

# WELCOME TO THE BINGHAMTON ZOO!

Dear Visitor:

We are pleased that you have chosen to bring your group to the Binghamton Zoo at Ross Park. We are hopeful that this reflects your confidence in the Zoo's potential as an educational and fun experience for you and organization.

This packet of educational materials and information is intended to help enhance the enjoyment and educational value of your trip to the Zoo. We have included general information, guidelines, instructions and fun facts on some of the animals. These are designed to make your Zoo visit safe, organized and fun.

By learning to understand animals and their lives, children become more aware of the important relationships between animals, man and the natural environment.

We appreciate your interest in the Binghamton Zoo and hope that your experience here will make you eager to return to the Zoo again! Remember, the Zoo is constantly changing and there are always new things to see and do. Enjoy your visit!

Sincerely,  
Binghamton Zoo Education Department

## **Guidelines for All Groups Touring The Binghamton Zoo**

1. Chaperones: When planning a visit to the Zoo, please arrange to have at least one adult chaperone for every ten children.
2. Name tags: Each child should have a name tag with the name of the school/group as well as the name of the child, so they can be easily identified if separated from the group. Easily visible name tags, in a distinctive shape allow leaders to keep track of their own groups, particularly when the Zoo is more crowded.
3. Restrooms: The restrooms are located outside the Zoo entrance by the playground and in the Education Center. In the Upper Zoo, the restrooms are located by the Administrative Office near the Snack Shack.
4. Picnic: If the picnic pavilion has not already been reserved by another group, it is open to the public on a first-come, first-serve basis. It seats up to 300 people. For weekend events, we advise large groups to call ahead for reserving the pavilion @ 724-5461 x 222.

## **Zoo Rules**

To ensure a safe, organized and enjoyable visit, we have compiled a list of rules. We are pleased that you have chosen to visit our facility, and ask that you prepare by reviewing the following rules with your group before arriving at the Zoo.

1. DO NOT feed the animals! They are fed special diets by the Zoo staff to ensure their best possible health and well being.
2. DO NOT tease or throw things at the animals.
3. No shouting, screaming or other unreasonable noise can be tolerated at the Zoo. Even the normal sounds of large groups of visitors can be stressful to the animals. By being quiet, you are often able to get a closer look at the animals, and you will have a more enjoyable visit.
4. DO NOT climb on the fences or walls. DO NOT bang on any glass or other enclosures. Please stay on the paved walkways. Fences were constructed for your safety.
5. DO NOT run in the Zoo. Please remain with your group at all times. If you run, you may cause injury to yourself or another person.
6. In certain areas of the Zoo there are yellow lines on the ground please DO NOT cross the yellow lines, they are there for safety reasons.
7. Please do not litter. Garbage containers may be found throughout the Zoo for your convenience. Help us recycle by placing recyclables in the proper yellow containers located throughout the Zoo.

Please remember: While at the Zoo, we are guests visiting the animals in THEIR home. Treat them with respect! Have Fun!

# Binghamton Zoo Collection List

The following animals are currently on exhibit at the Binghamton Zoo. However, as the Zoo grows and changes, so does the animal collection. Animals may be acquired, traded to other zoos, or off exhibit for any number of reasons. If you have a particular interest in any of the animals listed, you can call the office to find out their status. The Zoo also has an Adopt-an-Animal program for individuals or groups wishing to contribute directly to the care of a particular animal. If you would like natural history information on any of the animals listed below, fact sheets are available on the website.

