

North America Interp Binder



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N. America Interpretive Station Guidelines:

When staffing the wolf interpretive station:

1. Find all of the biofacts that you will need and place them into a box for transportation (a list of all of the biofacts you need can be found on page 3).
2. Bring chairs (optional, are located in the CEF building) and the box down with you to the wolf exhibit.
3. Set up the silver table that is stashed nearby.
4. Place tablecloth on the table.
5. Group and place the Biofacts and laminated info sheets based on species.
6. **KEEP AN EYE ON BIOFACTS AT ALL TIMES.**
7. An adult must accompany small children at all times.
8. Follow the talking points for each animal/biofact in this binder.
9. If you have to leave, put everything away in the box and take it back to DC. Do not leave anything unattended.
10. **Reminder: Zooteens must always travel in pairs, unless stated otherwise!**
11. **At the end of the day**, put **EVERYTHING** back in the box and pack it back up to DC (If you brought chairs, put them back in the CEF building and lock it).
12. Record each topic discussed during your shift in the binder.
13. Return biofacts and binder to the docent area where they were found.

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Biofacts for N. America Interpretation:

<u>Biofacts for North America Interpretation:</u>	
Biofact:	Use:
Wolf skull and lower mandible	Use to show dentition and how this makes it easier to tear and eat meat.
Wolf pelt/hair	Have out for people to touch.
Prairie dog skull	Compare and contrast with the wolf skull.
Bald eagle egg	Have out for people to touch/see.
Raptor foot (unknown species)	Have to show talons and explain foot.

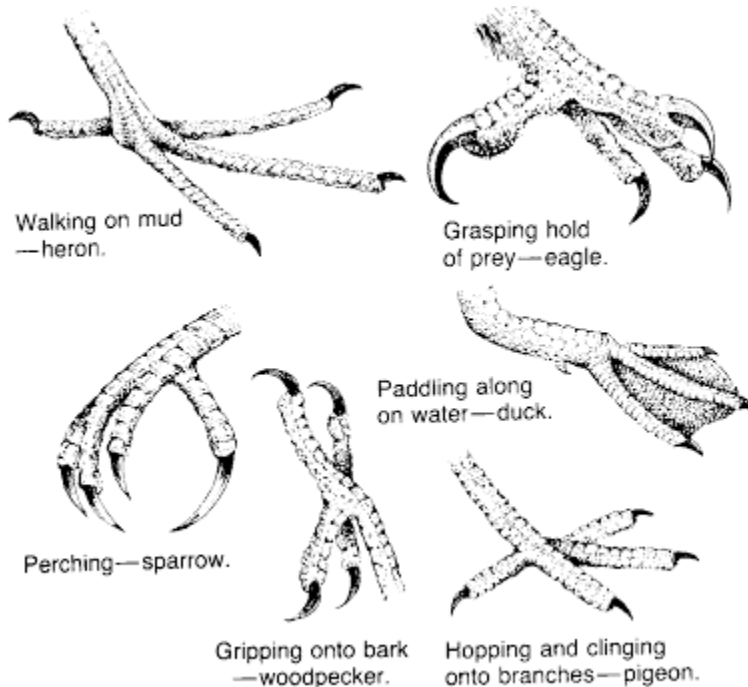
Biofacts Talking Points:

1. Show wolf skull and prairie dog skulls and talk about how their dentition makes them great at eating meat/vegetation.



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2. Show the raptor foot and describe how they are designed to help raptors hunt their food.
 - a. Raptor feet have four powerful toes with long, sharp talons.
 - b. These toes are usually oriented with three pointing forwards and one pointing backwards.
 - i. This type of foot orientation is called raptorial.
 - ii. The back talon is called the hallux.
 1. This talon is often longer than the other three talons.
 2. When a raptor catches a prey animal, this talon is usually pushed through the prey, killing the prey and helping the raptor keep hold of it.
 - iii. Eagles have Velcro-like scales on their feet to help them grip their prey.



