

# Amazonia Interp Binder



## Table of Contents:

Interpretive Cart Guidelines.....	Page 3
Biofacts Interpretation and Talking Points.....	Page 4
<u>Animal Talking Points:</u>	
Multitude of Monkeys.....	Page 5
Bats.....	Page 14
Prehensile Tailed Porcupine.....	Page 16
Capybara.....	Page 18
Baird's Tapir.....	Page 20
Screaming Armadillo.....	Page 22
Amazonian Birds.....	Page 24
Cuvier Dwarf Caiman.....	Page 31
Jaguar.....	Page 33

# Amazonia Interp Binder

## Conservation Highlights

Poaching in the Amazon Rainforest.....	Page 36
Facts About Our Individuals.....	Page 37
Animal ID Photos.....	Page 39
Resources.....	Page 41

# Amazonia Interp Binder

## Amazonia Interp Station Guidelines:

### When staffing the Amazonia 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 in this binder).
2. Bring chairs (optional, are located in the CEF building) and the box down with you to the Research Station.
3. Place tablecloth on the table.
4. Group and place the Biofacts and laminated info sheets based on species.
- 5. KEEP AN EYE ON BIOFACTS AT ALL TIMES.**
6. An adult must accompany small children at all times.
7. Follow the talking point outline in the binder.
8. If you have to leave, put everything away in the box and take it back to DC. Do not leave anything unattended.
- 9. Reminder: Zooteens must always travel in pairs, unless stated otherwise!**
10. **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)
11. Record each topic discussed during your shift in the binder.
12. Return biofacts and binder to the docent area where they were found.

# Amazonia Interp Binder

## Biofacts for Amazonia Interpretation:

Biofacts:	
Biofact:	Use:
Prehensile Tailed Porcupine Quills	Use as visual when talking about these animals.
Caiman Boots and Purse	Use to talk about illegal trade.
Jaguar Pelt	Use to talk about camouflage.
Jaguar Skull	Use to compare Caiman, Squirrel Monkey, Capybara, and Jaguar skulls.
Squirrel Monkey Skull	Use to compare to Caiman, Squirrel Monkey, Capybara, and Jaguar skulls.
Capybara Skull	Use to compare to Caiman, Squirrel Monkey, Capybara, and Jaguar skulls.
Caiman Skull	Use to compare to Caiman, Capybara, Squirrel Monkey and Jaguar skulls.

## Biofacts Talking Points:

### 1. Skull comparisons:

~Jaguar has teeth dentition for carnivore. Their teeth and jaw are so strong they can chomp through turtle shells. Their eyes are also at the front of their heads because they are predators.

~Squirrel monkeys have omnivore teeth dentition and eyes in front of their heads.

~Capybaras have long sharp teeth as herbivores to cut and rip tall grasses. Their teeth also never stop growing because they are rodents. Their eyes are on the side of their heads because they are prey.

~Caiman teeth are carnivore type dentition and some teeth can even be seen when their mouths are closed.

### 2. Jaguar camouflage:

The jaguar has tawny fur that is covered in black rosettes that encircle smaller spots.

The rosettes are more fragmented than those of leopards.

# Amazonia Interp Binder

## Animal Talking Points:

### Multitude of Monkeys:

New World monkeys are native to Central and South America, whereas old world monkeys are native to Africa and Asia.

Many monkey species serve an ecological role of seed dispersers by dispersing the seeds of fruit they eat throughout the forest.

### Howler Monkeys:

#### Habitat:

1. Black howler monkeys are native to northern Argentina, eastern Bolivia, Paraguay, and southern Brazil.
2. They live in broadleaf, arid deciduous, and primary forests.
  - a. In the areas that they occupy, they make up the largest percentage of primates that live in those areas.

#### Physical Characteristics:

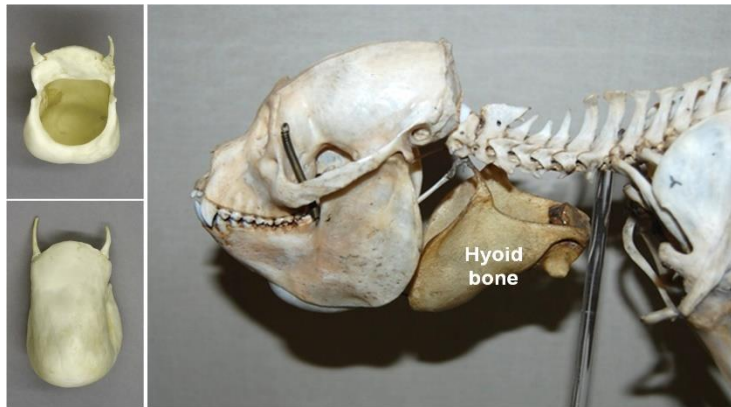
1. Black howler monkeys are sexually dimorphic in color, meaning that males and females have different colored coats.
  - a. Males have a black coat, where females have a blonde coat.
2. Howlers are also sexually dimorphic in size
  - a. males are much larger than females.
3. Black howler monkeys (like most new world monkeys) have prehensile tails.
  - a. This means that their tail can be used for grasping branches while they are moving through the trees.
  - b. The tail of the black howler is also hairless on the bottom side, to make it easier for the tail to grip things.
4. Howler's have a very large hyoid bone (Adam's apple) that allows them to make their loud characteristic calls.

# Amazonia Interp Binder

- a. This bone is so large that it actually restricts their arm movement; this means that howlers rely extra heavily on their prehensile tails for locomoting effectively through the trees.
- b. Howlers also have a five-toed grasping foot.

## **Communication:**

- 1. The “howl” of the howler monkey is a low and guttural sound.
  - a. It is also one of the loudest calls that is produced by any land animal.
    - i. A howler's call can be heard from about 3 miles away under certain conditions.
  - b. Howlers produce the call by drawing air through a cavity in that enlarged hyoid bone.



