



Guide
to the
Mammals
of
Iwokrama

Text by
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Burton K. Lim and
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in association with the
North Rupununi Development Board

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Fiona A. Reid

Map of Iwokrama



C a r n i v o r e s

Jaguar

Size = 70 kilograms

Largest carnivore in Iwokrama.

Nocturnal and diurnal; climbs low trees and swims well.

Solitary. Preys on large animals such as Capybara, peccaries and deer. Occasionally roars or makes a loud series of grunts.



Puma

Size = 45 kilograms

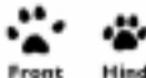
Only large unspotted cat in Iwokrama. Climbs well. Solitary.

Prey includes deer, Paca, and agouti. Large tracks (about 80 mm across), often found on dirt roads. Other sign includes partially eaten kills covered with sticks.

Jaguarundi

Size = 7 kilograms

Can be dark grey (more common) or reddish. Only small, unspotted cat in Iwokrama. Long narrow tail distinguishes it from bushy-tailed Tayra. Diurnal. Climbs well. Eats small rodents and birds.



C a r n i v o r e s

Ocelot

Size = 10 kilograms

Medium-sized spotted cat. Relatively narrow tail is only as long as the hind legs. Mainly nocturnal. Eats small terrestrial mammals, iguanas, land crabs, and birds. Front tracks are noticeably broader than hind tracks.



Oncilla

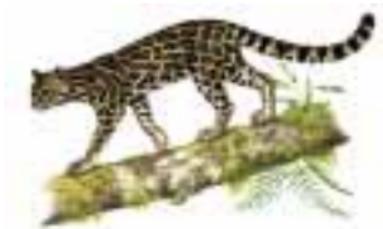
Size = 2.25 kilograms

Smallest spotted cat, about the size of a house cat. Probably nocturnal. Eats mice and small birds. Not well studied; to date it has not been recorded in Iwokrama.

Margay

Size = 3.5 kilograms

Small, slim, spotted cat. Bushy tail is longer than legs. Mainly nocturnal; hunts in trees. It can rotate the hind feet and descend head first down a vertical tree trunk. Eats climbing mice, opossums, and squirrels.



C a r n i v o r e s

Olingo

Size = 1.5 kilograms

Small and catlike, with a long, slightly bushy tail. Kinkajou is larger and has a tapering, prehensile tail and a broader muzzle. Agile and fast-moving. Nocturnal and arboreal, seldom descends to the ground. Eats fruits, nectar, invertebrates, and small vertebrates.



Kinkajou

Size = 3 kilograms

Most commonly seen nocturnal, arboreal mammal in Iwokrama. The Olingo is similar but has a grey head. Eats fruit, nectar, insects, mice and bats. Calls include a short, barking "wick-wick-wick". Listen for sounds of falling leaves as it moves noisily through the trees.

Coati

Size = 4.5 kilograms

A long-nosed relative of the raccoon with a long tail often held straight up. Diurnal, terrestrial and arboreal. Females and young live in large groups, males solitary outside breeding season. Eats fruit, worms, insects and small rodents.



C a r n i v o r e s

Tayra

Size = 4 kilograms

Large, long-legged weasel-like animal with a long bushy tail. Travels with a bouncy gait, back and tail arched. Mainly diurnal, semi-arboreal. Eats insects, fruit, and vertebrates including lizards, monkeys, and agoutis. Look for seed-filled scat left on fallen logs.



Grison

Size = 2 kilograms

Muscular, with a long, low body and very short legs and tail. Probably diurnal; terrestrial, swims well. Eats small reptiles, birds, and mammals. Tracks are five-toed, with prominent claw marks. Rare.

Bush Dog

Size = 6 kilograms

An odd-looking dog, small and low-slung. Diurnal. Rarely seen. Prefers swampy areas. Eats agouti, Paca and fish. Besides obvious claw marks, foot pad relatively small compared to cat tracks of similar size.



C a r n i v o r e s

River Otter

Size = 6.5 kilograms

Distinctive low, streamlined shape. Fast and agile swimmer, but moves with an awkward, humping gait on land. Always found in or near water. Tracks with distinctive webbing between toes, tail leaves drag marks between tracks.