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Animal Talking Points:

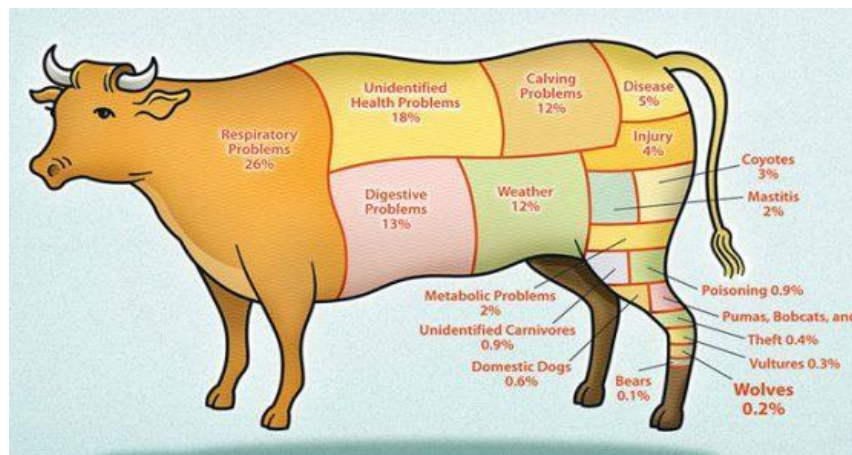
Mexican Grey Wolf:

Our Individuals:

1. The story of our wolves:
 - a. Our resident alpha male's name is Amigo
 - i. Amigo was flown here with his brother (puppy B) to be hand reared by our very own animal curator, Dr. Susan Lindsey.
 1. After a summer here at MPZ, Amigo and his brother left to go to the Endangered Wolf Center, where they were both paired with mates.
 - ii. Amigo's mate (alpha female), is Rogue.
 1. Rogue is a very strong alpha female and is a handful for any crew that has tried to capture her in the past.
 2. Together, Amigo and Rogue have born a number of offspring and have had pups that have been cross fostered into the wild several times.
 - iii. Right now, we have three of their offspring here with us.
 1. Their names are Thunder, Thor, and Cynthia.

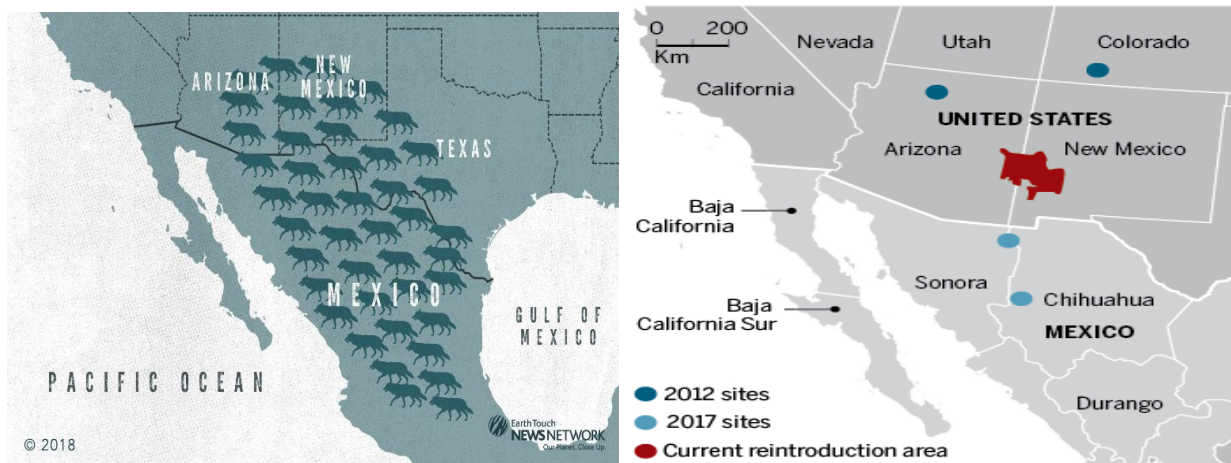
Threats in the Wild and Conservation:

2. Wolves are greatly misunderstood:
 - a. Most of the areas that wolves reside in are outside of national parks, which often puts them in the path of humans.
 - b. One of the main threats to wolves in the wild is conflicts with humans.
 - c. This is especially true in communities that raise livestock such as goats, sheep, and cows.
 - i. The U.S. Department of Agriculture reports that only 0.2 percent of all livestock losses can be attributed to wolves.



