

PARROTS' PERCH

There are over 300 species of parrots in the world and ALL parrots have several common characteristics:

- A short, rounded beak that acts like a nutcracker
- Zygodactyl foot configuration: two middle toes facing forward and two outside toes facing backward. This helps parrots hold their food and climb tree branches.

The ability to copy or mimic sounds: most parrots have the ability to mimic or copy sounds they hear in their environment, including human speech if they live around people. However, parrots do not understand the sounds they mimic, and some may never mimic a sound in their whole life!

"Benito" our hyacinth macaw:

- Hyacinth macaws are one of the largest parrot species in the world.
- They are found in the palm savannahs of Brazil and eat palm nuts, fruits, and seeds in the wild.
- Like many species of parrots, hyacinth macaws are endangered due to increased pressure from human populations, specifically habitat loss and the illegal pet trade.

"Killer" our green-winged macaw:

- Green-winged macaws are found in tropical rainforests from Panama to Bolivia where they eat nuts and fruit.
- Like hyacinth macaws, they face increasing pressure from habitat loss and the illegal pet trade.
- Killer was named for his 'killer' good looks

"Rupert" and "Richard" our black parrots:

- Black parrots are native to the mangrove swamps and evergreen forests of Madagascar and the Seychelles Islands.
- Their diet in the wild consists of seeds, blossoms and fruit, especially berries and mangos.
- Black parrots are not yet endangered but are still vulnerable due to habitat loss.

DID YOU KNOW? Parrots like Benito can live up to 80 years!



NATIONAL AVIARY

GRASSLANDS

"Zane" and "Earl" our African grey parrots:

- African grey parrots are found in forested habitats in sub-Saharan Africa but they, like many species, often use grassland habitats to find food.
- African grey parrots primarily eat fruits, nuts, and seeds.
- African grey parrots are capable of mimicking a variety of sounds – Zane and Earl make sounds ranging from the sound of a person sniffing to the sound of the fire alarm going off. If you spend a few minutes in the Grasslands, you never know what you'll hear!
- Our African grey parrots are siblings and were hatched here at the National Aviary in 2001.

Paradise whydahs:

- Paradise whydahs are a species of finch found in the grasslands of Africa.
- During the breeding season, the male whydah grows long, glossy, black tail feathers which he uses to display and attract a mate – once the breeding season is over, he loses the feathers and looks much like a female whydah.
- Paradise whydahs engage in "nest parasitism" – the female whydah lays her eggs in the nest of another bird, often a melba finch (*also found in our Grasslands exhibit*). Then the whydah leaves the other bird to raise her chicks!

DID YOU KNOW? Gouldian finches are an endangered species – fewer than 2500 birds may remain in the grasslands of Australia. Look for their brilliant rainbow colors in our Grasslands exhibit.



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WETLANDS OF THE AMERICAS

Birds from wetland areas of North and South America

Why are wetlands important?

- Wetlands are low-lying areas of land regularly or permanently covered with either fresh or salt water.
- Wetlands are home to many species of wildlife and are useful in flood control and the removal of excess pollutants and nutrients from the water. They also help with sediment trapping and produce natural products such as rice and cranberries.

American flamingos:

- Flamingos live in shallow, salty lagoons and lakes in the Caribbean and the Galapagos Islands.
- Their diet in the wild consists of aquatic invertebrates that they filter out of the water - their bill acts like a sieve.
- Flamingos eat tiny crustaceans containing carotenoid pigments; these pigments give the flamingos' feathers their pink color.
- Flamingos are highly social birds that live in large colonies with thousands of birds.

Brown pelican:

- Brown pelicans live along the Atlantic, Pacific and Gulf Coasts, from the southern U.S. to South America.
- In the wild, pelicans scoop fish and water into their beak and pouch like a net, filter water out through the side of their bill, then tip their head back and swallow their catch.
- Brown pelicans are threatened by agricultural pesticides - like bald eagles, they nearly disappeared because of the use of DDT and its effects on their eggs
- Our brown pelicans, "Ralph" and "Dexter", were both injured in the wild.

DID YOU KNOW? The "pouch" under the brown pelican's beak can hold more than 2 gallons of water!



NATIONAL AVIARY

KEEL-BILLED TOUCAN

located in the Wetlands of the Americas

- The keel-billed toucan is the national bird of Belize.
- They are social birds that live in small flocks.
- Toucans nest in tree cavities that have been made by other birds.

