

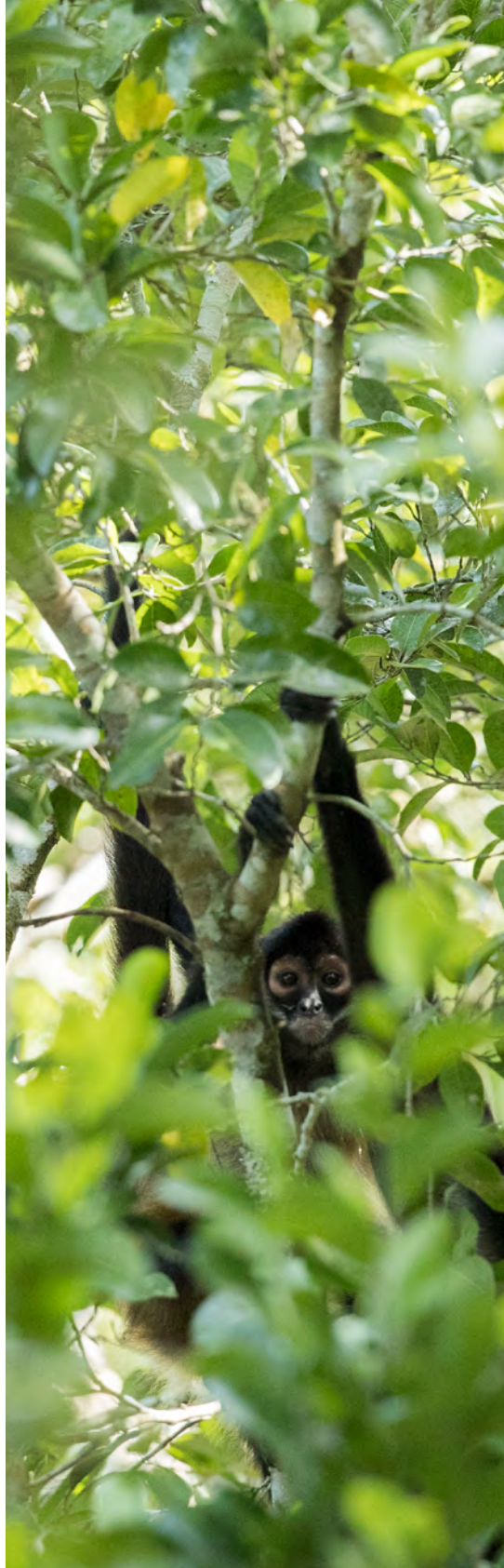
SPIDER MONKEY vol. 1

Ateles geoffroyi



Yaxha, Peten, Guatemala

DR. NICHOLAS **HELLMUTH**



FLAAR
MESOAMÉRICA

SPIDER MONKEY

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Ateles geoffroyi

Canon EOS 6D. Lens Canon EF 300mm f/2.8L IS II USM. F/3.5, 1/2000, ISO 2000. Location: Yaxha, Petén, Guatemala.
Photograph by: Erick Flores, FLAAR Mesoamérica.

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Canon EOS 6D. Lens Canon EF 300mm f/2.8L IS II USM. F/3.2, 1/2000, ISO 2000. Location: Yaxha, Petén, Guatemala.
Photograph by: Erick Flores, FLAAR Mesoamérica.



This report was made in cooperation with the Yaxha-Nakum-Naranjo National Park to help promote the park, its natural resources and attract future visitors.



FLAAR Mesoamérica (**Foundation for Latin American Anthropological Research**), is a nonprofit Guatemalan institution founded under the direction and enthusiasm of biologist M. Sc. Edgar E. Sacayón and Dr. Nicholas Hellmuth, who is interested in flora y fauna of Guatemala for many decades, with the aim of wanting to see our country to be recognized throughout the world for its landscapes, culture and natural resources.

We believe knowledge and ancestral wisdom of natural resources can be taken to any kind of person through education. At the same time, it will awake admiration and desire in people who follow our work to preserve these resources. One of our main objectives is to create consciousness about looking after Mesoamerica natural diversity. Thus, the FLAAR team creates educational material to raise public awareness of it.

The work done in FLAAR Mesoamerica consists on the methodological compilation of facts about nature, flora, fauna, history, and culture of Mesoamerica, and to spread it up to the general public who play an important role in the conservation of ecosystems. One example is by making material that is easy to read, entertaining, reliable and visually pleasing, just like this report! We are open to work, share and, to expand the efforts we do with other organizations, institutions or companies that share our vision.

You can find more of our work in the different digital platforms of our directory:



www.FLAAR-mesoamerica.org
www.digital-photography.org
www.maya-ethnozoology.org
www.maya-ethnobotany.org

FLAAR_mesoamerica@flaar.org



NATIONAL PARK

YAXHA NAKUM NARANJO

Yaxha Nakum Naranjo National Park is a site of great natural and cultural importance for our country. Because of the diversity of species it holds, flora and fauna likewise is listed as a RAMSAR site because it includes three types of wetlands identify by the Wetland Convention: temporal lagoons, karstic systems, and peat bogs. From these systems stand out the Lagoon Yaxha and Lagoon Sacnab, Lankaja, Champoxte and Juleque reservoirs from the Lagoon Yaxha.

In reference to the cultural importance that this protected area represents is that it contains heritage from the Prehispanic Mayan period that includes 292 recognized sites from which four are monumental archaeological sites: Yaxha, Nakum, Naranjo, and Topoxte. Other six intermediate archaeological sites include: Naranjito, El Carmen, La Pochitoca, Poza Mayor, el Bajón y el Pital, with other 282 minor archaeological sites within. (Plan Maestro PNYNN, 2006)



View of lagoon Yaxha from the temple 216, one of the wetland ecosystems declared by RAMSAR.

Nikon D5. Lente 100mm f/2, f/11.0, 1/80, ISO 125. Yaxha, Petén, Guatemala. Photograph by: Nicholas Hellmuth, FLAAR Mesoamérica



Ateles geoffroyi.

