils (for burrows).

**Special features** – Thirteen-lined ground squirrels are distinguished by their "thirteen lines" consisting of either seven broad dark brown stripes alternating with six thin tan bands or seven narrow yellow stripes alternating with six broader dark brown stripes. They are diurnal and dig burrows.. They are not colonial but may live in complex proximity. They also hibernate.

**Conservation Status** - Least Concern

# 4

## Lagomorpha



Snowshoe hare (*Lepus americanus*)

© Tom and Patty Leeson

Lagomorphs are small to medium-sized animals that in many ways resemble large rodents. There are two living families of Lagomorphs: the Leporidae (hares and rabbits) and the Ochotonidae (pikas). Rabbits and hares characteristically have long ears, a short tail, and strong hind limbs that provide a bounding locomotion. In contrast, the smaller pikas have shorter, rounded ears, no external tail, and less-well-developed hind limbs associated with scampering locomotion. Lagomorphs have a pair of incisors in each quadrant of the upper jaw, one large and rodent-like, and the other a small peg located immediately behind the larger tooth. These teeth grow throughout the animal's life and have a layer of enamel that extends around to the posterior surface of the tooth.

"This little bunny has two pink eyes.

This little bunny is very wise.

This little bunny is soft as silk.

This little bunny is white as milk.

This little bunny nibbles away

At cabbages and carrots the livelong day!" - Unknown

### Eastern Cottontail (*Sylvilagus flavidanus*)

Eastern cottontail rabbits are small rabbits with dense, buffy brown underfur and longer coarse grey and black-tipped guard hairs. Their ventral fur is white. They have a short tail with a white-underside. They have distinctively large eyes for their size.

**Size** – Adults weigh between 0.8-1.53 kg and are between 0.4-0.5 m long.

**Lifespan** – 2-3 years

**Diet** – Grasses, wild strawberry, clover, garden vegetables, woody plant parts.

**Denning and Habitat** – Edge habitats including meadows, orchards, farmlands, hedgerows, and low deciduous trees.



© Unknown

**Special features** – Eastern cottontails are solitary and tend to be very intolerant of each other. As the majority of its diet is cellulose and complex carbohydrates, eastern cottontails as with many rabbits and hares, use caecal fermentation to digest their food. They must reingest their fecal pellets to reabsorb their nutrients.

**Conservation Status** - Least Concern

## Snowshoe hare (*Lepus americanus*)

Snowshoe hares are a common hare species found throughout northern North America.

An important food source for many predators, snowshoe hares may be best known for their population cycles that impact and are mirrored by Canada lynx. Snowshoe hares have two coats, a grizzled rusty or greyish brown with a white belly during the summer and almost entirely white except for eyelids and blackened ear tips in the winter.

**Size** – Adults weigh between 1.43-1.55 kg, with males being slightly smaller. They measure between 0.413-0.518 m long.

**Lifespan** – 4-5 years

**Diet** – Variable, includes grasses, forbs, bluegrass, brome, clovers, as well as new growth of birches, and willow.

**Denning and Habitat** – Open fields, fence rows, swamps, cedar bogs, boreal forest, coniferous lowlands, edges of the tundra, pastureland.

**Special features** – Snowshoe hares are typically solitary. They are well adapted to their northern habitat and the snow. The soles of their feet are well adapted for living in the snow, as they are densely furred, with stiff hairs on their hindfeet.

**Conservation Status** - Least Concern



© Kenneth W. Fink (ARKive)

# 5

## Carnivora



Red fox (*Vulpes vulpes*)

© 1zoomnet.com

animals, giving them an advantage over larger prey.