## **Diet:**

- 1. A large part of howler's diets is made up of leaves from trees and vines, tropical forest fruits, and flowers.
  - a. Here at Mesker, our howlers eat leafeater biscuits (a specially designed biscuit that includes all of the nutrients they would usually get from eating leaves), browse, spinach, romaine lettuce, kale, other greens, broccoli, grapes, bananas, apples, melons, carrots, sweet potatoes, and green beans.

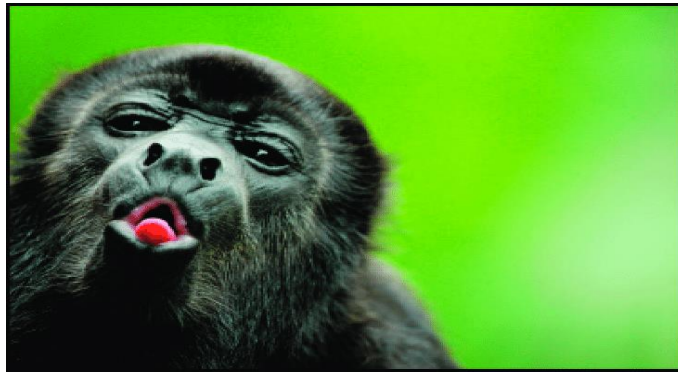
## **Social Structure:**

- 1. Each morning, male members of the troop awake at dawn to give a “chorus” that is answered by other males.
  - a. Howlers do not have exclusive territories, meaning that they share their home range with many other troops of howler monkeys.
  - b. Howlers call in the morning and when they are moving locations.
    - i. This helps them communicate to other troops what their location is and that they are effectively claiming certain feeding trees in their home range at that time.

# Amazonia Interp Binder

## **Reproduction and Development:**

1. Howler monkeys reach sexual maturity at around 18 months of age.
  - a. Tongue flicking is how howlers display for sexual solicitation.
    - i. Their tongues are very visible, being bright pink with black bordering.
2. Both sexes are blonde when they are born.
  - a. Males turn black when they are about 2.5 years old.
3. Females usually only give birth every two years.
  - a. They give birth to one baby after 180 days of gestation.



## **Lifespan:**

1. Howler monkeys can live 15 to 20 years in the wild.
2. In human care they often reach 20 years old.

## **Threats in the wild:**

1. These monkeys are hunted for their meat and are often used as bait in traps with the intention of catching larger carnivores.
2. Habitat loss due to agricultural development is also a threat to howler monkeys in the wild.

# Amazonia Interp Binder

## Squirrel Monkeys:

### Habitat:

1. Squirrel monkeys are found in northeastern Brazil to northern Peru and Columbia to east of the Andes.
  - a. They live in cultivated areas, secondary forests, and primary forests, usually along streams and rivers.
    - i. Squirrel monkeys mainly travel and forage in the understory and lower canopy of the forest, but can be found in all levels.

### Physical Characteristics:

1. Squirrel monkeys are among the smallest of the primate group.
  - a. They have an average body length of 12.5 inches and an average tail length of about 16 inches.
2. Unlike many new world monkey species, squirrel monkeys do not have prehensile tails.
  - a. Due to this, squirrel monkeys depend on precise and powerful hands to locomote through the trees.
    - i. Their tail merely just helps them keep their balance.
3. Because their thighs are shorter, relative to the length of their lower legs, these monkeys have very powerful jumps.
  - a. Fun fact: Squirrel monkeys can jump up to 2 meters, horizontally.
4. Squirrel monkeys have soft, thick, short, brightly colored fur.
  - a. The skin around the nostrils is almost completely hairless and black.
  - b. The tail is bicolored with a black tip.
5. Fun fact: Squirrel monkeys have the largest brain to body mass ratio of ALL primates.

### Diet:

1. Squirrel monkeys are omnivorous, which means that they eat plant items, as well as other animals and their byproducts.
  - a. In the wild, they eat leaves, fruits, flowers, eggs, insects, and even small vertebrates if they can find them.
  - b. Here at the zoo, they eat specially formulated biscuits for new world monkeys, fruits, veggies, greens, eggs, mealworms, and crickets.
2. Squirrel monkeys spend 75-80 percent of their day foraging for these items.



# Amazonia Interp Binder

## **Behavior:**

1. In the wild, many squirrel monkey species live in groups that range in size from 25 to 500 individuals.
2. Unlike many Saimiri species, males and females are integrated into the group fully.
  - a. A single linear hierarchy is formed by both sexes.
  - b. Males tend to be more dominant than the females.
    - i. Males form coalitions within the troop and are usually aggressive to potential predators and other males.
3. Both males and females are known to leave their natal group when they reach reproductive age.
4. Squirrel monkeys are diurnal, meaning that they are mostly active during the day, sleeping at night.
5. Squirrel monkeys are highly vocal.
  - a. They produce around 25 to 30 unique calls to communicate across their forest habitat.
6. They scent mark their territory with a musky glandular secretion that is distributed through their fur, especially on their tail.
  - a. They also use this scent to leave a trail for other troop members to follow as they move through the trees as a group.

## **Threats in the Wild:**

1. Deforestation is greatly impacting their natural habitat.
  - a. You can help protect these areas and many forest species by making better and more sustainable choices when buying products.
2. Squirrel monkeys are also impacted by the illegal pet trade, due to their small size.
  - b. To help prevent the loss of wild squirrel monkeys, take a stand and advocate against the illegal pet trade.

# Amazonia Interp Binder

## White- Faced Saki Monkeys:

### **Habitat:**

1. White-faced Saki monkeys live in the rainforests of the northeast region of South America.
  - a. This includes Venezuela, Guyana, Suriname, French Guiana, and northern Brazil.
  - i. They tend to spend most of their time in the lower-to-mid canopy of the forest.