Canon EOS 6D. Lens Canon EF 300mm f/2.9L IS II USM. F/3.2, 1/2000, ISO 2000.

Location: Yaxha, Petén, Guatemala. Photograph by: Erick Flores.

SPIDER MONKEY

Our team want to collect high resolution photographs and videos of the daily life of the spider monkey and howler monkey in the Yaxha Nakum Naranjo National Park, Petén, Guatemala. The following report represents 1% of what will be generated and presented to the public. This photo-essay is a sample of the advantages of being able to have a good photographic equipment within reach. We have the best brands of cameras and lenses on the market and therefore, photographs. If it were possible to have more economic resources our readers could have access to more and better pictures of the flora and fauna of each exploration of the FLAAR Mesoamerica Guatemala team.

To help other students, schools and people interested in the subject, within some of our reports we included a small description of the whole team, the configuration that was useful at the time of the capture and other tips on photography.



Ateles geoffroyi.

Canon EOS 6D. Lens Canon EF 300mm f/2.9L IS II USM. F/3.2, 1/2000, ISO 2000.
Location: Yaxha, Petén, Guatemala. Photograph by: Erick Flores

Our team, both photographic and research, illustration, design and animation has been working for many years in the preparation of educational material in different languages (Spanish, English and Mayan languages). Since Yaxha Park is located near local schools, part of the material that is worked on FLAAR Mesoamerica is a support to the educational programs of the 11 rural schools near Yaxha-Nakum-Naranjo.

We will be and we are preparing more material, but in this opportunity we want to show you the funny photographs and information about the favorite diet of the spider monkeys and other curiosities.

- DR. NICHOLAS HELLMUTH



Ateles geoffroyi.

Canon EOS 6D. Lens Canon EF 300mm f/2.9L IS II USM. F/4.5, 1/640, ISO 1000.
Location: Yaxha, Petén, Guatemala. Photograph by: Nicholas Hellmuth



Ateles geoffroyi.

Canon EOS 6D. Lens Canon EF 300mm f/2.9L IS II USM. F/3.2, 1/2000, ISO 2000. Location: Yaxha, Petén, Guatemala. Photograph by: Erick Flores



Ateles geoffroyi.

Canon EOS 6D. Lens Canon EF 300mm f/2.9L IS II USM. F/3.2, 1/2000, ISO 2000. Location: Yaxha, Petén, Guatemala. Photograph by: Erick Flores



Ateles geoffroyi.

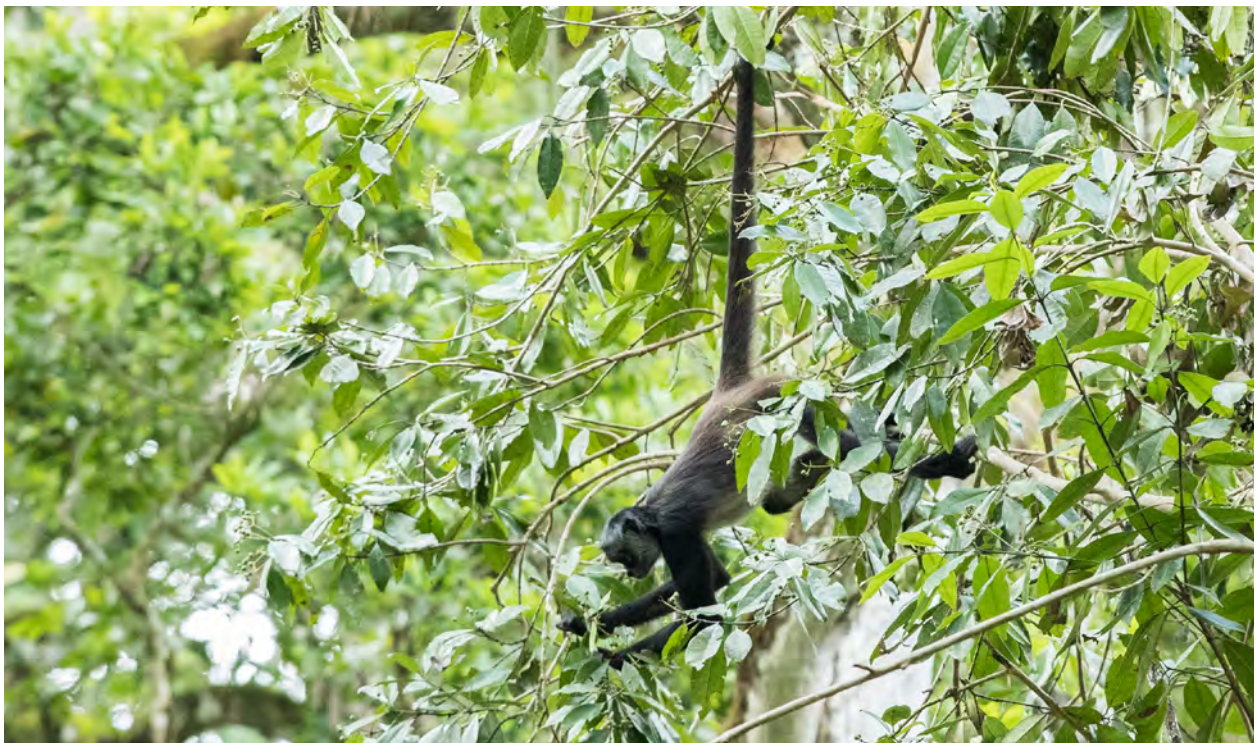
Canon EOS 6D. Lens Canon EF 300mm f/2.9L IS II USM. F/3.2, 1/2000, ISO 2000. Location: Yaxha, Petén, Guatemala. Photograph by: Erick Flores

WHAT'S INSIDE THE FAVORITE MENU OF THE SPIDER MONKEY?

Each ecosystem is made up of different plants and forest types that make them unique. That's why also the diet of the animals who lives in there can vary from one ecosystem to another. In this report we will realize that the diet of a spider monkey in El Mirador, for example, is different from the diet of spider monkeys in Tikal and Yaxha-Nakum-Naranjo. In general, any other spider monkey in Guatemala tends to have a varied diet depending on the food that is available in the place where it lives.



