

Each piece of an ecosystem is part of every other.



## THE FAUNISTIC DIVERSITY OF THE BONOS JAGUAR DEL MAYAB PORTFOLIO

Project Developer: THEEARTHLAB S.A. DE C.V. (The Earth Lab)

Promotion and Marketing Entity: BONOS DE CARBONO MESTIZO S.A.P.I de C.V. (BCO2M)

Forest Owners: *Ejido X-Hazil and Annexes, Ejido Caoba and Ejido Felipe Carrillo Puerto.*

THE **EARTH LAB**



Bonos Jaguar del Mayab Portfolio  
**#PartOfThePlan**  
International Day  
for Biodiversity  
2024



**BCO2M**  
Ban.CO2 de Carbono Mestizo®





By commemorating the International Day for Biological Diversity and, in support of its motto For this year, “Be part of the plan”, this publication seeks to promote the value and wealth of the faunistic biodiversity found in the Nature-based Solution (NbS) Projects developed by The Earth Lab and are marketed through BCO2M.

The content of this document focuses on the “*Portafolio Bonos Jaguar del Mayab*” for its name in Spanish for “Mayab Jaguar Credits” Portfolio phase II (PBJM-II) comprised by a set of 3 Carbon Projects. Its name is taken from the region of the Yucatan Peninsula, called Mayab since ancient times, as well as one of the most emblematic species of fauna in the area, the jaguar, an animal considered sacred for its power and majesty since times of the Mesoamerican culture; it is the largest feline in America.

Project Name	Location / Q. Roo , MX.	Project ID
Bonos Laguna Sijil Noh-Há	<i>Ejido Felipe Carrillo Puerto</i>	CAR1865
Bonos Aroma del Mayab	<i>Ejido Caoba</i>	CAR1864
Bonos X-Hazil de la Ruta Sian Ka´An	<i>Ejido X-Hazil y Anexos</i>	CAR 1863



Photo by: Sanchez, Gonzalo. Archeological Site Calakmul.

## Geographic Context

The projects are in a privileged situation due to their geographical location, in the Yucatan Peninsula in southern Mexico.

At the regional level, they are in the Mesoamerican Biological Corridor, connecting with the Sian Ka'an and Calakmul Biosphere Reserves.

They belong to the Priority Terrestrial Region Forest Zones of the state of Quintana Roo.



The region maintains high conservation values for the diversity of flora and fauna species at the global, regional and local levels.

The project also houses unique a endangered ecosystems, provides basic environmental services to meet basic needs, and preserves and promotes the cultural and traditional identity of local communities of mostly Mayan descent.

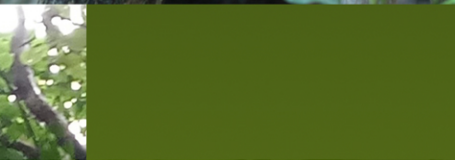
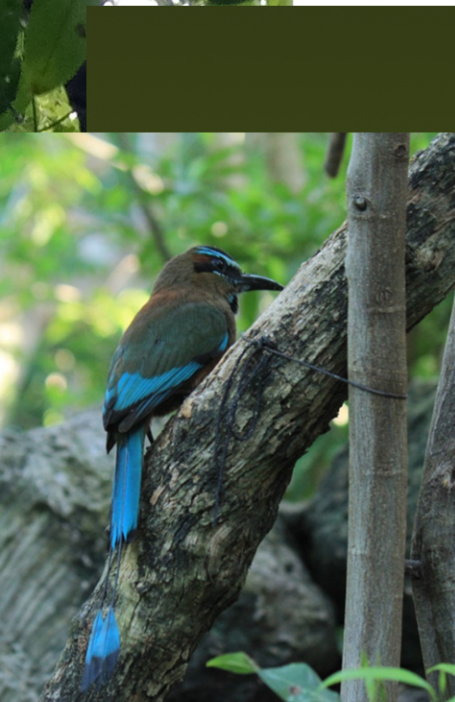
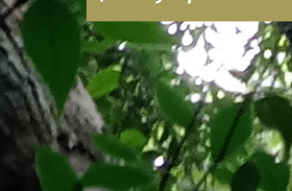


Photo by: Chi, Isaac. Milky tree frog.  
(*Trachycephalus vermiculatus*)



## Biological and Diversity Value

Since the initial stages of Promotion and Development of the PBJM-II Projects, The Earth Lab's team has carried out constant research and awareness-raising activities to preserve local biological diversity.

In the dense jungle of Quintana Roo, we can find some felines such as the jaguar (*Panthera onca*), the cougar (*Puma concolor*) and the ocelot (*Leopardus pardalis*), it is also home to mammals such as the tapir (*Tapirus bairdii*), the spider monkey (*Ateles geoffroyi*) and the coati (*Nasua narica*).

It is considered a paradise for bird watchers, due to its variety of resident and migratory species.

Among the most notable species found here are the toh bird (*Eumomota superciliosa*), the canoe-billed toucan (*Ramphastos sulfuratus*), and a great diversity of species of sparrows (*Passerines*), parrots (*Psittacidae*), falcons (*Raptors*) and hummingbirds (*Trochilidae*).

There is a rich diversity of reptiles and amphibians, including species such as the Mexican crocodile (*Crocodylus moreletii*), various species of snakes, frogs and lizards, some of which are endemic to the region.



