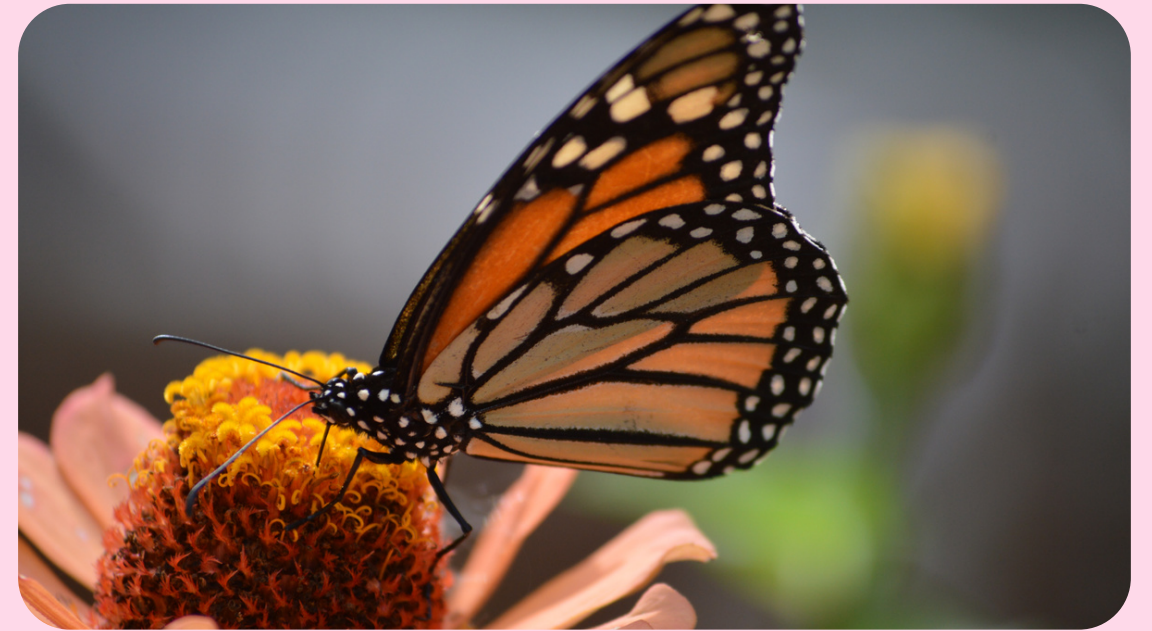


01

Livingston's Arachnids, Insects, and Other Creatures

by María José Toralla
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Research assistant (FLAAR)