## **Birds**

Bald Eagle

Black-billed Magpie

Black-Footed Penguin

Black-Necked Stilt

Black Vulture

Blue Grey Tanager

Burrowing Owl

Great Horned Owl

Green Imperial Pigeon

Indian Runner Duck

Melodious Laughing Thrush

Ringed Teal Duck

Roadrunner

Sacred Ibis

Sandhill Crane

Scarlet Ibis

Turkey Vulture

Violaceous Touracos

White Throated-Laughing  
Thrush

Yellow-Billed Cardinal

## **Mammals**

Amur Leopard

Amur Tiger

Bennett's Wallaby

Binturong

Black and White Ruffed Lemur

Coatimundi

Emperor Tamarin

Golden Lion Tamarin

Mouflon

Nigerian Dwarf Goat

North American River Otter

Reindeer

Spectacled Bear

Timber Wolf

Two-toed Sloth

## **Reptiles**

American Alligator

Ball Python

Desert Tortoise

Plated Lizard

Sulcata Tortoise

# Fun Facts and Curious Questions!!

Here are some fun facts about the animals at the Binghamton Zoo. You can also test your group's knowledge by asking the questions we've included. You may be surprised at some of the answers. Above all, have a great time during your visit to the Zoo!

## LOWER ZOO

### **African Spurred Tortoise or Sulcata Tortoise – Otis (M) and Penelope (F)**

-Also known as the African Spurred Tortoise, it is the largest of the African mainland tortoises; occurs along the southern edge of the Sahara, from Senegal and Mauritania through Mali, Niger, Chad, the Sudan, Ethiopia, along the Red Sea in Eritrea.

-They are most active at dusk or dawn and generally bask in the morning to raise their body temperature after the chill of the night.

-Some African cultures regard the Sulcata as a mediator between men and the gods. As a result, the tortoise is often kept in villages to intercede between the Head of the village and the Ancestors. In Dogon countries today, the tortoise is kept with the village leader at all times to allow him to communicate with the village ancestors.

### **Binturong – Abby (F)**

-Another common name for a binturong is the 'Bear Cat' and they are found throughout the rainforests of Asia.

-The binturong has scent glands which are located in such a position that as the animal moves through the trees, the gland drags on branches, leaving a trail of scent behind—which is said to be similar to that of popcorn.

-Binturongs are able to walk head first down a tree, using their long tails as a hook to hold on. The tail is as long as its body (2-3 feet) and is immensely strong with a small leathery patch at the end for extra grip.

### **American Bison- Sam (F) and Dory (F)**

- Males can get as large at the shoulder and weigh up to 3,000 lbs.

- Today there are well over 200,000 bison in America on both private farms and national parks. The only original wild herd is in Yellowstone National Park and numbers around 4,000 animals. Before settlers came to North America, there were an estimated 50 to 60 million roaming the prairies and grasslands.

### **Black and White Ruffed Lemur – Zeus (M, has an eye that looks cloudy) and Lucy (F)**

-Lemurs are only native to one country. Do you know which country it is? They live in the rainforests of Madagascar, which is an island nation off the coast of Africa. All species of lemur are endangered due to habitat destruction.

-Lemurs are very vocal animals, and have many calls with many different meanings. They can even understand the calls of different species of lemur, and will often respond to them.

### **Golden Lion Tamarin – Tanner (M), Drew (F), Bender (M, tip of tail is bent), Ludwig (M), Penny (F), Butterscotch**

-Golden lion tamarins live in nuclear family groups (parents and young), not in large troupes. They mate for life.

-There are only about 450 Golden lion tamarins left in the wild, and they live only in a small area of rainforest in Brazil. Habitat destruction is the primary cause of their endangerment.

### **Two-toed Sloth – Patience (F)**

-Sloths spend most of their time hanging in trees. They are very slow and vulnerable on the ground. Their claws are so long that they can't walk on their feet, but instead must "walk" on their elbows and knees.

-Sloths only come to the ground to defecate or to move to another tree. In the wild, they will only urinate when it is raining, to help mask the scent.

-How can such a slow moving animal protect itself? Their main defense is camouflage. When curled up in a tree, a sloth looks like a termite nest. Sometimes a certain type of algae will grow on their fur, giving them a greenish tinge for even better camouflage. When cornered, they will not hesitate to use their long claws for defense.

### **Coatimundi – Tristan (M)**

-Coatimundis are native to South and Central America, and into Mexico, Texas, Arizona, and New Mexico. Their range is currently expanding northward.

