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POISON DART FROGS

Andean Poison Frog

Andinobates opisthomelas

Andinobates opisthomelas is a small, diurnal poison dart frog of 15-20 mm from the Andes of Colombia, where it lives in the leaf litter of humid mountain forest in Antioquia and Caldas. The species is Vulnerable in the wild, and almost nothing is known about its care.

Family: Dendrobatidae Former name: *Ranitomeya opisthomelas; Dendrobates opisthomelas; Minyobates opisthomelas*

KEY FACTS

THE ANIMAL

Adult size	**15-20 mm** snout-vent length
Lifespan	**5-10 years**
Active	**By day**
Lifestyle	**Terrestrial**
Habitat	**Montane forest**
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	**Experienced**

CARE

Min. enclosure	**45 × 50 × 60 cm** L × W × H for 5 adults
Temperature, day	**22-25 °C**
Temperature, night	**18-21 °C**
Humidity	**80-100%**
Water	**No water dish**
UVB	**Optional** Ferguson zone 1
Diet	**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**
Eggs per clutch	**1-2**
Hatching	**16-24 days**
Larval period	**108-112 days** from hatching to metamorphosis
Larval diet	**Algae/plants and complete diet**
Parental care	**Carries the tadpoles**

PROTECTION AND PAPERWORK

CITES	**Appendix II**
IUCN	**Vulnerable (VU)**

About the species

Andinobates opisthomelas is a small, diurnal poison dart frog. Males measure 15-19 mm and females 15-20 mm from snout to vent. The species was described in 1899 by George Albert Boulenger as *Dendrobates opisthomelas* and has since been placed in *Minyobates* and *Ranitomeya* before being moved to the genus *Andinobates*.

The skin contains toxins, which poison dart frogs take up from their prey in the wild. Animals raised on cultured feeder insects are free of toxins. The potency of the toxins in this species has not been studied, so wash your hands after working in the enclosure.

Distribution and habitat

Andinobates opisthomelas occurs only in Colombia, in the northern part of the western and central Andes in the departments of Antioquia and Caldas. Records lie between about 530 and 2,200 m.

The species is Vulnerable because the forest is being cleared for agriculture, cattle farming and logging and is burned, and because spraying of the fields can kill the frogs. Many animals are also captured illegally for the pet trade. The range includes several protected forest areas.

> **Native range:** Colombia.

HABITAT

Andinobates opisthomelas lives on the ground in humid mountain forest, in the leaf litter and at the foot of trees. It persists in many kinds of forest, from undisturbed forest to forest remnants and some disturbed areas. The tadpoles grow up in water that collects in bromeliads. The climate in the mountain forest is cool and humid, with mist and rain for most of the year.

Read more: Rearing tadpoles

Care

THE ENCLOSURE

Almost nothing is known about the care of *Andinobates opisthomelas*, and the species is hardly kept. The care is based on the habitat, the cool and humid mountain forest with leaf litter and bromeliads, and on close relatives. The figures for enclosure, temperature, eggs, hatching time and larval period are borrowed from *Andinobates bombetes*, which lives in the neighbouring mountains and has been bred in captivity, and the lifespan from the better-known small poison dart frogs *Ranitomeya reticulata* and *Ranitomeya variabilis*.

An enclosure of 45 × 50 × 60 cm suits a group of up to five animals. Set it up with a drainage layer of clay pebbles, a substrate of coconut fibre and forest soil, and a thick layer of dead leaves, kept damp. Cover the back and side walls with cork or coconut fibre board, and plant densely with climbers, moss and bromeliads that collect water for the tadpoles. Add bark and flat, damp hiding places on the ground. Ventilation is necessary, because stagnant air causes fungus.

Read more: Terrarium construction and bioactive substrate

TEMPERATURE

The daytime temperature should be 22-25 °C, and at night it may fall to 18-21 °C as in the mountain forest. Keep the temperature below 27 °C. Place the enclosure out of direct sun, use lighting that does not give off heat, and provide good ventilation; a fan in the room helps on hot summer days. Heating is rarely necessary in a heated living room. The species has no winter rest period.