### **Physical Characteristics:**

1. Only males have the signature white face, despite their name.
  - a. Males are recognizable by the yellow and white fur covering their face.
  - b. Females are much drabber in color.
    - i. They have short red, brown, or grey fur that covers their body.
2. White-faced monkeys also have a very bushy, non-prehensile, tail- meaning that they cannot use their tail to grab onto branches.
3. They have almost naked throats that they use to scent mark trees.
  - a. The gular gland on their throat secrets oils that they use to do this.
4. They also have characteristically short, flat noses.
5. The thumb and index finger on their hands is widely separated, giving them the ability to climb up trunks and thick branches with ease.
  - a. They also have thick pads on the tips of their long, skinny fingers to give them a better grip.
6. Males seem to be a bit larger than females on average.
  - a. Males usually weigh between 4 and 5.2 pounds.
  - b. Female weights range from 3 to 4.1 pounds.

### **Diet:**

1. About 90 percent of the white-faced saki's diet is made up of seeds and fruits.
  - a. They have strong and thick teeth that are made for peeling away at tough fruit and to crush seed shells.
2. Here at the zoo, our saki monkeys get various types of greens, a specially formulated primate biscuit and canned diet, fruits, veggies, and insects.

# Amazonia Interp Binder

## **Behavior:**

1. Saki monkeys are diurnal, meaning that they are active mostly during the day time.
  - a. An “activity budget” study found that white-faced sakis spend about 44 percent of their day resting, 30 percent traveling, and 26 percent foraging.
2. They are also arboreal and spend their entire lives in the trees for the most part.
  - a. They travel by leaping from tree to tree.
    - i. These leaps can sometimes reach up to 33 feet in length.
  - b. Fun fact: White-faced monkeys are often called “flying monkeys” due to their exceptional leaping skills.
3. The average saki group size is around 4 individuals.
4. Mating pairs of white-faced sakis perform duets to establish their territories.
  - a. These duets include trills, chucks, growls, and whistles.
  - b. Adult males also mark their territories with a combination of oil from their gular gland and urine.
    - i. Fun fact: 92% of scent markings are made by adult males.

## **Threats in the wild:**

1. Saki monkeys are of Least Concern status (IUCN 2015).
  - a. Their main treat is hunting and habitat loss.
  - b. Sakis are also, unfortunately, found in the pet trade commonly.

## **Life expectancy:**

1. In the wild, sakis live to be around 15 years old.
2. In captivity, they have lived well into their mid-thirties.

# Amazonia Interp Binder

## Calimico (Goeldi) Monkeys:

### Habitat:

1. This small and rare New World monkey lives in the upper levels of the amazon rainforests of northern Bolivia, western Brazil, eastern Peru, eastern Ecuador, and southern Colombia.
  - a. Most of their time is spent in the dense understory of primary forests.
2. They favor stream edge forests, scrub and swampy areas, treefalls, bamboo forests, and secondary forests in the dry forests (May through July).

### Physical Characteristics:

1. The fur of Callimico monkeys is thick, soft, and silky.
  - a. Their fur is also usually a shade of black, but can range from jet black, silvery brown, dark reddish, or dark brown.
  - b. Adults have a mane that drapes from their necks and over their shoulders.
2. Callimico's have claws on their toes instead of nails.
  - a. Besides their second toe, which is the one they use for grooming and is commonly called the "toilet claw".
3. Callimico monkeys are teeny-tiny!
  - a. They are barely larger than a squirrel.
  - b. Females weigh less than their male counterparts but tend to be taller.

### Diet:

1. Callimicos eat fruits, spiders, scorpions, insects, bird eggs, and even small vertebrates including lizards, toads, and frogs.
  - a. Their favorite food is fungi!
    - i. These fungi are critical to Callimicos dietary sustenance; during the dry season, fungi makes up more than half of their diet.

### Behavior:

1. Callimicos are arboreal and move from tree to tree quadrupedally (on all fours).
  - a. They are excellent leapers and are capable of leaping 20-26 feet from one cluster of branches to another.
2. They spend most of their time foraging in the understory of the forest, which is less than 33 feet from the ground.

# Amazonia Interp Binder

- a. Callimicos have been known to climb higher in trees to forage for certain fruits.
  - b. They are also known to forage on the forest floor, often descending head-first from tree trunks.
- 3. Communication among callimicos includes a wide range of vocalizations.
  - a. Infants use a whistle-like vocalization in order to get the attention of their mothers.
  - b. Adults use shrill notes, song, twitters, screams, chirps, quiet whistles, and an assortment of other high pitched sounds to communicate.
- 4. Callimicos are diurnal and spend their day traveling, foraging, eating, and resting.
  - a. They tend to rest in smaller groupings of one to four monkeys.
  - b. A common pastime, while resting, is social grooming.

## **Lifespan:**

- 1. Callimico monkeys live about ten years in captivity, but have been documented to live into their early twenties.

## **Threats in the wild:**

- 1. Callimicos are classified as Vulnerable by the International Union of Conservation (IUCN) and are on the IUCN Red List of Threatened Species.
  - a. They are not threatened with imminent extinction, but populations of Callimicos are at risk due to cutting down forests for the use of agriculture and logging.
  - b. They are also becoming more valuable in the illegal pet trade due to their rarity.
  - c. They are also hunted by the local people in their area for meat.
- 2. There is a SSP (Species Survival Plan) for Callimicos.
  - a. This is a collaborative conservation effort throughout AZA zoos. It monitors the captive and wild populations of endangered species and sets up cooperative breeding programs, field studies, fundraising, public education, research, and reintroduction efforts.

# Amazonia Interp Binder

## Bats:

### Jamaican Fruit Bats:

#### Habitat:

1. Jamaican fruit bats are a tropical species ranging the Florida Keys, Puerto Rico, and the U.S. Virgin Islands.
  - a. These bats are mostly found in humid tropical forests, but also can be found in drier habitats.
  - b. They also frequent gardens and agricultural areas where fruit and flowers are abundant.
2. Jamaican fruit bats build unusual roost sites by chewing along the veins of a broad leaf, causing it to fold over in a tent-like fashion.
  - a. Tent roosts are used during the day to protect the bats from sun, rain, and predators.