-Coatimundis are often referred to as "Coatis" for short. When scientists first classified Coatis, they thought there were two different species - solitary and social. The social animals, which lived in large groups, were called "coatis" while the solitary animals were called "coatimundi" which is a native South American word meaning "lone coati." It turned out that they were all the same species - the females and young live in groups, while the mature males go off on their own.

-What local animal are Coatis related to? The raccoon, of course! Check out the mask on the face and the ringed tail. They are also omnivores like raccoons, and will often get into garbage cans. Even though they do have a long, somewhat pointed snout, coatis are not related to anteaters.

## **COGNITIVE CROW EXHIBIT**

Why study crows? They are the most intelligent bird. They can talk, problem solve, and tool users. What are the differences between Ravens and Crows? The size difference, which is huge, is only useful with something else around to compare them with. Ravens are as big as Red-tailed Hawks, and crows are, well, crow sized. The wedge-shaped tail of the raven is a good character, if you can see it well. Crows sometimes show an apparent wedge shape to the tail, but almost never when it is fanned as the bird soars or banks (except for a brief time during molt in the summer). Ravens soar more than crows. If you see a "crow" soaring for more than a few seconds, check it a second time. Crows never do the somersault in flight that Common Ravens often do. Ravens are longer necked in flight than crows. The larger bill of the raven can be seen in flight, but it is actually less apparent than the long neck. Raven wings are shaped differently than are crow wings, with longer primaries ("fingers") with more slotting between them. As my neighbor said, "Ravens are the ones whose wings you can see through." The longer primaries make the wings look more bent at the wrist than a crow as the bird flies, and the "hand" portion can look nearly pointed.

## **WOLF WOODS**

### **Gray Timber Wolf – Beo (M), Remus (M), Shera (F, smaller)**

-Timber wolves are also known as the gray wolf (*Canis lupus*).

-Gray wolves were once one of the widest-ranging mammals in the world. Their geographic range once included almost the entire Northern Hemisphere, with the exception of coastal California and the arid Southwest. Now they are restricted to Canada, and a few places in Northern United States, such as Michigan, Wisconsin, and Minnesota. .

-Why do wolves howl? Some say that howling may strengthen or reaffirm the social bonds between pack mates. It does help to keep pack mates together physically, as the pack may range over vast areas while hunting. The howl's low pitch and long duration allow it to be heard over long distances. Wolves also bark, woof, whine, whimper, snarl and moan.

## AVIARY

**Black Vulture – Salem (M, has a black head)**

**Turkey Vulture – Slim and Butterball (have red heads)**

-Why do vultures have bald heads? The lack of feathers on vultures' heads actually helps to keep them clean and free of disease. Feathers would merely get carrion stuck to them, and could spread disease.

-Turkey Vultures are one of the few birds that actually have a sense of smell, which they use to help them locate food. Black vultures do not have a sense of smell, and must locate their food by sight.

-Turkey vultures range all over North and South America, except for northern Canada. The black vulture occurs in the southeastern United States and into Mexico and South America.

**Great Horned Owl – Scaredy (M)**

-Being nocturnal hunters, Great Horned Owls need to have very large eyes. They are bigger than a person's and are 35 times more sensitive. Having such large eyes there is no room for eye muscle, but the great horned owls compensate the inability to move their eyes by being able to turn their heads approximately 270°.

-Great Horned Owls catch a greater range of prey than any other bird in America. Their diet even includes skunks, which they are able to hunt because these owls have no sense of smell.

-What is the most common way that birds of prey are injured? Believe it or not, birds of prey are most often injured by cars. Litter on the sides of the road attracts rodents and other small animals that these birds feed on. As the bird is diving to catch its prey, it is very susceptible to getting hit by a car.

**Sandhill Crane – Lucy (F, more red on head) and Desi (M, silver band on leg)**

-Adults go through long term bonding and will go through elaborate courtship displays, including head bobbing, bowing, and leaping.

-Sandhill cranes breed in cold climates from Alaska east to central Canada and south to northern California, Colorado, South Dakota, and Michigan. They migrate to South California, Texas, and south to Mexico.