Front



Hind



Giant Otter

Size = 30 kilograms

Large, chocolate brown with white throat. Diurnal. Lives in family groups. Eats fish. When disturbed in the water, the otters will crane their heads up and snort sharply. Look for burrows on banks with conspicuous trampled areas and slides into the water.

We're on the Internet!

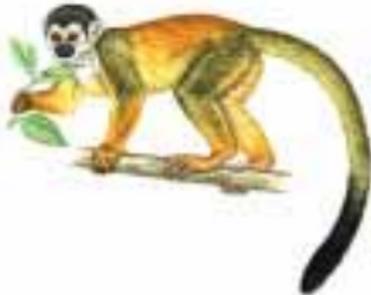
This mammal guide is also available on the Internet at our Web site. The online guides have the same great illustrations, more in-depth text, and an added feature is the distribution maps of each species in the reserve. The online mammal guide can be viewed at: <http://www.sdn.org.gy/iwokrama/>

P r i m a t e s

Squirrel Monkey

Size = 800 grams

Small, slender monkey with striking colouration and short fur. This active monkey is mainly insectivorous. Large groups are easily seen darting about in trees and bushes, busily tearing off bark, looking under leaves, and moving through branches in search of insects.



Wedge-capped Capuchin Monkey

Size = 3 kilograms

Top of head has a distinct wedge-shaped blackish cap tapering to a very thin stripe down the forehead to the nose. Usually seen in the subcanopy or lower. Social, typically lives in groups of 10 to 40 individuals.



Golden-handed Tamarin

Size = 450 grams

Smallest primate in Guyana. Hands and feet are bright orangish-yellow. Diurnal, arboreal. Often seen holding onto tree trunks, while it nervously peers and quickly moves its head about. Commonly heard before it is seen, it makes a high-pitched whistle.



P r i m a t e s

Guianan Saki Monkey

Size = 2 kilograms

Sexes distinct. Male entirely black with white face, female grey. Sits in a hunched crouch often with bushy tail dangling straight down. Usually seen in the subcanopy or lower. This quiet, shy monkey feeds on a variety of fruits, seeds, leaves, and insects.



Red Howler Monkey

Size = 7 kilograms

Chin with forward-growing beard (longest in males). Diurnal; strictly arboreal. Social. Lives in troops. The loud calls consist of a rising chorus of snorts, grunts, roars, and howls which can be heard for several kilometres.

Black Spider Monkey

Size = 10 kilograms

Largest monkey in Guyana. When seen sitting in a tree, this spider monkey has a distinctly ape-like appearance. Social, usually seen in groups of 2 to 5 individuals. Travels noisily through the trees, often stopping to investigate and threaten observers.



H o o f e d M a m m a l s

Tapir

Size = 250 kilograms

The largest mammal in Iwokrama. Nocturnal and diurnal. Solitary. Call is a loud, long whistle. Ranges widely and can be seen far from water. Distinctive tracks seen more often than the animal.



Front or Hind

White-lipped Peccary

Size = 35 kilograms

Larger and darker than Collared Peccary. Diurnal. Lives in large herds. Feeds by bulldozing through soil and eating fruit, roots, vegetation and invertebrates. Cracks open very hard palm nuts.

Collared Peccary

Size = 20 kilograms

Small, piglike, with a stocky body and slim legs. Social, usually seen in groups of up to 15. Groups rest in caves, in deep burrows, or under rocks or logs. Eats mostly palm nuts. More common than White-lipped Peccary.



Red Brocket Deer

Size = 22 kilograms

Medium-sized deer with distinctive hunched posture with the rump higher than the shoulders or head. Ears and legs relatively short compared to the Grey Brocket. Most often seen in morning, at dusk or at night while foraging. Distinctive split hoof prints tapering smoothly to narrow tips.



Front or Hind



Front or Hind

Grey Brocket Deer

Size = 15 kilograms

Ears and legs relatively long compared to Red Brocket Deer. Usually solitary. Feeds primarily on fruit. Split hoof prints similar to, but slightly smaller than, Red Brocket Deer.

Did you know?

