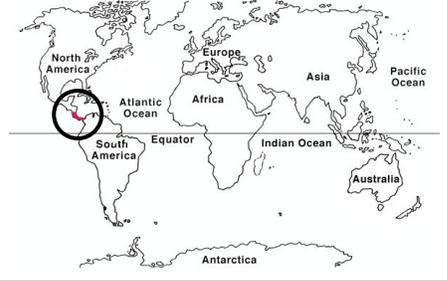


Green & Black Poison Dart Frog

Native Range Map



Kingdom: Animalia
Phylum: Chordata
Subphylum: Vertebrata
Class: Amphibia
Order: Anura
Family: Dendrobatidae
Genus: *Dendrobates*
Species: *auratus*



Photo courtesy of Karen Marzynski

Habitat

- **In the Wild:** *Dendrobates auratus* are found on the floor of rainforests in Central America from Nicaragua to Costa Rica. They prefer locations near small streams or pools.
- **Exhibit Location:** Zoo to You Collection; U.S.S. Antiquities

Characteristics

- *Dendrobates auratus* has many color variants. Most of them are black and either green or light blue with the black bands or spots. This species was also introduced in Hawaii and has flourished there and are a metallic green or brownish-black.
- Adults are about 4 cm (1.57 inches) long. Males are a bit smaller and slimmer than females and have a barely distinct wrinkled vocal sac under the skin of the throat. Adults have a fused head and trunk with no tail (as is true of most frogs). Tadpoles use gills to breathe, unlike the adults that breathe through lungs. Tadpoles also lack legs and have tails, appropriate for their watery habitat.
- Poison glands are located throughout the surface of their body. Their bright colors are believed to discourage predators (those with color vision). The boldly contrasting patterns may signal predators who have no color vision, but this hasn't been proven. The skin is slippery and moist.
- **Lifespan: In the Wild** unknown; **In Captivity** 10-15 years (record is 20.5 years)

Behaviors

- *Dendrobates auratus* are diurnal, seldom still during the day. They are constantly searching for food and taking care of young. They make distinctive hopping movements. They are readily found in leaf litter both in forests and in partially developed areas such as plantations. They are commonly active in trees up to 10-15 meters (33-49 feet) high.
- Male frogs will fight each other during the mating ritual, but once the females have chosen their mates, the males stay in their own territories.
- Males use vocalizations to attract females for mating and to advertise territories, but not much else is known. It is possible that visual displays, tactile stimuli, and chemical cues are involved. They use their excellent vision to capture prey.
- **Enrichments at the Zoo:** feeding, moving and changing furniture

Reproduction

- Mating season occurs throughout the entire rainy season of the rainforest, from mid-July through mid-September. Males have an elaborate ritual to attract mates. Males fight among themselves to establish territories that then remain fixed for the rest of the mating season. The male then attracts a female with vocalizations consisting of trilling sounds. Part of mating behavior involves them rubbing against each other. Calling and courtship seem to be limited to ground level.
- Once the courtship is complete, the female lays up to 6 eggs in a small pool of water. A gelatinous substance encasing them protects all the eggs. During the 2-week development period, the male returns to the eggs from time to time to check on them. Once the tadpoles hatch, they climb onto the male's back and he carries them to a place suitable for further development such as a lake or stream. During this trip, the tadpoles are attached to the male's back by a mucous secretion, which is soluble in water and keeps

them from falling off. Once at their final destination, the tadpoles are on their own. It will take another 6 weeks to reach adulthood.

Diet

- **In the Wild:** adults eat spiders, ants, termites, beetles, mites; tadpoles eat rotifers, protozoans, woody detritus, other tadpoles
- **At the Zoo:** For adults: pinhead crickets, wingless fruit flies, and froglets; tadpoles receive crushed, flaked fish food and algae.

Conservation Status

- **IUCN status:** not listed; **CITES Appendix:** not listed.
- This species is not currently in danger. However, the destruction of their habitat (tropical rainforests) more than likely will bring them into being so. It is speculated that members of the family Dendrobates will be the first poison dart frogs to be put on the endangered list. The pet trade is also lowering its numbers.
- Predators: humans (avoid predation through their coloration and extremely toxic skin secretions)

Did You Know?/Fun Facts

- Poison dart frogs are also known as poison arrow frogs. They get this name because of the hunters living in the rainforest using the skin toxins on their darts and arrows. Some frogs are more poisonous than others. The toxins come from the ants or other insects they eat in the wild. Captive-bred poison dart frogs are not toxic due to their different diet.
- There are over 100 different kinds of poison dart frogs.

Sources:

- Sante Fe Community College Teaching Zoo, (n.d.). Meet the animals: green and black poison arrow frog. Retrieved Oct. 01, 2005, from Sante Fe Community College Teaching Zoo Web site: <http://inst.sfcc.edu/~zoo/arrowfr.htm>.
- Schafer, R. 1999. "Dendrobates auratus" (on-line), Animal Diversity Web. Accessed October 28, 2005 at http://animaldiversity.ummz.umich.edu/site/accounts/information/Dendrobates_auratus.html.
- Walls, J. (1994). *Jewels of the rainforest -- poison frogs of the family dendrobatidae*. Neptune City, NJ: T.F.H. Publications, Inc.