

Theraphosa blondi

Goliath Bird-Eating Tarantula

Class: Arachnida. **Order:** Araneae. **Family:** Theraphosidae.

Other names: Giant Bird-eating spider, Giant Tarantula, Goliath Birdeater

Physical Description: This Amazonian spider is the second largest spider in the world, second only to the giant huntsman spider. It has a leg span of 12 inches across, about the size of a small dinner plate and weigh up to 6oz making it the largest spider by mass. Like all tarantulas, it is a very hairy spider and the hairs are actually hollow bristles that are produced as part of their exoskeleton.



Their bodies are made up of two external parts; the **cephalothorax** (fused head and thorax, where legs attach) and their abdomen. They have weak eyesight, their eight eyes only seeing differences in the level of light.

Diet in the Wild: Insects, frogs, small snakes, lizards, rodents, bats, and (although rarely) young birds.

Diet at the Zoo: Mice and crickets

Habitat & Range: Northern South America in swamps/marshy areas deep within the primary rainforest.

Life Span: For females, 15-25 years. The males will only live one year or less after mating.

Perils in the wild: Predators include spider wasps, some snakes, and other tarantulas. Smaller insects can take advantage of a freshly molted tarantula.

Physical Adaptations:

- With their inch long fangs, the tarantula will inject venom that works on the nervous system which paralyzes its smaller victims. They then regurgitate digestive juices secreted from openings in the **chelicerae** onto their victims that break down soft tissue. The spider is then able to suck up its prey. The mouth is a short straw-shaped opening that can only suck, meaning that anything eaten must be in liquid form.
- They use stealth and strength to sneak up and pounce on unsuspecting victims, inflicting paralyzing bites with their venomous fangs. They will often carry their prey back to their burrow or a safe location to eat it at leisure.
- Tarantulas use their hair as a defense mechanism, flicking **urticating** hairs from its body at any creature it perceives as a threat. These tiny, invisible hairs are extremely irritating to skin, and can cause real problems if they get into delicate mucous membranes around eyes or mouth. It is considered by some to have the most harmful urticating hairs of all tarantula.
- Their hairs also act as sensors to make up for their poor vision. They can feel the slightest vibrations on the ground and in the air, which allows them to detect movement.
- They have an incredible ability to make noise when feeling threatened. They rub the bristles on their legs together to make a loud hissing noise that can be heard up to 15 ft away. This is called **stridulation**. They will also rear up on their hind legs in a threat position.
- Males can be identified by the mating hooks on the first set of legs.

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Behavioral Adaptations:

- Live in deep burrows in the ground dug by the spiders themselves, or abandoned by rodents. The female spends most of her life in her silk-lined burrow.
- They are nocturnal, solitary spiders and rarely travel more than a few feet from home, resting in their burrows during the day.

Reproduction and Development:

- The male will come to the entrance of the female's burrow and try to entice her out. He will use his mating hooks when she comes out to restrain her fangs while he tries to mate with her. Afterwards, he must get away rather quickly or he will be injured or killed by the female. About 50% of males are killed or maimed while trying to mate.
- The female will lay 50 eggs in a silken sack & stores that in her burrow. She guards it for 2 to 3 months and will even take it with her when she leaves her burrow. After they hatch, the spiders will stay in their nest until their first molt.
- They do continue to molt after reaching maturity which enables the spider to regenerate any limbs they might lose. To start a molt, the tarantula will pump fluid pressure in its body to get the carapace to pop off first. The abdomen will split along its sides, and the spider will continue to slowly pump fluid in its limbs to ooze the old skin off its legs. The process can take anywhere from 15 minutes to several hours.
- Once freed from its shell, the tarantula will be like rubber. It is very fragile indeed during this time, and needs to be left alone to continue to flex its "new" legs, to fill them with fluid so that they attain their proper shape and proportions. Smaller insects can easily kill a tarantula during this time. It takes several days for the exoskeleton to harden again.
- Along with the complete exoskeleton, spiders shed their fangs and chelicerae, their throats and stomach lining, female genital organs, and the linings of the book lungs.

Additional Information:

- The Goliath bird-eating spider was named by explorers from the Victorian era who first reported them to the western world, and witnessed one eating a hummingbird.
- Like other spiders, the tarantula makes a silken web, but not for snaring prey. They use their web to make a home, a molting cradle, or to aid in handling food items.
- Some people consider the Goliath bird-eating spider to be a tasty morsel when wrapped in a banana leaf and roasted over a fire.
- Their venom is not lethal to humans. Many reports compare their bite to a wasp sting, although the venom could cause severe pain, nausea, and profuse sweating

Conservation Connection: Tarantulas

Are spiders really dangerous? It is amazing that such a small and fragile creature such as the spiders have generated so much unreasoned fear in the human heart. Spiders are timid creatures, which, rather than being dangerous to people, are really allies in controlling the populations of insects. The venom produced by spiders is generally harmless to humans. Even the most venomous of spiders bite only when threatened or defending their eggs or young. Tarantulas, despite their fearsome appearance, are not dangerous. They rarely bite and when they do, it is not considered serious.

Conservation Status: Not evaluated, IUCN. Tarantula populations are under pressure from habitat destruction, whether in tropical rainforests or deserts. Many suffer the effects of pesticides used to kill insect pests on which they prey.

Conservation Efforts: N/A

Glossary: List of definitions of the most important recurrent technical terms used in the text.

chelcera - A pair of feeding appendages on the head of the members of the subphylum Chelicerata.

cephalothorax – A body segment in many arachnids and crustaceans in which the head is fused with the thorax.

stridulation – When one body part is rubbed against the other another, a common method mechanism for sound production.

urticate - Barbed bristles that cover the dorsal and posterior surface of a tarantula's or caterpillar's abdomen. They are used as protection for the animal as the bristles can cause irritation to a would be predator or threat.

Sources:

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