

Saxacalli

RAINFOREST CENTRE



EMC
FOUNDATION



The EMC Foundation was established in 2022 by Mr. Shyam Nokta to support environmental awareness and education in Guyana, with focus on youths. The drive for this initiative was influenced by the evolution of environmental issues over the last three decades and their importance in today's national and global context.

OUR MISSION

Motivating action through greater environmental awareness and education in Guyana.



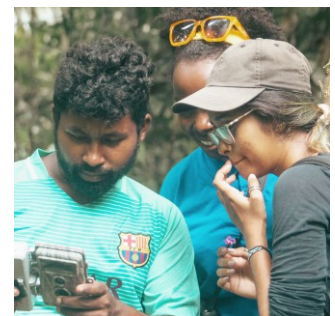
Experience

Promote and facilitate activities to encourage a better understanding about the environment.



Connect

Create a network to connect people on environmental issues.



Act

Provide opportunities to experience Guyana's natural environment.

Saxacalli Village



Escape from the Mundane

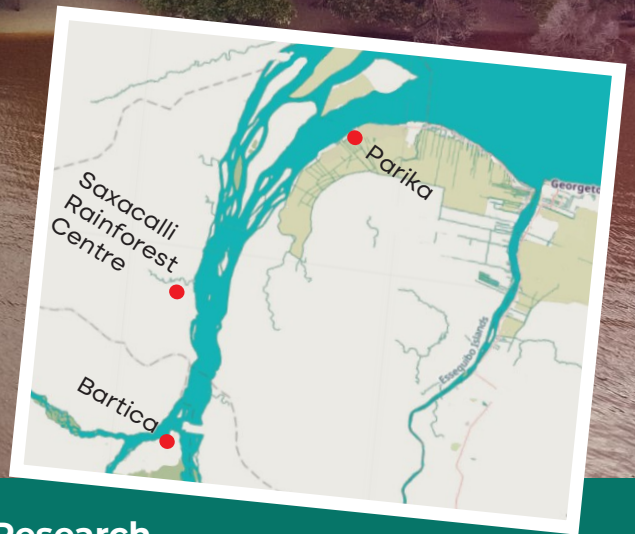
“Saxacalli” translated from the Arawak language, means kingfisher. The area was named Saxacalli by the Awarak people because of the abundance of kingfisher birds found there. While it is still unclear how long the village has been in existence, anthropologists believe it has been present since the first Dutch settlements along the Essequibo River around the 16th century.

Mainly comprised of Arawaks at the time, the community was a likely trading partner with the Europeans who had set up trading posts at Fort Island and Kyk Over-Al. Presently, Saxacalli is a predominantly mixed community with Arawak, Coastlander (migrants from Guyana's coast), and Carib residents.

Top: Aerial View of Saxacalli Village and Benab by the Beach. Bottom: View of Fort Island.



Saxacalli Rainforest Centre



Rainforest Reserve dedicated to Biodiversity Research

The Saxacalli Rainforest Centre (SRC) is a private rainforest reserve dedicated to biodiversity research, education, and awareness.

As an Environmental Science student at the University of Guyana, Environmental Management Consultants Inc. (EMC) Managing Director Shyam Nokta recognized that students were unable to afford the high costs of visiting natural sites, such as Shell Beach and Kaieteur Falls.

As a result, they were denied opportunities to experience and conduct research in Guyana's diverse ecosystems. To bridge this gap, Mr. Nokta sought to find an area close to Georgetown with natural forests which could accommodate student research, rainforest education and awareness, and recreation.

Top: Aerial View of SRC. Bottom: SRC Deck and Main Lodge.





The unique cultural and ecological diversity of the Saxacalli area convinced Mr Nokta to secure a lease for approximately 75 acres of rainforest, adjacent to the Essequibo River. From humble beginnings, today, the Saxacalli Rainforest Centre is one of Guyana's first private nature reserves.

A large pine tree, over 60 feet tall, planted by an early European who was present in the area in the 1960s serves as the Centre's landmark.

The Saxacalli Rainforest Centre offers a unique opportunity for students, researchers, and persons with an interest in nature to study the environment, explore the tropical rainforest, and enjoy the sun, sand, and waters of the Essequibo.

Top: Aerial View of SRC. From left: Entrance to SRC, 60 Foot Pine Tree, and Camera Trap Orientation with Students. Bottom: Bromeliad Flower found at Saxacalli.

*More than just
a Stay*



Experience a Serene Environment

The Saxacalli Rainforest Centre offers an immersive experience with a variety of hands-on activities.