How can a toucan hold up that huge bill?

- A toucan's bill is actually very light. It is made of keratin, the same protein material that makes up our fingernails and hair.
- The toucan's bill is hollow, and is supported by thin rods of bone structured like a honeycomb.

Native habitat and diet

- Keel-billed toucans are found in lowland rainforest from southern Mexico to Venezuela and Colombia.
- Their diet in the wild is primarily fruit, and occasionally insects, bird eggs, lizards and tree frogs.
- When eating fruit, toucans pick the fruit with their bills, and then toss their heads back to swallow the fruit whole.

One can saves toucans!

- Like all rainforest animals, keel-billed toucans are threatened in the wild due to habitat loss driven by growing human populations and demand for resources.
- Habitat is also being lost to mining operations. Bauxite is an ore that is mined in toucans' natural habitat and is used to make aluminum foil, aluminum cans, and pots and pans.
- By recycling aluminum cans, you can help reduce the amount of bauxite we use – recycling one can saves toucans!
- Some of the National Aviary's research programs in the tropics have focused on the impact that bauxite mining has on birds and other wildlife.

DID YOU KNOW? Despite the Fruit Loops commercials that tell you to "follow your nose"- toucans, like most birds, have almost NO sense of smell!



NATIONAL AVIARY

TWO-TOED SLOTH

located in the Wetlands of the Americas

Are sloths “lazy”?

- Sloths have a reputation for being lazy, but actually are highly efficient and adapted to a slow-moving lifestyle - they move only when necessary and then only very slowly.
- The sloth’s hooked claws allow it to hang upside down from tree limbs without using extra energy to hold on.
- Sloths spend 15 to 18 hours a day sleeping to conserve energy.

Native habitat and diet

- Two-toed sloths feed primarily on leaves, fruits and buds in the wild.
- They are native to the rainforests of Central and South America.
- Like all rainforest animals, sloths are faced with habitat loss due to human demands for resources.

Life in the “slow lane”

- Sloths may take a month or more to fully digest a meal.
- They have a mostly arboreal (living in trees) lifestyle, which means that sloths only come down to the ground for two reasons: to poop, and to move to another tree - although some males may spend their entire life in just one tree!
- Sloths move so little that in the wild, green algae grows on their fur and helps to camouflage them.
- Sloths’ main defense is their slow movement. It allows them to go relatively unnoticed by predators such as jaguars and harpy eagles. Sloths become most vulnerable during their infrequent trips to the forest floor.
- Our sloth, Wookie, is the only mammal currently on display at the National Aviary.

DID YOU KNOW? Although they are not known for their speed or agility, sloths are surprisingly good swimmers.



NATIONAL AVIARY

PENGUIN POINT

- The National Aviary received its first African penguin, Stanley, in 2001.
- The Aviary is now home to 12 African penguins – Stanley, Elvis, Patrick, Simon, and Sidney were our original 5. Our newer penguins are named Kristin, Dottie, Preston, Bo, T.J., Demi, and one unnamed male. You can tell them apart by the color-coded wing bands they wear!
- All of our penguins were hatched in other zoos through a breeding program known as the Species Survival Plan.
- The National Aviary's penguin colony will hopefully begin having chicks of its own in the next few years – Kristin and our new male penguin are currently off-exhibit in the hopes that they will breed.
- African penguins are native to the coasts of South Africa and Namibia.
- African penguins were recently listed as an endangered species. Around 100 years ago, there were more than 1.5 million African penguins – now, there are fewer than 60,000.
- Their decline is due almost entirely to human causes: habitat loss, overfishing, oil spills, and changes in ocean temperature have all contributed to their status.

DID YOU KNOW? African penguins are a temperate, or warm weather, species of penguin – meaning the residents of Penguin Point are comfortable living outside even in the summer months.



NATIONAL AVIARY

TROPICAL FOREST

Birds from the tropical forests of Asia and Africa

What are tropical forests (rainforests)?

- Tropical forests are some of the most complex and diverse ecosystems in the world! They are located around the equator and receive at least 60 inches of rain a year, although most receive much more than that.
- The temperature usually remains between 68° F and 82° F throughout the year.

Why are tropical forests important?