The spider monkey (*Ateles geoffroyi*) is a medium - small primate, living mainly in the humid forests of Mexico to Colombia.



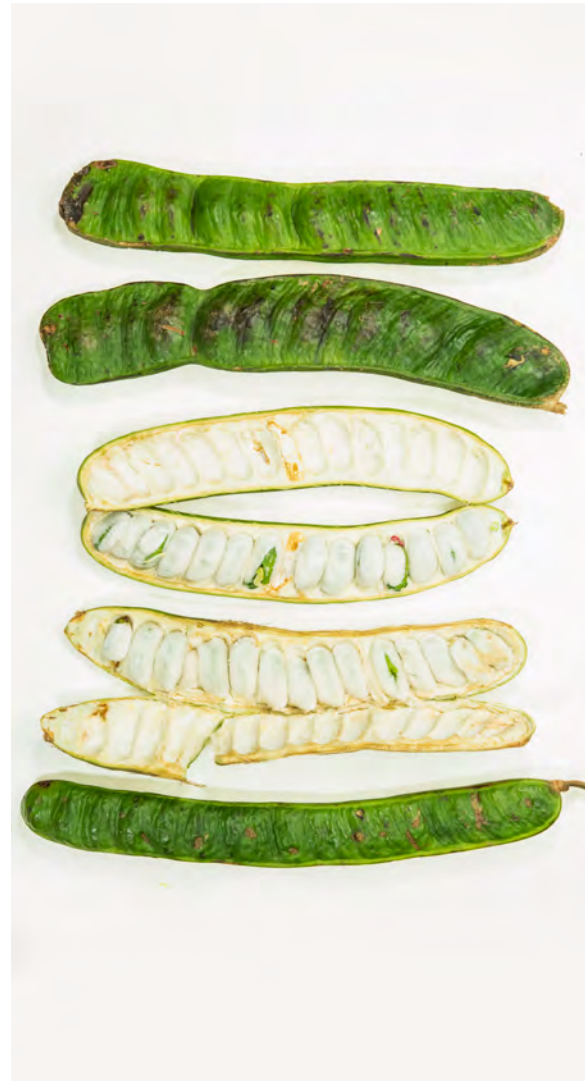
Ateles geoffroyi.

Canon EOS 6D. Lens Canon EF 300mm f/2.9L IS II USM. F/4, 1/640, ISO 2500.
Location: Yaxha, Petén, Guatemala. Photograph by: Nicholas Hellmuth

In different field trips, which we have had the opportunity to make in the jungles of Guatemala, we have noticed some of the favorite fruits of the spider monkey.

Spider monkeys consume a wide variety of fruit species. We have seen that they like to eat jocotes, *Spondias mombin*, which are very abundant fruits in the country. Also the pulp of the paterna, *Inga paterna* and *edulis*. This fruit produces a sweet, dense, white paste around the seeds, which people also like to eat. There are many Inga species in the Mayan areas, but mainly these two species. If you can find Inga trees in the surroundings of Tikal Park, there is also a possibility to find them in Yaxha. A list of all edible fruit trees or seeds that are within this protected area in our series of Yaxha Plants that will be made soon.

Another fruit with pulp that monkeys enjoy is the one where “chocolate” is extracted from. Yes, chocolate comes from the seeds of a fruit that has pulp! *Theobroma cacao* seeds have a white fleshy around that can be eaten like the paternal, of which the monkeys enjoy eating.



Inga sp. The white seeds that are shown inside the pod have a sweet pulp, which spider monkeys enjoy.

Nikon D810. Lens Nikon AF-S NIKKOR 800mm f/5.6E FL ED VR. F/10, 1/5, ISO 5000.

Location: Westcott market, Guatemala.

Photograph by: Nicholas Hellmuth



***Spondias mombin*.** Fruit of jocote from the branches of the tree.
Canon EOS 6D. Lens Canon EF 300mm f/2.9L IS II USM. F/14, 1/30, ISO 500.
Location: Jalapa, Guatemala. Photograph by: Nicholas Hellmuth



***Spondias mombin*.** Jocote fruits are used to make different dishes such as ice cream, juices or jams.

Nikon D810. Nikon AF-S NIKKOR 600mm f/4.e FL ED VR. F/4.e FL ED VR .F/9, 1/30, ISO 1000. Location: Westcott market, Guatemala. Photograph by: Nicholas Hellmuth