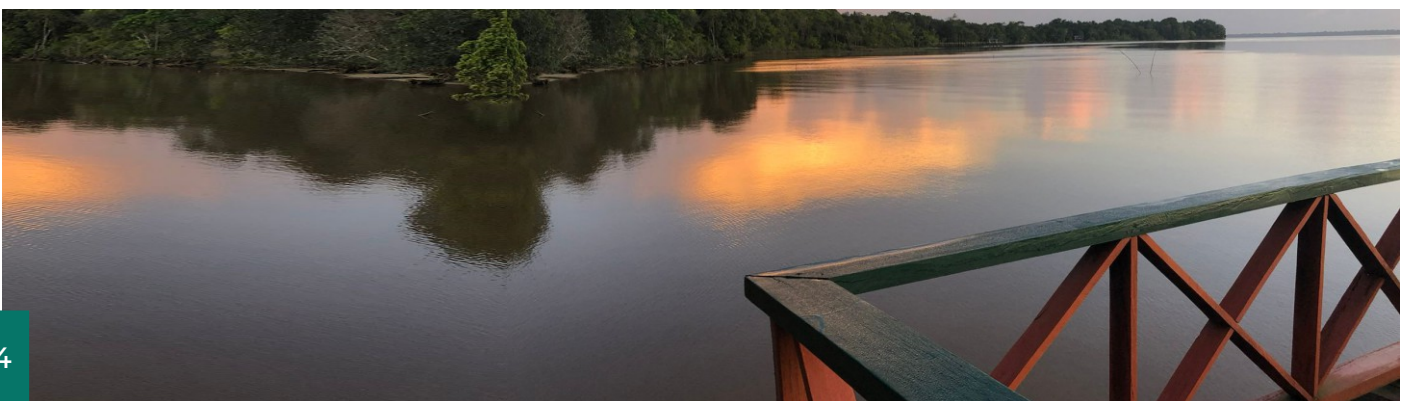
The extensive beach stretches to approximately 100 meters and provides more than enough space for swimming, boat rides, and sports such as cricket, volleyball, and football.

Top: SRC Beach Front and Entrance to the SRC Lodge.
Bottom: Sunset from the SRC Deck.

The best option of course, is simply relaxing in a hammock under the shade of overhanging vegetation and enjoying the beautiful view of the mighty Essequibo River.

The Centre has unique hiking trails through the rainforest, where adventurous guests can explore the pristine nature reserve.

One can also go on canoe rides to nearby creeks, fish, bird watch, and enjoy the traditional wabane experience with local guides.



More than Just a Stay



Top: Aerial View of Saxacalli Rainforest and Essequibo River.
From Left: Guest Relaxing in Hammock, Mora Trees in the Reserve,
Hiking in the SRC Trails, and SRC Manager Holding Monkey Pot.

Visitors can also go to the Saxacalli village or Saxacalli Mission as it is referred to, an Arawak community on the left bank of the Essequibo. There one can interact with community members and purchase local handicrafts.

The Saxacalli experience is a welcome break from the hustle and bustle of city life and guarantees a well-deserved stay with opportunistic wildlife sightings.

Rich in Biodiversity

Floral Diversity in Saxacalli

The forest is Mora or swamp forest, characterized by a mixture of clay, loam, and brown sand soils that support an interesting variety of flora, including commercial timber species such as greenheart, kabacalli, crabwood, and mora.

The ecosystem also includes a unique mix of epiphytes or air plants such as orchids, which grow on the surface of other plants for physical support but derive moisture and nutrients from the air, rain, water, or debris accumulating around it. Other non-timber forest products include cufa, mucru, and palms such as the ite, courru, and kokerite.

Top Right: Bromeliad Plant. From Bottom Left: Towering Mora Tree, Vanda Orchid and Cufa Flower.