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1. Putting that into perspective: respiratory, calving/birthing complications, and weather cause over 50 percent of livestock losses. (And if you look, domestic dogs are actually 3 times more likely to kill livestock than wolves are)
 - a. But even still, wolves (even critically endangered wolves like the Mexican gray and the red wolf) are paying the price.
 - i. And when working with species that are on the brink of extinction, every lost individual is devastating to conservation efforts.
3. Mexican Gray Wolves need our help:



- a. At one point, (due to eradication by humans) only 5 Mexican gray wolves existed in the wild.
 - i. For more perspective on that, that is the exact number that we have at our zoo right now.
- b. Those 5 individuals were captured and brought into managed care between 1977 and 1980.
- c. The species was then declared extinct in the wild.
 - i. The first release of wolves (11 individuals) from managed care facilities took place in March of 1998.
 1. As of 2018 the wild population was at 131 and has continued to slowly climb throughout the years.
 - a. Even so, they remain the most endangered subspecies of wolf due to compromised genetics, human intolerance, and natural habitat loss.
4. How Mesker Park Zoo is helping:
 - a. Mesker Park Zoo is working with the Endangered Wolf Center in St. Louis to aid in the conservation of this species.

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- i. We are a working part of their breeding program, in which pups are taken from our breeding pair and placed with a foster in the wild.
 - 1. This means that a fraction of the pups that are born here and at the Endangered Wolf Center, go directly to the wild.
- 5. How can you help?
 - a. Be a voice for the species.
 - i. Help us spread positive information about Mexican gray wolves and wolves in general.
 - ii. Continue to support the protection of species, such as the Endangered Species Act.
 - b. Spread information about coexisting with large carnivores and what tools can be used to make that easier.
 - i. Tools like:
 - 1. Telemetry, hazing, securing small pens, fencing, range riders, etc.
 - a. These are all non-fatal ways to keep wolves away from your property and livestock.



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Prairie Dogs:

Habitat:

1. Black-tailed prairie dogs live on the Great Plains east of the Rocky Mountains.
 - a. They can be found anywhere in that area from Saskatchewan to Chihuahua and Sonora in Mexico.
 - i. Their traditional habitats are sparsely vegetated, dry, and flat grasslands.
 - ii. They prefer medium to fine soil textures because they work best for building their elaborate underground burrows.
2. They build burrows close to each other to form towns.
 - a. Their burrows often resemble a U-shape with chambers that are connected by tunnels, and can reach 7-15 feet deep.
 - b. They cut down anything that grows taller than 6 inches to allow them to better see approaching predators.
 - c. When digging a burrow, they leave a mound of earth around the entrance in order to keep the burrow from flooding when it rains.
 - i. Burrows include multiple entrances (act as an escape route if a predator were to get inside of the burrow), a nesting chamber (near the bottom and filled with dry grass bedding), and listening chambers (allow prairie dogs to listen for predators before making the choice to leave the burrow).
 - ii. On average, colonies span less than half of a square mile.
 1. The largest prairie dog colony on record spanned over 25,000 square miles and was home to around 400 million prairie dogs.
 - a. To give some perspective on that, our state (Indiana) is 35,870 square miles, meaning this colony was only around 10,000 square miles smaller than our entire state!
 - i. West Virginia is 24,087, meaning that the colony was as large as West Virginia!

