

*The springbok, or springbuck, is a graceful animal with a reddish tan coat, white underparts, and a distinctive black stripe along its flank.*

*When it becomes alarmed, the springbok opens out a large fold of skin along its back to display a crest of stiff white hairs.*

### HABITS

The springbok could once be found all across southern Africa. During droughts, huge herds migrated hundreds of miles to find food, trampling anything in their way. In the last mass migration in 1896, crop destruction was severe, and measures were taken to control the population. Today springboks still collect in large herds, especially in the rainy season. But fences block their migration routes.

The springbok is active in early morning and late afternoon. During the heat of the

day, the herd rests in the shade, cleaning, nibbling, and licking each other.

The springbok is quick to react to unfamiliar sights, sounds, and smells. The first animal to sense danger raises the crest on its rump as a signal and runs to warn the others, who react in the same way. When danger is near, the springbok runs quickly away, pronking several times in rapid succession.

*Right: A springbok watches for predators as it drinks.*



### FOOD & FEEDING

The springbok grazes on grass and stands on its hind legs to eat young shoots and leaves. It also sometimes digs and eats roots and bulbs. Its diet varies with the seasons and the availability of plants, but grass is a staple.

The springbok can drink both fresh and salty water. It likes to drink regularly but can go without water for a long time. It also licks bits of mineral-rich soil to absorb essential nutrients.



*Above: When grass is in short supply, the springbok will eat shoots from tough bushes.*

### DID YOU KNOW?

- The springbok's greatest natural enemies are big cats like the cheetah and leopard. Black-backed jackals and eagles prey on young.
- When springboks gather in large herds in the rainy season, they often mix with other animals such as ostriches and hartebeests.
- The springbok can run at 55 miles per hour and can pronk as high as 13 feet.
- Pronking is typical of springboks, but all gazelles leap when running. Many species leap to release scent.
- The springbok is covered with fur except on a narrow strip between its nostrils.

### BREEDING

The breeding season depends on location. In southwestern Angola calving occurs from December to January, while in the Transvaal birth is from September to October.

At the start of the breeding season, the male claims a territory and a group, or *harem*, of 10 to 30 females. He defends his territory and harem from other males. Defense begins with a threat display of lowered head and horns. Then the animals spar, each

pushing and twisting for supremacy. The fights may sometimes lead to injuries.

After a gestation of about five and a half months, the female gives birth to a calf weighing about nine pounds. She may produce twins, but this is unusual. Although able to stand and walk after birth, the calf stays hidden for the first few weeks. It emerges from cover only when the mother returns to suckle it and calls with a soft bleat.

*Left: A mother springbok licks her newborn calf.*

*Right: Rival males compete at mating time.*



# RED-NECKED WALLABY

GROUP 1: MAMMALS

ORDER  
Marsupialia

FAMILY  
Macropodidae

GENUS & SPECIES  
*Wallabia rufogriseus*



**The red-necked wallaby is a close relative of the kangaroo and is very similar to it in appearance. Like the kangaroo,**

## KEY FACTS



**SIZES**  
Length: Head and body, up to 3 ft. Tail, 2½ ft.  
Weight: Up to 50 lb.



**BREEDING**  
Sexual maturity: 2½-3 years.  
Breeding: Year-round.  
Gestation: 30 days.  
No. of young: 1.  
Weaning period: Up to 1 year.



**LIFESTYLE**  
Habit: Tends to feed in groups, but otherwise is solitary.  
Diet: Grasses, leaves, and herbs.  
Lifespan: Averages 7 years in the wild.



**RELATED SPECIES**  
There are 11 species of scrub, or brush, wallaby.



Range of the red-necked wallaby.

### DISTRIBUTION

Found throughout Tasmania and in brush and scrub areas along the southeastern coast of Australia.

### CONSERVATION

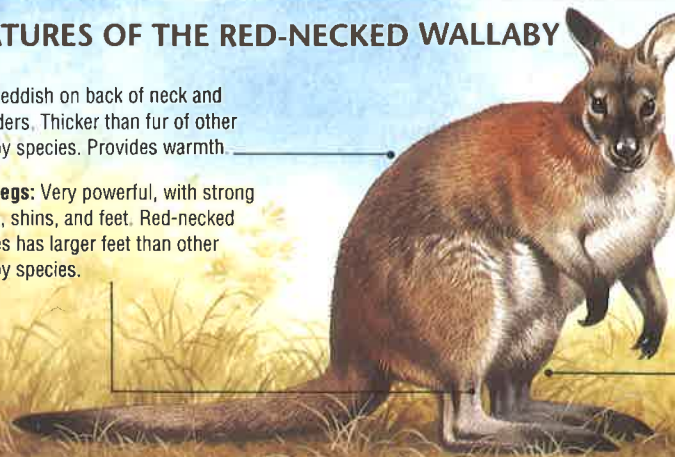
In spite of hunting and considerable habitat destruction, the red-necked wallaby is in no danger of extinction.