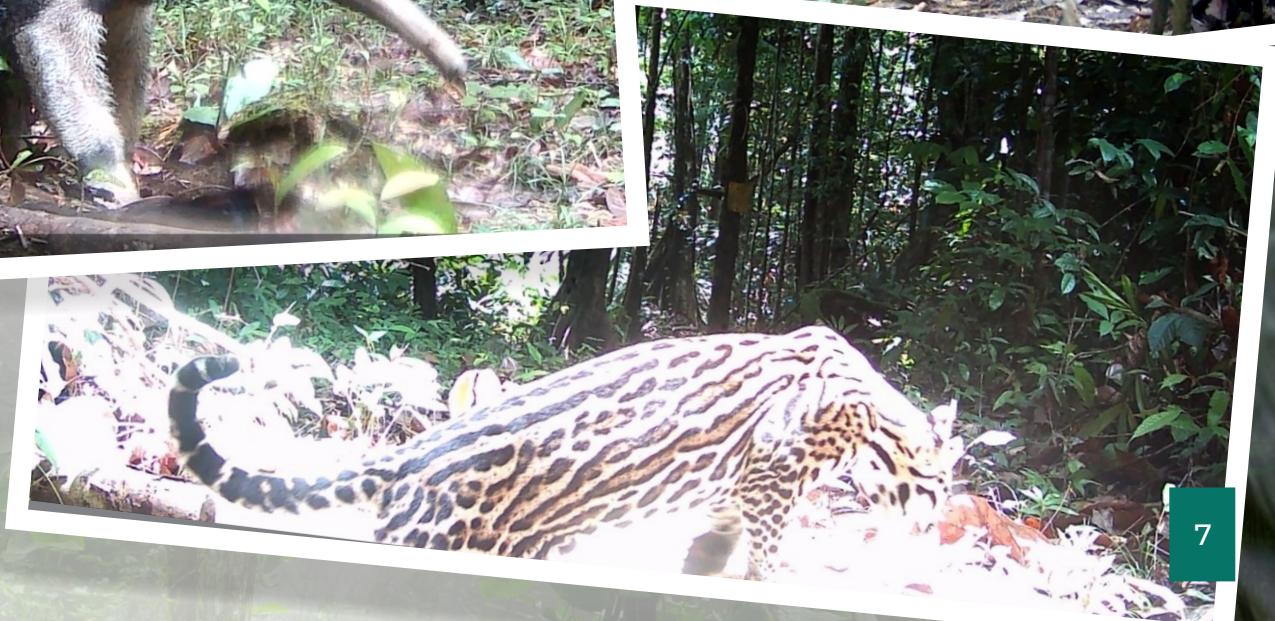
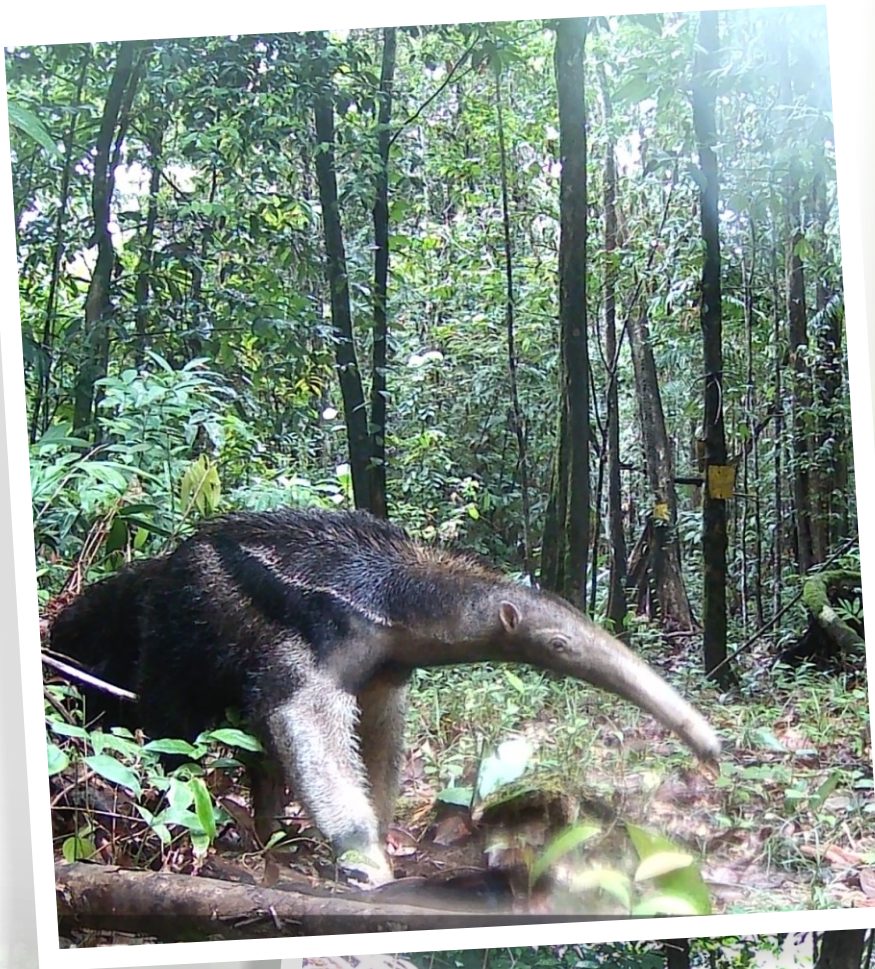