The Iwokrama Centre is an international partnership for rain forest conservation and development operating in Guyana. It arose from an offer from the government of Guyana at the 1989 Commonwealth heads of Government Meeting to make one million acres of rain forest available to the international community for research on conservation and sustainable development.

A n t e a t e r s

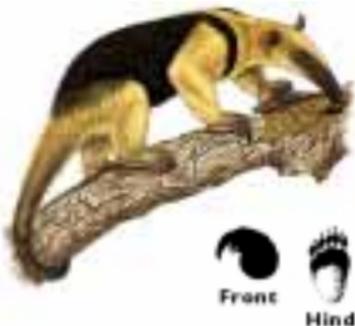
Giant Anteater

Size = 30 kilograms

Large, appears "too long" for its height. Diurnal or nocturnal.

Uses its powerful claws to open large termite mounds or terrestrial ant nests.

Odd-looking tracks show front claws pointing backward or laterally (it walks on the knuckles with the claws turned under).



Tamandua

Size = 6 kilograms

Medium-sized, with a long prehensile tail. Nocturnal or diurnal; semiarboreal. Solitary. It feeds on ants, termites and bees. Listen for sounds of tearing wood as it attacks arboreal termite nests.

Pygmy Anteater

Size = 225 grams

Very small, with a furry prehensile tail. Nocturnal, arboreal. Solitary. It travels on pencil-thin vines, using the large front claws to open hollow stems in search of ants, its preferred food. Look for a furry golden ball in a vine tangle.



S l o t h s

Three-toed Sloth

Size = 6 kilograms

Hangs below branch. Male has a patch of short orange fur marked with black spots on the middle of its back. Arboreal, slow-moving. Solitary. Extremely docile. Eats leaves, especially Congo palm. Look for a mottled grey ball on or under a branch.



Two-toed Sloth

Size = 6 kilograms

Hangs below branch. Fur long and shaggy, brownish, darker on limbs than body. Mainly nocturnal; arboreal, usually in the canopy. Solitary. Eats leaves of a variety of trees, also fruit and buds. Look for a brown ball on a tree crotch.

Visit the Reserve!

Scientists, students and ecotourists are encouraged to visit the Iwokrama reserve. Accommodation, transportation and research facilities can be rented on a daily, weekly or monthly basis. For further information about visiting the reserve contact: Office of the Director-General, Iwokrama International Centre for Rain Forest Conservation and Development, 67 Bel Air , Georgetown, GUYANA, South America, Tel: (592) 2 51504, Fax: (592) 2 59199, E-mail: iwokrama@guyana.net.gy

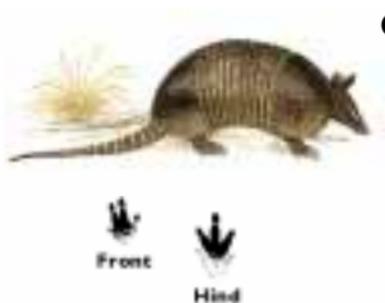
A r m a d i l l o s

Giant Armadillo

Size = 30 kilograms

Very large. Massive claws on front foot. Nocturnal; terrestrial and subterranean. Solitary.

Feeds by digging into the nests of ants and termites. Huge burrow has a semicircular entrance about 45 cm wide.



Great Long-nosed Armadillo

Size = 10 kilograms

The base of the long, armored tail is thick and noticeably flattened, especially in adults. Nocturnal, terrestrial. Solitary.

Burrow has a smooth dome-shaped entrance and is usually located near streams.

Viewing Tips!

Most mammals are secretive and can be hard to see. Because many mammals are nocturnal, the best way to see them is at night with the help of a headlamp. Fruiting trees are also a good place to see mammals as they congregate to feed. And always keep an eye on the ground for signs -- especially tracks in the wet mud on the edge of pools.

O p o s s u m s

Grey Four-eyed Opossum

Size = 750 grams

Greyish above, cream-yellow below. Tail blackish with a contrasting white tip. Nocturnal, terrestrial and arboreal. Commonly seen foraging on ground along stream banks. Opposable big toe on the hind foot is clearly evident.



Front



Hind



Front



Hind

Common Opossum

Size = 1.5 kilograms

Largest opossum. Nocturnal, terrestrial, semi-arboreal. Solitary, omnivorous. Raids chicken coops and garbage dumps. This opossum is often smelled before it is seen (hence the local name "stink opossum").