“Reptiles and amphibians are sometimes thought of as primitive, dull and dimwitted. In fact, of course, they can be lethally fast, spectacularly beautiful, surprisingly affectionate and very sophisticated.”  
David Attenborough





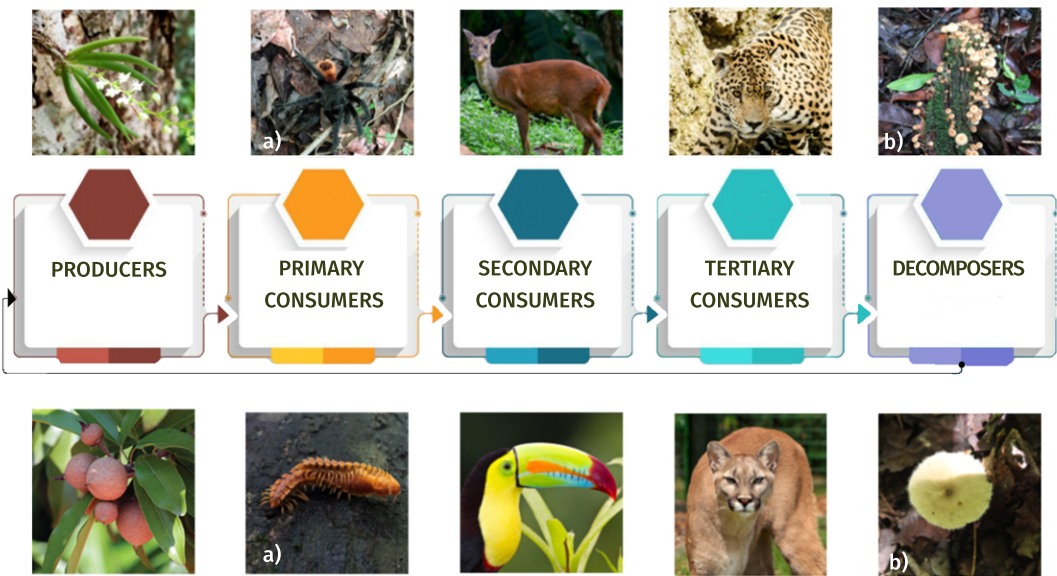
Understanding the food chain is vital for the preservation of biodiversity, ecosystem balance and climate resilience.

Photo by: De la Cruz, Griselle. Spider (*Trichonephila clavipes*)

# The Food Chain

Visual representation of the feeding interactions between different organisms in an ecosystem. It is made up of the following key parts:

- 1. Producers: Autotrophic organisms, such as plants and algae that produce their own food through photosynthesis, using the sun's energy to convert carbon dioxide and water into carbohydrates.
- 2. Primary consumers: Also known as herbivores, they feed directly on producers. They can include insects, deer and other animals.
- 3. Secondary consumers: They are carnivorous organisms that feed on primary consumers. For example: birds of prey, snakes and some fish.
- 4. Tertiary consumers: They are carnivores that feed on other carnivores. For example, top predators such as lions, jaguars, sharks and eagles.
- 5. Decomposers: bacteria and fungi that break down dead organic matter and convert it into nutrients that producers can absorb again, thus closing the nutrient cycle.



Photos by: Top row: Sánchez, Gonzalo: a) Tarantula (*Brachypelma epicureanum*), b) Mushrooms. Bottom row: De la Cruz, Griselle. a) Myriapoda, b) Fungus. The rest of the images are from stock.





Collage made with photographs from camera traps from  
*Ejidos Felipe Carrillo Puerto, Caoba and X-Hazil y Anexos*

## Best Practices

Since 1985, the ejidos of the Yucatan Peninsula that have adhered to the Forest Pilot Plan as founding partners of the *Organización de Ejidos Productores Forestales de la Zona Maya S.C.* have carried out best environmental practices. They have actively participated in the management of their forests, establishing reforestation and afforestation activities, cleaning of forest roads, firebreaks, fire trenches, implementation of silvicultural treatments authorized by SEMARNAT (Mexico's Ministry of Environment and Natural Resources), wildlife monitoring with trap cameras, formation of surveillance and bird watching brigades

These projects carry out Improved Forest Management and extract timber of marketable size in accordance with the official permit and the guidelines that govern them. The FSC® has stronger measures to protect biodiversity and wildlife habitat than conventional forestry practices thus, the Projects make efforts to adhere to them.

Currently, *Ejido Caoba* has the Individual FSC certification for both, Forest Management and Chain of Custody, and *Ejido X-Hazil* together with *Ejido Felipe Carrillo Puerto* have a group certification for Forest Management and FSC Chain of Custody, all valid until 2028.

The Earth Lab goes beyond legal requirements and promotes certifications to incentivize the conservation, protection and management of natural habitats that support wildlife, among them, the BJMP projects seek the Biodiversity Conservation Certification of the Wildlife Habitat Council (WHC) and the demonstration of positive impacts of FSC certified forests. It is a member of the FSC Southern Economic Chamber, license N00379, promotes the conservation and management of natural habitats that support wildlife.







Photo by: Sánchez, Gonzalo.  
Luisito común (*Myiozetetes similis*)

## Live and Preserve the Mayan Jungle

Wandering in the mountains is an experience that awakens the senses and makes you reconnect with nature in a profound way. The variety of species that inhabit these ecosystems is amazing. From the majestic trees reaching into the sky to the tiny insects hiding in the leaf litter, every corner of the forest is full of life.

As you get deeper into nature, you can see how the landscape around you changes. The scales of the trees make you feel small compared to their magnitude. The sounds of the forest surround you, from the rustling of branches to the chirping of birds. Each step takes you deeper into this natural and magical world, where calm and serenity are intertwined with the vibrant energy of wildlife.

By showing that the PBJM Projects contribute to stopping biodiversity loss and making sustainable use of forests and their natural resources, we are directly contributing to the targets of Sustainable Development Goal (SDG) 15.

Considering all aspects of our CO<sub>2</sub> projects, there are contributions to the SDGs 1, 4, 5, 8, 13, 15 and 17.



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