-Many types of Sandhill cranes, such the Mississippi Sandhill and Cuba Sandhill are endangered due to the destruction of wetlands, but the Florida Sandhill is still protected.

**Bald Eagle – Valdessa (F, largest), Patty (F, silver band on leg), and Grace (F)**

-Valdessa was the first bald eagle rescued from 1989's Exxon Valdez oil spill in Alaska.

Due to muscle and joint damage that affects her ability to fly properly, Valdessa could not be returned to the wild.

-Patty and Grace are from Florida, and were also injured in the wild. The only native birds that can be kept in zoos are those that are non-releasable.

-When they are young, bald eagles have dark brown feathers all over their bodies, including their heads. The head feathers do not turn white until the eagle reaches maturity, at about 3-4 years of age.

**Black-billed Magpie -**

-The black-billed magpie is a resident of the open woodlands, savannas and brush-covered areas of western North America; ranging from Alaska and western Canada southward to east-central California. They're also found in Eurasia.

-Magpies frequently associate with cattle and sheep, perching on their backs and picking off ticks and maggots.

-In captivity a magpie may be trained to imitate the human voice.

-Magpies have been assigned a good-evil dichotomy in eastern vs. western world symbiology. In China magpies are considered the Bird of Joy and good fortune, often being the bearer of good news; where the western world associates magpies with the Devil, dissipation and vanity.

#### **Burrowing Owl – 2 females and 1 male**

-Burrowing owls are native to the grasslands of the North and South America.

-These owls live in underground burrows (usually abandoned by animals such as prairie dogs, woodchucks, or badgers) rather than nesting in trees. Unlike most owls, they generally hunt on the ground, running after their prey and then pouncing.

-How can a Burrowing Owl defend its nest? These little owls are very resourceful! The male will bring the dung of a large mammal, such as a cow or horse, to the entrance of the burrow. This helps fool predators. Also, when threatened, burrowing owls can use their beaks to imitate a rattlesnake rattle. If all else fails, they can defend themselves with their sharp talons.

#### **Roadrunner – Speedy (M)**

-The Roadrunner is found in the deserts of the southwestern United States where it has become uniquely suited to a desert environment. Its carnivorous habits offer it a large supply of very moist food, roadrunners reabsorb water from their feces before excretion and a nasal gland eliminates excess salt, instead of using the urinary tract like most birds.

-While they can fly, Roadrunners prefer walking or running and attain speeds up to 17 mph. This extreme quickness allows it to snatch a hummingbird or a dragonfly from midair.

-Roadrunners are quick enough to catch and eat rattlesnakes. Using its wings like a matador's cape, it snaps up a coiled rattlesnake by the tail, cracks it like a whip and repeatedly slams its head against the ground until dead.

#### **Desert Tortoise – Humphrey (M)**

-These tortoises inhabit the Mojave and Sonoran deserts of southeastern California, southern Nevada south through Arizona into Mexico.

-The Desert Tortoise is able to live where ground temperature may exceed 140° F.

-Approximately 95% of a Desert Tortoise's life is spent in underground burrows.

-Adult tortoises may survive a year or more without access to water.

-Ravens are now one of the Desert turtle's primary predators. Ravens have caused more than 50 percent of juvenile Desert Tortoise deaths in some areas of the Mojave Desert.

## **UPPER ZOO**

#### **Spectacled Bear – Sebastian (M, larger, more yellow on face) and Hannah (F, smaller)**

-Spectacled Bears are the only species of bear from South America, where they live in the Andes Mountains.

-Unlike North American bears, Spectacles bears are not dormant during the winter but are active all year.

-What do Spectacled Bears eat? Their diet is mainly vegetarian, and they feed largely on succulent Bromeliad hearts, palm fronds, fruit, and cacti. They will occasionally eat large animals, such as llamas and guanacos, as well as insects and carrion.