***Inga* sp.**

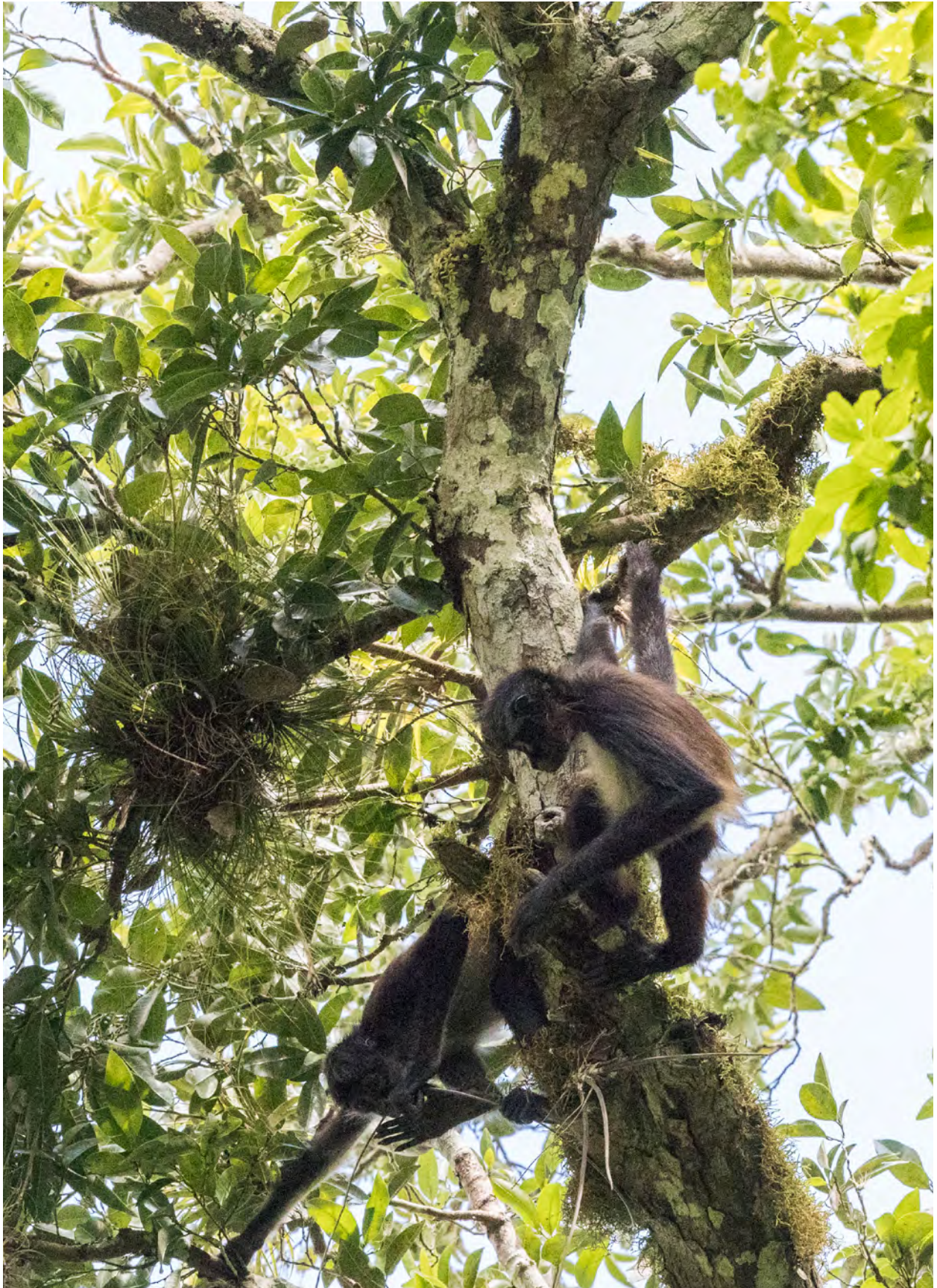
Nikon D810. Lente Nikon AF-S NIKKOR 600mm f/4.e FL ED VR .F/10, 1/5, ISO 500. Location: Westcott market, Guatemala. Photograph by: Nicholas Hellmuth



Theobroma cacao. Close up of the approach of the cocoa flower. The previous phase to develop the fruit.
Canon EOS 6D. Lens Canon EF 300mm f/2.9L IS II USM.F/13, 1/80, ISO 125.
Location: jardín de FLAAR, Guatemala. Photograph by: Erick Flores



Theobroma cacao. Cocoa seeds This is the way in which cocoa is used to make chocolate.
Canon EOS 6D. Lente Canon EF 300mm f/2.9L IS II USM.F/9, 1/5, ISO 200.
Location: estudio de fotografía en FLAAR, Guatemala. Photograph by: Erick Flores



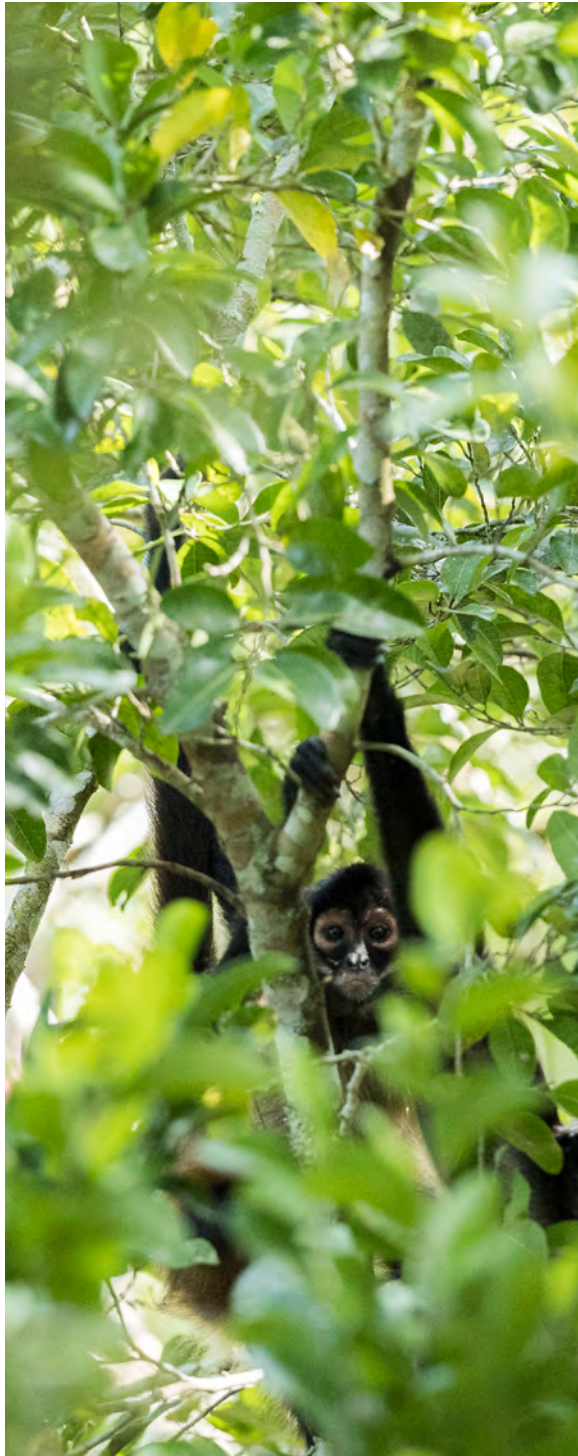
Ateles geoffroyi.