Physical Characteristics:

3. Black-tailed prairie dogs are tan in color with a white/buff-white belly.
 - a. Their tips of their tails are sparsely covered with black hair.
4. Black-tailed prairie dogs are a species of ground squirrel, getting their name “dog” from their characteristic alarm bark.

Diet:

5. 98% of black-tailed prairie dog diet is made up of leafy vegetation and grasses.
 - a. They have been known to occasionally eat beetles, cutworms, and grasshoppers.
 - b. They do not need to drink water because their mostly herbivorous diet provides them with all of the moisture they need.

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- i. At the zoo, they eat herbivore pellet, vegetables, and leafy greens.

Reproduction:

- 6. Black-tailed prairie dogs are sexually mature around 2 years of age.
 - a. They breed once a year, timing depends on the location of the population (ranges from January to March).
 - i. Mating takes place in the borrow and gestation lasts about 30 days.
 - 1. On average, litter size is between two and eight pups.
 - a. The pups are born blind, helpless, and naked.
 - ii. Both parents help with the rearing of their pups.
 - 1. The father protects them from other males within the coterries, due to infanticide being common.
 - a. Once the pups emerge from the ground, they will be accepted and allowed to nurse by any other lactating females.

Longevity:

- 7. In the wild, female prairie dogs can live up to 8 years and males can live up to 5 years.
 - a. In zoos, they can live over 8 years.

Threats in the Wild and Conservation:

- 8. The main threats to prairie dogs are predators.
 - a. Half of all prairie dogs born in the wild do not make it past their first year due to high rates of predation.
 - i. Prairie dogs support at least 136 different species by being a primary food source.
 - 1. According to, WWF senior wildlife conservation biologist, Kristy Bly “They're basically the Chicken McNuggets of the grassland.”
 - a. So, as you can imagine, prairie dogs are a very important part of their ecosystem.



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Bald Eagle:

Habitat:

1. Most bald eagles live in the forests and tundras of Canada and Alaska.
 - a. But some have been known to come as far south as Florida's mangrove swamps and Mexico's deserts.
 - a. They are very adaptable birds.
 - b. Are almost always found near some sort of water source.

Physical Characteristics:

2. Bald eagles are very large birds.
 - a. They are usually around 28-38 inches long and have a wingspan of 5.5-8 feet.
 - b. Males tend to weigh around 6-9 pounds and females weigh 10-15 pounds.
 - c. Eaglets are light gray and fluffy when they first hatch, turning a dark brown at around 12 weeks (just before they leave the nest).
 - a. They do not develop their characteristic white head and neck feathers until they are fully mature (4 years of age).
 1. Our resident bald eagle, Usona, is still a juvenile, which is why she still does not have her white head feathers.

Diet:

3. Bald eagles inhabit areas near bodies of water in order to be close to their favorite food- fish!
 - a. Hungry eagles wait upon their favorite perch until it sees a fish near the surface of the water.
 - a. It then will swoop down on the water and grabs the fish right out of the water with its specialized fish.
 1. Bald eagles have sharp talons and spiny scaled toes to help them better grip slippery fish.
 - b. The eagle will then take the fish back to its perch or nest to eat its meal. The bald eagles hooked beak helps it to rip apart its food.
 1. When fish are not readily available, bald eagles will hunt squirrels, rabbits, other birds, carrion, and even young deer.
 - a. They have also been known to visit human garbage dumps and to steal food from other birds. At the zoo, they eat rabbits, rats, and various fish.

Reproduction:

4. It is believed that bald eagles are monogamous, meaning that they mate for life.
 - a. A male and a female perform an aerial courtship dance in the sky to impress each other.
 - a. This involves the couple to lock on to each other's talons and twist and tumble in the air.
 - b. Just before reaching the ground, they let go at the last second!
 - b. Bald eagles are known for their master nest building.
 - a. A pair will make their nest in a high sturdy street, or occasionally on the ground if there are no trees available.