## FEATURES OF THE RED-NECKED WALLABY

**Fur:** Reddish on back of neck and shoulders. Thicker than fur of other wallaby species. Provides warmth.

**Hind legs:** Very powerful, with strong thighs, shins, and feet. Red-necked species has larger feet than other wallaby species.

**Pouch:** Encloses nipples. Protects young during 6-month nursing period. Then used by young as a refuge for a few additional months.



### THE WALLABY'S HOPPING TECHNIQUE

**At rest:** Thick, muscular tail and legs form a "tripod" to carry wallaby's weight.

**Hopping:** Movement is mainly forward, which is less tiring than lifting the body up each time.





*The red-necked wallaby is found in scrubland throughout southeastern Australia, including the island of Tasmania. It has thicker fur than most other wallabies. Because of this warm fur coat, the red-necked wallaby can adapt to much cooler climates and is frequently seen in zoos in other parts of the world.*

#### HABITAT

Because the red-necked wallaby is found in scrubland and brush, it is included in a group known as brush wallabies. It thrives in Tasmania, which is cooler than mainland Australia. Due to the colder climate, the red-necked wal-

laby's fur is denser than that of other species of wallaby.

During the day it rests in the scrub, emerging to feed in the late afternoon. Its sharp senses of hearing and smell warn it of danger. It alerts others by thumping its tail.

#### FOOD & FEEDING

With its large number of teeth, multichambered stomach, and powerful digestive juices, the red-necked wallaby is able to survive on the fibrous plants and grasses of its homeland. As its front teeth wear down, the back teeth move forward to replace them.

The red-necked wallaby

*Left: The adult remains alert to danger even while feeding.*

#### BREEDING

Like all *marsupials* (mammals whose young develop inside a pouch), the red-necked wallaby is born blind and poorly developed, weighing just a fraction of an ounce. The baby, called a *joey*, crawls into its mother's pouch as soon as it is born and attaches itself to a nipple. It remains there for the next six months.

The pouch is lined with fur that keeps the joey warm. Muscles near the top of the pouch work like a drawstring to keep it closed so the joey stays secure while its mother hops at fast speeds.

After a few months the joey begins leaning out of the pouch to nibble on grass and leaves that are within reach. Even after it leaves the pouch to graze independently, the joey still dives back in head-first if it senses danger.

The female mates again while the joey is still in the pouch, but the development of the new embryo is delayed until the previous joey has left the pouch.

feeds in a group called a "mob." There is no leader in the mob, and each animal moves on at its own pace. Like all brush wallabies and the larger kangaroos, the red-necked species begins to feed in the late afternoon and may continue until the following morning.

*Below: The joey develops quickly in its mother's pouch.*



*Above: Rivals fight over a mate.*

*Left: A red-necked wallaby forages for grass.*

#### DID YOU KNOW?

- Nipples in the female's pouch give two types of milk: low-fat for the newborn and high-fat for the growing joey.
- During its six-month development inside its mother's pouch, the joey grows 2,000 times its birth size.
- Marsupials are named for their pouch, which is called a *marsupium*.

- *Macropodidae*, the family name of kangaroos and wallabies, is Latin for "big-footed ones."
- It is estimated that 75 percent of wallaby joeys die before they are one year old.
- The smallest close relative of the wallaby and the kangaroo is the musky rat kangaroo, which is only about 16 inches long.

#### RED-NECKED WALLABY & MAN

The red-necked wallaby has long been hunted for its meat and fur. Between 1923 and 1955, over two million hides were exported from Tasmania. Still, it has survived in the wild in large numbers. It is also often seen in zoos, since its thick fur helps it adapt to cooler climates.

Although it does not often eat crops, the red-necked wallaby competes with sheep for food during droughts. As a result, it is considered a pest by many Australian ranchers.



# PIG-TAILED MACAQUE



GROUP 1: MAMMALS

ORDER  
Primates

FAMILY  
Cercopithecidae

GENUS & SPECIES  
*Macaca nemestrina*



The pig-tailed macaque is a large monkey that lives in the forests of Southeast Asia. It gets its name from its short tail.

## KEY FACTS



### SIZES

Height: 1½-2 ft.  
Weight: Male, 18 lb. Female, 10 lb.



### BREEDING

Sexual maturity: 4 years.  
Mating: Mainly November, December, and January.  
Gestation: About 27 weeks.  
No. of young: Usually 1.  
Frequency of births: Usually every 2 years. Yearly in captivity.



### LIFESTYLE

Call: Grunts, whimpers, murmurs.  
Habit: Sociable; active in daytime.  
Diet: Fruit, insects, young leaves, roots, crops.  
Lifespan: Oldest in captivity, 26 years, 4 months.



### RELATED SPECIES

There are 19 species in this family of monkeys, including the rhesus macaque, frequently used in medical laboratories, and the Barbary ape.



Range of the pig-tailed macaque.