Canon EOS 6D. Lens Canon EF 300mm f/2.9L IS II USM. F/3.2, 1/2000, ISO 2000.
Location: Yaxha, Petén, Guatemala. Photograph by: María Alejandra Gutierrez



Ateles geoffroyi.

Canon EOS 6D. Lens Canon EF 300mm f/2.9L IS II USM. F/3.5, 1/2000, ISO 2000.
Location: Yaxha, Petén, Guatemala. Photograph by: Erick Flores, FLAAR Mesoamérica.



Ateles geoffroyi. Canon EOS 6D. Lens Canon EF 300mm f/2.8L IS II USM. F/3.5, 1/2000, ISO 2000.
Location: Yaxha, Petén, Guatemala.
Photograph by: Erick Flores, FLAAR Mesoamérica.

Spider monkeys, and other mammals like many birds, enjoy eating the fresh fruits of *Cecropia* (guarumo tree). These are very common to observe on the roadside growing next to the weeds. Although they seem insignificant, remember that these trees should not be cut down, as they are a source of food for many mammals and birds and are even used as construction material.

Spider monkeys also like to feed on *Brosimum alicastrum*, ramón tree. Dennis Puleston suggests that the ancient Mayans also consumed ramón, there is even evidence that the Mayans of today who live near Tikal and Ixlu still consume it and prepare different recipes with this fruit. *Pouteria campechiana*, the “canistel” or “yellow zapote” are other fruits that the Mayans eat today, they even use them to prepare jams.



The spider monkey is listed as endangered due to the reduction of its habitat due to deforestation.



***Cecropia peltata*.**

Guarumo tree from which the spider monkeys feed on their fruits.

Canon EOS 6D. Lens Canon EF 300mm f/2.9L IS II USM.F/2.8, 1/125, ISO 105.

Location: Las Guacamayas, Guatemala, Guatemala. Photograph by: Alejandra Gutierrez



***Pouteria campechiana*.** "Canistel" or yellow zapote that the monkeys enjoy eating. If you see these fruits on the forest floor it is because the spider monkeys have stopped to eat them up in the trees.
 Canon EOS 6D. Lens Canon EF 300mm f/2.9L IS II USM. F/8, 1/160, ISO 100.
 Location: Frutas del mundo, Izabal, Guatemala. Photograph by: Erick Flores



***Pouteria campechiana*.**
 Another name with which this yellow zapote is known is known as "poop of child" or "poop of mico".

Canon EOS 6D. Lens Canon EF 300mm f/2.9L IS II USM.
 F/10, 1/160, ISO 100. Location: Frutas del mundo, Izabal, Guatemala. Photograph by: Erick Flores



***Brosimum alicastrum*.**
 Fruit and seed of ramón.

Photograph by: Elena Siekavizza, FLAAR Mesoamérica.



***Brosimum alicastrum*.**

Trunk and prawns of ramón tree.

Nikon D5. Lens Nikon 200mm f/4 AF-D Macro. F/16, 1/15, ISO 1600.

Location: Las Guacamayas, Guatemala, Guatemala. Photograph by: Nicholas Hellmuth

Manilkara zapota, “zapote” or “sapodilla” is very popular among Mayans in Guatemala, Belize, Mexico and Honduras. Apart from giving a delicious fruit, the bark produces latex, which is prepared as chewing gum. The wood of *Manilkara zapota*, was used by the ancient Mayans to build beams in different temples, which have remained for thousands of years. Another fruit that monkeys consume is *Dialium guianensis*, also known as wild tamarind.



***Manilkara zapota*.** Fruit of zapote.
Canon EF 300mm f/2.9L IS II USM. Lente 300mm Canon, f/6,3, 1/400, ISO 500.
Rio Cienega Izabal, Guatemala. Photograph by: Erick Flores, FLAAR Mesoamérica.



Ateles geoffroyi.

Canon EOS 6D. Lente Canon EF 300mm f/2.9L IS II USM. F/3.5, 1/2000, ISO 2000.
Location: Yaxha, Petén, Guatemala. Photograph by: Erick Flores, FLAAR Mesoamérica.



Ateles geoffroyi.

Canon EOS 6D. Lente Canon EF 300mm f/2.9L IS II USM. F/3.5, 1/2000, ISO 2000.
Ubicación: Yaxha, Petén, Guatemala. Fotografía por: Erick Flores, FLAAR Mesoamérica.



Ateles geoffroyi.

Canon EOS 6D. Lente Canon EF 300mm f/2.9L IS II USM. F/3.5, 1/2000, ISO 2000.
Location: Yaxha, Petén, Guatemala. Photograph by: Erick Flores, FLAAR Mesoamérica.



Ateles geoffroyi.

Canon EOS 6D. Lente Canon EF 300mm f/2.9L IS II USM. F/3.2, 1/2000, ISO 2000.
Location: Yaxha, Petén, Guatemala. Photograph by: Erick Flores, FLAAR Mesoamérica.



They are diurnal animals and most of the time they are found in the treetops. When they are afraid or feel threatened by humans they jump from top to bottom, throw branches and emit a kind of bark. During your tour in the Park you should be aware if a group of spider monkeys is approaching!



Ateles geoffroyi. Canon EOS 6D. Lente Canon EF 300mm f/2.9L IS II USM. F/3.2, 1/2000, ISO 2000.
Location: Yaxha, Petén, Guatemala. Photograph by: Erick Flores, FLAAR Mesoamérica.