### Black Bear (*Ursus americanus*)

Black bears are generally black in color, but may range to lighter brown (sometimes blonde). Black bears are a wide-ranging mammal in Canada, only avoiding cities although they have been well adapted to living near humans. Black bears are thick set, bulky animals. The adult black bear has a moderate-sized head with a straight facial profile and a tapered nose with long nostrils. Unlike other animals, the lips of a black bear are not attached to their gums allowing black bears to use them with great dexterity. The eyes are small and ears are rounded. The tail is not noticeable and very small. The feet are well furred with five curved claws

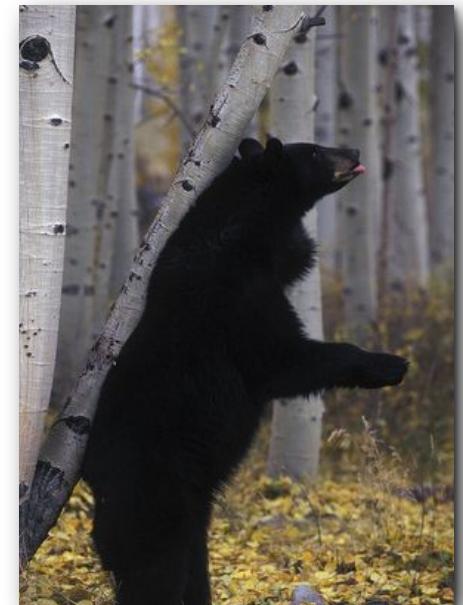
**Size** – Adult males weigh 47-409 kg. Females weigh 39-236 kg. Males are between 1.4-2.0 m long and females are between 1.2-1.6 m long (spine length)

**Lifespan** – 10-15 years

**Diet** – Emerging grasses, sedges and weeds, insects, leaves from trembling aspen, berries

"who can blame her for hunkering  
into the doorwells at night, the only blaze in the dark  
the brush of her hopeful tail, the only starlight  
her little bared teeth?  
and when she is not satisfied who can blame her for refusing  
to leave, Master Of The Hunt, why am i  
not feeding, not being fed"

Carnivorans are the most diverse in size of any mammalian order, ranging from the least weasel, at as little as 25 g and 11 cm, to the polar bear, which can weigh up to 1,000 kg to the southern elephant seal, whose adult males weigh up to 5,000 kg and measure up to 6.9 m in length. Nearly all carnivorans today primarily eat meat. Some, such as cats and pinnipeds (e.g., seals), depend entirely on meat for their nutrition. Others, such as raccoons and bears, depending on the local habitat, are more omnivorous: the giant panda is almost exclusively a herbivore, but will take fish, eggs and insects, while the polar bear's harsh habitat forces it to subsist mainly on prey. Carnivorans have teeth (with specialized carnassials, designed for shearing meat), strong, sharp claws, and binocular vision adapted for catching and eating other animals. Many hunt in packs and are social



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(ARKive)

**Denning and Habitat** – Heavily forested areas, dense bush and wooded mountains. They often den at the base of fallen trees, beneath roots, under a tree stump, overturned log, or a hole in a hillside

**Special features** – Black bears are generally crepuscular, although feeding and breeding activates may alter this. Black bears are also good swimmers and fast runners. They are primarily solitary, except for the close bond between the female and her young cubs and pairing for mating. Black bears go through seasonal lethargy during the winter period in which they do not eat and subsist entirely on stored fat. They may lose up to 30% of their pre-denning mass.

**Conservation Status** - Least Concern

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### Polar Bear (*Ursus maritimus*)

Polar bears are large white predatory bears living in the circumpolar Arctic. They are one of the world's largest carnivores and are considered to be a marine mammal since they hunt seals on the sea ice. Polar bears are large and stocky, with a relatively small head and an elongated neck. Their fur has a white appearance but may appear yellowish during the summer.

**Size** – Adult male polar bears weigh between 300-800 kg and females weigh between 150-300 kg. Males are can be as long as 2.5 m long and females range between 1.8-2 m long. Male polar bears can measure up to 1.6 m in height.

**Lifespan** – 25-30 years

**Diet** – Carnivorous, hunting predominantly ringed seals. They often only consume only the blubber, leaving the muscle and remainder of the carcass for scavengers, such as arctic fox. They will also hunt bearded seals, harp seals, hooded seals, walruses, and beluga. Polar bears will scavenge on sea birds and their eggs, small mammals, fish and scavenges on seals, walruses, or whales. They will occasionally consume some vegetation or berries but these foods are not considered to be important.



© Thomas D. Mangelsen (ARKive)

**Denning and Habitat** – Pack ice on the Arctic Ocean serves as the primary habitat for polar bears. Polar bears will travel onto land or islands during the summer period while the ice is gone. They will dig temporary day beds in the permafrost to cool down during the summer period. Females will create winter dens in the snow or soil layers close to the coast.