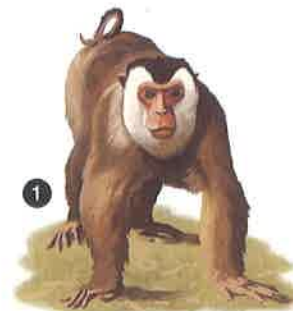
### DISTRIBUTION

Found throughout northeast India, Myanmar, Thailand, Sumatra, Malaya, and Borneo.

### CONSERVATION

The number of pig-tailed macaques is rapidly declining due to the loss of its forest habitat and the popularity of its meat.

## AGGRESSIVE POSTURES OF THE PIG-TAILED MACAQUE



**1. Glowering:** The first stage of aggression begins with the pig-tailed macaque staring menacingly at the intruder in an attempt to establish dominance.



**2. Display of teeth:** Next the macaque shows its teeth in a fierce grimace.



**3. Crouching before the attack:** The pig-tailed macaque crouches down and lowers its head threateningly immediately before springing.



*The pig-tailed macaque lives in dense forests, sleeping at night among the branches of tall trees. This heavily built monkey spends most of its day foraging for food on the forest floor, moving quietly in small groups.*

## HABITS

The pig-tailed macaque lives in dense evergreen forests in troops of 16 to 18 adults, infants, and juveniles. In areas where food is plentiful, the troops are usually larger.

The troop has more than one male, but only one is dominant. There is a definite

social structure within the troop, and the high-ranking members eat first. If food is scarce, the lowest-ranking monkeys may starve.

The macaque is shy. If it is disturbed, it will hide in the leaves of a tree or quickly and silently run away.

## DID YOU KNOW?

- Macaques are intelligent. When some Japanese macaques found that washing potatoes in salt water made them taste better, the troop followed their example.
- When fleeing from hu-

mans, macaques often run shoulder to shoulder, moving silently as a group.

- If a stranger tries to join a troop of macaques, it may be rejected and prevented from taking food or water.

## FOOD & FEEDING

The pig-tailed macaque prefers bulky, nutritious food like fruit, tubers, and corn.

It has a large range and searches for food in small troops, moving quietly and communicating with a low, moaning call. A group will often raid a cultivated field of crops after watching it for some time. During the raid, the group works as silently as possible, taking the time to choose the best ears of corn

or tubers. Usually, a young adult male stands guard in a tree at the edge of the forest, ready to give a warning bark if the farmer appears.

The group rarely stays in one place, but when a fruit tree is discovered, the members will remain to eat the ripe fruit. Older group members may remember a fruit-bearing tree and take the other macaques back to it at harvesttime.

*Left: Like many monkeys, pig-tailed macaques often groom one another.*

*Right: The macaque supplements its diet of fruit and insects with young leaves.*



## BREEDING

When the female pig-tailed macaque is ready to breed, at about age four, the hairless area of her buttocks swells and reddens. At other times the area looks like any other patch of bare skin.

A male may touch a seated female with his hip as a signal for her to stand and present herself. But the female may decide that she prefers another male, and the choice of mate is hers.

Less than six months after

*Left: When it senses danger, the macaque runs quickly and silently away.*

mating a single young macaque is born. The mother is very protective of the infant. She does not allow others to touch it and carries it everywhere, with one arm around it as it clings to her.

The infant starts to explore on its own at about three weeks. The mother keeps a close watch on it, and it returns to her regularly. When the baby is about six months old, the mother begins to wean it, removing her nipple from the young monkey if it tries to feed and giving it a finger to suck instead.

## PIG-TAILED MACAQUE & MAN

Humans have made use of the pig-tailed macaque's excellent climbing ability. In Sumatra, the monkey has been trained to collect coconuts. In Malaya, botanists have trained the monkey to collect specimens

from the tops of tall trees.

The meat of the pig-tailed macaque is very popular in areas where it is believed to have body-building powers. This belief has led to a decline in the macaque population.





# BARBARY SHEEP

GROUP 1: MAMMALS

ORDER  
*Artiodactyla*

FAMILY  
*Bovidae*

GENUS & SPECIES  
*Ammotragus lervia*



**The barbary sheep, a plant-eater, lives in small but sociable family groups. Despite its name, this animal**

## KEY FACTS



### SIZES

**Height:** 2-3 ft.  
**Weight:** Male 200-300 lb. Female 80-120 lb.  
**Length:** Body, 5 ft. Tail, 8-10 in.



### BREEDING

**Sexual maturity:** 1-2 years.  
**Mating:** October to November.  
**Gestation:** 150-165 days.  
**No. of young:** 1-3.



### LIFESTYLE

**Habit:** Lives in small family groups of 1 male, 1 or 2 females, and several young.  
**Call:** Young bleats; adult grunts.  
**Diet:** Grasses, shrubby plants.  
**Lifespan:** 24 years in captivity, unknown in the wild.