Faunal Diversity in Saxacalli

The faunal diversity of Saxacalli includes the agouti, deer, tapir, wild hog, armadillo, yellow-footed turtles, jaguars, ocelots, sloths, squirrel monkeys, capuchin, and howler monkeys. The area is also home to several fish species such as basha, dogfish, tigerfish, lungfish, and haimara, among others.

The bird diversity at Saxacalli is one of its most unique features. It includes vultures, hawks, falcons, currasows, hummingbirds, kingfishers, jacamars, woodpeckers, toucans, macaws, and parrots.

Top Right: Capuchin Monkey. From Bottom Left: Giant Ant Eater, Ocelot and Currasow



Ideal for Research



Hub of Biodiversity Research

The Saxacalli Rainforest Centre is strategically located in a region of Guyana with rich cultural and historical heritage and understudied ecosystems, which makes it ideal for social, anthropological, and biodiversity research.

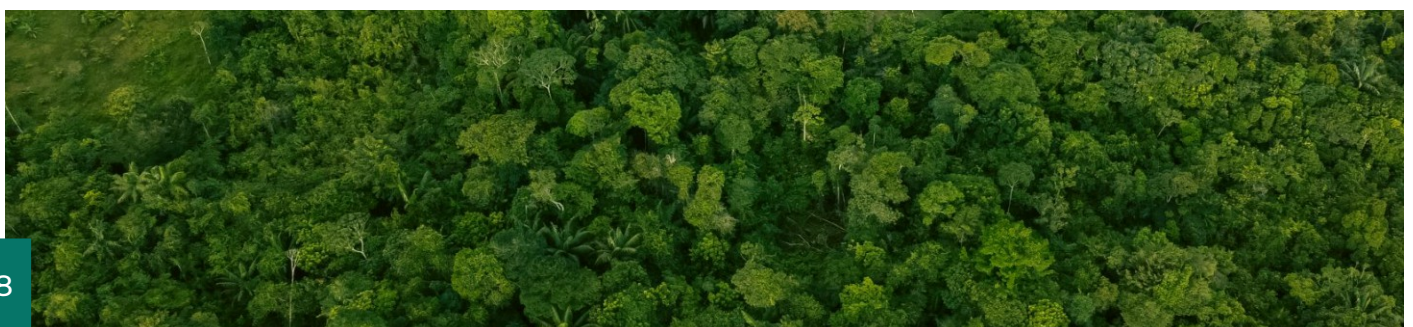
The Centre has collaborated with various groups and organizations such as Iwokrama, the Eco-trust Society, and the University of Guyana to facilitate both research and relaxation.

The Centre is close to heritage sites such as Kyk-Over-Al, Fort Zeelandia, and the Court of Policy, which presents a wide range of archaeological and anthropological opportunities for research.

The Centre's proximity to premier tourism sites along the Essequibo River and its surrounding forests offers opportunities to research the nexus between eco-tourism and the environment. Access to the Saxacalli Mission can also provide insight into sustainable community practices, resource use, and community dynamics.

Over the years, the wider area has been influenced by extractive industries and this also presents an opportunity to study impacts to the forests, biodiversity, and the watershed.

Top: View of Essequibo River from SRC and a Picture of the Agouti taken by Camera Trap. Bottom: Aerial View of the Saxacalli Rainforest.



Key Research Projects

Drone Deployment for Data Collection

A unique research has been conducted at the Saxacalli Rainforest Centre to study the use of drone technology for camera trap data collection. Unlike traditional camera trapping methods that require researchers to retrieve data physically, drone technology enables wireless data transfer.

This method is efficient and minimizes researchers' impact on the environment, reducing ecosystem disturbance and the overall data collection cost. It also creates opportunities to monitor previously inaccessible areas, providing a more comprehensive understanding of the region's ecology. Furthermore, the ease of deployment and retrieval of data reduces the risk of harm to the researcher.

The study demonstrates the transformative potential of drone technology in environmental research. The method's continuous monitoring capability, time and cost efficiency, ease of deployment and data retrieval, and the ability to minimize environmental impact present a compelling alternative to traditional camera trapping methods.