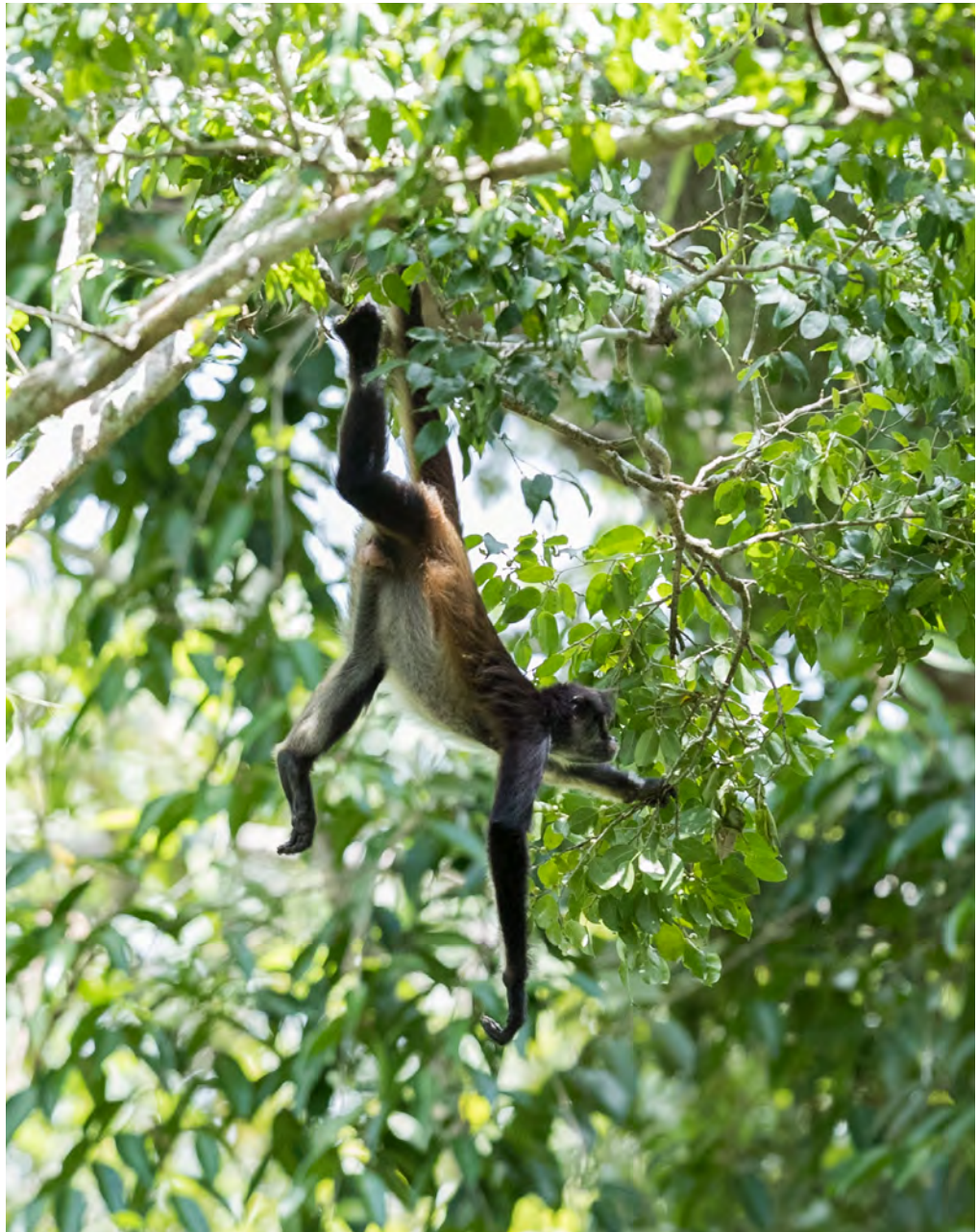


Ateles geoffroyi. Canon EOS 6D. Lente Canon EF 300mm f/2.9L IS II USM. F/3.5, 1/2000, ISO 2000.
Location: Yaxha, Petén, Guatemala. Photograph by: Erick Flores, FLAAR Mesoamérica.



Ateles geoffroyi. Canon EOS 6D. Lente Canon EF 300mm f/2.9L IS II USM. F/3.5, 1/2000, ISO 2000.
Location: Yaxha, Petén, Guatemala. Photograph by: Erick Flores, FLAAR Mesoamérica.

Monkeys also enjoy feeding on various species of *Virola*, such as *V. koschnyi*, and *V. guatemalensis*. Inside this fruit is a nut almost similar to the famous nutmeg. But what the monkeys enjoy is the fleshiness that surrounds them, discarding the seed of this native fruit from the forests of Alta Verapaz, Izabal and Petén.



Ateles geoffroyi. Canon EOS 6D. Lente Canon EF 300mm f/2.9L IS II USM. F/3.5, 1/2000, ISO 2000. Location: Yaxha, Petén, Guatemala. Photograph by: Erick Flores, FLAAR Mesoamérica.



Nuez moscada. Fruits of the genus *Virola* are very similar to this famous nut. FLAAR Mesoamerica team has been searching for years for nutmeg any of the two *Virola* species reported for Guatemala.

Canon EOS 6D. Lente Canon EF 300mm f/2.9L IS II USM. F/6.3, 1/400, ISO 500.

