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SALAMANDERS AND NEWTS

Guangxi Warty Newt

Paramesotriton guangxiensis

Paramesotriton guangxiensis is a robust, almost entirely aquatic salamander of 13-15 cm from forest streams and rivers in Guangxi in southern China. It is dark brown with granular skin, rare and known from only a few localities. Little is known about its care, but the species is kept like the other species in the genus: in cool, clean water below 22 °C.

Family: Salamandridae Former name: *Trituroides guangxiensis* **Mild skin toxins**

KEY FACTS

THE ANIMAL

Adult size	**13-15 cm** total length incl. tail
Lifespan	**10-15 years**
Active	**At dusk and at night**
Lifestyle	**Aquatic**
Habitat	**Rainforest and wetland**
Skin toxins	**Mild** Wash your hands after contact and keep your fingers away from your eyes and mouth
Difficulty	**Intermediate**

CARE

Min. enclosure	**60 × 30 × 35 cm** L × W × H for 2 adults
Temperature, day	**15-20 °C**
Temperature, night	**13-18 °C**
Humidity	**70-90%**
Water	**Aquaterrarium** depth 15-20 cm
UVB	**Not required**
Diet	**Insects and worms/snails**
Kept	**In pairs**

BREEDING

Reproduction	**Egg-laying**
Development	**Larvae in water**
Egg-laying site	**In water**
Eggs per season	**20-115**
Clutches per year	**1**
Hatching	**21-56 days** at 18-22 °C
Larval period	**80-110 days** from hatching to metamorphosis
Larval diet	**Small aquatic invertebrates (daphnia, mosquito larvae)**
Parental care	**None**

PROTECTION AND PAPERWORK

CITES	**Appendix II**
EU annex	**Annex B**
IUCN	**Vulnerable (VU)**

About the species

Paramesotriton guangxiensis is a medium-sized, sturdily built salamander. Females reach about 13 cm in total length, males a little more. The skin is dark brown, the head broad, and the tail tall and laterally compressed, as in the rest of the genus. The animals live in the water almost their whole lives.

The skin secretes a toxic substance. Tetrodotoxin has been detected in the skin of several species in the genus, but the toxin has not been studied in this species. Wash hands after contact, do not touch the eyes or mouth, and handle the animals only when necessary.

The species was described in 1983 by Huang, Tang and Tang. It is rare, threatened by habitat loss and very little known in captivity. Genetic and morphological studies suggest that the populations in Quang Ninh in north-eastern Vietnam, previously assigned to *Paramesotriton deloustali*, may belong to this species. Lifespan is not documented; the figure in the box is borrowed from the genus, where 10-15 years is common.

Distribution and habitat

Paramesotriton guangxiensis is reliably known only from Paiyangshan in Ningming in Guangxi in southern China, close to the border with Vietnam. The populations in Quang Ninh in north-eastern Vietnam may also belong to the species, but this has not been resolved, and the map shows only China.

> **Native range:** China.

HABITAT

Paramesotriton guangxiensis lives in streams and rivers in humid subtropical to tropical lowland forest. The animals stay in clean, cool, oxygen-rich water with stones and hides. The climate is seasonal, with hot, rainy summers and cooler winters. Like the rest of the genus, the species probably tolerates heat poorly. The habitats are threatened by deforestation and agriculture.

Care

THE ENCLOSURE

Little is known about the care of *Paramesotriton guangxiensis*. The species is rare in captivity, and the figures here are borrowed from the closely related *Paramesotriton chinensis*, *Paramesotriton deloustali* and *Paramesotriton hongkongensis*, which are far better known and have the same requirements for cool, clean water.

A pair needs an aquarium of at least 60 × 30 × 35 cm (about 60 litres), and more animals require more space. Provide plenty of hides of stone, bark and roots, and a small land area of a stone or a floating cork island. Keep the lid tight, because the animals can leave the water. Use sand, large stones or no substrate, because fine gravel can be swallowed and cause intestinal blockage.

