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POISON DART FROGS

Yurimaguas Poison Frog

Ameerega hahneli

Ameerega hahneli is a small, diurnal poison frog of 17-22 mm with pale side stripes and a blue belly, which lives in the rainforest leaf litter across large parts of the Amazon lowlands. The male carries the tadpoles to running water, and the tadpoles need current in the water. The species is common in the wild but rare in captivity.

Family: Dendrobatidae Former name: *Epipedobates hahneli; Dendrobates hahneli*

KEY FACTS

THE ANIMAL

Adult size	**17-22 mm** snout-vent length
Lifespan	**6-10 years**
Active	**By day**
Lifestyle	**Terrestrial**
Habitat	**Rainforest**
Skin toxins in the wild	**Mild**
Skin toxins in captivity	**None** Captive-bred animals. Wild-caught animals can keep their toxins for a long time
Difficulty	**Intermediate**

CARE

Min. enclosure	**50 × 50 × 50 cm** L × W × H for 4 adults
Temperature, day	**23-25 °C**
Temperature, night	**19-21 °C**
Humidity	**65-90%**
Water	**Water dish** depth 1-2 cm
UVB	**Optional** Ferguson zone 1
Diet	**Insects and small invertebrates (springtails, fruit flies)**
Kept	**In pairs or in groups**

BREEDING

Reproduction	**Egg-laying**
Development	**Tadpoles carried to water**
Egg-laying site	**On the ground**
Sexually mature	**7-12 months**
Eggs per clutch	**6-33**
Hatching	**4-16 days**
Larval period	**55-65 days** from hatching to metamorphosis
Larval diet	**Complete diet**
Parental care	**Guards the eggs and carries the tadpoles**

PROTECTION AND PAPERWORK

CITES	**Appendix II**
IUCN	**Least Concern (LC)**

About the species

Ameerega hahneli (Boulenger, 1884) is a small poison frog. Males are 17-19 mm and females 19-22 mm from snout to vent. The back and limbs are brown, finely granular and with or without black spots. The sides are black, bordered above by a narrow white or cream stripe from the snout to the groin. The belly is blue with a black net pattern, and there are yellow-orange spots on the underside of the arms, the inside of the lower legs and in the groin. There are several local forms, for example 'Nauta', 'Varadero' and 'Yumbatos'.

The species was formerly called *Dendrobates hahneli* and *Epipedobates hahneli*, and it has been confused with *Ameerega picta*. What is today called *A. hahneli* may cover several species; *Ameerega altamazonica* has already been split off. The species name honours the collector Paul Hahnel.

Like other species in the genus *Ameerega*, *A. hahneli* has alkaloids in its skin, which the animals in the wild obtain from arthropods in their diet. Captive-bred animals that do not receive these arthropods are not toxic. Wild-caught animals are considered mild: wash your hands before and after contact, and do not touch your eyes or mouth.

Read more: Buying animals: captive-bred, wild-caught and transport

Distribution and habitat

A. hahneli is found in the western and northern Amazon lowlands in Brazil, Bolivia, Peru, Ecuador, Colombia, Venezuela, Guyana, French Guiana and Suriname. The type locality is Yurimaguas on the Río Huallaga in northern Peru.

> **Native range:** Brazil, Bolivia, Peru, Ecuador, Colombia, Venezuela, Guyana, French Guiana and Suriname.

HABITAT

The species lives in lowland rainforest on the forest floor, often by fallen palm fronds, branches and small clearings in the forest. It is diurnal and hides at night in low vegetation. The species is common across most of its range but rare in the Guianas. The climate of the Amazon lowlands is warm and humid all year with small variations in temperature. Loss of forest is a local threat, but the population as a whole is stable, and the species is not threatened.

Care

THE ENCLOSURE

Only limited knowledge exists about the care of *Ameerega hahneli*, and the requirements may vary between the different forms and possible hidden species. *Ameerega trivittata* lives in the same part of the Amazon and is better known in captivity. *Ameerega bassleri* lives in cooler forest in the foothills and has different requirements.

A vivarium of 50 × 50 × 50 cm (length, width, height) suits a small group of four adults. A false bottom, where excess water runs through a filter sponge into a small channel at the front, ensures that the substrate is always drained; the channel is emptied so that no more than 1 cm of water stands. Cover the floor with a thick layer of leaves, for example oak and magnolia, with branches, bark and seed pods on top. Furnish with driftwood, a few small bromeliads and broad-leaved plants such as *Epipremnum*. The lid must have mesh so that the air does not stand still.

TEMPERATURE

Ameerega hahneli needs 23-25 °C by day and 19-21 °C at night. Fluorescent tubes outside the terrarium can supply both light and the necessary warmth. Above 28 °C there is a risk of stress; cool with a fan and extra spraying. There is no winter rest, but a three-month dry season is part of breeding (see Mating).

