Desert blond tarantula

Aphonopelma chalcodes
Fact Sheet

Status: Common

Distribution: Southwestern United States, especially Arizona, New Mexico, and Southern California.

Habitat: desert

Diet: lizards, crickets, beetles, grasshoppers, cicadas and caterpillars

Length: Legs can span up to 6 inches

Weight: 1 to 3 ounces

Reproduction: The male goes looking for the female June through December. He prepares sperm cases and carries them with him until he can deposit them in the female. Once he mates with her, she stores the sperm to fertilize her eggs. When she is ready to lay eggs, she bathes them in the sperm, and places them on a silken sheet that she has woven. After she has deposited up to 1000 eggs, she covers them with another silken sheet, and moves them to the front of her burrow in the sunlight to keep them warm. They hatch after 7 weeks and leave the burrow 3 to 6 days later. They reach maturity after 8 to 10 years. The males only survive a few months after mating.

Longevity: Females: around 20 years Males: 10 to 12 years

General Description: Hair covers their body, as is typical for most tarantulas. Their coloration varies from gray or dark brown in the cepholothorax region to dark brown to black on the abdomen.

Behavior: Like most tarantulas, this tarantula burrows in sandy soil. It emerges at sunset to hunt for food. These animals are nocturnal and solitary except during mating season.

Did you know? Their primary means of perception is touch, as their vision is poor.

Where can you find them? In zoos, as pets and in their natural habitat

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Length from: http://exoticpets.about.com/cs/tarantulas/p/desertblonde.htm
All information except length and weight from:
http://animaldiversity.ummz.umich.edu/site/accounts/information/Aphonopelma_chalcodes.html
Weight from: http://www.desertusa.com/july96/du_taran.html

By Ben Craighead

Kingdom: Animalia
Phylum: Arthropoda
Class: Arachnida
Order: Araneae
Suborder: Opisthothelae
Family: Theraphosidae
Genus: Aphonopelma
Species: Aphonopelma chalcodes
Find in TaxonTree [Help]Geographic Range
Desert tarantulas, Aphonopelma chalcodes, are common throughout the Southwestern United States, especially Arizona, New Mexico, and Southern California. (Milne and Milne, 1980)

Biogeographic Regions:
nearctic (native).

Habitat
Aphonopelma chalcodes often resides in desert soil. It makes its home in burrows by digging itself under stones or by utilizing burrows discarded by rodents. It may live in the same burrow for decades. Since it lives in the desert, A. chalcodes is acclimated to harsh weather conditions. It does not require much water to survive, and can therefore survive in the extreme heat of the desert. (Miller, 1988)

These animals are found in the following types of habitat:
temperate ; terrestrial .

Terrestrial Biomes:
desert or dune .

Physical Description
While sexual dimorphism is apparent in adult A. chalcodes, it is not as drastic as seen in other species. Males have a diameter of 49 to 61 mm, whereas females range from 49 to 68 mm, with a leg span of approximately 98 mm. Desert tarantulas, like other tarantula species, have a body covered entirely with hair. Like all spiders, they are divided into two body segments: the cepholothorax and the abdomen. The cepholothorax is gray to dark brown and the abdomen is dark brown to black. Iridescent hair forms a pad below the tip of each of the eight legs (Milne and Milne, 1980). Tarantulas inject poison into their victims by biting them with fangs on the end of the chelicerae (Jackman, 1997). (Jackman, 1997; Milne and Milne, 1980)

Some key physical features:

ectothermic ; bilateral symmetry ; poisonous .

Sexual dimorphism: female larger.

Development
When young A. chalcodes emerge from an egg, they all resemble females (Milne and Milne, 1980). It is not until later that sexual differentation occurs. Most spiderlings do not survive to reach sexual maturity (Jackman, 1997). They are either eaten by predators or do not find enough food to survive. (Jackman, 1997; Milne and Milne, 1980)

Reproduction
The male emerges from its burrow at sunset and then again near dawn. A male tries to maintain contact with the female, and if she pulls away, he will actively pursue her.

Males have two specialized claws that are shaped like syringes on the ends of its two pedipalps. Male A. chalcodes weave a "purse" to hold the sperm, which he then "loads" into the syringes. Females have two pouches on the abdomen that are designed to hold the sperm sacks. Sperm sacs can be stored for weeks or months in the female's abdomen until she is ready to lay her eggs. As a female lays her eggs, she bathes each egg in the sperm (Miller, 1988). She weaves a silken sheet and lays up to 1,000 eggs on it. After laying all her eggs, she weaves another sheet, covers the eggs, and then seals the edges. After making this egg sac, a female carries it up to the edge of her burrow to warm it in the sun. Females guard their egg sac until the eggs hatch in up to 7 weeks (Miller, 1988). Three to six days after hatching, the young leave the nest and venture out on their own. (Miller, 1988)

Key reproductive features:
iteroparous ; sexual ; fertilization (external); oviparous ; sperm-storing .