### RELATED SPECIES

The only member of its genus. Its closest relative is the blue sheep, *Pseudois nayaur*, from Tibet and eastern China.



Range of the barbary sheep.

### DISTRIBUTION

North Africa, from the Atlantic Coast to the Red Sea and south to Mali and Sudan. Introduced into California, New Mexico, and islands in Lake Erie.

### CONSERVATION

Conservation measures do not appear necessary as the barbary sheep is still common over much of its range, although long periods of drought have depleted some flocks.

## FEATURES OF THE BARBARY SHEEP

**Horns:** Large, curved, and hollow. Triangular in cross-section with prominent ridges.

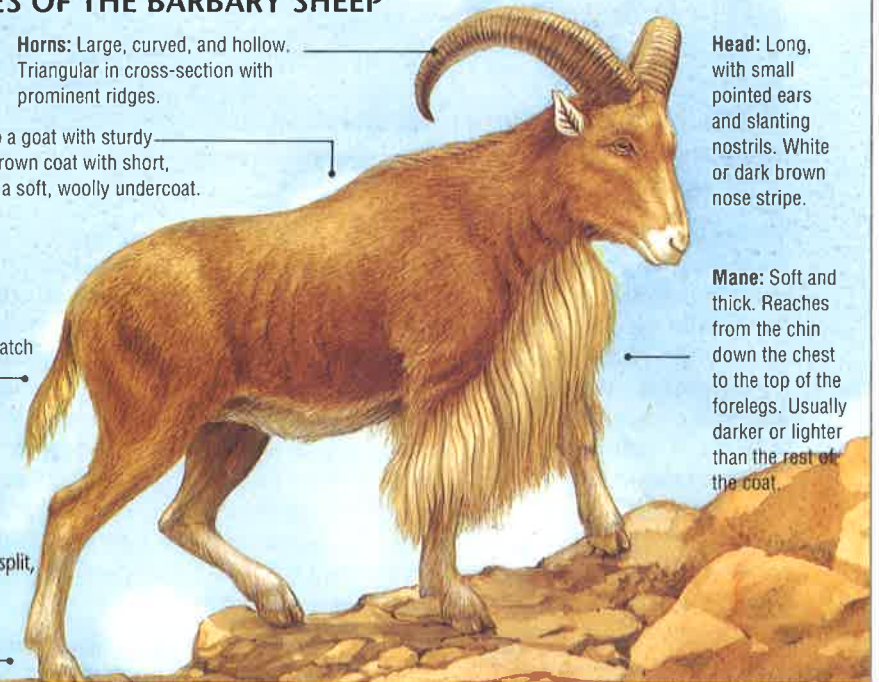
**Body:** Similar to a goat with sturdy legs. Reddish brown coat with short, coarse hair and a soft, woolly undercoat.

**Tail:** Long and bushy. A bald patch underneath contains scent glands.

**Feet:** Front and back toes have developed into split, or *artiodactyl* (even toed) hooves.

**Head:** Long, with small pointed ears and slanting nostrils. White or dark brown nose stripe.

**Mane:** Soft and thick. Reaches from the chin down the chest to the top of the forelegs. Usually darker or lighter than the rest of the coat.



*The barbary sheep, a swift, nimble climber, lives in the hills and mountain ranges of North Africa and the Sahara. Both male and female barbary sheep have large, curving horns and manes of long, soft hair on the throat, chest, and forelegs.*



## HABITS

Most of the year, the barbary sheep lives in a small family group of one male with one or two females and young from several litters. At the end of the dry season, many groups may form a large herd, feeding and resting together for a short period.

The day-active barbary sheep feeds in the cool early morning and late afternoon. During the hottest daytime hours it rests in shady places under overhanging rocks or

Throughout the day, the barbary sheep grooms its coat, scratching the fur with its horns or hooves and rubbing against rocks or low tree branches.

The sheep likes to wallow in damp sand to keep its coat clean and free of parasites. First it rolls in the sand to cover its flanks and underside, and then it uses its hooves to scatter the damp sand over its back.

The barbary sheep adeptly

## BREEDING

The barbary sheep mates from October to November. The male, fiercely chasing away rivals, chooses a female and follows her for days until she is ready to mate.

After 150 to 165 days, up to three lambs are born, each weighing two to six pounds.

They stay hidden with the female for two to three days until they return to the family group. The female suckles the lambs for three months; they reach maturity at 18 months.

**Right:** *Young lambs are born in late spring to coincide with plentiful food supplies.*

**Left:** *The sheep rest during the day, feeding only in the cool morning and evening.*



## FOOD & FEEDING

Barbary sheep feed in the early morning and at dusk, often moving from high rocky areas to nearby plains. They feed in a group, staying

alert for predators.

Barbary sheep mainly eat grass and low-growing plants. They stand on their hind legs to nibble leaves,

twigs, and young shoots of shrubs and trees. The sheep drink water at available water holes but rely mainly on dew and moisture in their food.