#### Physical Characteristics:

1. Jamaican fruit bats are a species of leaf-nosed bats because they have a leaflike protrusion on their snout.
  - a. The purpose of this nose leaf is unknown, but it is thought to play a role in echolocation.
    - i. Although these bats are capable of echolocation, they rely on their senses of vision and smell to find food.
2. The hair of the Jamaican fruit bat is brown or black and paler on the underparts.
  - a. Pale white markings are present above and below the eyes.
  - b. These bats have a 16 in wingspan.

#### Diet:

1. Jamaican fruit bats mainly eat brightly-colored fragrant fruits like figs.
  - a. They also eat leaves, flowers, pollen, and nectar.
2. These bats pick a piece of fruit and fly it back to their feeding roost rather than consuming it right away.
  - a. The juices are eaten, but the rest of the fruit and the seeds are discarded at the roost location.
    - i. This makes the fruit bats important seed dispersers!

# Amazonia Interp Binder

## **Longevity:**

1. Jamaican fruit bats live up to nine years in the wild.
2. Females usually give birth once or twice a year.

## **Threats in the wild:**

1. These bats have to be aware of predators such as arboreal snakes and mammals, and raptors.
2. They have a stable population in the wild.

## **Pallas' Long-Tongued Bat:**

### **Habitat:**

1. This species can be found in Peru, Bolivia, Paraguay, northern Argentina, southeastern Brazil, Guianas, Mexico, Venezuela, Jamaica, Grenada, and Trinidad.
  - a. Their population is abundant in the north and quite scarce in the south.
2. They are found in rural and urban areas in the north and in forests in the south.
  - a. They can be found in houses, tunnels, and caves.
3. There were once over 2,000 pallas' bats found in a Brazilian abandoned home.

### **Diet:**

1. Pallas' bats are nectarivorous, meaning that they eat nectar.

### **Threats in the wild:**

1. Deforestation is a localized threat for these bats.
2. But throughout their range there are no major threats to their population.

# Amazonia Interp Binder

## Prehensile Tailed Porcupine:

### Habitat:

1. Prehensile Tailed Porcupines live in the South American forests of Venezuela, Guiana, Brazil, Bolivia, Paraguay, Trinidad, and some extreme northern sections of Argentina.
2. These porcupines are arboreal animals, spending majority of their time in trees.
  - a. They are excellent climbers using their prehensile tail to grasp!

### Physical Characteristics:

1. Prehensile Tailed Porcupines have short, thick quills and their body color ranges from yellowish to almost black.
  - a. Their quills are short and barbed, providing this slow moving animal with an impressive defense mechanism.
  - b. Porcupines cannot throw their quills, but the quills detach very easily once touched and they embed themselves in the enemies skin.
2. Their tails are almost as long as their bodies and half of the weight of the tail is composed of muscle.

### Diet:

1. Prehensile Tailed Porcupines are herbivores that eat leaves, flowers, shoots, roots, and the cambium layer found beneath the bark of some trees.
  - a. At the zoo, our porcupine is fed biscuits, root vegetables, nuts and greens.

### Behavior:

1. These porcupines are nocturnal sleeping during the day in the upper canopy of trees.
  - a. They are reported to move to a new tree each night.
2. Prehensile Tailed Porcupines are either solitary or in pairs throughout the time that they are awake.
3. This species does not hesitate to warn an attacking adversary that it means business.
  - a. They will bite and sit on its haunches and shake their quills.



# Amazonia Interp Binder

b. They stomp their hind feet when aggravated and excited and curls up its body to protect its soft belly.

c. They can produce multiple vocalizations such as wails, barks, shrieks, coughs, grunts, whines, and moans.

## **Longevity:**

1. Life expectancy in human care ranges from 15 to 20 years.

a. Although, Opie is 25 years now!

## **Threats in the Wild:**

1. This species is considered “Least Concern” by the IUCN.

a. Although it is a victim of habitat loss and being killed for meat in some areas of its range.

b. They are part of an AZA Species Survival Plan.

## **Fun Facts:**

1. PT porcupines are just one of 12 species of New World porcupines.

2. Porcupines are rodents, meaning that their teeth never stop growing just like their relatives.

# Amazonia Interp Binder

## Capybara:

### Habitat:

1. Capybara live in Central and South America roaming the swampy, grassy regions bordering rivers, ponds, streams, and lakes.
  - a. Capybara like to wallow in shallow water and mud to keep cool during a hot day before wandering out in the evening to graze.

### Physical Characteristics:

1. The capybara is the largest rodent in the world!
  - a. Because they are rodents, they share some common features with porcupines, guinea pigs, rats, and squirrels- just to name a few!
  - b. One of those common features are those long and ever-growing front teeth.
2. They have light brown shaggy hair, a face that resembles a beaver, slightly webbed feet, no tail, and are shaped like a barrel with legs.
3. Capybaras have very dry skin and due to this, they require a swimming hole to stay healthy.
  - a. A capybara can stay underwater for around five minutes to hide from predators.
    - i. They use their webbed feet (four toes on front feet and three on back feet) to swim, as well as walk along the bottom of the body of water.

### Diet:

1. Capybaras use their long sharp teeth to graze on water plants and grasses.
  - a. Adult capybaras are known to eat 6-8 pounds of grass in a single day.
2. Like many other rodents, capybara eat their own feces, which restores beneficial bacteria to their stomach that helps them break down the fibrous things they eat.
3. Capybaras regurgitate their food to chew it again, even though they are not closely related to ruminants (goats, cows, giraffes, etc).
  - a. They chew their food side to side (like a camel), rather than up and down.

### Behavior:

1. Capybaras usually live in groups of about 10 individuals.

# Amazonia Interp Binder

- a. This group usually has one dominant male, one or more females, one or more subordinate males, and offspring.
2. Predators for youngsters can include anacondas, harpy eagles, ocelots, and caimans.
  - a. Adults mostly have to worry about jaguars, but some large anacondas have been known to eat adult capybaras whole.
3. Female capybara gestate for about 5 to 6 months once they become pregnant.
  - a. They will then give birth to about 5-8 pups.
    - i. Young reach maturity at around 15 months old.

