

Welcome Teachers!

This packet has been designed to allow you to bring excitement, curiosity and hands-on learning to your students! On the following pages you will find a fact sheet related directly to an animal biofact (fur, feathers, bones...) that you have in your teacher pack. Some of the biofacts are from animals that you may see on your journey, some are from other interesting prairie animals, many that you may see in your own back yard!

Use the facts in this packet and biofacts in your teacher pack to give your students an enriching and hands-on experience. We ask that the materials are treated with respect and integrity, but encourage your students to touch, inquire and, of course, learn!

Contents of the 5th – 6th grade teacher pack:

Bobcat – claw, repliscat and photo

Coyote – claw, repliscat and photo

Beaver – skull and photo

Puma - skull and photo

Bat – skull and photo

Mole – skull and photo

Raccoon – skull and photo

Track rubbing plates – 16 plates of various animals

Biofact(s) –Bobcat claw, repliscat and photo

Description:

- The bobcat is a small wild cat that can be found throughout the North American prairie.
- The bobcat got its name due to its short stumpy tail. It appears to have been bobbed, or cut off.
- It has a tawny coat with various speckles and streaks of color ranging from light brown to black. This coat makes for excellent camouflage on the prairie.
 - The bobcat needs camouflage in order to sneak up on prey, as well as to avoid encounters with other animals and humans.
- The skull of the bobcat is loaded with 28 teeth.
 - They are equipped with four sharp canine teeth that they use to clamp onto prey so that it cannot escape.

Range and Habitats:

- Historically the bobcat's range is all the lower 48 United States, north into Canada and south into Mexico.
 - Bobcats can adapt to many habitats as well as to humans, allowing for such diversity in range.
- The preferred habitats of the bobcat are forests, semi-deserts, mountains, and transitions between forest and prairie.

Diet:

- Bobcats are carnivores.
 - They are stealthy hunters; they stalk their prey, then pounce and kill with a bite to the vertebrae of the neck.
 - Bobcats hunt rodents, rabbits, deer, large ground birds, and sometimes reptiles.
 - Though rare, they are known to eat small domesticated animals and poultry when other game is in short supply.

Bobcat Fun Facts:

- ❖ The bobcat is the most abundant cat in North America.
- ❖ The bobcat has the greatest range (distribution) of all of the North American cats.
- ❖ The bobcat can pounce over ten feet in distance!

Biofact(s) – Coyote claw, repliscat and photo

Description:

- Coyotes are small wild canines with color ranging from grayish brown to yellowish brown on the upper body fading to tawny on the underside.
- The coyote has a bottle-shaped tail that is usually tipped with black or darker fur.
 - Two ways to distinguish a coyote from a domestic dog are; the coyote has erect pointed ears, and when running the coyote holds its tail level with or below the back.
- Adult coyotes weigh from 25-30lbs.

Range and Habitats:

- The coyote is found through-out North and Central America.
- The coyote is a generalist and is well-adapted to most landscapes. The most important limiting factor for coyotes is the presence or absence of wolves. Coyote numbers are restricted in areas with wolves.

Diet:

- The diet of the coyote consists of 90% mammalian protein in the form of rodents and rabbits. The other 10% of its diet consists of birds, reptiles, amphibians and plant matter.
- The coyote is opportunistic and will eat whatever it can; garbage and pet food are staples in the diet of urban coyotes.

Coyote Fun Facts:

- ❖ The coyote can run at speeds of 35-40 miles per hour.
- ❖ A testament to the adaptability of the coyote is that it can even utilize the harsh habitat of Death Valley, one of the harshest habitats in North America.
- ❖ The coyote is a very strong swimmer, and has colonized an island close to Massachusetts.
- ❖ The coyote got its wily reputation because of its intelligence and ability to adapt to situations and become successful.
- ❖ An interesting hunting strategy has been observed among coyotes. One coyote will jump around wildly near a flock of birds to distract them, while a second coyote will sneak up and grab an unsuspecting bird for lunch!

Biofact(s) –Beaver skull and photo

Description:

- The beaver is the largest rodent in North America.
- The fur of the beaver is reddish brown to dark brown and is rich and glossy.
- The beaver has a large leathery, primarily hairless tail that can be used to slap the surface of the water as a warning of impending danger.
- The large incisors (front top and bottom two teeth) are large and characteristically orange and are useful tools for downing trees and stripping bark.

Range and Habitats:

- Beavers can be found throughout North America except for its southern deserts; neither is it found in Mexico or the northern regions of Canada.
- The preferred habitat of the beaver is a lowland regions where their plenty of water.
 - The beaver can manipulate its environment to be more suitable to its needs.