Females care for their offspring in a number of ways. In addition to making a safe place for the eggs to hatch, and provisioning those eggs with nutrients, females actively help the eggs incubate by keeping them warm in the sun. Presumably, the female provides protection for the young spiderlings as they live in and around her burrow until they are three to six days old. (Miller, 1988)

Parental investment:
precocial ; pre-fertilization (provisioning, protecting: female); pre-hatching/birth (provisioning: female, protecting: female); pre-weaning/fledging (protecting: female).

Lifespan/Longevity
Male and female desert tarantulas have very different life expectancies. While it takes approximately 8 to 10 years to become sexually mature for both sexes (Miller, 1988), males, after molting for the last time, live for approximately 2 to 3 months. Females, however, continue to molt (shed their exoskeleton as they grow), and may live for up to 20 years. In captivity, females have been known to live for 25 years (Milne and Milne, 1980). (Miller, 1988; Milne and Milne, 1980)

Behavior

Desert tarantulas are reclusive, nocturnal spiders. They usually hide in their burrows, under rocks, or in abandoned holes during the daylight hours (Milne and Milne, 1980). They hide because they are more vulnerable to predators such as birds and snakes during the day; additionally, their prey are also mainly nocturnal. Between June and December, males can be seen between twilight and sunrise actively searching for females (Miller, 1988). (Miller, 1988; Milne and Milne, 1980)

Communication and Perception

Aphonopelma chalcodes is a solitary creature which lives the majority of its life alone. It makes no sounds, and since tarantulas have poor vision, this species communicates with the outside world and the opposite sex primarily by touch. (Miller, 1988). (Miller, 1988)

Communicates with:
tactile .

Perception channels:
visual ; tactile ; vibrations .

Food Habits

Aphonopelma chalcodes spends much of the day hiding in its burrow. When the sun sets, it emerges and begins to search for food.

Foods eaten: lizards, crickets, beetles, grasshoppers, cicadas and caterpillars. (Safra, 1998)

Primary Diet: carnivore (insectivore).

Animal Foods: reptiles; insects.

Predation Known predators

Birds

Humans pose no real threat to desert tarantulasat this time, and A. chalcodes has few natural predators. Only birds and two parasitic inssect species (a fly and a tarantula wasp) have been recorded as killing these spiders. When disturbed, desert tarantulas maneuver to face the threat, raise up on their hind legs, and stretch their front legs in a threatening posture. Aphonopelma chalcodes may also rapidly brush the top of its abdomen with its hind legs, which dislodges urticating hairs that can irritate the eyes or skin of an attacker (Jackman, 1997). These poisonous hairs can cause rashes or even partial blindness in the attacker (Miller, 1988). (Jackman, 1997; Miller, 1988)

Ecosystem Roles

These spiders presumably impact insect population through their predatory behaviors. As a possible prey species, A. chalcodes may have some positive

influence on the populations of its predators and parasites. (Jackman, 1997; Miller, 1988)

Economic Importance for Humans: Negative
Aphonopelma chalcodes does not have a great negative impact on humans. Although its bite is painful, it is not highly poisonous. The venom is similar to that of a mosquito or a bee sting. (Miller, 1988)

Ways that these animals might be a problem for humans:
injures humans (bites or stings, venomous).

Economic Importance for Humans: Positive
Aphonopelma chalcodes has little economic value to humans. It is sometimes sold as a pet, due to its gentle nature and easy maintenance (Miller, 1988). Desert tarantulas also control pests by eating beetles, grasshoppers, millipedes, and other spiders (Miller, 1988). (Miller, 1988)

Ways that people benefit from these animals:
pet trade ; controls pest population.

Conservation Status
IUCN Red List: [link]:
No special status.
Aphonopelma chalcodes is not endangered in any way.

Other Comments
Aphonopelma chalcodes is often a victim of parasitism. A species of fly lays its eggs on the tarantula's back, and when the larvae hatch, they devour the tarantula. A species of wasp, known as tarantula hawks, attack these tarantulas, and if successful, inject their victim with poison and paralyze it. The wasp then drags the tarantula back to its nest and places it next to its eggs. The tarantula can often live for a few months in this paralyzed state, until the eggs hatch and then eat the tarantula. (Miller, 1988)

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