Water Opossum

Size = 675 grams

Strikingly marked opossum. Hind feet conspicuously webbed. Nocturnal, terrestrial, and semi-aquatic. Solitary. Usually seen searching for food in or near small, rocky streams. Feeds on fish, crustaceans, and other invertebrates.



Front



Hind

O p o s s u m s

Murine Mouse Opossum

Size = 40 grams

Small sized. Female does not have a pouch. Nocturnal, arboreal and terrestrial.

Solitary, it mainly eats insects. Sometimes enters houses and buildings at the edge of forest.



Woolly Mouse Opossum

Size = 100 grams

Largest mouse opossum. Female does not have a pouch.

Nocturnal, mainly arboreal in understory or sub canopy.

Usually solitary, eats insects, small vertebrates and fruit.



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O p o s s u m s

Delicate Mouse Opossum

Size = 20 grams

Tiny. The arms and legs are noticeably long, thin and delicate. Female does not have a pouch. Nocturnal, arboreal and terrestrial. Solitary, eats insects and fruit. Slow moving and deliberate.



Short-tailed Opossum

Size = 100 grams

Only small terrestrial opossum in Guyana with a short tail. Female does not have a pouch. Diurnal. Solitary, insectivorous. Usually found in upland forest away from streams.



Did you know?

The Iwokrama Forest is located in central Guyana some 300 km south of Georgetown, the capital. The area encompasses about 360,000 hectares and is covered in lush, pristine, lowland tropical forest. The wide range of intact habitats in the Iwokrama Forest supports a diverse flora and fauna with an estimated 1,500-2,000 higher plant species, 315 species of fish, 120 species of snakes, lizards and frogs, 450 species of birds and 180 species of mammals.

L a r g e R o d e n t s

Paca

Size = 8 kilograms

Stripes of white spots from shoulder to rump on each side. Terrestrial, nocturnal, it is often active after midnight, especially in areas where it is frequently hunted (it is prized for its tasty flesh).



Acouchy

Size = 1.5 kilograms

Similar to, but smaller than, an agouti, with relatively long ears and legs. Diurnal (most active in early morning or late afternoon). When alarmed, it bounds away quickly and then freezes. Calls include chirps, whistles, and squawks, and it often drums the feet in alarm.

Red-rumped Agouti

Size = 3.5 kilograms

Looks like a short-eared rabbit on stilts. Diurnal (most active in early morning or late afternoon). Easiest to observe at dawn or dusk near fruiting trees. Sometimes buries nuts, seeds and fruit in shallow pits for later use.



L a r g e R o d e n t s

Capybara

Size = 30 kilograms

World's largest rodent. Large, webbed feet. Occurs in small family groups of 2 to 6 individuals. It is usually seen at river's edge or swimming. Look for piles of smooth, oval, greenish-brown droppings (about 50 mm in length) at water's edge.



Common Porcupine

Size = 2 kilograms

Covered with rounded, stiff, barbed quills with pale yellowish tips. Nocturnal (sometimes active in late afternoon), arboreal. Typically slow and deliberate, but can move quickly. During the day it rests in hollow tree dens or on branches. It has a characteristic, strong odour.

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S m a l l R o d e n t s

Guianan Squirrel

Size = 450 grams

Long, bushy tail, and long toes with claws. Diurnal, arboreal.

Feeds on nuts, fruits, and occasionally eggs and nestling birds. Often found in tree falls or tangled mats of vines.



Red-nosed Tree Rat

Size = 500 grams

Upperparts dark reddish-brown with flattened spines; spines with pale tips lending a distinct "salt and pepper" appearance. Nocturnal, arboreal. Sits quietly and is difficult to see except when actively foraging.



Cuvier's Terrestrial Spiny Rat

Size = 500 grams

Medium-sized and stocky-bodied, with stiff hairs or spines on back and rump. The tail is easily broken near its base (hence local name "bob rat").

Nocturnal; strictly terrestrial. Most common rat in Iwokrama.