HUMIDITY AND MISTING

Humidity should be 80-100 % and never below 70 %. Spray twice a day, morning and afternoon, or use a fogger or rain system with reverse osmosis water or rainwater. Excess water must be able to drain away through the drainage layer, so that the substrate is damp but never waterlogged. The surface may dry slightly between sprayings, and the leaves should be wet so that the frogs can drink the droplets. If the air is too dry, the frogs hide and the skin becomes dull.

Read more: Humidity, misting and ventilation

WATER AND WATER QUALITY

A water bowl is not needed; the frogs drink droplets from plants and spray water. For the tadpoles, use bromeliads with water in the leaf axils or small plastic cups with 2-3 cm of water. Use reverse osmosis water, rainwater or dechlorinated tap water, and change the water in the cups when it becomes cloudy. Avoid soap, cleaning products and chlorinated water, because amphibians absorb substances through the skin.

LIGHTING AND UVB

The light is primarily for the plants: plant lighting for 10-12 hours a day provides a daily rhythm and growth. UVB is hardly necessary, but a weak UVB source (zone 1) over part of the enclosure does no harm, provided there is shade under the plants. The lighting must not give off heat, because heat from lamps is the most common cause of excessive temperatures.

Read more: Lighting and UVB

FEEDING

The food is small arthropods: springtails, small fruit flies (*Drosophila melanogaster*) and small isopods. Newly metamorphosed froglets take only springtails. Feed every day or every other day with what the frogs eat in an hour, and dust the feeder insects lightly with calcium and vitamins 2-3 times a week. Keep your own cultures of springtails and fruit flies so that there is always food.

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

BEHAVIOUR AND HANDLING

Andinobates opisthomelas is diurnal and lives on the ground, so it stays low in the enclosure, in the leaf litter and by the bromeliads. In *Andinobates bombetes* a group with more females than males gives the most eggs; the same is a good starting point here. The frogs are shy, and many hiding places make them feel more secure and therefore more visible. They should not be handled, because the skin is delicate; when cleaning, move them with a small cup.

Breeding

SEXUAL MATURITY AND SEXING

Differences between the sexes and the age at sexual maturity have not been documented for the species. Females grow slightly larger than males, and in the close relatives the male is recognised by his call.

MATING

Mating has not been described for the species. In *Andinobates bombetes* the male calls and chooses the egg-laying site. What triggers mating, and how often the female lays, has not been documented.

EGGS AND TADPOLES

The female lays 1-2 eggs at a time in the leaf litter, and when they hatch, the male carries the tadpoles on his back to water, e.g. in bromeliads. The tadpoles can be raised individually in cups with 2-3 cm of water at room temperature and fed flaked fish food in very small amounts, so that the water does not become cloudy.

METAMORPHOSIS

The eggs hatch after 16-24 days, and the tadpoles metamorphose after 108-112 days. When the front legs appear, the water level is lowered to no more than the height of the tadpole, and a bark or leaf edge is placed so that the little frog can easily climb onto land.

REARING THE YOUNG

Newly metamorphosed froglets are very small and take only springtails for the first two weeks, and after that also the smallest fruit flies. Keep them in a small, humid box with damp kitchen paper, bark and a damp hiding place, and dust the food with calcium and vitamins.

Health and common mistakes

Typical mistakes with small poison dart frogs from a cool climate:

- Heat above 27 °C causes stress and loss of appetite and can in the worst case kill the frogs.
- Air that is too dry or stagnant causes dull skin, fungal infections and weight loss.
- Food without calcium and vitamins causes weak bones, especially in females that lay eggs.
- Intestinal parasites are common in wild-caught animals; a vet with knowledge of amphibians can examine a faecal sample.

A healthy frog has smooth, colourful skin and a rounded belly. Sick animals are isolated in a humid box, and a vet with knowledge of amphibians is contacted quickly.

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

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.