**Special features** – Polar bear skin is black and the fur is clear, and lacks pigment. Their forepaws are very broad and assist the bears in swimming. The soles of the feet are furred for insulation and traction for their life on sea ice.

**Conservation Status** - Vulnerable

## Arctic Fox (*Vulpes lagopus*)

Arctic foxes are a small white fox, with a short legs and a fluffy tail. They have a thick white fur during the winter, and brown, light gray and black during the summer. Arctic foxes have two different colour morphs, the "blue" and "white", with the "white" being more common in Manitoba.

**Size** – Adults weigh 3.14-3.58 kg and are 0.548-0.578 m long.



© Pierre Vernay (ARKive)

**Lifespan** – 3-4 years

**Diet** – Lemmings, migratory birds, eggs, ringed seals, caribou, and carcasses

**Denning and Habitat** – Arctic and alpine tundra, usually in coastal areas

**Special features** – Arctic fox are generally solitarily, and when food is abundant they will cache the food for later use. Arctic foxes have many adaptations to living within the arctic; their fur has the best insulative properties, among all mammals. They further conserve body heat by the fur on their soles of their feet, small ears, short noses, and countercurrent circulation.

**Conservation Status** – Least Concern

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## Red fox (*Vulpes vulpes*)

Red foxes are an important mesopredator, with the largest range of any living land mammal. They have very distinctive red fur, with white ventral hair, and black tipped ears, legs, and tails. Although this is the most common colour variant, two others occur; cross foxes have reddish brown fur with a cross like black stripe and silver foxes are strong silver.

**Size** – Adult ranges from 3-14 kg and 0.46-0.9 m long, with males often being larger

**Lifespan** – 4-8 years

**Diet** – Opportunistic, consuming a wide variety of food items including invertebrates, mammals, and birds as well as fruit and other vegetation.



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**Denning and Habitat** – Variety of habitats including forest, tundra, prairie, desert, mountains, pastureland, farmland, and urban areas. They prefer mixed habitat, with shrub and woodland.

**Special features** – Red foxes have good endurance and can run for several kilometers if needed. They are able to run at top speeds up to 48km/h and jump fences over two meters high. They also can swim well.

**Conservation Status** - Least Concern

## Coyote (*Canis latrans*)

Coyotes are a mid-sized canine, often confused with grey wolves, red wolves, and domestic dogs. Coyotes appear slender with a long and narrow pointed nose. They have large pointed ears, slender legs, small feet, and a very bushy tail. There is a large range in colour from a pure grey to a red, but the tip of the tail is generally black.

**Size** – Adults between 13-15 kg, with females slightly smaller. Adults range 0.73-0.94 m

**Lifespan** – 10-12 years

**Diet** – Opportunistic, generalist predator eats a variety of food items including fruit, insects, large ungulates (particularly young during fawning) and livestock



© Darren Bennett (ARKive)

**Denning and Habitat** – Almost all available habitats, including prairies, forests, deserts, mountains, as well as tropical ecosystems. Coyotes have been found to be able to occupy urban areas.

**Special features** – Coyotes usually hunt alone or with their mate, with more than two occasionally uniting to capture larger prey. This group hunting is usually observed in late summer and early fall.

**Conservation Status** - Least Concern

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## Gray Wolf (*Canis lupus*)

Gray wolves are the largest canid species and have a large head, narrow chest, long legs, straight tails, and large paws. This large species is well adapted to hunting large prey and lives in large social groups. They range in colour, from pure white to coal black.

**Size** – Adult weigh between 16-80 kg and vary in length between 1.27 -1.52 m

**Lifespan** – 8-9 years

**Diet** – Large ungulates, particularly white-tailed deer, elk, moose, and caribou. Occasionally beaver, snowshoe hare, small rodents, grouse, other birds, and fish.



© Daniel J. Cox (ARKive)

**Denning and Habitat** – Variety of habitats, including tundra, forest, prairie, pastureland, rangeland, and arid landscapes.

**Special features** – Wolves live in social packs, with a mating pair and generally consists of many of their young from previous years and their current litter. Most of these packs have complex social structures.