## **Longevity:**

1. Capybaras can live up to 10 years in the wild and 12 years in human care.

## **Threats in the Wild:**

1. The capybara is not considered an endangered species, but they are threatened by illegal poaching, habitat destruction, and deforestation.

## **Fun Facts:**

1. 75% of the capybara's diet is made up of only 3-6 plant species.
2. Capybaras are very intelligent and respond well to training.
3. In the 16th century, the catholic church classified capybaras as fish, which meant that they could be eaten during Lent.

# Amazonia Interp Binder

## Baird's Tapir:

### Habitat:

1. Tapirs live in very humid areas throughout Central America, the western side of the Andes Mountains in Columbia, and in Mexico.
  - a. They are found in habitats that are associated with water, such as: flooded grasslands, marshes, mangroves, swamps, and rainforests.

### Physical Characteristics:

1. The Baird's tapir is the largest of all tapir species.
  - a. They can be 5 feet in length and weigh 330-650 pounds.
2. They have a long snout that is used like a snorkel while they are under the water.
3. Their thick skin is reddish brown to dark brown in color, with a lighter chest and throat, and their ears are round in shape with white on the edges.
  - a. Baby tapirs are brown with white stripes and spots which aid in keeping them camouflage from predators.
  - b. Their coloration is often said to make them look like fuzzy brown watermelons.
4. The feet of the tapir are splayed, which helps them move through their muddy habitat.

### Diet:

1. Tapirs are herbivorous and eat understory vegetation, aquatic vegetation, small saplings, twigs, fruits, and leaves.
2. They fill an important role as seed dispersers.

### Behavior:

1. Tapirs are mostly solitary, with the expectation of mothers caring for young.
2. They are also mostly nocturnal, especially in areas where they are hunted, but they have been known to also be active during the day.
3. Tapirs usually breed just before the start of the rainy season.
  - a. Gestation is about 400 days, with one baby born at a time.

# Amazonia Interp Binder

## **Longevity:**

1. Their lifespan is about 19.5 years on average.

## **Threats in the Wild:**

1. In the wild, young tapirs are preyed upon by pumas and jaguars.
2. Other things that threaten tapirs are habitat loss and hunting.
  - a. Because tapirs have such a long gestation period and low birth rate, they have a much harder time recovering when their populations take a hit.

## **Fun Facts:**

1. Tapirs are related to ungulates with odd toes like horses and rhinos.
2. Baird's tapirs are the largest of the three species of tapirs found in the Americas and it is the largest land mammal found from Mexico to the Southern tip of South America.
3. Tapirs are the national animal of Belize and have been nicknamed the "mountain cow".
4. They were named by W. M. Baird, an American naturalist who identified them while on an expedition to Mexico in 1843.

# Amazonia Interp Binder

## Screaming Hairy Armadillo:

### Habitat:

1. Screaming hairy armadillos are found east of the Andes Mountains in the Monte Desert, they inhabit parts of Paraguay, Bolivia, and Argentina.
2. They prefer a dry habitat with loose, sandy soil that allows for easier burrowing, which is an important part of this species survival.
  - a. They have been seen living in open areas like pastures, agricultural areas, savannas, and sand dunes.
  - b. They are found at altitudes up to 3,280 feet.

### Physical Characteristics:

1. Like all armadillos, much of the screaming hairy armadillo's body is covered with thick armor.
  - a. This armor is made of bony plates that are covered in overlapping scutes.
  - b. Some of the band in the carapace are movable, allowing the animal to curl up into a ball if they are threatened.
2. The screaming hairy armadillos have more hair than other armadillos, hence their name.
  - a. Light brown and white hairs cover the limbs and belly and protrude from between scutes.
3. Screaming hairy armadillos are the smallest of the three species of hairy armadillo.
  - a. They average less than 1.9 pounds, and 8.7-15.7 inches long.
  - b. Males are usually larger than females.

### Diet:

1. Screaming hairy armadillos are omnivores and eat insects, plants, and small vertebrates like rodents, birds, lizards, toads, and frogs.
  - a. Insects are the largest part of their diet during the summer months.
  - b. Plant material makes up most of their diet in the winter months.
2. Here at the zoo, they get a special insectivore diet, live insects, fruits, and veggies.

# Amazonia Interp Binder

## **Behavior:**

1. This animal is a solitary species and spends much of their inactive time alone in their burrows.
2. This species usually breeds in the fall and gives birth after a gestation period of 60-75 days.
  - a. Females only give birth to one litter per year, that usually consists of two to three offspring.

## **Longevity:**

1. In human care, they can live 8-9 years.

## **Fun Facts:**

1. Screaming hairy armadillos are known to consume a lot of sand while they are foraging for their food.
  - a. Records find that about 50% of an armadillo's stomach is filled with sand.
2. Armadillos do not need to drink water regularly.
  - a. They have efficient kidneys and the ability to retain moisture from the plants that they consume, meaning that they can go long periods of time without drinking.
3. Like their name suggests, these armadillos emit a loud squealing noise when threatened.
4. Screaming hairy armadillos are nocturnal during the summer, but then shift to being diurnal during the winter when the heat in the desert becomes bearable for them.

# Amazonia Interp Binder

## Amazonian Birds:

### Keel-Billed Toucan:

#### Habitat:

1. Toucans can be found in Central and South America, where they spend their lives high in the rainforest canopy.
  - a. They seldom leave the safety of the canopy to go to the forest floor.
2. They make their homes in hollowed out tree cavities.
  - a. It sounds a bit silly that a bird with such a large beak, prefers to squeeze into such small, enclosed spaces.
  - b. Once they are settled inside of their tree cavity, they turn their heads backwards, place their bill down on its back, and tuck it under one of their wings. They then flip their tail up over its head and *there you have it!* A comfy toucan!