- Tropical forests are home to half of our planet's living species – an estimated 2 to 5 million species of plants and animals!
- Many products you eat and use come from tropical forests – fruits, chocolate, coffee, cinnamon and cashews, just to name a few!
- The plants found in tropical forests are used to develop medicines that help fight diseases.
- And of course, humans and animals can get clean oxygen from all of those plants.

Tropical forests need your help!

At least half of the world's tropical forests have been destroyed for lumber, cattle ranching and poor farming practices. The tropical forests that remain cover only six percent of the Earth's surface, but the demand for the resources that rainforests offer continues to rise as our human population grows. What can we do?

How can you help? Remember the 3 R's!

- **REDUCE:** Buy only what you really need and will use for a long time. The less we use, the fewer resources we take from nature.
- **REUSE:** Be creative and reuse items instead of throwing them out.
- **RECYCLE:** Aluminum cans, paper, plastic and glass bottles. Check with your neighborhood's recycling branch to see what else you can recycle.



NATIONAL AVIARY

TROPICAL FOREST (con't)

Birds from the tropical forests of Asia and Africa

Layers of the Tropical Forest

Forest Floor

- The forest floor is a dark place where very few plants can grow because the sun is hidden by tree branches.
- Forest floor-dwelling birds and animals survive on leaves, fruit and seeds that fall to the ground.
- **On the National Aviary's Tropical Forest exhibit floor, keep an eye out for our Victoria crowned pigeons – one of the largest species of pigeons in the world!**

Understory

- The understory receives slightly more light than the forest floor.
- Young trees and woody plants grow in near darkness.
- Birds move through trees and branches in search of insects.
- **In our Tropical Forest understory, keep an eye out for: Nicobar pigeons and our golden-breasted starlings**

Canopy

- The tops of the trees form a leafy canopy 60-90 feet off the ground.
- The canopy gets lots of sunlight, attracting diverse plant life and the majority of the tropical forest animals.
- Birds move through the canopy looking for insects, seeds, fruits and flowers.
- **In our Tropical Forest canopy, keep an eye out for: Blue-bellied rollers, fairy bluebirds, and our hammerkop and his huge nest!**

Emergent Layer

- The emergent layer is made up of the very tallest trees that stretch out above the canopy.
- Animals that live here must be able to endure high temperatures and strong winds.
- Birds like swifts and eagles are found here circling the sky in search of prey.
- Our Tropical Forest does not include an emergent layer due to the glass enclosure.

DID YOU KNOW? The National Aviary's Tropical Forest exhibit is home to over 70 individual birds!



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LORIES AND FRIENDS

Brush-tongued parrots?

- Lories and lorikeets are also known as “brush-tongued parrots” because of their most unique adaptation – their tongues!
- Lories have a distinctive tongue with bristles, called papillae, on the tip that allows them to sip up their liquid nectar diet like a paintbrush.
- The terms “lories” and “lorikeets” are often used interchangeably. In general, “lories” are larger and have a shorter, rounded tail while “lorikeets” are smaller and have a longer pointed tail. However, both names can be used.

Rainbow lorikeets

- Rainbow lorikeets are native to Australia. Other species of lorikeets and lories can be found throughout the South Pacific.
- Lorikeets can be found in forests, mangroves and eucalyptus groves.
- Lorikeets are social birds and usually travel from tree to tree in large, noisy flocks in search of flowers and nectar, chattering excitedly as they feed.
- Although rainbow lorikeets are not endangered and are found in a large area, other species of lorikeets in the South Pacific are extremely vulnerable due to their small island ranges.

The National Aviary has two subspecies of rainbow lorikeets:

Swainson’s lorikeets have a purple head and lime green feathers on their neck.

Edward’s lorikeets have a bluish-green head and lime green feathers on their neck.

Can you spot them both?



NATIONAL AVIARY

MICRONESIAN KINGFISHER

- This small kingfisher is one of the most critically endangered bird species in the world – only about 60 of the birds remain, and all of them live in zoos.
- In the wild, these birds were native to the island of Guam, in the south Pacific, where they primarily ate lizards and small animals (not fish!)
- The reason for the Micronesian kingfisher’s decline is the brown tree snake which was brought to the island of Guam accidentally, sometime after World War II.
- The birds of Guam were not adapted to life with tree-climbing, predatory snakes and now 9 of Guam’s 11 native species of forest-dwelling birds are extinct. Five of these extinct species were found only on Guam, but two of them (the Micronesian kingfisher and Guam rail) were brought into captive breeding programs in the U.S. and Guam.
- Our kingfisher is a male and currently lives alone because Micronesian kingfishers are solitary unless they are a breeding pair. We hope to someday get a mate for him, but because there are more male kingfishers than females in zoos today, he is an “eligible bachelor” for the time being.

