

# The Brown Tree Snake



The brown tree snake was accidentally introduced to Guam in the late 1940s or early 1950s, probably from the Solomon Islands. A native of Australia, Papua New Guinea, and the Solomon Islands, the brown tree snake (*Boiga irregularis*) is a dangerous threat to the economy and ecology of Guam and is the subject of a cooperative program to control snake populations on Guam and prevent its spread throughout the Pacific Rim.

## Biology

Brown tree snakes are about 15 inches at hatching and may reach 10 feet in length as adults. Most brown tree snakes are 3 to 4 feet long. This snake is a rear-fanged semiconstrictor and is mildly poisonous. Both constriction and venom are used to help immobilize prey.

The snake's venom trickles into a bite victim along grooves in the rear fangs. Because of the relatively small size and position of the fangs, a brown tree snake must chew to allow the fangs to penetrate the skin.

The brown tree snake will readily strike when aggravated, but it does not present a danger to adults. A bite from this snake will not penetrate most clothing. However, babies less than 6 months old may be at risk from both brown tree snake bites and constriction. A young victim of a brown tree snake bite should receive immediate medical attention.

The snake is active at night and inhabits trees, shrubs, and forests. Although snakes are usually found in vegetation, they can be encountered almost anywhere. The brown tree snake spends most days

coiled in a cool and dark location, such as a treetop or a rotted log. They are adept climbers and can crawl through very small openings.

The brown tree snake is extremely abundant on Guam, with localized estimates sometimes reaching 20 or more snakes per acre of jungle. These population density estimates are among the highest snake densities ever recorded. The only other snake on Guam, the introduced blind snake (*Ramphotyphlops braminus*), resembles a worm in size and shape and is harmless.

## Damage

The brown tree snake has caused extensive economic and ecological damage to Guam. It is responsible for numerous power outages across the island each year. This species is an opportunistic feeder and has eradicated most of Guam's native forest birds.

As bird populations have declined, the snake has turned its focus to Guam's lizards. Rats, mice, domestic birds, and bird eggs make up the rest of the snake's diet on Guam. In the snake's native range, its populations are kept in check through natural processes such as disease, competition for food, and predation. Although these processes likely occur on Guam, they are not adequate enough to control the brown treesnake population.

## Conflicts With People

Even though the snake is abundant on Guam, most people rarely encounter a live brown tree snake. These pests do not hang from trees in giant bunches, nor do they actively search out people to bite. In fact, many residents have lived on Guam for years without ever seeing a single snake.

The brown tree snake may be attracted to residential areas by an abundance of rodents, lizards, poultry, or debris that serves as habitat for snake prey. The snake may occasionally enter buildings while searching for food.

Simple precautions, such as keeping doors and screens secured, screening air ducts and pipes that open outdoors, keeping garbage and pet food in secured containers, and removing surrounding vegetation may make a building less attractive to brown tree snakes.

If you encounter a brown tree snake indoors, you should call local authorities for removal.

## Preventing Its Spread

Without control, the problems caused by the brown tree snake could spread. The snake has been sighted on many other Pacific islands. It is believed to have arrived through cargo transported by ships or planes originating in Guam. Although no established snake populations are suspected at these locations, the possibility of an incipient population on Saipan exists. These sightings clearly demonstrate the possibility of snakes being transported to vulnerable locations.

The Federal Government's Wildlife Services (WS) program, administered by the U.S. Department of Agriculture's Animal and Plant Health Inspection Service (APHIS), coordinates operational efforts on Guam aimed at keeping the snake from reaching other destinations. APHIS' WS personnel use snake trapping in high-risk areas, trained snake-detector dogs in cargo, nighttime spotlight searches, and public education as tools to achieve this goal.

When departing Guam, you can help ensure the snake does not leave with you by carefully inspecting your belongings, particularly outdoor goods, when packing.

For more information about the brown tree snake, contact the Guam WS office at (671) 635-4400 or the Hawaii WS State office at (808) 861-8576. You can also visit the WS Web site at <http://www.aphis.usda.gov/ws>.

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