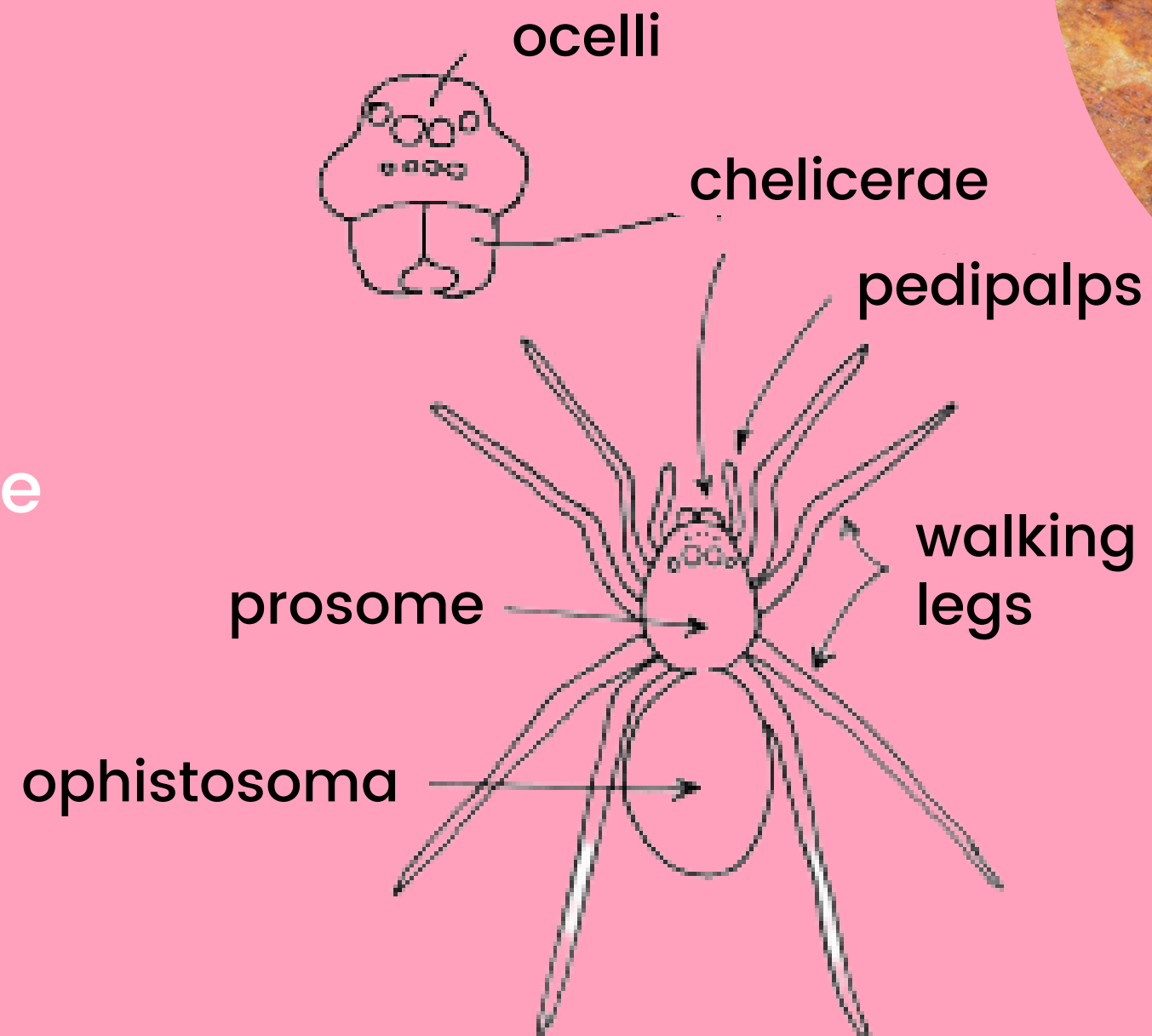


02

Arachnids

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

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



Chelicerae

In Livingston

- *Phrynus operculatus* and *Phrynus 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