Diet:

- The diet of the beaver consists of aquatic plants, clover, fallen fruit and the green inner bark of trees called the cambium.
 - During the winter the cambium is a primary source of food for the beaver, whereas green shoots and aquatic plants are preferred in the other seasons.

Beaver Fun Facts:

- ❖ Beaver teeth take on their orange hue due to iron particles in the enamel of the teeth. In effect, you are seeing rusty beaver teeth!
- ❖ The beaver was once hunted to near extinction for its valuable pelts. Conservation efforts have helped this species survive and prosper, and beavers are now a common sight along many water ways!
- ❖ Underwater life has led to some unique adaptations! The ears and nostrils have valves that close when underwater, Beaver also posses a clear membrane that closes over the eye for underwater vision.
- ❖ The beaver is second only to humans in its ability to manipulate the environment. The dams that the beaver creates provide habitats for many animals, including fish, amphibians, water fowl and many reptiles!
- ❖ When a beaver pond dries up, it leaves behind very rich soil, which supports many plants.

Biofact(s) – Puma skull and photo

Description:

- The puma is the largest of the cat species in North America.
- The puma is large and well muscled with a squarish head that yields a very powerful jaw.
- The puma is covered in short, coarse, tawny fur, with black on the back of the ears, the tip of the tail and muzzle stripes.
- Like most cats, the puma is equipped with retractable claws that are used for hunting, defense and traction.

Range and Habitats:

- Historically the puma ranged from coast to coast in North America and from northern Canada deep into South America.
- Due to habitat destruction, habitat fragmentation and hunting pressures, the puma is now restricted to unpopulated or sparsely populated pockets of habitat throughout their range.
- Pumas are generalists when it comes to preferred habitat; they will use nearly any habitat that has adequate food, water and shelter though they prefer little or no human activity.

Diet:

- The puma is a top predator in the food web of the prairie. They regularly take down large herbivores like deer and small or weak elk.
- Pumas will supplement their diets with small mammals like rabbits, beavers, birds and even insects.

Puma Fun Facts:

- ❖ The puma is beginning to adapt encroaching human populations. This is often a source of conflict, especially conflicts between outdoor recreationist and the puma. When people move quickly doing activities like running or biking, they mimic the behavior of the animals that the puma stalks and hunts. The puma can be driven by its instincts to attack a human that is engaged in this kind of behavior in the habitat of a puma. It is important to know how to best conduct yourself in areas with mountain lions. The Mountain Lion Foundation's website has tips; it can be found at www.mountainlion.org.
- ❖ The puma is known by a wide variety of names, a few are; mountain lion, panther and cougar. The reason for the variety in names is due to the wide range the animal inhabits - many areas have different names for the animal. Most of the time in scientific circles the animals are called pumas.
- ❖ Like most cats the puma is a great swimmer, it just prefers to not swim if possible, even going to the extent of traveling several miles along a river where the animal can walk across as opposed to swimming across.

Biofact(s) – Bat skull and photo

Description:

- The big brown bat has a length of four to five inches and a wing span of fourteen inches, which is large for a North American bat.
- The back of the bat is covered in glossy fur ranging in color from dark brown to light brown fading to a lighter variation on the abdomen.
- The skin of the wings, face, ears and feet is brown.
- The wings are made of fingerlike bone and are covered in a thin membrane.
- There is also a membrane that makes a scoop-shaped area from the tail and hind legs. Big brown bats use this area to help them manipulate food while in flight.

Range and Habitats:

- The big brown bat ranges from northern Canada south through extreme northern South America and from coast to coast.
- Big brown bats can be found in cities, towns and rural areas. You would be least likely to see a big brown bat in a heavily forested area.
- Big brown bats roost in places like attics, eaves, barns and hollows in trees and caves.

Diet:

- The big brown bat is an insectivore, or an animal that eats insects.
- The diet of the big brown bats consists primarily of beetles, but they also prey upon lacewings, wasps, flying ants, dragon flies and various other airborne insects.
 - Young bats are known to eat insects that are softer bodied before their first winter.

Bat Fun Facts:

- ❖ Bats have gotten a bad rap for no good reason. While some bats may carry rabies or may get into your attic to roost, they are actually beneficial to have around. A single bat can eat up to 1,200 insects each night that you'd rather not have around, with no chemical side effects!
- ❖ Bats use a process called echolocation to navigate and find food in the dark. Echolocation is similar to radar. By emitting sound waves that bounce off an object, bats can determine the distance by the length of time it takes the sound waves to return to them.
- ❖ Bats are the only mammals that can attain and maintain true flight.
- ❖ Mother big brown bats find their babies through smell. When the mother returns from feeding, she will crawl among the babies until she finds her own. She then will lick their face and lips before nursing.