#### **Amur Tiger – Misha (M), KJ (M)**

-Amur tigers, also called Siberian tigers, are the largest living members of the cat family. The name was changed to more accurately reflect their geographic range, which is the Amur River basin in Siberia and China, they also live in northern Korea.

-Amur tigers can weigh up to 750 pounds, reach lengths of 13 feet from nose to tail, and can eat almost 100 pounds of meat in one sitting!

-All tigers are critically endangered due to habitat destruction and the illegal wildlife trade.

### **Amur Leopard – Solnce (M) and Emma (F)**

-Amur Leopards inhabit forests and hilly country sides in Russia, and there are a very small number living in China and North Korea.

-These leopards are good climbers, and can even descend from trees head first.

-The Amur leopard can run at a speed of 37 miles per hour for short periods, and can leap 20 feet horizontally, 10 feet vertically.

-Field survey data estimates that there are fewer than 50 leopards left in the wild, making the Amur leopard one of the world's most endangered cat family. There are approximately 200 Amur leopards in captivity, mostly in zoos in North America and throughout Europe.

### **Mouflon – Macchia (M), Ewe II (F), Sylvia (F), and Dot (F)**

-Mouflon are a type of wild sheep found on Mediterranean islands and in central Europe.

There is also an introduced wild herd on Mauna Loa, Hawaii. They live in mountainous regions and feed mainly on short grasses.

-The lifespan of a Mouflon depends on the population. In a declining or stable population, most sheep live from 10 to 20 years. In an expanding population, their life span averages only 6 or 7 years.

-The males have large, curved horns which they use to exert their dominance over other males.

## **Woodland Waters**

### **Bennett's Wallaby – Poppy (M), Matilda (F), Loris (F) and Joey (F)**

-The Red-Necked Wallaby or Bennett's Wallaby is found in the woodlands and some grasslands of Tasmania, the islands in the Bass Strait, and coastal areas along the southeastern coast of Australia.

-The Red-Necked Wallaby raises their immature baby in a pouch on the mother's belly.

- What is the name for this classification of animal? A marsupial. Marsupials give birth after a short time to a baby that is not yet fully formed. The immature baby crawls into their mother's pouch where they suckle until maturity.

-Their large ears aid in the wallaby's acute hearing, as well as used for heat dispersal. The small front paws are used like hands for feeding, and their hind legs and tail act as a tripod (3 legged support) when sitting.

### **Coral Reef**

-The coral reef display was designed to provide a representation of the diversity of life that inhabits the tropical coral reefs specific to the Indo-Pacific regions including Hawaii, The Great Barrier Reef in Australia, Fiji, and Micronesia.

-There are three of the major types of corals: the hard stony corals, also known as small polyp stony corals that build the reefs through their calcium carbonate skeletal remains, large polyp corals that have much larger fleshy polyps, and soft corals including "leather" corals, xenias, mushroom polyps, and button polyps (zoanthids).

- The display also contains a variety of invertebrates including shrimp, starfish, hermit crabs, snails, worms, and many other "cryptic" organisms, many of which are invisible to the naked eye.

-This display shows many different fish including, tangs, wrasses, gobies, clownfish, and blennies. Since the coral reef is still very new to the zoo we are constantly getting new fish so we don't have a complete list.

### **African Black-footed Penguin – Gnat (M), Izzy (F, white), Violet (F, pink), Tails (F, blue), Sundae (F, blue band on left leg)**

-Our Black-footed Penguins are one of the only Zoo animals that we have to keep inside all winter long! They are native to the southern coast of Africa, and prefer temperatures between 40 and 70 degrees Fahrenheit.

-Due to human impacts, black-footed penguins have suffered a 90% reduction in population size.

-They are extremely fast swimmers, and can leap 2-3 feet out of the water.

-Also nicknamed the "Jackass Penguin" because their vocalization resembles the braying of a donkey.

#### **North American River Otter – Leroy (M) and Elaine (F)**

-North American river otters are carnivorous in nature and generally catch their prey underwater. A pair of River Otters may work together to drive a school of fish into an inlet where they can be caught easily. Large catches are carried to land to be eaten; smaller ones consumed as the otter floats on its back.