TEMPERATURE

Paramesotriton guangxiensis must be kept cool: 15-20 °C by day and 13-18 °C at night, and the water must not become warmer than 22 °C. In summer, keeping the aquarium below the limit may require a fan, cooling elements or a cool room. True brumation is not documented for the species.

Read more: Brumation and the seasons

HUMIDITY AND MISTING

Paramesotriton guangxiensis is almost entirely aquatic, so the humidity of the room plays a small role; 70-90 % is fine. Any land area must be damp.

Read more: Humidity, misting and ventilation

WATER AND WATER QUALITY

The water should be 15-20 cm deep. Use dechlorinated tap water. The water must be clean and oxygen-rich, without extreme pH or hardness values. A sponge filter driven by an air pump or a small internal filter with a gentle current suits the species. Change part of the water regularly, and remove uneaten food.

LIGHTING AND UVB

Paramesotriton guangxiensis does not need strong light. A single fluorescent or LED tube on a timer provides a fixed daily rhythm of about 12 hours. UVB is not necessary.

Read more: Lighting and UVB

FEEDING

Paramesotriton guangxiensis eats live or chopped earthworms, crickets, freshly moulted mealworms, waxworms and pieces of shrimp, like the rest of the genus. Adults are fed twice a week, juveniles three to four times a week. Accustom the animals to taking food from tweezers, so that it is easy to see how much each animal eats. The animals easily become too fat, so do not feed waxworms alone.

Read more: Feeder animals: keeping and breeding

BEHAVIOUR AND HANDLING

The behaviour of *Paramesotriton guangxiensis* is not described; species in the genus are often shy at first, but eat readily and quickly become confident. Keep males apart if they show aggression. Do not handle the animals more than necessary, and use a net when they have to be moved.

Breeding

SEXUAL MATURITY AND SEXING

In *Paramesotriton guangxiensis* the female's tail is probably shorter than the male's, and in the breeding season the male develops a swollen vent and a coloured tail stripe, as in the rest of the genus. The age at sexual maturity is not documented; in closely related species it takes several years.

MATING

The breeding season and mating are not documented for the species. The pattern in the genus is that the male fans his tail in front of the female and deposits a spermatophore, which she picks up with her vent. The female must be able to withdraw from the male, so the aquarium must be large with many hides.

EGGS AND LARVAE

The female of *Paramesotriton guangxiensis* probably lays the eggs singly on aquatic plants and folds the leaf around them, as is typical for the genus. The number of eggs is not documented for the species; the figure in the box is borrowed from *Paramesotriton hongkongensis*. Move the eggs to a tub with an air stone, or place them in a breeding net, and change the water regularly.

METAMORPHOSIS

Hatching time and larval period are not documented for the species. The figures in the box are borrowed from *Paramesotriton deloustali*: the eggs hatch after 3-8 weeks at 18-22 °C, and metamorphosis takes place after about 80-110 days. Keep eggs and larvae below 22 °C. The larvae are predators and take daphnia and mosquito larvae, and they can eat each other, so sort them by size. At metamorphosis the gills shrink and the animal moves onto land.

Read more: Rearing tadpoles

REARING THE YOUNG

Newly metamorphosed young move onto land and need a box with damp kitchen paper and moss. They take small earthworms, newly hatched crickets and small insects. When the young have grown, move them to a shallow aquarium with stones that protrude above the water, and tempt them into the water with earthworms at the water's edge.

Health and common mistakes

Typical mistakes and diseases in *Paramesotriton guangxiensis*:

- Heat and poor water: keep the temperature below 22 °C and the water clean.
- Fine gravel that is swallowed and causes intestinal blockage.
- Bsal (*Batrachochytrium salamandrivorans*): Asian salamanders can carry the fungus without symptoms, and it can be fatal to other caudates. New animals must be quarantined, and equipment and hands must be cleaned between aquariums.
- Animals that will not eat, or have skin sores or swellings, must see a vet with expertise in amphibians.

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.

The full guide with map and updates: herpy.org/en/salamanders/paramesotriton-guangxiensis