**Conservation Status** - Least Concern

## Raccoon (*Procyon lotor*)

The agile, adaptable raccoon is quite unique with black mask coloration over its eyes, and a bushy tail with black rings. Their forepaws look like slender human hands, making the raccoon very dexterous. Raccoons are stocky and range from grey to brown to buff.

**Size** – Adults weigh 1.8-10.4 kg and between 0.6-0.95 m long. Males are slightly larger

**Lifespan** – 5-6 years

**Diet** – Omnivorous and very opportunistic. They consume fruits and nuts, as well as invertebrates (e.g. crayfish and insects) and vertebrates (e.g. rodents, fish, and bird eggs).

**Denning and Habitat** – Variety of habitats, and live comfortably around humans. They need easy access to water and prefer to live in wooded areas but have also been found in pastureland, rangeland, suburban and urban areas.

**Special features** – Raccoons are primarily nocturnal and solitary. They are very agile and climb easily. They also can swim well. Raccoons also have highly developed tactile senses. They also have a keen sense of hearing, and excellent night vision.

**Conservation Status** - Least Concern

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## Canada Lynx (*Lynx canadensis*)

Canada lynx are a medium size cat with varying colouration, but normally yellowish-brown. The upper parts of their body may have a frosted grey look and the underside may be more buff. They have very small tails. Lynx have triangular ears tipped with tufts of long black hairs.

**Size** – Adults weigh 4.5-17.3 kg and are 0.67-1.07 m long. Males are often slightly larger.

**Lifespan** – 5-7 years

**Diet** – Lynx are strict carnivores. They are snowshoe hare specialists, but will alternatively feed on red squirrels, as well as grouse, ptarmigans, waterfowl, rabbits, and chipmunks.

**Denning and Habitat** – Mature forests with dense undergrowth, but have been found in open forests, rocky regions or tundra. They make dens in hollow trees, holes in rocks, under logs, stumps and fallen timber.

**Special features** – Lynx are primarily solitary and appear to be somewhat territorial. Lynx primarily hunt visually. They are nocturnal and prey are generally stalked. Females have been known to hunt in cooperation with their kits. Lynx are well adapted to hunting in their northern range. They have long, muscular legs and large furry feet with toes.

**Conservation Status** – Least Concern



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## American Marten (*Martes americana*)

American martens are a long slender mustelid, with long and shiny brown fur. Their heads are generally grey, the legs and tail can be dark brown or black, with a cream coloured patch on their chest. They have large eyes and their ears are rounded and cat like.

**Size** – Adults weigh between 0.28-1.3 kg and measure 0.32-0.45 m

**Lifespan** – 5 years (although seen up to 12 in the wild)

**Diet** – Small mammals (e.g., rabbits, mice, and squirrels), birds, fruits, nuts, and insects.

**Denning and Habitat** – Mature northern forests. They are closely associated with lodgepole pine, spruce, Douglas fir, and mixed hardwood forests. They are mostly found in structurally complex, mature forests and at many elevations wherever this habitat exists.

**Special features** – American martens have a very good sense of smell, sight, and hearing. Throughout most of the year martens are solitary. Although martens can climb trees quite easily, they generally hunt and travel on the ground. Their claws are sharp and curved and well adapted to this lifestyle.

**Conservation Status** - Least Concern



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## Badger (*Taxidea taxus*)

Badgers are a stocky build with a flattened body and short legs. Their fur on the back ranges from grayish to red, on the ventral side a buff colour and a very distinct face, with black and white stripes.

**Size** – Adults weigh between 4-12 kg and are between 0.52-0.88 m long.

**Lifespan** – 5-9 years



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**Diet** – Pocket gophers, ground squirrels, moles, marmots, prairie dogs, woodrats, kangaroo rats, deer mice, and voles are their most common prey. They will also eat ground nesting birds, burrowing owls, lizards, amphibians, carrion, fish, skunks, insects, and some vegetation.

**Denning and Habitat** – Dry, open grasslands, fields, and pastures. They dig into soil to create burrows and dens.

**Special features** – Badgers are primarily solitary and nocturnal. They are not hibernators but spend a lot of the winter in torpor cycles lasting around 29 hours. Badgers dig well and are well adapted to this lifestyle. They have large forelimbs that allow them to tunnel through the soil. They create burrows in the ground for sleeping as well as in pursuit of prey.