This research contributes significantly to the field of environmental management and conservation, providing a viable approach for future research and monitoring efforts in hard-to-navigate areas. It has the potential to revolutionize environmental monitoring in Guyana and the region.

Top Right: Drone in Flight. From Bottom Left: SRC Manager Inspecting Camera Trap, Camera Trap Deployed at SRC, and Drone Shot of SRC.



Collaboration with Iwokrama on Biodiversity Research

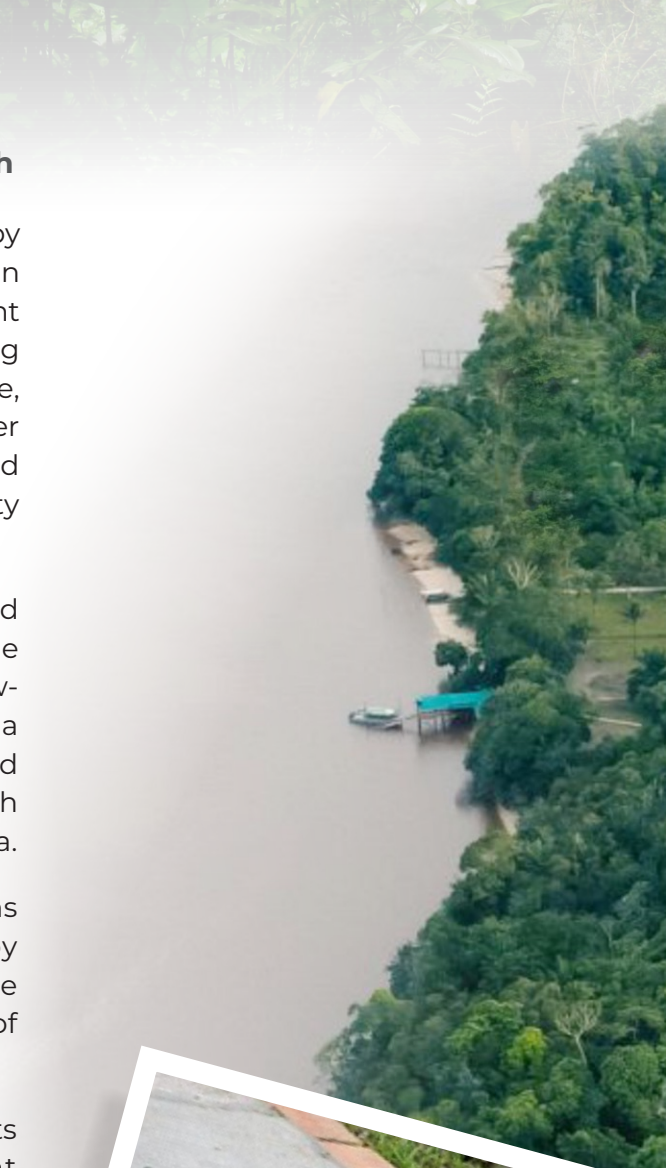
The Centre has hosted biodiversity research exercises by EMC Inc, a Guyanese environmental consultancy firm, in collaboration with the Iwokrama International Centre. A joint team participated in camera trapping research and training to monitor mammalian life in the Saxacalli area. The exercise, conducted from September 20 to 22, 2021, is part of a larger initiative from the Bioamazon Project to monitor fauna and flora species as part of the Amazon Cooperation Treaty Organization (ACTO).

Personnel from the Saxacalli Rainforest Centre were trained to set up camera traps and carry out camera trapping. The research focused on the abundance of tapir, and yellow-footed and red-footed tortoises in the area. It also informed a wider Iwokrama and Guyana Wildlife Conservation and Management Commission (GWCMC) project, which monitors the diversity and abundance of wildlife in Guyana.

Much of the biodiversity in the Saxacalli area remains undiscovered. Over the years, opportunistic visits by researchers and students have helped compile a list of the known species. However, this is scratching the surface of what is yet to be discovered.

The Saxacalli Rainforest Centre is keen to work with students and researchers to learn more about this important ecosystem and its biodiversity and welcomes the opportunity to partner and conduct research.

Top Right: Aerial View of SRC. From Bottom Left: Retrieving Data from Camera Trap, Biodiversity Research at SRC, and Yellow Footed Tortoises.