DID YOU KNOW? Different species of kingfishers can be found all over the world – we have the belted kingfisher right here in Pennsylvania.



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RHINOCEROS HORNBILL

- Male rhinoceros hornbills have orange and red eyes, while the females have white eyes.
- Both sexes have long, thick, curly eyelashes, making them one of the few birds to have feathery “eyelashes”.

Native habitat and diet

- Rhinoceros hornbills are found in peninsular Malaysia, Indonesia, Sumatra and Java where they rely on dense lowland forest for shelter and nesting habitat.
- The species is extinct in Singapore and is vulnerable to habitat loss and hunting in its remaining range.
- Their diet consists of fruit from trees as well as figs, mice, lizards, frogs, other birds, and large arthropods.

Why do they have a ‘horn’ on top of their beak?

- The extra “horn” is called a “casque”. Once fully grown, it resembles a rhinoceros horn. It is thought to act as a resonating chamber that amplifies the bird’s calls through the thick jungle.
- The casque may look heavy, but it’s actually a very light, hollow structure.

Do you see the hole in the tree? What do you think it is used for?

- Rhinoceros hornbills are cavity nesters – they make their nest in hollow trees.
- The female enters the tree cavity and the male covers the surface of the hole with mud and feces, leaving only a small opening through which to pass food
- The female stays inside the entire length of time needed to lay, incubate and hatch the eggs; she remains while the chicks grow their feathers. The male feeds the whole family through the tiny gap in the “door”!
- After 3 months, the female breaks out of the nest and helps the male feed the chicks. The parents once again close the nest hole to protect the chicks until they are older. The chicks remain sealed in the nest and are fed by both parents until they are about 5 months old and are able to break out of their nest!

DID YOU KNOW? Although they look similar, hornbills and toucans are only distantly related.



PENNSYLVANIA

Do you recognize any of these birds?

- If you said yes, that's because all of these birds are native to Pennsylvania and many can be seen in your backyards.
- All of the birds in this exhibit have been injured in some way and cannot be released back into the wild.
- This exhibit shows a few of the things you can do to attract birds to your own backyard! By providing food and water and planting native plant species to provide shelter and nesting sites, you can turn your backyard into a habitat for wildlife!

Tufted titmouse:

- This is a familiar bird to anyone with a birdfeeder at home – they have a black forehead, grey crest, grey back, and rusty colored flanks.
- Tufted titmice eat a variety of foods in the wild, including nuts, fruit, seeds, and insects.
- This particular bird was imprinted on humans as a chick and cannot be released back into the wild.

Common nighthawk:

- Nighthawks are birds that are most active at dusk, when they fly around in search of flying insects which they capture with their huge mouths (only the tip of the bill is visible when the mouth is closed.)
- You may have seen nighthawks flying around bright lights in the evening when moths and other insects are attracted to the light – they look like bats in flight, but have white spots on their wings!
- Our common nighthawk is named “Bubba” and was injured in the wild. He is no longer able to fly and his trainers hand-feed him 3 times daily.

DID YOU KNOW? Domestic cats are some of the most dangerous predators for wild birds – killing hundreds of millions of birds per year in the U.S. Please keep your cats indoors!



NATIONAL AVIARY

WEAVERS

Taveta golden weaver

- Male golden weavers are bright yellow with chestnut patches on the nape and neck.
- The females are yellowish-olive with dusky streaks and pale yellow under parts.
- Golden weavers live in the lowlands, swamps and bush of southeastern Kenya and northeastern Tanzania.
- Their diet consists of insects, grains and grass seeds.

Do you see nests hanging from the trees?

- If so, these were built by the Taveta golden weavers, which get their name from the elaborate, woven nests they build.
- Males build the nests and females line the inside with grass or other soft material.
- A female will choose her mate based on how well he builds a nest!

Cape Thick-knees

- Do you see the mottled brown birds with long legs and huge eyes? This exhibit is home to a pair of cape thick-knees.
- Cape thick-knees are native to southern Africa and feed on insects and other small animals.
- They build their nests on the ground and lay two eggs per clutch - the parents' sand-colored feathers allow them to sit on their nests and remain camouflaged.
- Though they are related to shorebirds like plovers, cape thick-knees are adapted to life in desert and grassland habitats.