**Conservation Status** - Least Concern

## Fisher (*Martes pennanti*)

Fishers are a medium to dark brown mustelid with gold to silver hoariness on their head and shoulders as well as black legs and tails. They are a secretive and rarely observed mammal.

**Size** – Adults weigh between 2.0-5.4 kg and are 0.75-1.2 m long. Female adults are smaller

**Lifespan** – 4-5 years

**Diet** – Fishers are predators that eat small mammals (e.g. mice, shrews, and squirrels), porcupines, snowshoe hares, carrion, birds and their eggs, insects, and amphibians.

**Denning and Habitat** – Coniferous forests but also live within mixed and deciduous forests. They prefer habitats that have high canopy closures and many hollow trees for their dens.

**Special features** – Fishers are known for their ability to prey on porcupine, which they kill by attacking their face and head over and over again. They are also well adapted to walk and run on trees. Their hind feet can be turned so their claws can better grip on the trees, similar to many species of squirrels. They also have short, heavy legs, sharp claws, and a long, bushy tapering tail that assists in balance.

**Conservation Status** - Least Concern



© Daniel J. Cox (ARKive)

## American Mink (*Neovison vison*)

American minks are weasel like brown mustleids, with short legs, long necks and trunks and small sharply pointed faces with small ears.

**Size** – Adult weigh between 0.7-1.6 kg and are 0.46-0.70 m long, although males are slightly larger

**Lifespan** – 9-10 years

**Diet** – Crayfish, frogs, shrews, rabbits, mice, muskrats, fish, ducks, and other waterfowl

**Denning and Habitat** – Forested regions in close proximity to water



© Andy Rouse (ARKive)

**Special features** – Minks have thick fur with oily guard hairs that waterproof the coat.

Combined with partially webbed toes, they are well adapted to the mink's semi-aquatic life.

**Conservation Status** - Least Concerned

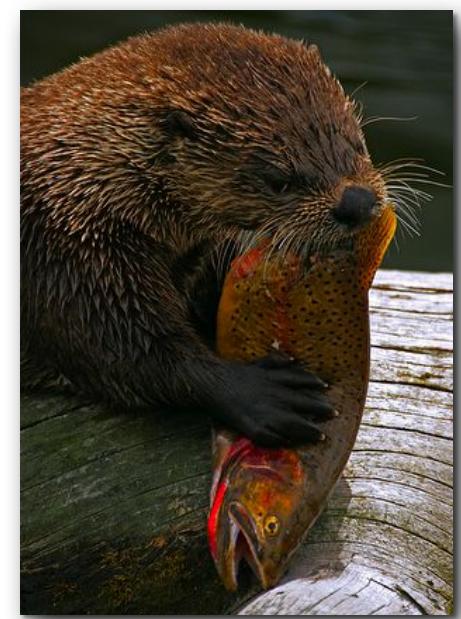
## River otter (*Lontra canadensis*)

River otters are a dark brown semi-aquatic mammal with long streamlined bodies, thick tails and short legs. They have wide rounded heads, nostrils that can be closed underwater, and small ears.

**Size** – Adults range between 5-14 kg and are between 0.89-1.3 m long

**Lifespan** – 8-9 years

**Diet** – Mainly aquatic organisms, including amphibians, fish, turtles, crayfish, crabs, other invertebrates, birds and their eggs, and small terrestrial mammals.



© John Cancalosi (ARKive)

**Denning and Habitat** – Freshwater and coastal marine habitats, including rivers, lakes, marshes, swamps, and estuaries. River otters build dens in the burrows of other mammals or natural hollows, such as under logs or riverbanks. Dens have entrances underwater and a tunnel leading to a nest chamber.

**Special features** – River otters are well adapted to their aquatic life. Their fur is dense and soft, helping insulate the otters in water. They have webbed feet with claws.