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- b. The pair comes back to their same nest every year, adding more branches, feathers, moss, grass, and twigs to their original nest until it is massive.
 - 1. Sometimes, their nests become so large that the sheer weight of them breaks the supporting branches and the nest comes crashing out of the tree.
 - a. The largest nest that has been found was 9 feet across, 20 feet deep, and weighed more than 2 tons.
- c. Once the nest is to the pair's liking, the female lays 1-3 eggs, which are laid several days apart.
 - 1. Both parents take turns incubating the eggs night and day until they hatch.
 - a. The first eaglet to hatch has an advantage over their younger siblings due to extra days of growth.
 - i. The biggest sibling is usually the eaglet that fights for the most food and have even been known to kill its smaller, younger siblings.
 - ii. This is unfortunate, but is actually a survival strategy for bald eagles.
 - 1. This strategy ensures that at least one of the offspring is a strong individual and that it will be more likely to survive until adulthood.
 - 2. Both parents care for the eaglets, where the mother does most of the babysitting and the father provides food for the family.
 - a. Life is very hard for young eagles and many do not survive their first year of life.

Threats in the Wild and Conservation:

- 5. The only natural enemies of the bald eagle are wolves and bears.
 - a. So, when their population drops, it means that humans have done something to cause that.
 - a. In the late 1800s, bald eagle populations started declining due to them being killed for sport.
 - b. In the mid-1900s, farmers started using pesticides on their crop to help protect them from insects, not realizing that run-off from the pesticides was getting into the water, thus poisoning the eagles that ate the fish from those bodies of water.
 - c. In 1982, President Reagan proclaimed the year as Bicentennial Year of the American Bald Eagle and noted June 20 as National Bald Eagle Day.
 - 1. By the time of this proclamation, bald eagles had made their way onto the endangered species list in 43 states.
 - a. The use of pesticides is now better regulated and bald eagles have made a dramatic comeback in some states.

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- i. However, this is a good lesson on how interconnect wildlife is.
- d. Bald eagles are still threatened in most of the U.S and southern Canada, but they are abundant in their northern range, especially in Alaska.
 1. A great way to help eagles and other birds is to recycle paper to insure trees for them to nest in.
 - a. By supporting San Diego Zoo Global Wildlife Conservancy, you can help bring back birds of prey from the brink of extinction.

Our Individual:

6. Usona was brought into a rehab facility after being hit by are car.
 - a. She suffered an acute traumatic fracture to her left radius and ulna.
 - a. It was not healing well, so the decision was made to amputate her left wing just distal to the elbow.
 1. This unfortunately made her non-releasable and she was relocated to us.
 - b. Her name is actually an acronym for United States of North America.
7. Fun facts:
 - a. When a bald eagle loses a feather on one wing, it will pluck the matching feather on the other wing in order to keep themselves balanced.
 - b. The grip strength of a bald eagle is 10 times that of a human.



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Facts about Our Individuals:

Mexican Grey Wolves:

Name	Gender	Defining Features
Amigo	Male	Alpha male (Rogue's mate)
Rogue	Female	Alpha female (Amigo's mate)
Thunder	Male	Offspring
Thor	Male	Offspring
Cynthia	Female	Offspring

Prairie Dogs:

Name	Gender	Defining Features
Varies	Varies	Varies

Bald Eagle:

Name	Gender	Defining Features
Usona	Female	Only one on exhibit.



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Resources:

Raptor feet:

http://projectbeak.org/adaptations/feet_catching.htm

Mexican Grey Wolf:

<https://www.endangeredwolfcenter.org/take-a-tour/coexisting-with-large-predators/>

<https://defenders.org/wildlife/mexican-gray-wolf>

Black-Tailed Prairie Dog:

<https://nationalzoo.si.edu/animals/black-tailed-prairie-dog>

<https://statesymbolsusa.org/symbol-official-item/national-us/uncategorized/states-size>

<https://www.worldwildlife.org/stories/8-surprising-prairie-dog-facts>

Bald Eagle

<https://animals.sandiegozoo.org/animals/bald-eagle>