#### Physical Characteristics:

1. The toucan has a bill that is about four times the size of its own head and is almost as long as its body. But why?
  - a. There are a couple of theories:
    - i. Some researchers say that the bright colors and large size might be used to attract potential mates.
    - ii. Others say that it might be useful in scaring away predators or other animals that compete with the toucan for food.
    - iii. Lastly, it's possible that the bill allows the toucan to reach food that is out of reach; such as, fruit located on branches that wouldn't hold the weight of the toucan or to reach grubs that are deep inside of tree cavities.
2. Their famous bill is actually hollow except for a network of bony fibers that run through the top for strength and support.
  - a. It is made of keratin, the same thing that our hair and fingernails are made of!



# Amazonia Interp Binder

3. Toucans are zygodactylous (like woodpeckers and the parrots and macaws they share the forest with), which means that they have two toes pointing forwards and two toes pointing backwards.

a. This type of foot provides stability and strength when moving in and out of tree cavities, up and down tree trunks, and through dense branches.

## **Diet:**

1. Toucans are primarily frugivores, meaning that they eat mainly fruit.

a. They spend their morning visiting fruit trees in their home range before spending the rest of the day making longer trips to search for new fruit trees.

2. They are also known to catch fish, lizards, frogs, and insects.

a. They also steal eggs from other bird species' nests.

3. The toucan's beak is toothed, or serrated, which helps them skin, grasp, or catch whatever it is trying to eat.

4. Here at the zoo, they are fed special pellets designed for softbills, crickets, vegetables, and a variety of fruit.

## **Behavior:**

1. Toucans are very social, noisy, and travel in loosely formed flocks of up to 22 individuals.

2. Toucans are thought to be monogamous, or at least during the breeding season and while raising the offspring.

3. Females lay 1-5 white and shiny eggs deep inside of a tree cavity.

a. The male and female take turns incubating the eggs for 15-18 days, depending on the species of toucan.

## **Longevity:**

1. Toucans can live up to 18 years in human care; lifespan is unknown in the wild.

## **Threats in the wild:**

1. The biggest threat to toucans right now is habitat loss. As forests are cut down for building, farms, and roads, all of the animals that live there are losing their homes.

# Amazonia Interp Binder

## Great Curassow:

### Habitat:

1. Great curassows range from western Ecuador to southern Mexico. They are primarily found in national parks and preserves. Curassows prefer forests areas in lowland mountain regions.

### Physical Characteristics:

1. Curassows are large birds with feathers that curl forward on their head and long tails.
2. The base of their bills is yellow with a round bulge.
3. This is a sexually dimorphic species, meaning that males and females look different.
  - a. Female coloration varies; they can be chestnut-colored or black with white or black bars. (below to the left)
    - i. Their head crests may be striped with white and black.
  - b. Males are a lustrous blue or black and have white bellies. (below to the right)



### Diet:

1. The curassow forages for seeds, berries, and fallen fruits.
2. They are predominately frugivores, but they are known to scratch the ground (much like a chicken) in search of small animals or insects.

# Amazonia Interp Binder

## **Behavior:**

1. Curassows are monogamous and travel in groups or in pairs. Male curassows lead their families and whistle when he detects danger.
2. The group communicates through low-pitched grunting sounds.
3. Females lay two eggs between March and May.

## **Lifespan:**

1. Curassows can live for up to 24 years.

## **Threats in the Wild:**

1. The main threat to curassows is habitat loss and they are now listed as vulnerable on the IUCN Red List.

# Amazonia Interp Binder

## Scarlet Ibis:

### **Habitat:**

1. Scarlet Ibis range from northern South America from Venezuela to Brazil.
  - a. They prefer to live by streams, lakes, swamps, and marshes.

### **Physical Characteristics:**

1. Like their name implies, scarlet ibis have distinct bright red plumage, which can give off orange or pink hues.
2. Males are larger than females and have longer, more curved bills.
3. They have thin, long toes that help them while moving through the water.

### **Diet:**

1. Scarlet ibis use their large bill to locate their aquatic prey- fish, frogs, insects, crabs, and crayfish (which make up most of their diet).

### **Behavior:**

1. Scarlet ibis live in large groups that might include thousands of birds. Gathering in large numbers helps protect them from predators.
2. Males use elaborate flight displays, head rubbing, and preening to attract females.
3. Breeding pairs wrap their necks around one another to cement their courtship.
  - a. The female will lay 3-5 eggs that are incubated for about 20 days.

### **Longevity:**

1. These birds can live up to 32 years.

# Amazonia Interp Binder

## Roseate Spoonbill:

### Habitat:

1. The Roseate Spoonbill can be found in southern Florida, coastal Texas, and southwestern Louisiana where they populate marshy areas.
2. Their breeding range extends south from Florida through the Greater Antilles to Argentina, Uruguay, and Chile.

### Physical Characteristics

1. Just as their name states, roseate spoonbills are bright pink in coloration and have spoon-shaped bills.
  - a. The wings and feathers underneath display the vibrant pink color they are known for, while the back and neck are white.
    - i. The iris of the eye, legs, and wing and tail coverts are a deep red.
2. These birds can reach up to 2.5 feet tall and have a wingspan that can reach 4 feet.

### Diet:

1. The roseate spoonbill uses its spoon-shaped bill to scoop up prey from shallow water.
  - a. They typically eat bits of plants, insects, small crustaceans, and minnows.
  - b. They feed in saltwater and freshwater wetlands in the mornings and evenings.
  - c. The crustaceans that the spoonbills eat are believed to contribute to the vibrant pink color of these birds.
    - d. While they eat, they emit a low guttural sound.
2. Here at the zoo, they are fed flamingo pellets, a specially formulated meat, insects, and fish.

### Behavior:

1. Being social birds, roseate spoonbills often roosts, feeds, and flies in formation with many birds of its species.
2. They nest in pairs or singly, on small islands or in trees over the water.
3. To attract one another, courtship displays include ritualized exchanges of clapping, dancing, and nesting materials. Females build their nests out of sticks that the males bring to them, these nests are usually very deep and constructed well.

# Amazonia Interp Binder

4. The females lay 1-5 eggs.

a. The parents share incubation duties for the 22-24 day incubation period.