**Conservation Status** - Least Concern

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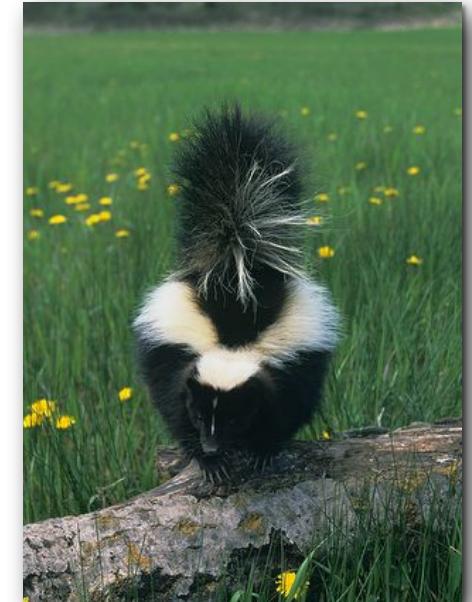
## Striped skunk (*Mephitis mephitis*)

Striped skunks are an easily recognizable small carnivore that are known for their scent glands that are used as an anti-predator defense. They have black fur with a white strip that begins on the forehead and travels down the sides of the back, merging at the tail.

**Size** – Adults weigh between 1.2-5.3 kg and between 0.58-0.8 m long.

**Lifespan** – 2-3 years

**Diet** – Variety of foods, including insects, small mammals, birds and their eggs, crustaceans', fruits, grasses, leaves, buds, grains, nuts, and carrion.



© Francois Gohier (ARKive)

**Denning and Habitat** – Open areas with a mixture of habitats, including woods, grasslands, pastureland, and rangeland. Suburban areas can also be suitable. They use burrows made by other animals or natural burrows.

**Special features** – Striped skunks are primarily nocturnal, sleeping during the day. They become inactive during the winter, with females not emerging from their winter dens until the spring and males occasionally emerging when temperatures are mild. Females den together during the winter, with six females and their young.

**Conservation Status** - Least Concern

## Ringed Seal (*Pusa hispida*)

Ringed seals are a common seal throughout the Arctic, and an important prey source for polar bears. They have silver gray bellies, and their dorsal side is pale grey with dark spots surrounded with pale coloured rings. They lack ear pinnae, has a small head and plump body. Ringed seals have small front flippers with claws that are more than 2 cm thick.

**Size** – Adults weigh between 65-95 kg and are between 1.4-1.5 m long, with females slightly smaller than males.

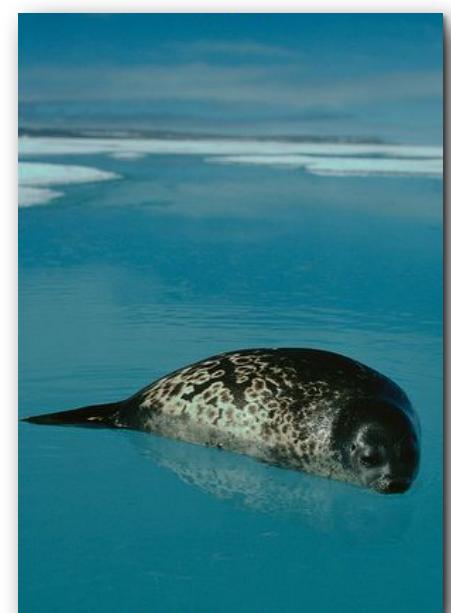
**Lifespan** – 25-30 years

**Diet** – Saffron cod, arctic cod, and invertebrates such as shrimps, amphipods, and euphausiids

**Denning and Habitat** – Habitat that freezes to stable ice during the winter. They make lairs in the snow and ice to protect themselves from predators and shelter. They live in ice cover areas by maintaining breathing holes and cracks in the ice.

**Special features** – Adult ringed seals are generally solitary except for loose feeding aggregations in the summer. In late spring, ringed seals haul out onto the sea ice and bask in the sun. They molt during this period.

**Conservation Status** - Least Concern



© Mike Salisbury (ARKive)

# 6

## Cetacea



Bowhead Whale (*Balaena mysticetus*)

© Martha Holmes

The order Cetacea includes the marine mammals commonly known as whales, dolphins, and porpoises. The body of a cetacean is fusiform (spindle-shaped). The forelimbs are modified into flippers. The tail has horizontal flukes. Cetaceans are nearly hairless, and are insulated from the cooler water they inhabit by a thick layer of blubber. Most species are noted for their high intelligence and there has been support by the scientific community to develop a cetacean bill of rights, listing cetaceans as non-human persons. Cetacean eyes are set on the sides rather than the front of the head. This means only cetaceans with pointed 'beaks' (such as dolphins) have good binocular vision forward and downward. Cetaceans make up for their generally poor vision with excellent hearing.