## DID YOU KNOW?

- The barbary sheep exudes a strong odor from scent glands under its tail.
- Barbary sheep have been crossbred with domestic goats; their offspring were bred with chamois.
- The barbary is the only sheep originally from Africa.
- For centuries, African tribes hunted the barbary sheep for its meat, hide, coat, and sinews. More barbary sheep will survive as tribes become fewer.
- Barbary sheep that have escaped from national parks and private herds in the United States have established small but healthy wild flocks.



**Right:** *If threatened, a barbary sheep can remain motionless.*

# NORTH AMERICAN PORCUPINE

CARD 154



GROUP 1: MAMMALS

ORDER  
Rodentia

FAMILY  
Erethizontidae

GENUS  
*Erethizon dorsatum*



**The North American porcupine is a short-sighted, slow-moving animal well known for its quills. It spends much of the day 100**

## KEY FACTS



### SIZES

**Length:** Head and body, 2-3 ft.  
Tail, up to 1 ft.  
**Weight:** Typically 8-15 lb., but some males reach 40 lb.



### BREEDING

**Sexual maturity:** 1½-2½ years.  
**Breeding season:** October to December.  
**Gestation:** About 7 months.  
**No. of young:** 1, rarely 2.



### LIFESTYLE

**Habit:** Tree- and ground-living.  
**Diet:** Tree bark, conifer needles, leaves, seeds, fruit.  
**Lifespan:** Up to 17 years.



### RELATED SPECIES

The 10 species of *Erethizontidae* porcupines include the Mexican tree porcupine, *Sphiggurus mexicanus*, and the prehensile-tailed porcupine, *Coendou prehensilis*.



Range of the North American porcupine.

### DISTRIBUTION

Widespread throughout wooded areas of North America. Ranges from eastern Alaska to Labrador in the north and from northern Mexico to Tennessee in the south.

### CONSERVATION

The North American porcupine is generally considered a pest because it kills trees by eating their bark. In some areas attempts have been made to reduce the population.

## FEATURES OF THE NORTH AMERICAN PORCUPINE

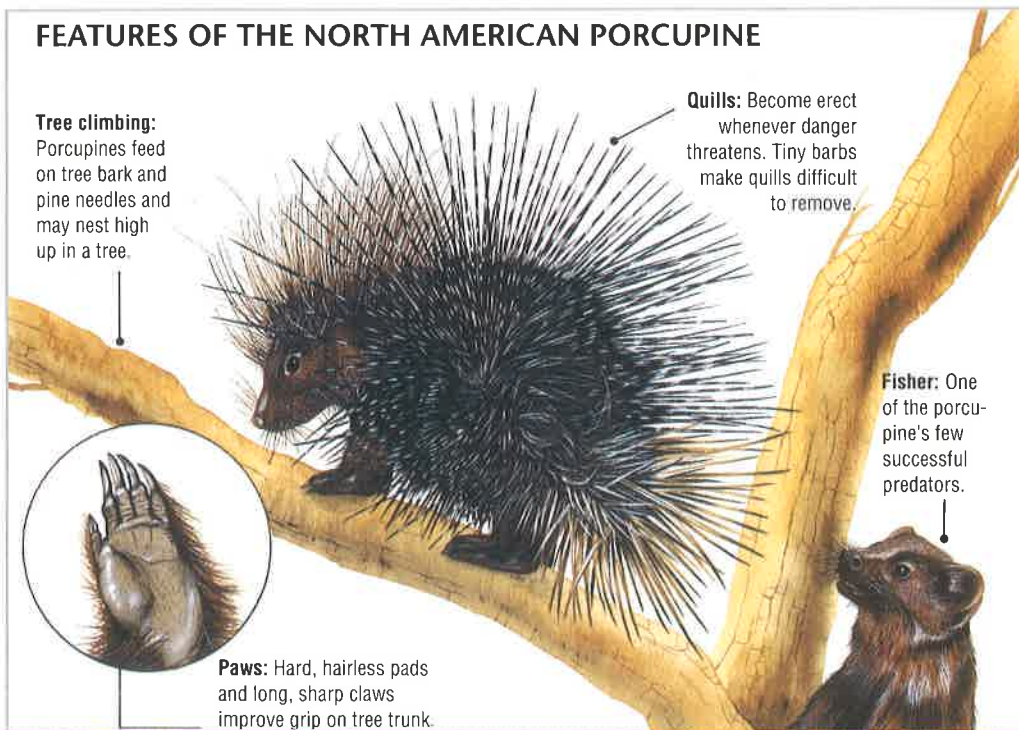
**Tree climbing:** Porcupines feed on tree bark and pine needles and may nest high up in a tree.