Biodiversity

L PROFILE



Forest Type:

Mora or swamp forest

Soil Type:

Clay, Loam, Brown Sand

Special Listings:

Botany, Mammalogy,
Ornithology, Ichthyology,
Entomology, Herpetology

Botany Plants

| Common Name | Scientific Name | Family |
|----------------------------|-----------------------------|-----------------|
| Green heart | <i>Chlorocardium rodiei</i> | Lauraceae |
| Kabukalli | <i>Goupia glabra</i> | Celastraceae |
| Crabwood | <i>Carapa guianensis</i> | Meliaceae |
| Mora | <i>Mora excelsa</i> | Caesalpiniaceae |
| Ite, couruu, kokerite | <i>Palmae</i> | Palmaceae |
| Non-Timber Forest Products | | |
| Cufa | <i>Clusiaceae</i> | |
| Mukru | <i>Myrintaceae</i> | |
| Orchid | <i>Orchidaceae</i> | |

| Mammalogy (Animals) | | |
|----------------------------|--|-----------------------------------|
| Common Name | Scientific Name | Family |
| Labba | <i>Agouti paca</i> | Agoutidae |
| Deer | | Cervidae |
| Tapir | <i>Tapirus terrestris</i> | Tapiridae |
| Wildhog | <i>Peccaries</i> | Tayassuidae |
| Agouti | <i>Dasyprocta leporinus agouti</i> | Dasyproctidae |
| Armadillo | <i>Dasypodidae</i> | Dasypodidae |
| Jaguar | <i>Panthera Onca</i> | Felidae |
| Ocelot | <i>Leopardus Pardalis</i> | Felidae |
| Sloths | <i>Choloepus didactylus</i> <i>Bradypus tridactylus</i> | Bradydipodidae/ Megalonychidae |
| Squirrel Monkey | <i>Saimiri sciureus</i> | Cebidae |
| Capuchin Monkey | <i>Cebus apella</i> | Cebidae |
| Howler Monkey | <i>Alouatta seniculus</i> | Cebidae |
| Oncilla | <i>Leopardus tigrinus</i> | Felidae |
| Forest Rats | | |
| Coati | <i>Nasua</i> | Procyonidae |
| Golden Handed Tamarin | <i>Saguinus midas</i> | Callitrichidae. |
| Guianan/ white faced saki | <i>Pithecia</i> | Pitheciidae |
| Brown Bearded Saki | <i>Chiropotes satanas</i> | Pitheciidae |
| Vampire Bats | <i>Pitheciidae</i> | Phyllostomidae |
| Molossid / Free tailed bat | | Molossidae |

| Ornithology (Birds) | | |
|------------------------|----------------------------------|-------------------|
| Common Name | Scientific Name | Family |
| King vulture | <i>Sacroramphus papa</i> | Cathartidae |
| Black vulture | <i>Coragyps atratus</i> | cathartidae |
| Turkey vulture | <i>Cathartes aura</i> | Cathartidae |
| Lesser yellow head | <i>Cathartes burrovianus</i> | Cathartidae |
| Swallow tailed kite | <i>Elanoides forficatus</i> | Accipitridae |
| Grey hawk | <i>Buteo nitidus</i> | Accipitridae |
| Yellow headed caracara | <i>Milvago chimachima</i> | Falconidae |
| Red throated caracara | <i>Daptrius americanus</i> | Falconidae |
| Gray tinamou | <i>Tinamus tao</i> | Tinamidae |
| Variegated tinamou | <i>Crypturellus variegatus</i> | Tinamidae |
| Little chachalaca | <i>Ortalis motmot</i> | Cracidae |
| Marial guan | <i>Penelope marail</i> | Cracidae |
| Spix's guan | <i>Penelope jacqucau</i> | Cracidae |
| Black curassow | <i>Crax alector</i> | Cracidae |
| Marbled wood-quail | <i>Odontophorous gujanensis</i> | Phasianidae |
| Grey winged trumpeter | <i>Psophia crepitans</i> | Psophiidae |
| Grey necked woodrail | <i>Aramides cajanea</i> | Rallidae |
| Sun bittern | <i>Eurypyga helias</i> | Eurypygidae |
| Green ibis | <i>Mesembrinibis cayennensis</i> | Threskiornithidae |
| Ruddy pigeon | <i>Columba subvinacea</i> | Columbidae |
| White tipped dove | <i>Leptotila verreauxi</i> | Columbidae |
| Ruddy quail dove | <i>Geotrygon montana</i> | Columbidae |

