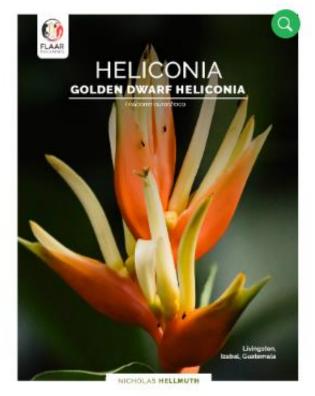


- 1. Herbs, vines and epiphytes
- 2. Tropical trees and shrubs
- 3. Insects, amphibians and other creatures
- 4. Parks and Reserves in the Caribbean
- 5. Tropical Animals
- 6. Palms
- 7. Aquatic plants and ferns
- 8. Mushrooms and lichens

CONTENT

- General introduction
- Specific data for this group of fauna
- Location of species on the FLAAR Mesoamerica catalogs





Heliconia aurantiaca – Livingston Project

Heliconia leaves can be used in a variety of situations, especially to replace tin on thatched roofs. It definitely has good potential to attract ecotourists. Knowing that it has been found north, south, east, and west of where the team will be working in Izabal, it can be estimated that other species of heliconia can be found.

Free download

Categories: Ethnobotany, Livingston Project, Plants Tags: Flora, Guatemala, Heliconia, Izabal, Livingston Project









INSECTS

MANTODEA, Tapón Creek, Município de Livingston Fotografía por: Brandon Hidalgo, FLAAR Mesoamerica.



AMPHIBIANS

Fotografia por: Alejandra Gutièrrez , FLAAR Mesoamerica.



S INSECT



ARACHNIDS

BIANS

REPTI



Livingston's Arachnids, Insects, and Other Creatures

by María José Toralla Biology student (USAC) Research assistant (FLAAR)



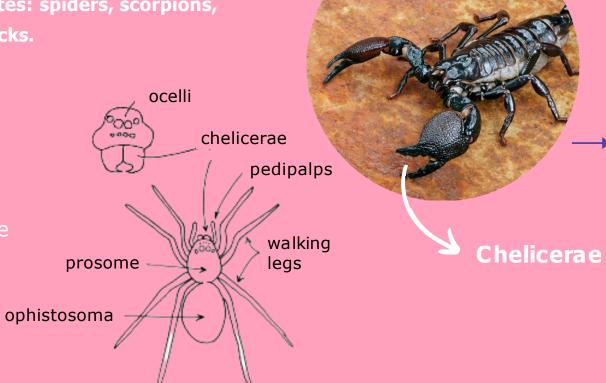




⁰² Arachnids

Predators and parasites: spiders, scorpions, opilions, mites and ticks.

- Chelicerae
- Pedipalps
- Venom glands
- Lots of eyes
- Lack of antennae





In Livingston

- Phrynus operculatus and Phymus parvulus
- Petén, Alta Verapaz, Guatemala,
 Sacatepéquez and Izabal
- Tapon Creek and El Rosario

Insects



They are easily distinguished because most have six legs, four wings and two antennae.

Unlike arachnids, the body is divided into three sections:

1.Head: sensory and food

2.Thorax: locomotion

3.Abdomen: internal apparatus

Types of growth



Direct growth

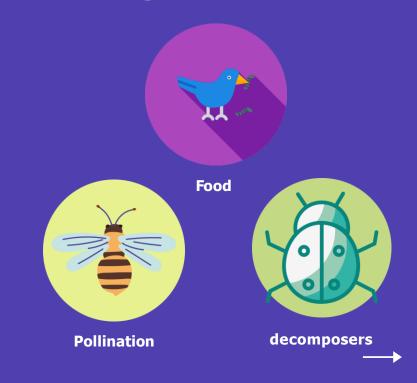


Incomplete metamorphosis



Complete metamorphosis

Ecological function



06

In Livingston

- In Guatemala there are insects from 1mm to 20mm wingspan.
- Lagunita Creek, Tapon Creek, Río Chocoón Machacas and Rio Blanco.
- Butterflies Rhetus arcius*, in Rio Blanco



Chalcidoidea Parasitic wasps

Rhetus arcius*



*unofficial identification

Amphibians

Cecilia, salamanders, frogs and toads

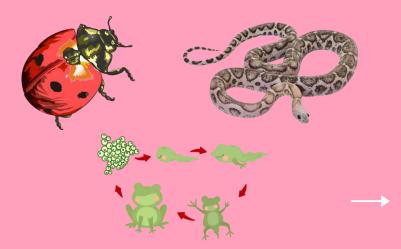


07

Characteristic:

- With mucous and poisonous glands.
- They lay shell-less eggs.
- They undergo metamorphosis
- They are highly endangered vertebrates.

Ecological function:



In Livingston



Tlalocohyla loquax

In Guatemala is the Cerro San Gil, which covers the municipalities of Puerto Barrios, Livingston and Morales in Izabal.

This is an important biological zone that includes several species of amphibians including:

- Tlalocohyla *loquax*
- Leptodactylus pentadactylus
- Agalychnis callidryas



- Dry skin covered with scales.
- Ectotherms.
- They have very good vision and some lack eyelids.
- Thermo-sensory pits.



2.Lizards and snakes

3.Crocodiles

4.Tuataras



09

Reptiles

In Livingston

There are 386 species of reptiles in Guatemala and 134 are snakes



Thanks for your



You can contact me via email at: majotorallaflaar@gmail.com

11

Location of species on the FLAAR Mesoamerica catalogs





FLAAR Mesoamerica 2022

Project: Documentation of the Biodiversity from Municipio de Livingston, Izabal Photographic record from FLAAR Mesoamerica

Project Manager: **Dr Nicholas Hellmuth** Coordination of editorial and publications: **Ing Vivian Díaz de la Roca** Field Coordinator: **María Alejandra Gutiérrez**

Presenters: Vivian Díaz de la Roca, María José Toralla

Guatemala city, Guatemala Livingston Izabal, Guatemala