S m a l l R o d e n t s

Bristly Mouse

Size = 20 grams

Tiny mouse with spiny fur. Broad, flattened, spiny hairs obvious when fur is pushed backwards. Nocturnal, terrestrial. Solitary. Forages on the forest floor for insects, fruits, and seeds.



Water Rat

Size = 200 grams

Robust rat with a thick tail. Hind feet partially webbed. Always found near water, it feeds on a variety of invertebrate and aquatic vertebrate prey as well as fruits and fungi. Silent, it may freeze motionless in beam of flashlight.



Common Terrestrial Rice Rat

Size = 50 grams

Juvenile is grey, young adult dark brown, and old adult is sometimes reddish. Nocturnal. Found on the forest floor, particularly in areas with good ground cover where it feeds on seeds, fruits, and insects. The most common mouse-like rodent in Iwokrama.



S m a l l R o d e n t s

Pygmy Rice Rat

Size = 15 grams

Long, narrow tail, (longer than head and body) slightly paler below than above and only thinly haired, without a terminal tuft. Nocturnal. Solitary. Feeds on small seeds and insects in brush or tall grass.



Small Arboreal Rice Rat

Size = 30 grams

Small, red mouse. Nocturnal, arboreal. Feeds on seeds and fruits. Often occupies roofs and rafters of buildings near forest, where it is easily seen.

Visit the Reserve!

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B a t s

River Bat

Size = 5 grams

Tiny; distinctive tufts of pale fur along forearm. Nocturnal (crepuscular), aerial. Roosts in small groups lined up close together on the underside of logs or tree trunks over water.



Greater White-lined Sac-winged Bat

Size = 7 grams

Medium sized blackish bat with two wavy white lines on the back.

Begins to fly at dusk. Roosts together in groups of up to 50 in tree hollows or cavities of large buttress trees. The bat most likely to be encountered when walking trails and searching for roosts.

Chestnut Sac-winged Bat

Size = 9 grams

Medium-sized chestnut brown bat. Nocturnal. Begins to forage in the early evening. Often seen fluttering over the road through Iwokrama Forest. Feeds on small insects. Roosts in large rotting logs and in tree hollows in small groups.



B a t s

Northern Ghost Bat

Size = 20 grams

Large, white bat with translucent pinkish wings.

Nocturnal. Flies high in open areas over rivers, foraging for moths and other insects.

Roosts in small groups (up to 4) under palm fronds.



Greater Moustached Bat

Size = 20 grams

Medium sized with short brown fur. Leaflike plate of skin protrudes from lower lip.

Nocturnal. Most active in the early evening. Fast-flying aerial insectivore usually found within closed forest hunting for beetles and other insects. Often seen flying along trails.

Fishing Bat

Size = 65 grams

Enormous hindfeet with large sharp claws, and long narrow wings. Nocturnal. Catches small fish with clawed hindfeet and then stuffs them into cheek pouches. Roosts in tree hollows, usually in large groups.



B a t s

Frog-eating Bat

Size = 30 grams

Conspicuous noseleaf and large, rounded ears. Mouth surrounded by wart-like bumps. Nocturnal. Flies low in the forest understory. Feeds on frogs. Roosts in small groups in tree hollows and caves.



False Vampire Bat

Size = 180 grams

Largest bat in South America. Muzzle elongated with noseleaf positioned like a hood ornament. Usually forages during the early evening. Eats birds, bats and mice. Family groups roost in hollow trees.

Sword-nosed Bat

Size = 13 grams

Long (about 2 cm) pointed noseleaf (fleshy leaf-like appendage on tip of nose). Active later in the evening. Slow, agile flight; can hover. Feeds on insects and fruit, probably by gleaning. Uncommon, probably roosts in caves and hollows.



B a t s

Striped Hairy-nosed Bat

Size = 14 grams

Prominent noseleaf with serrated, hairy edges. Nocturnal. Feeds on beetles and other insects. Small groups roost in rotting logs and tree stumps, and tree hollows.



Greater Fruit-eating Bat

Size = 60 grams

Four bright white stripes on the face. Takes flight after dusk and forages during the early evening. Feeds primarily on figs but also other fruits, flowers and pollen.

Usually eats at a separate feeding roost which facilitates seed dispersal.