| Common Name | Scientific Name | Family |
|---------------------------------|-------------------------------------|-----------------|
| Ferruginous pygmy owl | <i>Glaucidium brasilianum</i> | Strididae |
| Barn owl | <i>Tyto alba</i> | Strididae |
| Long tailed hermit | <i>Phaethornis longipennis</i> | Trochilidae |
| White chested emerald | <i>Anthracothorax nigricollis</i> | Trochilidae |
| Glittering throated hummingbird | <i>Amazilia fimbriata</i> | Trochilidae |
| Gray breasted sabrewing | <i>Camplopterus largipennis</i> | Trochilidae |
| Pygmy kingfisher | <i>Chloroceryle aenea</i> | Alcedinidae |
| Ringed kingfisher | | |
| Blue crowned motmot | <i>Motmotus momota</i> | Motmotidae |
| Yellow-billed jacamar | <i>Galbula albirostris</i> | Galbulidae |
| Green tailed jacamar | <i>Galbula</i> | Galbulidae |
| Cream coloured woodpecker | <i>Celeus flavus</i> | Picidae |
| Ringed woodpecker | <i>Celeus torquatus</i> | Picidae |
| Crimson-crested woodpecker | <i>Campephilus melanopeucos</i> | Picidae |
| Red-necked woodpecker | <i>Campephilus rubricollis</i> | Picidae |
| Plain brown woodcreeper | <i>Dendrocincla fuliginosa</i> | Dendrocolapidae |
| Wedge billed woodcreeper | <i>Glyphorhynchus spirurus</i> | Dendrocolapidae |
| Buff throated woodcreeper | <i>Xiphorhynchus guttatus</i> | Dendrocolapidae |
| Curved billed scythebill | <i>Campylorhamphus procurvoides</i> | Dendrocolapidae |
| Blue and yellow macaw | <i>Ara ararauna</i> | Pscittacidae |
| Red and green macaw | <i>Ara chloroptera</i> | Pscittacidae |
| Red bellied macaw | <i>Ara manilata</i> | Pscittacidae |
| Red-shouldered macaw | <i>Ara nobilis</i> | Pscittacidae |
| Blue headed parrot | <i>Pionus mentruus</i> | Pscittacidae |
| Dusky parrot | <i>Pionus fuscus</i> | Pscittacidae |
| Red fan parrot | <i>Deroptus acciptrinus</i> | Pscittacidae |
| Orange winged parrot | <i>Amazona amazonica</i> | Pscittacidae |
| Mealy parrot | <i>Amazona farinosa</i> | Pscittacidae |
| Brown throated parakeet | <i>Aratinga pertinax</i> | Pscittacidae |
| Parrotlet | <i>Forpus sclateri</i> | Pscittacidae |
| Caica parrot | <i>Pionopsitta caica</i> | Pscittacidae |
| Black headed parrot | <i>Pionites melanocephalus</i> | Pscittacidae |
| Channel-billed toucan | <i>Rhamphastos vitellinus</i> | Ramphastidae |
| Red-billed toucan | <i>Rhamphastos tucanus</i> | Ramphastidae |
| Black necked aracarís | <i>Pteroglossus aracari</i> | Ramphastidae |
| Foliage gleaner | <i>Automolus sp.</i> | Furnaridae |
| Black crested antshrike | <i>Sakephorus canadensis</i> | Thamnophillidae |
| Barred antshrike | <i>Thamnophilus doliatus</i> | Thamnophillidae |
| White flanked antwren | <i>Myrmotherula axillaris</i> | Thamnophillidae |
| Mouse coloured antshrike | <i>Thamnophilus murinus</i> | Thamnophillidae |