HUMIDITY AND MISTING

Humidity must be 65-90 %. Mist or use a rain system three times a day with reverse osmosis water, preferably mixed with a little tap water (about 15 %), and let the leaf litter dry out a little between mistings so that mould does not form. In the dry season mist only once in the morning. The air must not stand still.

Read more: Humidity, misting and ventilation

WATER AND WATER QUALITY

There must always be a little water to go to, for example in the drainage channel or a shallow water bowl with 1-2 cm of water. In the dry season the channel is not emptied, so the animals still have access to water.

The tadpoles need running water and die in still water within 2-3 days. The male therefore does not find a place to deposit the tadpoles in an ordinary vivarium and carries them on his back until they die. The tadpoles are reared in a small aquarium with a filter or a pump that makes a gentle current (see Eggs and tadpoles).

Read more: Rearing tadpoles

LIGHTING AND UVB

The light can be fluorescent tubes or LED with a plant-suitable spectrum for 10-12 hours. UVB is not necessary; a weak UVB bulb (Ferguson zone 1) can be used when there are hides so that the animals can withdraw from the light.

Read more: Lighting and UVB

FEEDING

The small fruit fly (*Drosophila melanogaster*) is the most important food. Adults also take the large fruit fly (*Drosophila hydei*), but often skip it because it is a little too big. Give food that is as varied as possible: isopods, springtails, aphids and sweep-netted small insects from the meadow in summer. Feed every other day with as much as the animals eat in about an hour. Dust the feeder insects at every feeding with a complete calcium and vitamin supplement for poison frogs, and give extra vitamin A once or twice a month; twice if the clutches get worse.

Read more: Feeder animals: keeping and breeding Read more: Calcium, vitamins and supplements

BEHAVIOUR AND HANDLING

The species is diurnal and lives on the ground, but is most active early in the morning and late in the afternoon and evening; the rest of the day it is shyer. At dawn and dusk the males call almost continuously, with a long series of short peeps; the call during courtship consists of only three notes. At night the animals sit on broad-leaved plants high in the vivarium. In the wild the males are territorial, but in the vivarium the species thrives in groups with no sign of aggression between either males or females. Poison frogs should not be handled; move them with a clean glass or a small container when cleaning.

Breeding

SEXUAL MATURITY AND SEXING

Females are slightly larger than males, and the male's call is the surest way to tell the sexes apart. The males begin to call when they are about seven months old, and the first viable clutches come about a year after metamorphosis. A pair is most easily found by rearing a small group of young animals together.

MATING

The species breeds readily when temperature, humidity and the animals' health are in order. Imitate a dry season from December to February with only one misting a day, and then a rainy season from March to November with full misting. In the rainy season the animals breed continuously.

EGGS AND TADPOLES

The female lays 6-33 pigmented eggs in the leaf litter or in an empty film canister lying on the floor, up to 2-3 clutches a month in the rainy season. The male stays by the eggs and protects them. In the wild the male carries the tadpoles to a brook or a puddle with flowing water. In the vivarium he does not deposit them, so the eggs are taken out a few days before hatching and put in a Petri dish with a couple of drops of water until the tadpoles hatch. They are then moved with a spoon or pipette to a small aquarium with a filter or a pump that gives a gentle current, a little fine gravel, oak leaves and a large stone as a landing place. Change half of the water every week so that there is enough oxygen. The tadpoles eat only algae tablets, not ordinary fish food. A heater is not necessary at a room temperature of about 19 °C.

METAMORPHOSIS

The eggs hatch after 4-16 days. The tadpoles become small frogs after about two months, depending on the water temperature. Warmer water gives faster growth but often problems, because the tadpoles grow too fast. The froglets almost always leave the water while they still have the tail, so keep watch when the forelegs break through, and provide easy access to land.

REARING THE YOUNG

The newly metamorphosed froglets are moved to a simple, ventilated plastic box for the first month, so that it is easy to keep an eye on them. Humidity here must be 80-95 %. After a month the tail is gone, and the colours begin to show. The young can eat only very small feeder insects: the smallest springtails, aphids and the like, until they are about three months old; after that they also take the small fruit fly. At three months they are moved to a vivarium like the adults'. From about six months they become shyer by day, like the adults.

Health and common mistakes

No disease descriptions exist for the species, so the usual problems in poison frogs apply:

- Tadpoles in still water die within a few days.
- Too high a temperature and still air, which cause stress and mould.
- Chytrid fungus (*Batrachochytrium dendrobatidis*). New animals are quarantined for at least six weeks.
- Lack of calcium and vitamins, especially vitamin A, which causes weak bones, poor growth and poor clutches.
- Dirty water and bacteria in the water bowl.

Lifespan in captivity is not documented; the figure in the box is an estimate based on related species. Contact a vet with amphibian expertise if an animal stops eating or loses weight.

Read more: Quarantine and hygiene

Always ask someone who knows

This guide is a good place to start, but it cannot replace experience. Animals differ, and much of what matters most is learned from people who have kept the species for years. Talk to a breeder, an experienced keeper or a vet who knows reptiles and amphibians before you get the animal - and again if anything looks wrong.