Common Tent-making Bat

Size = 15 grams

Medium-sized greyish bat with white stripe down back.

Nocturnal. Feeds primarily on fruit, supplemented with insects and nectar. Roosts under "tents" made by biting through a leaf, such as palm, until the leaf droops over to form a shelter.



B a t s

Common Vampire Bat

Size = 30 grams

Front upper teeth are very sharp and blade-like. Thumbs are long and very well-developed. Agile flier, leaves roost well after dark. Travels well on the ground, in leaps and bounds. Blood feeder. Preys on domesticated and wild mammals.



Common Short-tailed Fruit Bat

Size = 20 grams

Dorsal hairs have a distinctive tricolour pattern of a dark base and tip with a whitish middle band. Regularly flies a kilometre or more from its roost. Usually forages in the understory. One of the commonest bats in Iwokrama. Feeds primarily on small fruits, insects and nectar.

Common Long-tongued Bat

Size = 10 grams

Muzzle elongated with groove splitting lower lip, and very long tongue. Nocturnal. Common nectar-feeding bat found in variety of habitats, including primary forest, disturbed areas and around buildings. Roosts in tree hollows, buildings, culverts, and caves.



B a t s

Spix's Disked-winged Bat

Size = 4 grams

Very small and delicate bat with long fluffy fur. Flight is quite agile and manoeuvrable. Probably catches small insects in flight.

Roosts upright in furred Heliconia leaves, uses suction-cup-like disks to move along the slick surface.



Black Myotis

Size = 5 grams

Long tail completely enclosed in membrane between legs. Leaves the day roost at sunset and usually does not return until after dawn. Eats moths and other small insects, resting at temporary roosts during the night. In the day, roosts in tree hollows, caves, and buildings.

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B a t s

Black Bonneted Bat

Size = 30 grams

Ears extend over flat face to tip of nose. Long tail extends well beyond tail membrane.

High-flying aerial insectivore.

Feeds on large insect prey.

Roosts in small groups in tree hollows and buildings.



Common Mastiff Bat

Size = 30 grams

Free-tailed bat. Small, greyish or reddish brown. Begins foraging at sunset, usually high up in open areas. Feeds primarily on beetles. Roosts in colonies of up to 300 in buildings and tree hollows.

Viewing Tips!

Most mammals are secretive and can be hard to see. Because many mammals are nocturnal, the best way to see them is at night with the help of a headlamp. Fruiting trees are also a good place to see mammals as they congregate to feed. And always keep an eye on the ground for signs -- especially tracks in the wet mud on the edge of pools.

Credits

This guide to 71 of the distinctive mammals of Iwokrama Forest is published by the Iwokrama International Centre for Rain Forest Conservation and Development. Funding for the development and publication of this guide was provided by the International Development Research Centre of Canada.

Information on the distribution of mammals in the Iwokrama Forest has been derived from surveys conducted by the Centre in collaboration with participating academic partners, donors and the communities living in, or near, the Iwokrama Forest. The Iwokrama Centre and the North Rupununi District Development Board have also worked with local communities to gather information on the ecology, behaviour, and distribution of the more common animals of the Iwokrama Forest. Funding for the faunal surveys has been provided by the Global Environment Facility through the United Nations Development Programme, the United Kingdom Department for International Development, and by the Royal Ontario Museum Foundation.

About the Authors

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Fiona Reid, M.Sc., is a writer and illustrator who recently published "A Field Guide to the Mammals of Central America and Southeast Mexico".

The North Rupununi District Development Board is a local body set up in 1996 to provide a conduit for discussions between the Iwokrama Centre and the people living in, or near, the Iwokrama Forest. The Board now acts as a representative for the twelve communities of the North Rupununi and has become closely involved in research, information management, and the sustainable development of the North Rupununi.

About the Guide

This guide is an introduction to 71 of the most distinctive mammals in the Iwokrama Forest.

Pocket-size and lightweight for easy use in the field.

Concise, authoritative descriptions of each species, written by experts in the mammal fauna of the area.

Outstanding colour illustrations of each species by artist and writer Fiona Reid. Included for many species are illustrations of tracks.

To obtain copies of this guide contact:

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Rain Forest Conservation and Development

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Georgetown, Guyana

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