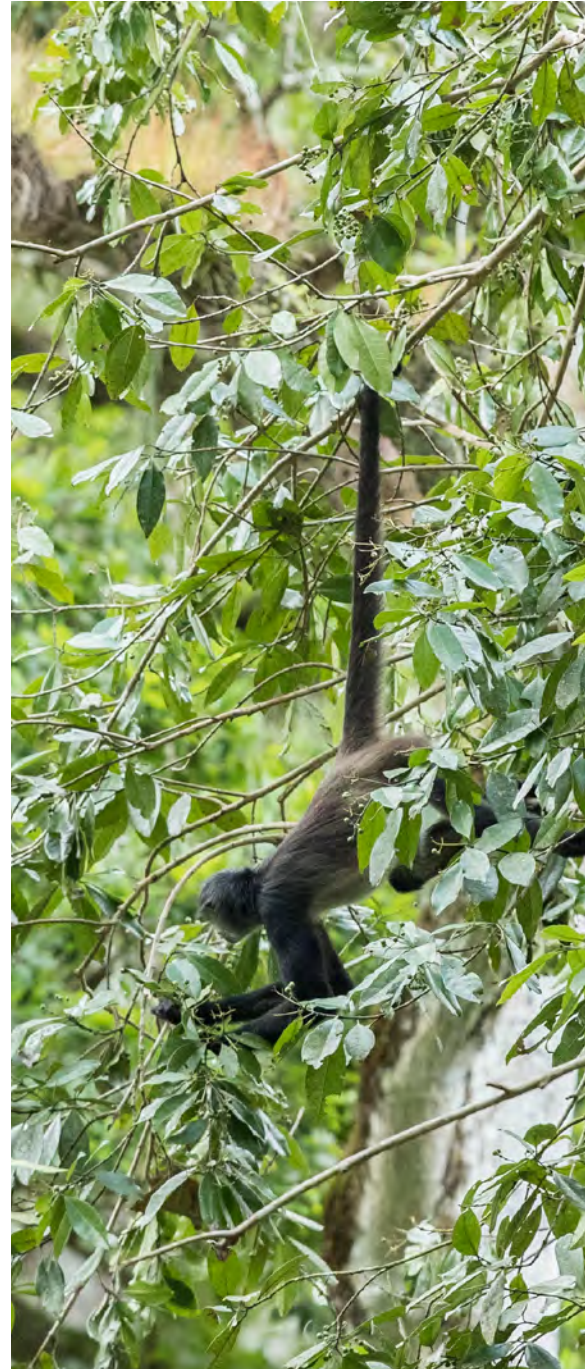
Location: Rio Ixbolay, Alta Verapaz, Guatemala. Photograph by: Erick Flores, FLAAR Mesoamérica.

SEED DISPERSERS

Monkeys, birds and other animals that eat fruits help the dispersal of seeds so that the fruit trees can reproduce. Birds and mammals eat the fruit, then move to other trees while their stomachs are digesting the fruit. Then, when the bird or mammal is ready to defecate, they do so far from the original tree. The fruit seeds can be found in the excrement, so the seed will have fresh fertilizer for its development.



Their diet is mainly herbivorous and frugivorous, they eat ripe fruits, leaves, flowers, nuts, seeds and sometimes insects, arachnids and eggs.



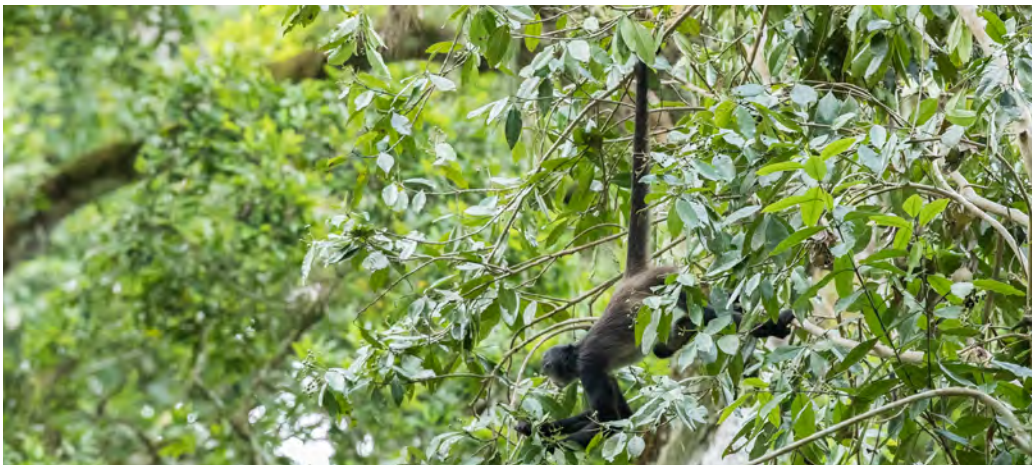
Ateles geoffroyi. Canon EOS 6D. Lente Canon EF 300mm f/2.9L IS II USM. F/3.5, 1/2000, ISO 2000.
Location: Yaxha, Petén, Guatemala.
Photograph by: Erick Flores, FLAAR Mesoamérica.