## **Lifespan:**

1. Roseate spoonbills can live 10 years in the wild and up to 15 years in human care.

## **Threats in the Wild:**

1. This species was once threatened by over-hunting.

a. Their populations are now recovering and are now listed as “Least Concern” on the IUCN Red List.

## **Fun Facts:**

1. They sleep standing up, with one leg up, and its head tucked under its shoulder and back feathers.

2. When they walk, they swing their heads back and forth.

# Amazonia Interp Binder

## Cuvier Dwarf Caiman:

### **Habitat:**

1. The Cuvier's Dwarf Caiman is widespread throughout the Amazon and Orinoco basins.
  - a. They inhabit parts of Ecuador, Brazil, São Paulo, the Guianas, Venezuela, and Colombia.
2. They prefer fast-moving, clean, and clear streams or rivers in forested areas that have rapids or waterfalls.

### **Physical Characteristics:**

1. Cuvier's Dwarf Caimans are a dark reddish-brown and are heavily armored on their stomach and back, which provides protection from predators.
2. Their short, smooth head has a long-upturned snout.
  - a. Their head also does not have bony ridges between the eyes.
3. The tail of the dwarf caiman has black bands from base to tip.
4. Many of their teeth are visible while the mouth is closed.
5. Cuvier's Dwarf Caimans are the smallest New World crocodilian alive.

### **Diet:**

1. Adults and juveniles have differing diets.
  - a. Juveniles feed on small fish, snails, shrimp, tadpoles, frogs, crabs, and insects.
  - b. Adults feed on a variety of insects, small mammals, snails, tadpoles, frogs, and fish.
2. They swallow their prey in large pieces or whole.

### **Behavior:**

1. When dwarf caiman's are gathered into small groups or pairs, they tend to migrate long distances to lessen competition for resources.
2. They usually spend their days basking in the sun and hunt at night

# Amazonia Interp Binder

3. Females build mounded nests out of solid that is mixed with twigs, grasses, green leaves, and rotten leaves. Inside of the nest is the egg chamber, where the mother lays 10-25 eggs.

## **Lifespan:**

1. These caimans can live up to 30-40 years.

## **Fun Facts:**

1. The temperature of the nest determines the gender of the babies that hatch from it.
2. The scutes of caimans have calcium rivets that make their armor stiffer than that of crocodiles and alligators.
  - a. This also makes it less valuable to humans.
3. Camains can go into a form of summer hibernation called “aestivation” in particularly dry summers.
4. Caimans can swim up to 30 miles per hour.



# Amazonia Interp Binder

## Jaguar:

### Habitat:

1. Today, jaguars are found from northern Argentina to Mexico.
  - a. But in the past, jags have been found as far south as the tip of South America and as far north as Texas, New Mexico, and Arizona.
2. Jaguars prefer deciduous mountain forests, swamp grasslands, lowland forests, and dense tropical forests.
  - b. They are only found near sources of water.
    - i. Jaguars love the water and are good swimmers, unlike most other big cats.
3. Jaguars mostly hunt on the ground, but can climb up into the trees and pounce from above.
4. They mark their territory with urine and tree scrapes.

### Physical Characteristics:

1. Jaguars are the third largest “big cat” after tigers and lions.
  - a. They have broad heads, short legs, and a stocky build.
2. The jaguar has tawny fur that is covered in black rosettes that encircle smaller spots.
  - a. The rosettes are more fragmented than those of leopards.



- b. These markings provide great camouflage for jaguars.
  - c. Melanistic jaguars are common and their spot pattern is still visible through their dark coloration.

# Amazonia Interp Binder



4. The ends of jaguar's tails are striped.

5. Male jaguars are larger than females, weighing in at 125-320 pounds. Females weigh 75-220 pounds.

## **Diet:**

1. Jaguars will eat almost anything that they can catch.
  - a. Such as, reptiles, mammals, fish, birds, deer, cattle, tapir, and peccaries.
2. When jags catch large prey, they are known to cover the carcass with debris so that they can come back and finish it later.

## **Behavior:**

1. Jaguars are solitary, mostly nocturnal, and elusive.
  - a. They are known to travel by daylight, but are mostly active at night.
2. Jaguars are the only cat species that is known for killing its prey by crushing its skull.
  - a. They have the most powerful jaws of all of the "big cats".
  - b. They are even capable of biting through the shells of turtles.

# Amazonia Interp Binder

3. The night vision of jaguars is six times more powerful than humans.
  4. Gestation lasts 91-110 days, then females can give birth to 2-4 cubs.
- a. Unlike many other feline species, males sometimes stay to help raise their cubs.

## **Longevity:**

1. Jaguars live an average of 17 years.

## **Threats in the Wild:**

1. Humans are the only threat to Jaguars because they are apex predators in their range.
  - a. The main causes for their population's decline is the fur trade, human encroachment, habitat loss, and habitat fragmentation.
2. Hunting jaguars is illegal in most of their range, but it is unfortunately still legal in Peru, Mexico, Guatemala, Costa Rica, and Brazil where jaguars prey on domestic animals.
  - a. Trophy hunting these animals is also legal in Bolivia.

## **Fun Facts:**

1. The word "jaguar" comes from the Guarani Indian word, "yaguara", which means "The beast that kills with one leap".

# Amazonia Interp Binder

## Conservation Highlights:

### Poaching in the Amazon Rainforest:

1. In the Brazilian Amazon, wild species are trapped in the forest by indigenous people
  - a. Often encouraged by traffickers to hunt endangered species and to sell them their skins and other products
  - b. Gold prospectors, peasants, farmers and cowboys are some examples that complement their income through this illegal activity.
2. Birds, reptiles, and mammals are all sought out in the Amazon.
  - a. Birds in the Amazon are prime targets for traffickers.
    - i. Some are sold live, while others are killed to supply feathers, skins and other body-parts. Eggs are also traded.
    - ii. Some of the most traded birds include the passerines, blue-throated macaw and blue hyacinth macaw, prized for its brilliant blue coloring, large size, intelligence and rarity.
  - b. Reptiles are highly valued for their skins.
    - i. Crocodile, snakes and lizard skins are used for shoes, handbags, clothes, suitcases, belts, etc.
    - ii. Live reptiles are also popular pets. In the past ten years, the world demand for reptiles by pet shops, educational and scientific institutions, zoos, aquaria, as well as for food, has dramatically increased.
  - c. Of all mammal species from the Americas that are traded, 95% are found in Brazil.
    - i. It is one of the major suppliers of primates along with the Guianas and Peru.
3. How can you help?
  - a. Make sure you always know where your pets come from! Are the pets in the pet store breed in captivity or are they live caught?
  - b. Only buy faux reptile skin products.

