

We know very little about the taxonomy and behavior of the Opiliones from Central America. Because of that, we present the most common species of the Veragua Rainforest Station, with general information about Opiliones:

Suborden Eupnoi

Family Sclerosomatidae

Opiliones are nocturnal and omnivorous, since they feed on small arthropods (adults and larvae), dead animals or plant material, fruits, and fungi. During the day, most are hidden under leaf litter, on the trunks of trees, or in caves or cracks in rocks. An exception is the Opiliones of the suborder Eupnoi, which can be observed exposed both during the day and during the night.

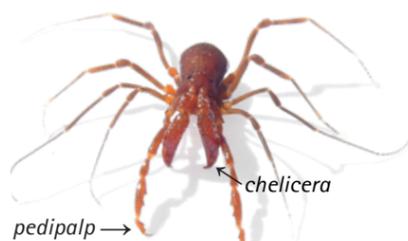


Prionostemma sp.

Suborden Laniatores

Family Stygnommatidae

In arachnids, the mouthparts are called chelicerae and in the Opiliones they have the shape of a very small claw. On either side of the chelicerae there are the pedipalps, which, like the antennae of insects, have a sensory function.



Zygobunus sp.

Family Gonyleptidae

When a predator catches an opilion, Opiliones can secrete substances that contain chemical compounds that produce an unpleasant odor and taste, causing the predator to release the opilion. The secretion may be white, yellow, or orange. These secretions generally only produce an unpleasant odor and do not cause damage to predators.



Parahernandria spinosa

Family Cosmetidae

In the tropics, Opiliones live in the forest and are rare in rural areas. Due to being nocturnal and associated with forests, they are poorly understood by humans. However, they are very common and diverse.

Eupoecilaema magnum



Poecilaemula signata

Some species of Opiliones present sexual dimorphism, where males will be more robust and armed, with parts of the body with spines and tubers larger than in females. This is probably due to the fact that in some species the males defend territories or fight with other males. In some species, males have a pair of "combs" (indicated by the arrows) on the femur of the fourth pair of legs.



Flirtea lateralis

In these animals, the second pair of legs (indicated by the arrows) are longer than the others and are tactile. For this reason, most Opiliones walk with the second pair of legs held in the air to perceive the environment.



Eucynorta transversalis



Cynortulla sp.



These animals, like scorpions, reflect ultraviolet (UV) light, also known as black light. The function of this phenomenon is unknown.



Meterginus inermipes

Opiliones have a pair of eyes (indicated by the arrow) that are generally very small and do not form images; they only serve to distinguish between light and dark.

Due to very little studies for Opiliones, the scientific names presented here can change. There are many new species that have not been described by scientists!



Especie no descrita



Cynorta sp.

Some species of the family Cosmetidae, present sexual dimorphism in the chelicerae (indicated by the arrows), since in the males (right) they are more swollen than in the females (left).



A common defense mechanism in the Opiliones is camouflage. Another mechanism used by them is "playing dead". This mechanism is known as thanatosis (name derived from Thanatos, the god of death without violence in Greek mythology).



Eucynorta picta



Eucynorta pictipes



Veragua Rainforest is a Biological Station located in Las Brisas, province of Limón, Caribbean slope of Costa Rica. It has a primary tropical rain forest that receives between 4000 and 4500 mm of rain per year and an average temperature of 23 ° C. It is a station open to the public. More information on its website:

www.veraguarainforest.com

This is a production of the project *Opilio tracker*. More information about *Opiliones* and a pdf version on social media: @*Opilio_tracker*



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Opiliones reproduce through eggs, which are placed by females on the ground, cracks, leaves or trunks. From each egg, an immature or nymph opilion will be born, which will grow through different molts until it becomes an adult, where it will no longer molt again or grow. The nymphs of the cosmetid family are easily distinguished because they have very elongated pedipalps (indicated by the arrow). When they become adults, the pedipalps of the cosmetics become shorter and spoon-shaped.



Nymph from Cosmetidae

Family Nomoclastidae

In some species of the *Quindina* genus found in the Caribbean of Costa Rica and Panama, males build a nest of mud and organic matter, on trunks or branches of trees near the ground. The nest consists of a circle-shaped floor, approximately 4 cm in diameter, surrounded by a circular wall of approximately 1 cm in height. The males remain inside the nest for several months, where they receive visits from different females, who live in the area surrounding the nests. Some females copulate with the male and place their eggs on the nest floor and then leave. The males, then, are in charge of taking care of the eggs until they are born.



Quindina limbata



Taxonomically, Opiliones are classified as an order within the class Arachnida. The order Opiliones is divided into four suborders: Cyphophthalmi, Eupnoi, Dysptnoy and Laniatores. In Costa Rica, the most common suborders are Eupnoi y Laniatores.



Opiliones are invertebrates that belong to the group arachnids. In Costa Rica they are known as "pendejos", "abuelitos" or "piernas largas". Its common name in American English is "daddy long legs" or "harvestmen". Opiliones are relatives of spiders, scorpions, and ticks, which are also found within the group arachnids.

Opiliones are very similar to spiders in body shape, but they are not spiders! Unlike spiders, where the body is divided by a "waist", in Opiliones the whole body is fused. That is why some Opiliones look like a ball with many legs. Another difference with spiders, is that the Opiliones do not produce silk to make webs, and they do not have venom glands to hunt their prey. This means that Opiliones are harmless to humans.

Opiliones from Veragua Rainforest

Limón, Costa Rica