DID YOU KNOW? Taveta golden weaver nests are made from hundreds or thousands of knots including hitch knots, overhand knots, half-hitches and more - a pretty impressive accomplishment for a bird that has only its beak and feet to use as tools!



BALD EAGLES

- The bald eagle became the national emblem of the United States in 1782 – it beat out Thomas Jefferson’s suggestion of the dove and Ben Franklin’s suggestion of the wild turkey as our national bird.
- It is the only eagle unique to North America.
- Bald eagles do not grow their distinct white head feathers and tail feathers until they are 4 or 5 years old.
- They can weigh 7 to 15 pounds and have a wingspan of six to eight feet.

Native habitat and diet

- Bald eagles are found over most of North America from Alaska and Canada to Northern Mexico, along the coast and on major lakes and rivers.
- About half of the bald eagle population lives in Alaska and British Columbia due to the abundance of salmon, a major food source.
- The bald eagle’s diet in the wild consists mainly of fish, but also includes waterfowl, mammals and carrion.

Are bald eagles still endangered?

- Bald eagles were officially declared endangered in 1967.
- Their population decline was a result of many factors, but the agricultural use of the pesticide DDT was a major cause. DDT affected the eggs the eagles were laying. The eggshell wouldn’t form completely and the eggs would break during incubation. DDT was banned in the U.S. in the early 1970s.
- In 2007, the United States removed the threatened status of the bald eagle but the birds continue to be officially protected as the national emblem.

DID YOU KNOW? The National Aviary is home to a total of three bald eagles – they were all injured in the wild and are unable to fly. One of the eagles is on exhibit and the others are currently starring in the National Aviary’s free-flight show, **Wings!**



NATIONAL AVIARY

STELLER'S SEA EAGLES

- These magnificent birds are one of the largest species of eagle in the world.
- The wingspan of the Steller's sea eagle is close to eight feet.
- Females can weigh over 20 pounds, though weights around 15 pounds are more common.
- The female is named Aleutia. She was hatched in 2003 at the Tallinn Zoo in Estonia.
- Kodiak, the male, was hatched in 2005 at the Cincinnati Zoo.

Steller's sea eagles are a type of bird called a RAPTOR, which means:

- They are meat eaters.
- They have amazingly strong feet with very sharp claws called talons.
- They use their feet and talons to catch and kill their prey.
- They have sharp hooked beaks that they use to tear their food into bite-sized pieces.
- They have very keen eyesight.
- Other raptors include hawks, kites and falcons!

Native habitat and diet

- Steller's sea eagles are native to northeast Asia. The largest populations are found in Siberia near the Bering Sea. They are almost always found near water.
- Steller's sea eagle diets in the wild consist of almost anything that they can hunt or scavenge: fish (especially trout and salmon), mammals such as hares and foxes, birds such as ducks and ptarmigans, and even crabs.

DID YOU KNOW? Female raptors are up to 30% larger than males. One theory is that this allows females to better defend their nests and chicks, while the smaller, lighter males are faster and better able to hunt.



ANDEAN CONDORS

- The Andean condor is one of nature's great recyclers – they eat leftovers!
- Andean condors are carnivores, but they only eat meat that is already dead. This type of meat is called carrion.
- The bare skin on their head allows condors and vultures to plunge their heads into decaying carcasses without getting their feathers dirty. When mealtime is over, they simply rub their bald heads on the ground to clean them.

Characteristics

- With a wingspan of up to 10 feet, Andean condors are one of the largest flying birds in the world.
- The adult male weighs 24-33 pounds and the female weighs 17 -24 pounds.
- The male, named Rhodan, has a comb or caruncle on top of his head, a large neck wattle, and yellow eyes.
- The female, named Lianni, does not have a comb or wattle and has red eyes.

Native habitat and diet

- Andean condors are found in the Andes Mountain range in South America.
- In the wild, Andean condors eat carrion, mainly from large and medium-sized mammals.

Flying free!

- Andean condors are a vulnerable species in South America. The National Aviary participates in a captive breeding and release program for Andean condors. Two of Rhodan and Lianni's chicks, Kendall and Kachina, have been released in the wild in Colombia.

DID YOU KNOW? Andean condors are an important symbol in many South American countries – similar to the status of the bald eagle in North America.



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