Common Name: Madagascar Hissing Cockroach

Scientific Name: Gromphadorhina portentosa



IUCN Red list Status: Not listed AZA Conservation Program: None

Indian

Class: Insecta Order: Blattaria Family: Blattidea

Genus: Gromphodorhina

Habitat: These insects live on forest floors, where they hide amidst leaf litter, logs, and other detritus. They are native ONLY to the island of Madagascar.

Threats in the Wild: Birds, mammals, and pet trade.

Physical Characteristics: The Madagascar hissing cockroach is wingless and can reach a length of 2-3 inches. They have grasshopper-like mouthparts designed for chewing. They also have special adhesive pads on their feet and forelegs to help them move over slick surfaces. Males are distinguished by prominent bumps or horns behind their heads, which they use as battering rams in territorial and courtship shoving matches, jockeying for position. Females lack these horns.

Reproduction: During courtship, the pair stroke each other's antennae, then their bodies, while hissing sweet nothings to each other. Females can tell the rank of males and will prefer to mate with the dominant male. The gestation period is 2 months. The female produces 20-60 nymphs. In one lifetime, a female can breed 30 times, producing more than 750 babies. The mother appears to give birth to live young, but they actually come from eggs in a capsule inside her abdomen. She retains the capsule until the eggs hatch, and then she eats it. The nymphs remain grouped around her while she protects them by raising her body over them. The nymphs mature in 5-10 months and leave the mother.

Longevity: 2-5 years

Diet: In the wild: decaying fruit, vegetable matter, small insects and animal carcasses. At the Zoo: fruits, vegetables.

Miscellaneous: They fill an important role in their ecosystem as scavengers (eating fallen fruit, decaying vegetation, animal carcasses) and are also an important source of food for other animals (insects have 3 times more protein than

chicken or beef).



Fact Sheet – Insecta – Madagascar Hissing Cockroach Last Updated: April 2020

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Behaviors: They are negatively *phototactic* (move away from light) and nocturnal. Males use their horns in aggressive encounters reminiscent of battles between horned or antlered mammals. Rivals ram one another with their horns (or abdomens) and during the fight often unleash the amazing hisses that give the animal its name. Winning roaches hiss more than losers, so the sounds may be used to help determine a roach hierarchy. Hissing is produced by forcing air through spiracles on their abdomen; they are the only insect to produce sound this way. (Most produce sound by rubbing body parts together.) Hissing is used in courting/mating, combat, and to startle predators. When disturbed, an entire colony can hiss together for a snake-like sound. A mite lives on this species of cockroach on the undersides and bases of the legs, taking some of its host's food and eating particulates along the host's body. They do not harm the cockroach and recent studies indicate these mites may keep their host healthy by cleaning its body of pathogenic mold spores. The mites are thus not parasites, but commensals.



