

Scolopendra gigantea (Giant Centipede)

Order: Scolopendromorpha (Tropical Centipedes)

Class: Chilpoda (Centipedes)

Phylum: Arthropoda (Arthropods)



Fig. 1. Giant centipede, *Scolopendra gigantea*.

[http://eol.org/data_objects/31474810, downloaded 2 February 2017]

TRAITS. *Scolopendra gigantea* is the world's largest species of tropical centipede, with a documented length of up to about 30cm (Shelley and Kiser, 2000). They have flattened and unequally segmented bodies, separated into a head and trunk with lateral legs; covered in a non-waxy exoskeleton (Fig. 1). Coloration: the head ranges from dark brown to reddish-brown and the legs are olive-green with yellow claws (Khanna and Yadov, 1998). Each segment of the trunk has one pair of legs, of an odd number; 21 or 23 pairs (Animal Diversity, 2014). There are two modified pairs of legs, one pair at the terminal segment are long and antennae-like (anal antennae), for sensory function, and the other pair are the forcipules, located behind the head, modified for venom delivery from a poison gland in predation and defence (UTIA, 2017). *S. gigantea* displays little sexual dimorphism in the segment shape and gonopores (genital pores), however, the females may have more segments (Encyclopedia of Life, 2011).

DISTRIBUTION. Found in the north parts of Colombia and Venezuela, and the islands of Margarita, Trinidad, Curacao, and Aruba (Fig. 2) (Shelley and Kiser, 2000).

HABITAT AND ACTIVITY. *Scolopendra gigantea* is a neotropical arthropod with a non-waxy, impermeable exoskeleton (Cloudsley-Thompson, 1958). Therefore, to prevent desiccation they are mainly nocturnal (active in dark) inhabiting a wide range of habitats or moist environments such as beneath rotten timber and rocks; in leaf debris in gardens and moist areas of the home (Fig. 3) (Animal Diversity, 2014). Molinari et al. (2005), after observing cavernicolous (cave-living) *S. gigantea*, stated that these centipedes may also active in light. These centipedes can move quickly backward from the light source or may use their defensive mechanisms to attack.

FOOD AND FEEDING. The giant centipedes are carnivores (Animal Diversity, 2004), they consume small invertebrates such as snails, spiders, insects, worms and small vertebrates such as birds, frogs, mice, and bats (Fig. 4) (Molinari et al., 2005). They are nocturnal and remain in low-light and moist areas where there is an abundance of food. Their two pairs of leg-like antennae (true antennae on the head, and the anal-antennae) are used in detecting food and feeding (UTIA, 2017). Centipedes have very poor eyesight and hence, rely on their sensory antennae to detect prey: Rutherford (2012) observed that the centipede would normally move its anal-antennae in an up-down motion, but as soon as it touches its prey, it attacks and using the forcipules, it injects venom to paralyse and hold the prey. These antennae also allow them to forage without being exposed to predators. Some predators of centipedes include snakes, lizards, scorpions, large birds and some mammals such as mongooses and small cats (Shelley and Kiser, 2000). In addition, centipedes have many legs and sprint fast, which makes them very skilled hunters and difficult prey to catch.

POPULATION ECOLOGY. *S. gigantea* is the most abundant tropical species of Chilpoda, especially during wet seasons in subtropical-tropical dry forests (Cloudsley-Thompson, 1958). Density records of this species were not found, but Lewis (1972) recorded a high population density of the related species *S. amazonia* in Sahel savanna in Nigeria. They are terrestrial and solitary, except for females when they are carrying eggs or young (Lewis, 1981). Most centipedes have a lifespan of about 1-3 years, while others may have up to 5-6 years (Animal Diversity, 2004). An introduction of species such as mongooses and snakes in the inhabitant countries (e.g. Trinidad), can cause the population of wild centipedes to decrease. However, by application of pesticides house centipedes can be easily killed (Bain Pest Control, 2017).

REPRODUCTION. Little information has been published about the reproduction of this species. However, Lewis (1981) has published information about reproduction of the order Scolopendromorpha. Both sexes have similar morphology, but the last legs of the males may be more flattened. Reproduction occurs almost twice a year, in adults who have well-developed antennae, as it is used for tapping the female. *S. gigantea* male reproductive organs include 13 pairs of testes, and the female ovary is located mid-dorsally. Males begins the reproductive process by the spinning of a web where it deposits its sperm for the female to take up. The female would then lay eggs, which she broods below her body (Fig. 5) to protect them from predators (Lewis, 1981).

APPLIED ECOLOGY. Giant centipedes are of economic importance to humans. Positively, they are of value to farmers since they can consume insects and other pests of their crops. Negatively, house centipedes tend to attack humans when they are disturbed. Their bites are not deadly but are painful and can cause allergic reactions, fevers, and weakness (Animal Diversity, 2014). The IUCN Red List has not categorized *Scolopendra gigantea*, however, there are no known endangered centipedes (Animal Diversity, 2014).

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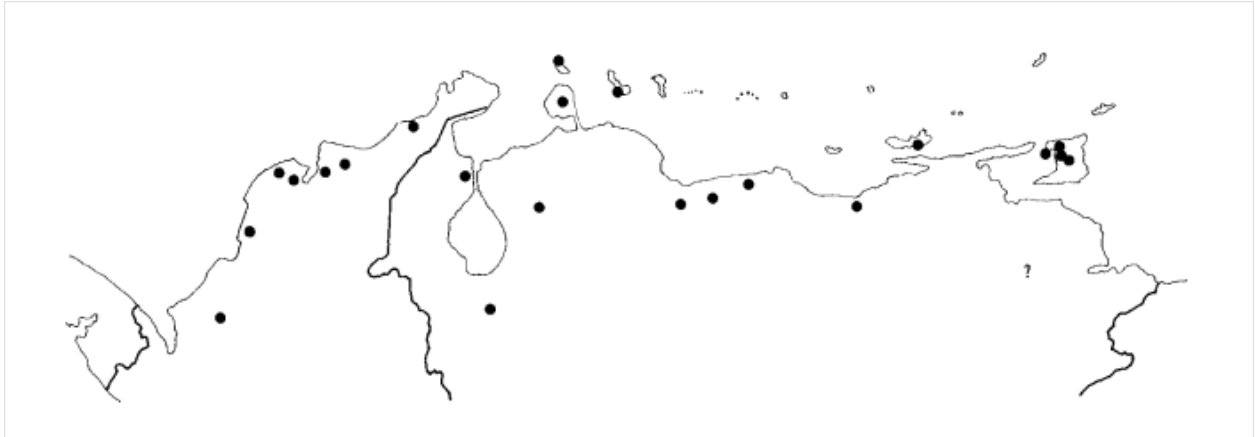


Fig. 2. Giant centipede geographic distribution.

[Fig. 6 of Shelley and Kiser (2000)]



Fig. 3. Giant centipede in one of its habitats.

[Fig. 1 of Rutherford (2012)]



Fig. 4. The giant centipede holding and eating a bat, *Mormoops megalophylla*.

[Fig. 1 of Molinari et al. (2005)]



Fig. 5. Female centipede brooding eggs.

[https://en.wikipedia.org/wiki/File:Strigeria_Centipede_guarding_eggs.jpg, downloaded 6 March 2017]

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