Biofact(s) – Mole skull and photo

Description:

- The eastern mole is a small mammal covered in velvet-like gray hair and has a head that ends in a long naked snout and a small tail that can be used for leverage.
- The eyes of this mole are not well developed and are partially covered by skin; there is no visible outer ear.
- The front feet of this mole are well adapted to digging in the soil; the feet are as wide as they are long and are driven by powerful digging muscles. Each toe ends in a long strong claw.

Range and Habitats:

- The eastern mole can be found throughout North America east of the Rocky Mountains.
- Since the eastern mole is subterranean, the soil composition is important. The eastern mole prefers a habitat that has sandy loamy soil. Areas with a large amount of rock in the soil, very hard soil or a soil with a lot of clay are not good habitats for the eastern mole.

Diet:

- The eastern mole is an insectivore, or animal that eats insects.
- The bulk of the diet of this mole is made up of earthworms. Soft bodied insects and insect larva are preferred, but large insects with hard exoskeletons will also be consumed and the mole will discard the hardest parts of the insect body.

Eastern Mole Fun Facts:

- ❖ Many think of the eastern mole as a rodent, but it is not. The moles closest relatives are bats and shrews!
- ❖ Moles live a secluded life in their subterranean world, keeping company only when mating or raising young.
- ❖ The mole evidence that you see as mounds or rows of dirt are temporary tunnels that the mole uses for hunting.
- ❖ Moles are attracted to yards and golf courses because the soil gets regular moisture, just what its favorite snack the earthworm needs. Most of the damage that mole cause is cosmetic but sometimes they do damage plants root systems.

Biofact(s) – Raccoon skull and photo

Description:

- The raccoon is about the size of a cocker spaniel. It is covered in gray to brown fur, with a black “mask” around its eyes and four to ten black rings around its tail.
- The front paws of the raccoon look a little like human hands. These paws grasp, hold and manipulate objects very effectively.
- In the northern part of their range, raccoons can have as much as fifty percent of their mass consist of fat in the late fall!

Range and Habitats:

- Raccoons can be found from southern Canada to northern Central America and from the east coast to the west coast.
 - Raccoons have been introduced in parts of Asia and Europe and are now widely distributed there.
- While raccoons prefer moist woodlands, they are very adaptable and can be found in nearly every habitat where there is access to fresh water.

Diet:

- The raccoon is an opportunistic omnivore, which means a raccoon will eat just about anything.
- Diet differs depending on the specific habitat but some of the raccoon’s favorites are nuts, berries, crawfish, and even carrion.

Raccoon Fun Facts:

- ❖ Raccoons are known for washing their food before they eat it, but they really aren’t washing their food! A raccoon’s sense of touch is heightened when in water, and by putting its food in the water it can feel for foreign objects like rocks.
- ❖ Raccoons have used their amazing adaptability to take up residence in human neighborhoods! Often these city raccoons find an easy meal at trash cans or pet bowls.
- ❖ The raccoon’s common name is derived from aroughcoune, an Algonquin Indian word meaning "he scratches with his hands."
- ❖ Taking in a raccoon as a pet is not a good idea. The raccoon may be little and cute for a while, but they grow in to powerful wild animals that can fight and kill a dog twice its size!

Biofact(s) –Track rubbing plates

The animals of the prairie are well camouflaged and well adapted to stay out of the sight of humans. Humans are viewed as a threat to wild animals and they go out of their way to stay out of our way. Field scientist who study wild animals often have to rely on signs left by the animals to determine things like size, health and direction and speed of travel, signs that scientist study are tracks, scat, bedding material and food scraps.

Tracks are an especially good indicator of animal species, size, direction of travel, if any, and speed. People who study tracks and traces left by animals are called ichnologists. Invite your students to become ichnologists and make their own track rubbings!

Instructions for use of track rubbing plates:

Materials:

Track rubbing plates

Paper (reusable office paper has been provided to you in your teacher pack)

Pencil or crayon

Place track rubbing plate face up on a flat surface. Place a piece of paper over the plate and rub gently with the side of the pencil lead, or crayon. Encourage students to label their rubbings, identification labels can be found on the back of each plate. If for some reason you notice a plate without a label please report it to the education department so that it can be replaced.