"The whales do not sing because they have an answer,  
they sing because they have a song."

Gregory Colbert

### Beluga (*Delphinapterus leucas*)

The white whale, more commonly known as the beluga, is an Arctic whale well adapted to its life in the northern seas. Belugas have milk white skin, although they are born gray and their colour gradually fades with age. They lack a dorsal fin but have a shallow ridge along their back. They have narrow appendages and a melon shaped head.

**Size** – Adults weigh between 1350-1500 kg and are between 3.0-4.6 m long.

**Lifespan** – 25-30 years

**Diet** – Smelt, flatfish, flounder, sculpins, salmon, cod, and invertebrates including crab, shrimp, clams, worms, and squid



© Shedd Aquarium

**Denning and Habitat** – Inlets, fjords, channels, bays, and the shallow waters of the arctic seas. They are found at the mouths of river during the summer, where they feed, socialize, or deliver their offspring.

**Special features** – Belugas are well adapted to life in the Arctic, with a number of anatomical and physiological characteristics. They have thick blubber (up to 10 cm thick) helping them survive the cold temperatures. Their melon-shaped head is the center for echolocation. Beluga also aggregate in herds of hundreds to thousands of individuals.

**Conservation Status** - Near threatened

# 7

## Artiodactyla

"This is why the caribou and the wolf are one; for the caribou feeds the wolf, but it is the wolf that keeps the caribou strong." - Farley Mowat



Caribou (*Rangifer tarandus*)

© Sergey Gorshkov

The order Artiodactyla are hoofed animals whose weight is borne about equally by the third and fourth toes. This group includes pigs, peccaries, hippopotamuses, camels, llamas, chevrotains (mouse deer), deer, giraffes, pronghorn, antelopes, sheep, goats, and cattle. Although the majority of artiodactyls live in relatively open habitats, they can be found in all habitat types, including some aquatic systems. Artiodactyls are divided into 3 suborders. The ruminantia suborder includes the families Giraffidae, Cervidae (caribou, elk, white-tailed deer, moose), and Bovidae (bison). This suborder is characterized by a series of traits including missing upper incisors, often (but not always) reduced or absent upper canines, selenodont cheek teeth, and a 3 or 4-chambered stomach.

### Bison (*Bison bison*)

Bison are a large species of ungulate that has been historically found across the prairies of North America. They are the largest terrestrial animal in North America. They were an important food and resource for many First Nations but were hunted to near extinction by the European settlers. Bison have a shoulder hump and huge head. Their fur is brown and longer in the front than in the rear. It has black horns curving upwards and inwards ending in a sharp tip. Its hooves are black and circular.

**Size** – Adults weigh between 318-900 kg with adult males ranging in length between 3.6-3.8m and 2.13-3.18m in females.

**Lifespan** – 15-20 years

**Diet** – Grazers, primarily grasses but if needed other vegetation

**Denning and Habitat** – Prairies, including grasslands and open savannas.

**Special features** – Bison live in large groups arranged according to sex, age, season, and habitat. Cow groups are composed of females, males under three years, and a few older males. Other males either live individually or in groups up to 30.

**Conservation Status** - Near threatened



© Tom and Pat Leeson (ARKive)

## Caribou (*Rangifer tarandus*)

Caribou are a medium sized ungulate. Their colour varies by subspecies, region, sex, and season from a dark brown in the summer to nearly white. Caribou are distinguished by both sexes having antlers. The belly, neck, and above the hooves are white. Mature males have large complex antlers where cows and younger animals have simple small antlers.

**Size** – Adults are 55-318 kg and are 1.5-2.3 m long, males are much larger

**Lifespan** – 10-15 years

**Diet** – Grazing herbivores, including lichen, willow, birches, mushrooms, cotton grass, sedges, and numerous other vegetation



© Wild Wonders of Europe (ARKive)

**Denning and Habitat** – Arctic tundra and subarctic boreal forest

**Special features** – Caribou migrate twice annually, often over 5000 km a year. They also form large groups, with groups being larger during the summer.