**Quills:** Become erect whenever danger threatens. Tiny barbs make quills difficult to remove.



**Paws:** Hard, hairless pads and long, sharp claws improve grip on tree trunk.

**Fisher:** One of the porcupine's few successful predators.







*Like other species in the porcupine family, the North American porcupine spends much of its time in trees, where it feeds on bark and pine needles. Its sharp claws, hard foot pads, and well-developed sense of balance help it to climb with ease—although at a very slow pace.*

#### HABITAT

The North American porcupine prefers mixed woods with conifers and deciduous trees. But it adapts to unlikely habitats such as desert and tundra.

The porcupine sleeps all day, tucked in a hollow log or rocky crevice. Each animal has several dens within its home range. After a night's activity, it uses whichever den is nearby at

to and from its dens and wears down paths in the area.

During severe winter weather, the porcupine may stay in its den for a day or more. When it does emerge, it seldom travels far. In summer the animal ranges farther out to find new feeding grounds. But even when foraging it seldom roams more than 500

#### FOOD & FEEDING

The North American porcupine gnaws with its strong, bright orange teeth on leaves, twigs, seeds, and fruits. Its diet varies depending on its habitat and the season.

In spring the animal leaves the forest to graze on grass in nearby meadows. Summer finds it on the ground chewing roots and shoots. It also eats young leaves, berries,

seeds, nuts, and flowers.

As winter approaches, the porcupine goes back to the woods and a diet of conifer needles and tree bark. The sap-laden inner bark is a valuable food source for the porcupine even when the ground is buried under snow.

**Right:** *The porcupine's coat looks soft, but it hides an armory of barbed quills.*

#### DID YOU KNOW?

- A fully grown North American porcupine sports as many as 30,000 quills.
- A porcupine may nest in trees 20 feet above ground.
- An adult male can weigh up to 40 pounds, which is almost three times the animal's usual weight.

- This species swims well because its hollow quills give it extra buoyancy.
- The North American porcupine likes salt and may even gnaw the handles of gardening tools and canoe paddles for the salt left by human perspiration.



#### BREEDING

The male porcupine is solitary for much of the year, but he seeks a mate in late fall. Because he is very short-sighted, he relies on his sharp hearing and keen sense of smell to find his partner.

When a pair meets, they perform a courtship ritual with much grunting and circling. The female comes into heat for 12 hours. If she does not mate then, she may become fertile again in a month. After mating, the female drives the male away, and he has no further role in raising the young.

A single offspring is born about seven months later in the spring. It is well developed and can walk at once. It is covered with long black hair, but

less than a week, the young porcupine can climb. It is able to feed itself at about two weeks but usually nurses for over a month.

**Above left:** *Trees provide the porcupine with food in winter, as well as year-round protection from many predators.*

**Right:** *At just two weeks, a young North American porcupine climbs carefully up a tree in search of needles to*



#### PORCUPINE & MAN

Despite its rapid early development, the North American porcupine takes up to four years to become fully grown. It may live for 10 years or more.

Early settlers regarded the North American porcupine as a source of meat. A few people still hunt it for food. Native Americans used the quills in their costumes and various artifacts.

The porcupine's appetite for tree bark has made it very unpopular with logging companies. In some areas a predatory pine marten called the fisher has been reintroduced to control the number of porcupines. The fisher kills the porcupine by flipping it on its back and attacking the animal's unprotected chest and belly. In one part of Michigan, fishers reduced the North American porcupine population by 76 percent in



# WOODCHUCK

GROUP 1: MAMMALS

ORDER  
*Rodentia*

FAMILY  
*Sciuridae*

GENUS & SPECIES  
*Marmota monax*



**The woodchuck is the only marmot found in eastern North America. Also known as the groundhog.**

## KEY FACTS



**SIZES**

**Length:** Head and body, 16-20 in. Tail, 4-7 in.  
**Weight:** 4-11 lb., increasing just before hibernation.



**BREEDING**

**Sexual maturity:** 1 year.  
**Mating:** March to April.  
**Gestation:** 31-32 days.  
**Number of young:** 2-6.



**LIFESTYLE**

**Habit:** Solitary. Hibernates for 5 months of the year.  
**Diet:** Grasses and herbs.  
**Call:** Shrill whistle if alarmed. Hisses, squeals, and growls if annoyed.  
**Lifespan:** 4-5 years.



**RELATED SPECIES**

The squirrel family has more than 260 species in 14 genera. It includes marmots, prairie dogs, ground and tree squirrels, and chipmunks.



Range of the woodchuck.

**DISTRIBUTION**

Found throughout eastern North America and in Alaska, the Yukon, Washington, northern Idaho, and western Montana.

**CONSERVATION**

Although it is often killed by farmers, the woodchuck remains abundant in the cultivated regions and woodland areas of its range.

## FEATURES OF THE WOODCHUCK

**Teeth:** Well-developed incisors grow throughout the woodchuck's life and are used for burrowing as well as eating.

**Coat:** Outer layer of guard hairs may be reddish brown, black, or white. Undercoat of warm, soft fur protects against the cold during the woodchuck's long hibernation.

**THE HIDDEN BURROW**

The woodchuck sometimes digs a false burrow entrance near the real entrance to confuse predators. It scatters soil around this decoy and digs the real entrance from below to make it hard to spot.