# Amazonia Interp Binder

## Facts about Our Individuals:

### Multitude of Monkeys:

Species	Name	Gender	Defining Features
Howler Monkey	Craeton	Male	Black.
Howler Monkey	Pickles	Female	Goldish Blonde.
Squirrel Monkey	Penelope	Female	
Squirrel Monkey	Roxie	Female	
Squirrel Monkey		Male	
Squirrel Monkey		Male	
Saki Monkey	Harvey	Male	
Saki Monkey	Isabelle	Female	Has a lot of hair loss.
Calimico Monkey (Goeldi)	Pipoca	Male	
Calimico Monkey (Goeldi)	Picchu	Female	

### PT Porcupine:

Name	Gender	Defining Features
Opie	Female	Only one on exhibit.

### Capybara:

Name	Gender	Defining Features
Billie	Female	Only one on exhibit.

### Baird's Tapir:

Name	Gender	Defining Features
Huey	Male	Only one on exhibit.

### Screaming Hairy Armadillo:

Name	Gender	Defining Features
Sherman	Male	Only one on exhibit.

### Amazonian Birds:

Species	Name	Gender	Defining Features
Keel-Billed Toucan	Lupe	Female	Only toucan on exhibit.
Curassow	Ozzie	Male	Only curassow on exhibit.

# Amazonia Interp Binder

## Cuvier Dwarf Caiman:

Name	Gender	Defining Features
Raz'r	Male	Only one on exhibit.

## Jaguars:

Name	Gender	Defining Features
Cuxtal	Male	Has no tongue (also, see photo ID)
Beliza	Female	Has tongue (also, see photo ID)



# Amazonia Interp Binder

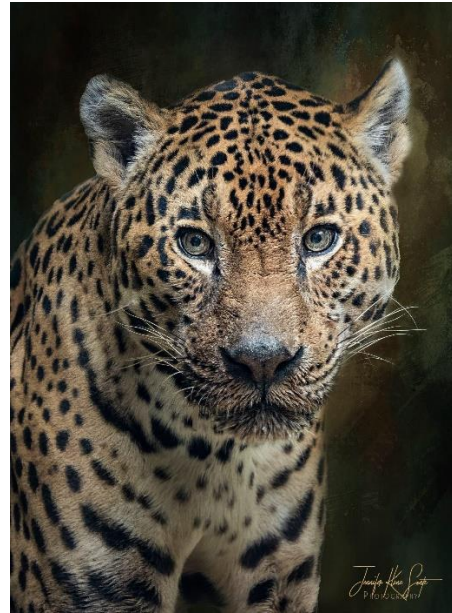
## Animal ID Photos:

### Jaguars:

Beliza



Cuxtal



### Tapir (Huey):



### Capybara (Billie):



# Amazonia Interp Binder

Caiman (Raz'r):



PT Porcupine (Opie):



Howler Monkeys (Pickles and Craeton):



Toucan (Lupe):





# Amazonia Interp Binder

## Resources:

Howler monkey:

<https://nationalzoo.si.edu/animals/black-howler-monkey>

Squirrel Monkey:

<https://reidparkzoo.org/animals/squirrel-monkey/#>

<https://www.oaklandzoo.org/animals/squirrel-monkey>

Saki Monkeys:

<https://www.neprimateconservancy.org/white-faced-saki.html>

Callimico (Goeldi's) Monkeys:

<https://www.neprimateconservancy.org/goeldis-monkey.html>

Jamaican Fruit Bats:

<https://www.nwf.org/Educational-Resources/Wildlife-Guide/Mammals/Bats/Jamaican-Fruit-Eating-Bat>

Pallas' Long-Tongued Bats:

<https://www.nationalgeographic.org/projects/photo-ark/animal/glossophaga-soricina/>

PT Porcupine:

<https://nationalzoo.si.edu/animals/prehensile-tailed-porcupine>

<https://www.peoriazoo.org/animal-groups/mammals/prehensile-tailed-porcupine/>

Capybara:

<https://animals.sandiegozoo.org/animals/capybara>

Baird's Tapir:

<https://www.zoonewengland.org/franklin-park-zoo/our-animals/mammals/hoofed/bairds-tapir/>

Screaming Hairy Armadillo:

<https://nationalzoo.si.edu/animals/screaming-hairy-armadillo>

Keel-Billed Toucan:

<https://animals.sandiegozoo.org/animals/toucan>

Great Curassow:

<https://www.oaklandzoo.org/animals/great-curassow>

Scarlet Ibis:

<https://www.lpzoo.org/animal/scarlet-ibis/>

<https://detroitzoo.org/animals/zoo-animals/scarlet-ibis/>

Roseate Spoonbill:

<https://nationalzoo.si.edu/animals/roseate-spoonbill>

Cuvier's Dwarf Caiman:

<https://dwazoo.com/animal/cuvers-dwarf-caiman/>

<https://www.brightszoo.com/index.php/169-animals/reptiles/caiman/330-cuvier-s-dwarf-caiman>

Jaguar:

<https://www.zoonewengland.org/stone-zoo/our-animals/mammals/big-cat/jaguar/>

Conservation Highlights:

[https://wwf.panda.org/discover/knowledge\\_hub/where\\_we\\_work/amazon/amazon\\_threats/other\\_threats/illegal\\_wildlife\\_trade\\_amazon/?](https://wwf.panda.org/discover/knowledge_hub/where_we_work/amazon/amazon_threats/other_threats/illegal_wildlife_trade_amazon/?)