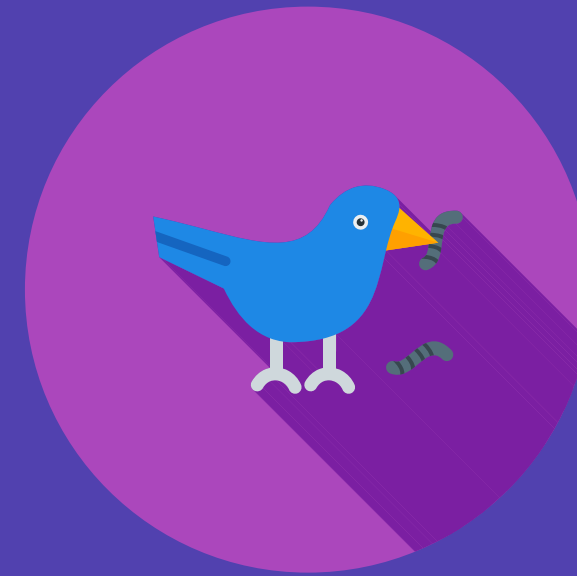


Incomplete
metamorphosis



Complete
metamorphosis

Ecological function



Food



Pollination



decomposers



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 arcus**, in Rio Blanco

→ *unofficial identification



Chalcidoidea
Parasitic wasps

*Rhetus arcus**



Amphibians

Cecilia, salamanders, frogs and toads

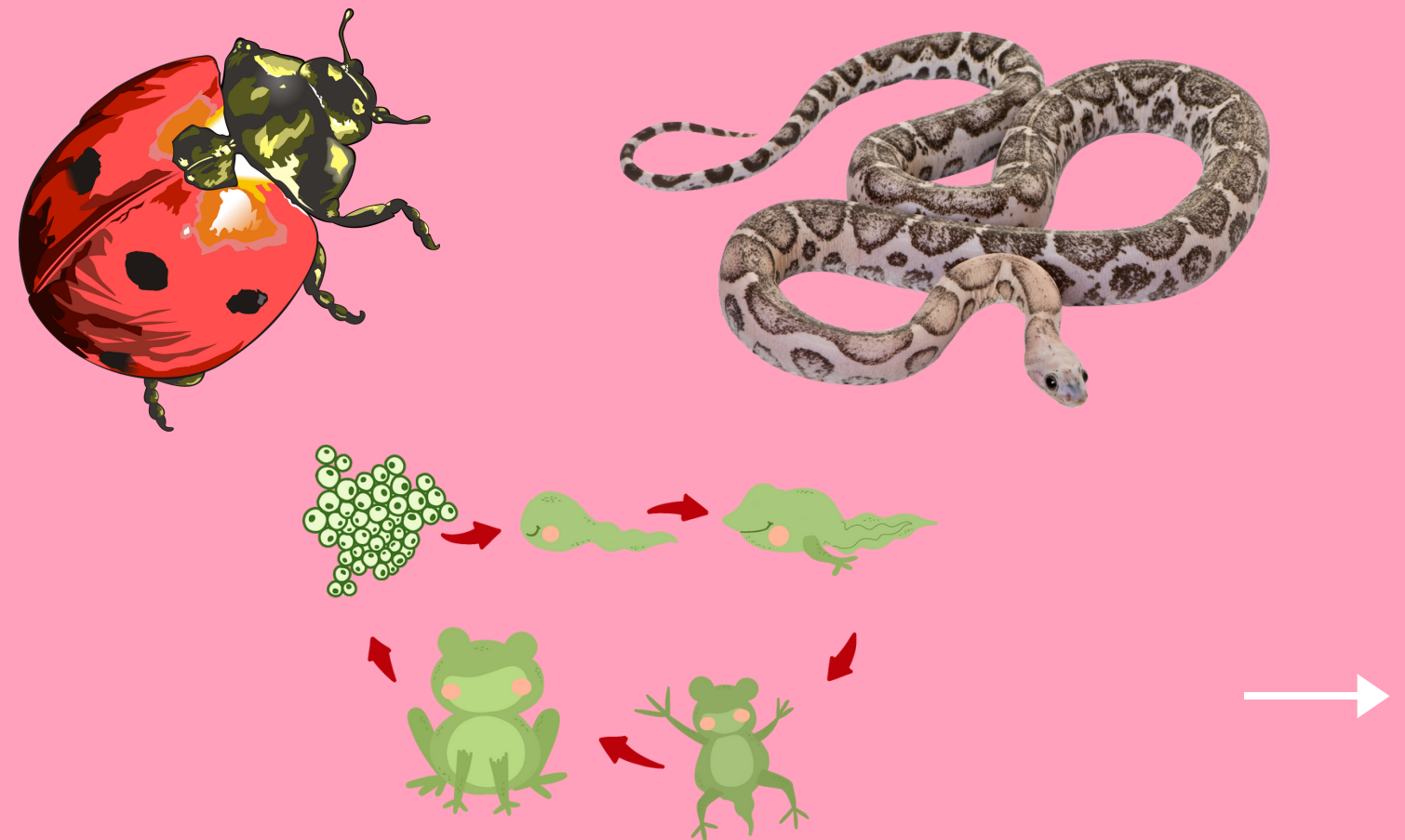


07

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*





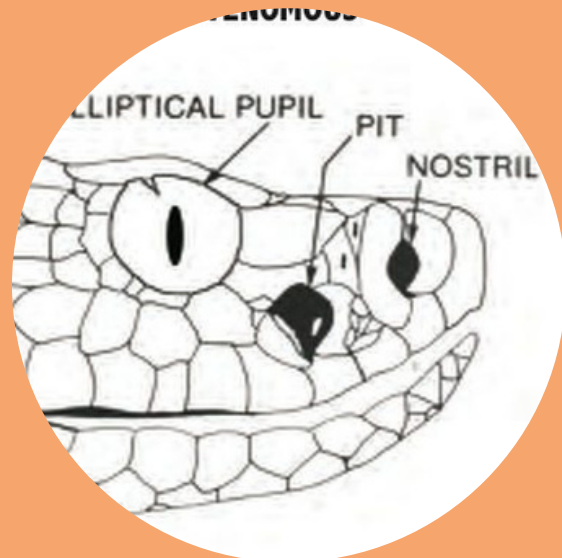
- Dry skin covered with scales.
- Ectotherms.
- They have very good vision and some lack eyelids.
- Thermo-sensory pits.

1. Turtles

2. Lizards and snakes

3. Crocodiles

4. Tuataras



09

Reptiles



In Livingston

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



Clelia clelia

Coniophanes imperialis



Thanks for your attention



11



You can contact me via email at:
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