**Real burrow entrance**

**False entrance**



**Scent glands:** Three glands in the anus emit a strong, musky scent, which is probably used in communication.



*A ground-dwelling member of the squirrel family, the woodchuck has a dark, bushy tail and a coat of grizzled, reddish-brown fur. It spends the summer fattening up on grasses in preparation for its long winter hibernation.*

### FOOD & FEEDING

The woodchuck eats mainly green vegetation like clover and alfalfa. Because it does not eat during its long hibernation, the woodchuck eats large amounts in late summer to put on weight. At this time its body

weight can almost double.

During hibernation, the woodchuck wakes regularly to excrete. It emerges much thinner in the spring and stays at that lower weight through the early summer.

### DID YOU KNOW?

- The hibernating woodchuck breathes once every six minutes, its heartbeat drops, and its temperature falls from 96.8° to 39.2° F.
- The name *woodchuck*

comes from the Native American word *wuchak*.

- In New York State alone, woodchucks dig up more than one and a half million tons of soil each year.

### HABITS

The woodchuck is found in woodlands and pastures and at the edges of forests. It is active during the late spring and summer—mostly in the early morning and late afternoon. It spends the rest of the day lying in the sun or sleeping in its burrow if the weather is cold and cloudy. The woodchuck rarely strays far from its long, deep burrow.

The woodchuck is a good swimmer and climber. It has a wide range of calls, including a loud whistle of alarm. When it is annoyed, the woodchuck

hisses, squeals, and growls.

The woodchuck begins its long hibernation in late September, often before the first signs of winter. At that time it retreats to its burrow, where it has prepared a special chamber lined with soft grass and leaves. It is said that the woodchuck's hibernation ends on February 2nd—Groundhog Day. But it actually ends much later, especially in the northern part of its range.

*Below: The woodchuck eats mostly grasses, but it sometimes raids crops.*

*Right: After hibernating, the male woodchuck searches for a mate.*



### WOODCHUCK & MAN

Because of the damage it can do to plants and crops, many farmers consider the woodchuck a pest and shoot it. But other people find the woodchuck helpful. It fertilizes the

ground when it defecates in its burrow. It also loosens and aerates the soil as it digs. Gardeners can use the subsoil it kicks to the surface as topsoil in their gardens.

### BREEDING

When it emerges from hibernation, the male woodchuck seeks out a female and mates in her burrow. A litter of two to six young is born a month after mating. Unlike most rodents, the female woodchuck

produces only one litter each year. The blind and naked newborns depend completely on their mother, who suckles them. Their eyes open within a month. After two months, they must fend for themselves.



*Left: In late September the woodchuck takes leaves and grasses underground and uses them to line the nest in its hibernation chamber.*



# HOUSE MOUSE

GROUP 1: MAMMALS

ORDER  
*Rodentia*

FAMILY  
*Muridae*

GENUS & SPECIES  
*Mus musculus*



Wherever people go, the tiny house mouse follows. It is the world's most widespread rodent, but its invasion of our homes has turned

## KEY FACTS



**SIZES**

**Length:** Head and body, up to 3½ in. Tail, slightly shorter than body.

**Weight:** About 1 oz.



**BREEDING**

**Sexual maturity:** 6 weeks.

**Mating season:** Throughout the year.

**Gestation:** 19-20 days.

**No. of litters:** About 5 in houses, more in warehouses and stores.

**No. of young:** 4-8, usually 5.



**LIFESTYLE**

**Habit:** Lives in loose colonies.

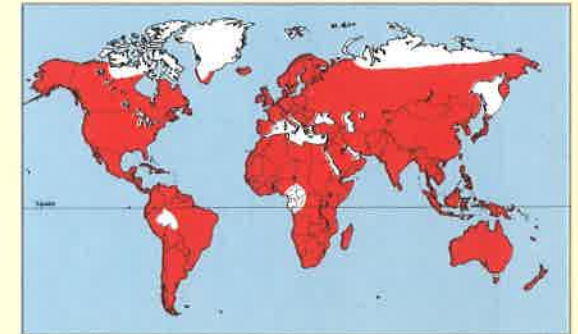
**Diet:** Prefers grain but will eat anything.

**Lifespan:** 1½-3 years in the wild. Up to 6 years in captivity.



**RELATED SPECIES**

Other small mice that commonly enter North American homes are the white-footed mouse and the deer mouse.



Range of the house mouse.

**DISTRIBUTION**

Found wherever humans have settled and absent only from the Arctic, Antarctic, and some jungle areas.

**CONSERVATION**

The house mouse is plentiful everywhere despite human efforts to exterminate it. Even when 70,000 mice were poisoned in one night in a grain storage yard, the colonies managed to survive.