-Among the most playful of animals, a lone River Otter often amuses itself by rolling about, sliding, diving, or "body surfing" along on a rapid current. In family groups, the fun only rises as they take turns sliding and frolic together in the water. River Otters even love the snow as they begin by getting a running start and then leaping onto the snow or with its forelegs folded close to its body for streamlined tobogganing.

-North American river otters are at the top of the food chain and therefore have very few predators; however, their thick pelts are valuable and they were almost hunted to extinction in the early 1900's. Their numbers are slowly rising due to a number of conservation efforts, but are numbers still dangerously low.

#### **Plated Lizard – Skink**

-The plated lizard gets its name from the plating of the scales on its back.

-Plated lizards live in underground tunnels in the semi-arid steppes of eastern and southeastern Africa, which they will sometimes share with a snake or a mongoose.

-Generally considered to be shy and non-aggressive, plated lizards rarely bite when threatened.

Their most commonly used escape tactic is to wedge itself into a crevice and "inflate" its body with air, so that it cannot be pried out.

#### **Ball Python – Samson (F)**

-Ball pythons are from western Africa. They are primarily arboreal (live in trees), and live near water.

-Their name comes from its typical defensive posture, which is to wrap itself into a ball, with its head at the center.

-Pythons have the ability to sense heat like a pit viper with heat-sensing organs contained with the small pores lining the upper lip.

-Pythons are constrictors (squeeze their prey) and mainly crepuscular, hunting at dusk and dawn. In the wild their diet is almost entirely made up of small warm-blooded animals; however, for our animals' safety we do not provide any live prey.

#### **Emperor Tamarin – Hana (F), Myrtle (F)**

-Characterized by their large moustache; the name "emperor" is related to this moustache. When emperor tamarins were first discovered at the beginning of the 20<sup>th</sup> century, their long moustaches were believed to resemble the moustache of a German Emperor from the 19<sup>th</sup> century, Emperor Wilhelm II.

-Despite popular beliefs, not all primates possess opposable thumbs. The Emperor Tamarin has non-opposable thumbs and the nails of the digits are claw-like except for the first digit on each toe.

-Emperor Tamarins usually form mixed troops with another kind of monkey, the Saddleback Tamarin. In these troops, the Tamarins help each other by improving their ability to detect

predators. While emperors seem to be better at detecting aerial predators, Saddlebacks are better at looking for terrestrial ones.

## RAINFOREST AVIARY BUILDING

### Rainforest Birds

There are a variety of birds in the Rainforest building, all of which are adapted to specific habitats and lifestyles. It's amazing how much you can tell about a bird by looking at its beak and its feet! See if you can figure out the answers to these questions by looking at the adaptations of the birds in the Rainforest Aviary.

-Which bird is the best swimmer? The Ringed Teal Ducks, with their webbed feet.

-Which birds are adapted for finding food in shallow water or mud? The Scarlet Ibis, Sacred Ibis, and Black-Necked Stilt are all wading birds. You can tell by looking at their long legs, and their long, thin beaks, which they use to probe the mud for insects, seeds, or other food items.

-Which bird gets its color from the food that it eats? The Scarlet Ibis', just like the flamingo, it gets its red or pink color from the shrimp that it eats.

-Which birds spend the most time perched in trees? The two species of thrushes, as well as the yellow-billed cardinals and the blue gray tanagers can usually be found in the trees. They are members of the order Passeriformes, the perching birds and have feet well adapted to perching on tree branches.

#### Fun Facts:

-The Sacred Ibis gets its name because it was considered sacred by the ancient Egyptians. They worshipped them as the god Thoth, the god of learning and the inventor of writing. The birds were often mummified and buried in the tombs of pharaohs, assuring them intelligent guidance through the netherworld

-The Ringed Teal is a member of the Wood Duck family, which is the only family of ducks that can perch in trees. They have long claws on their toes, which allow them to grip branches.

-The White-Throated and Melodious Laughing Thrushes have calls that sound like human laughter.