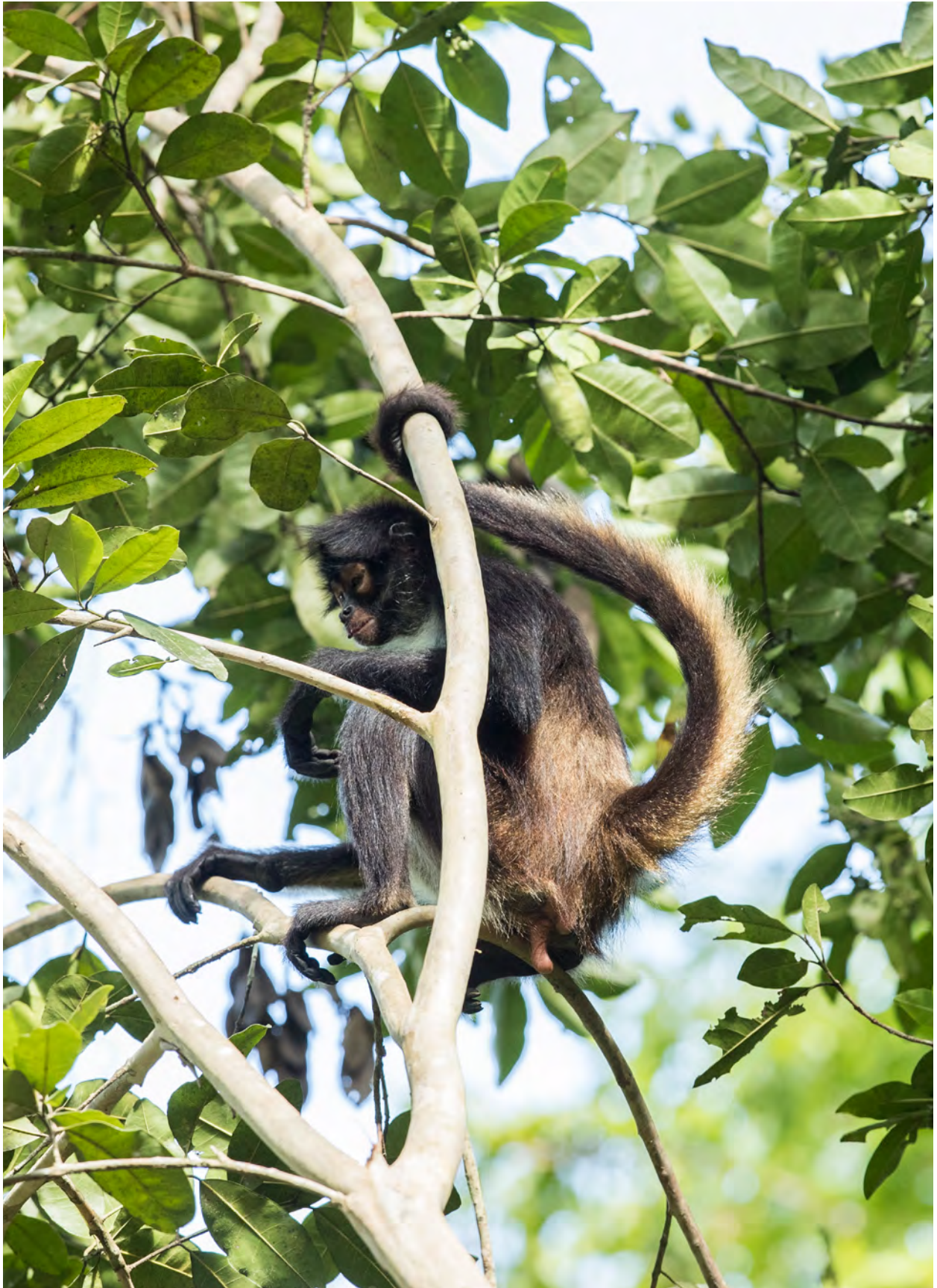
Ateles geoffroyi. Photo sequence of the moment in which a spider monkey feeds on the fruits of the allspice.
 Canon EOS 6D. Lente Canon EF 300mm f/2.9L IS II USM. F/4, 1/640, ISO 2500.
 Location: Yaxha, Petén, Guatemala. Photograph by: Erick Flores



Ateles geoffroyi.
 Canon EOS 6D. Lente Canon EF 300mm f/2.9L IS II USM. F/4, 1/640, ISO 2500.
 Location: Yaxha, Petén, Guatemala. Photograph by: Erick Flores



Ateles geoffroyi.
 Canon EOS 6D. Lente Canon EF 300mm f/2.9L IS II USM. F/4, 1/640, ISO 2500.
 Location: Yaxha, Petén, Guatemala. Photograph by: Erick Flores



Ateles geoffroyi.

Canon EOS 6D. Lente Canon EF 300mm f/2.9L IS II USM. F/4.5, 1/640, ISO 1000.

Location: Yaxha, Petén, Guatemala. Photograph by: Erick Flores, FLAAR Mesoamérica.

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Yaxha-Nakum-Naranjo (DGPCyN / MICUDE)

Ing. Jorge Mario Vazquez –Jefe del Parque (CONAP)

Biog. Lorena Lobos (CONAP)

Arq. Jorge Mario Ortiz

All the helpful and knowledgeable guides of IDAEH CONAP who accompanied us each day. It is essential to have either an IDAEH and/or CONAP guardabosque or comparable when doing flora and fauna research.

We appreciate the 16 years of knowledge of birds and plants of “Teco” (Moises Daniel Pérez Díaz). We also appreciate the assistance of park ranger Ricardo Herrera. It is essential to have either an IDAEH and/or CONAP guardabosque or comparable when doing flora and fauna research.



Ateles geoffroyi. Canon EOS 6D. Lens Canon EF 300mm f/2.9L IS II USM. F/3.5, 1/2000, ISO 2000. Location: Yaxha, Petén, Guatemala. Photograph by: Erick Flores, FLAAR Mesoamérica.



MUCH MORE THAN A PARK

The Yaxha-Nakum-Naranjo National Park raises within its objectives the protection and conservation of the natural resources of the area, as well as the conservation of the ancient Mayan cities. Thanks to its natural beauty, the aspiration is for this place to be attractive to visitors and a source of income for the communities. It also aims to be a tool for environmental education, scientific research and ecotourism, leveraging the natural potential that exists in this protected area.

That is why our organization FLAAR Mesoamerica, with the support of the authorities that manage the park, has created the material you have in your hands, to generate interest among students, researchers and tourists visiting the area. FLAAR Mesoamerica has specialized in the photographic documentation of species of flora and fauna, and in the compilation of biological, botanical, ethnobotanical and ethnozoological research to make known the variety of natural resources that exist in the region

FOR MORE INFORMATION

-  www.destinoyaxha.com
-  www.flaar-mesoamerica.org
-  [@PN_YNN](https://twitter.com/PN_YNN)
-  [/pnynn.guatemala](https://www.facebook.com/pnynn.guatemala)
-  [/FLAARM](https://www.facebook.com/FLAARM)

HOW TO GET TO YAXHA?

MAP LEGEND



Archaeological sites



Airports



Earthworks



Highway



PROTECTED AREA



INDICATIONS

Go to the Mundo Maya airport in Santa Elena and then you will find a services of tourist vehicles to go to the archaeological site.

If you want to go by car from Guatemala City, take the following route: Río Dulce - Poptún - Flores. At the junction further on you will find on the left the route to Tikal. Go straight on to the right towards Yaxha (towards Melchor de Mencos). In km. 521 at the village La Maquina, turn left to the site.

Ecolodge El Sombrero is 50 meters before the entrance to National Park Yaxha - Nakum - Naranjo.

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Ateles geoffroyi. Canon EOS 6D. Lente Canon EF 300mm f/2.9L IS II USM. F/13, 1/500, ISO 16000. Location: Yaxha, Petén, Guatemala. Photograph by: María Alejandra Gutierrez, FLAAR Mesoamérica.