| Common Name | Scientific Name | Family |
|---------------------------|-------------------------------|---------------|
| Rufous throated antbird | <i>Gymnopithys rufigula</i> | Formicariidae |
| White-plumed antbird | <i>pithys albifrons</i> | Formicariidae |
| Great kiskadee | <i>Pithangus sulphuratus</i> | Tyrannidae |
| Lesser kiskadee | <i>Pithangus lictor</i> | Tyrannidae |
| Rusty margined flycatcher | <i>Myiozetetes cayanensis</i> | Tyrannidae |
| Tropical king bird | <i>Tyrannus melancholicus</i> | Tyrannidae |
| White ringed flycatcher | <i>Conopius parva</i> | Tyrannidae |
| Yellow bellied elania | <i>Elania flavogaster</i> | Tyrannidae |
| White crowned manakin | <i>Dixiphia pipra</i> | Pipridae |
| Golden crowned manakin | <i>Pipra erythrocephala</i> | Pipridae |
| White fronted manakin | <i>Pipra serena</i> | Pipridae |
| Crimson hooded manakin | <i>Pipra aueola</i> | Pipridae |
| Screaming piha | <i>Lipaugus vociferans</i> | Cotingidae |
| White naped xenopsaris | <i>Xenopsaris albinucha</i> | Cotingidae |
| Southern house wren | | Troglodytidae |
| White necked thrush | <i>Turdus albicollis</i> | Turdidae |
| Torquoise tanagers | <i>Tangara mexicana</i> | Thraupidae |
| Burnish buff tanager | <i>Tangara cayana</i> | Thraupidae |
| Silver beaked tanager | <i>Ramphocelus carbo</i> | Thraupidae |
| Blue grey tanager | <i>Thraupis episcopus</i> | Thraupidae |
| Palm tanager | <i>Thraupis palmarum</i> | Thraupidae |
| Violaceous euphonia | <i>Ephonia violacea</i> | Thraupidae |
| Purple honeycreeper | <i>Cyanerpes caeruleus</i> | Thraupidae |
| Banna dacnis | <i>Coereba flaveola</i> | Thraupidae |
| Green oropendola | <i>Psacocolius viridis</i> | Icteridae |
| Yellow rumped cacique | <i>Cacicus cela</i> | Icteridae |
| Moriche oriole | <i>Icterus chrysocephalus</i> | Icteridae |
| Lesser seed finch | <i>Oryzoborus angolensis</i> | Emberizidae |

| Ichthyology (Fish) | | |
|--------------------|---------------------------------------|--------------|
| Common Name | Scientific Name | Family |
| Catarback | <i>Myleus rhombadalli</i> | Characidae |
| Pacu | <i>Colossoma sp.</i> | Characidae |
| Baira fry | <i>Hydrolysus arnatus</i> | Characidae |
| Haimara | <i>Hoplias aimara / macropthalmus</i> | Erythrinidae |
| Basha | <i>Plagioscion sqamasissimus</i> | Sciaenidae |
| Cumma | <i>Doras sp.</i> | |
| Dogfish | <i>Acestrorhynchus</i> | |
| Biara | <i>Hydrolycus scomberodes</i> | |
| Hassar | <i>Hoplosternum littorale</i> | Doradidae |
| Tiger fish | <i>Hydrocynus vittatus</i> | Alestidae |
| Lung fish | <i>Dipnoi</i> | |

Herpetology (Frogs, Lizards, Snakes, and Turtles)

Researchers: Tokoye Biology and Conservation Club **Date:** June 27 to July 1, 2003

| Common Names | Scientific Names | Family |
|--------------------------|--------------------------------|-----------------|
| White Lipped Frog | <i>Leptodactylus sp.</i> | Leptodactylidae |
| Tree frog | | Hylidae |
| Cane Toad | <i>Bufo marinus</i> | Bufoidea |
| Frog | <i>Scinax rubra</i> | Hylidae |
| Lizard | <i>Kentropy sp.</i> | |
| Amazon Racerunner Lizard | <i>Ameiva</i> | Teiidae |
| Turnip tailed Gecko | <i>Theiadactylus rapicauda</i> | Gekkonidae |
| Parrot snake | <i>Bothriopsis bileniata</i> | Viperidae |
| Camacushi | <i>Chronius sp.</i> | Colubridae |
| Bush master | <i>Lachesis muta</i> | Viperidae |
| Labaria | <i>Bothrops atrox</i> | Viperidae |
| Hymerali (Coral snake) | <i>Micrurus surinamensis</i> | Elapidae |
| Yellow- footed turtle | <i>Ceochelome carbonaria</i> | Testudinidae |
| Leaf Litter toad | <i>Bufo typhonius</i> | Bufoidea |
| Glass Frogs | <i>Centrolenidae</i> | |
| Poison Dart frogs | <i>Dendrobatidae</i> | Dendrobatidae |
| Rainbow Boa | <i>Epicrates cenchria</i> | Boidae |
| Emerald Boa | <i>Corallus caninus</i> | Boidae |

Entomology (Insects)

| Common Name | Order |
|-----------------------|-------------|
| Moths and butterflies | Lepidoptera |
| Beetles | Coleoptera |
| Wasps | Hymenoptera |
| Roaches | Dictyoptera |
| Grasshoppers | Orthoptera |
| Dragonflies | Odonata |
| Plantbugs | Hemiptera |





#ExperienceConnectAct