**Conservation Status** - Least Concern

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## Elk (*Cervus elaphus*)

Elk are one of the largest species of deer. They range in colour from dark brown in the winter to tan in the summer. Their head, neck, belly, and legs are darker. Elk have a long head with large ears and antlers on males. They have a dark shaggy mane that hangs from their neck to the chest.

**Size** – Adult weigh between 171-497 kg and are 1.6-2.7 m long, males are larger

**Lifespan** – 20 years

**Diet** – Browsers, including grasses, sedges, forbs, woody growth, dandelions, aster, hawkweed, violets, clover, and mushrooms



© Lynn M. Stone (ARKive)

**Denning and Habitat** – Open woodlands and dense unbroken forests, coniferous swamps, clear cuts, aspen-hardwood forests

**Special features** – Elk live in summer herds that are matriarchal and dominated by a single cow. Seasonal migrations do occur. During the fall, bulls form harems that they defend. In the spring these groups separate based on sex with females and bulls forming their own summer groups.

**Conservation Status** - Least Concern

## Moose (*Alces americanus*)

Moose are the largest member of the deer family and one of the largest land mammals in North America. Males are much larger than females and have elaborate, widened antlers that can measure 2 meters in total width. Moose have thick brown fur that ranges between light brown to almost black. Moose have a long head with a long nose and upper lip and long legs.

**Size** – Adult weigh between 270-600 kg and are 2.4-3.4 m long

**Lifespan** – 8-12 years

**Diet** – Twigs, bark, roots, shots of woody plants, willows, aspens, water plants, water lilies, pondweed, horsetails, bladderworts, burred, conifers, and balsam fir



© Dorothy Keeler (ARKive)

**Denning and Habitat** – Forested regions with lakes, ponds, and swamps and snow cover during the winter

**Special features** – Moose are crepuscular but can be active throughout the day. They are good swimmers. North American moose generally do not migrate. They are generally solitary although the calf and mother have strong bonds.

**Conservation Status** - Least Concern

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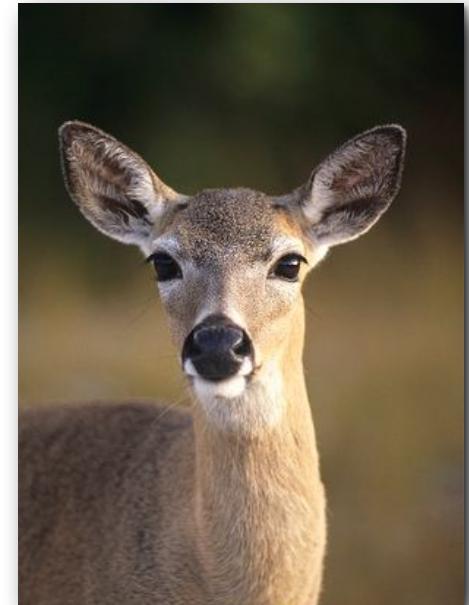
## White-tailed deer (*Odocoileus virginianus*)

White-tailed deer are brown with white fur located on a band behind the nose, circles around the eyes, inside the ears, and over the chin and throat, upper insides of legs and beneath the tail. Males have antlers that are shed every winter. Young white-tailed deer are spotted with white and lose their spots by their first winter.

**Size** – Adults weigh 57-137 kg and range 160-220 cm long. Males are larger.

**Lifespan** – 2-3 years (up to 10)

**Diet** – Vegetation, including buds, twigs of maple sassafras, poplar, aspen, and birch, as well as shrubs. White-tailed deer are also known to eat song birds.



© Daniel J. Cox (ARKive)

**Denning and Habitat** – Variety of terrestrial habitats, from woods to grasslands, pasturelands, rangeland, brush areas, and deserts

**Special features** – White-tailed deer are good swimmers and do not migrate. White tailed deer are considered solitary but do graze together in herds up to hundreds of thousands. White-tailed deer females leave their fawns in a hiding place while they forage. They may leave their fawns for up to four hours at a time.

**Conservation Status** - Least Concern

# 8

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