## FEATURES OF THE HOUSE MOUSE

**Sense of smell:** Very keen. The mouse relies on smell to locate food and to follow scent trails left by other mice.

**Hearing:** Very acute. Detects sounds as high-pitched as 100kHz—well beyond the limit of human hearing (about 20kHz). Uses high-frequency squeaks to communicate and to locate lost young.

**Coat:** Warm and protective but greasy and strong-smelling. May be gray-brown or albino. Groomed by other members of the colony.

**A COLD-WEATHER COAT**



The house mouse adapts so easily that it can grow an especially long coat to survive and even raise a litter in the cold of a refrigerated storage room.

**Eyesight:** Poor. Can see only objects a





*The house mouse is found in buildings all over the world.*

*It can even grow a long coat to enable it to live*

*and breed in refrigerated storage rooms.*

*Using its keen senses of smell and hearing,*

*this common rodent comes out at night to sniff out,*

*feed on, and contaminate food.*

## HABITS

The house mouse is busiest at dawn and dusk, when it forages for food. It relies heavily on its keen hearing and smell. In daylight the mouse has poor vision and probably cannot see clearly beyond two inches.

The mouse runs up walls and moves rapidly on flat surfaces. It can squeeze through holes

Mice live in loose colonies. At any sign of overcrowding, the dominant male defends the colony from intruders. The mice mark their territory with urine and take on the colony's odor. Any mice without this smell are ousted.

*Right: A grain store provides a mouse colony with constant food*

## BREEDING

Much of the house mouse's success is due to its high rate of reproduction. In buildings it breeds year-round, producing up to 10 litters of four to eight young each. The female makes a loose nest of soft materials and gives birth to

*Left & below: The house mouse eats whatever it can find both outdoors and in.*

her blind, furless young 19 to 20 days after mating.

The mother suckles her young several times a day. After about 18 days they are fully furred and can find their own food. By six weeks they can breed.

*Right: A female gently carries one of her young, which is born blind and without fur.*



## DID YOU KNOW?

- The "waltzing mouse" has a hearing defect that causes it to run around in circles.
- A mouse's tail is longer in a warm than in a cold climate. The extra length allows the mouse to lose more heat.

- The house mouse can hear and utter sounds far above the limit of human hearing.
- The house mouse may have a fatal seizure upon hearing certain very high-pitched sounds.



## NATUREWATCH

The house mouse is easy to detect because its greasy coat gives off a strong odor. It often leaves a waxy trail, and you can smell the urine used to mark its territory. Shredded paper, nibbled food, and

tiny dark droppings are all signs of mice.

A mouse in captivity also marks an area with its scent. The more you clean its cage, the more the mouse will deposit its own scent.

## FOOD & FEEDING

The house mouse eats everything available, from soap to candles, but it prefers grain and cereals. Where food is plentiful, the mouse contaminates more than it eats with urine and droppings. It can transmit diseases to humans and can also pass on parasites such as tapeworms.

may leave a building to live outside. There it forages for seeds and berries until the cool fall weather drives it back inside. Most mice, however, prefer the indoors year-round and can survive on household pickings. When the people of St. Kilda left their Scottish island in 1930,

# MOUNTAIN ZEBRA

CARD 132



GROUP 1: MAMMALS

ORDER  
*Perissodactyla*

FAMILY  
*Equidae*

GENUS & SPECIES  
*Equus zebra*



The few mountain zebras left in the wild live in the mountain grasslands of southwestern Africa. The pattern of their distinctive

## KEY FACTS



### SIZES

Height to shoulder: 3-4 ft.  
Length: Head and body, 7 ft.  
Tail, 1½ ft.  
Weight: 570 lb.



### BREEDING

Sexual maturity: 2 years.  
Mating season: Usually spring.  
Gestation: 11½ -12 months.  
No. of young: Usually 1.



### LIFESTYLE

Habit: Lives in small herds.  
Diet: Mainly grass.  
Call: Neighs like a horse.  
Lifespan: Up to 28 years.



### RELATED SPECIES

The family *Equidae* has 7 living species in 1 genus, *Equus*, which includes horses and asses.



Range of the mountain zebra.

### DISTRIBUTION

Found in the wild only in the two mountainous regions of southwestern Africa. Once common in South Africa's Cape Province and southern Angola.

### CONSERVATION

The Cape mountain zebra, a subspecies, nearly became extinct. The whole species is now protected but is vulnerable.

## THE ZEBRA AND ITS STRIPES

Experts argue over why the zebra has a striped coat. It was once thought to function as camouflage, but this explanation is no longer generally accepted. It is more likely that the coat acts as a bright signal to others in the herd. It may also help foals identify their mothers.



Dewlap

Mountain zebra: Sleek coat with narrow stripes and a white belly. The fold of skin under its neck, called a dewlap, is not found on the two other

## STRIPES OF THE GREVY'S AND PLAINS ZEBRAS



Grevy's zebra: Narrow vertical stripes on body but none on belly. Stripes curve up on the haunches.



Plains zebra: Broad vertical stripes extend around belly.