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SALAMANDERS AND NEWTS

Guizhou Warty Newt

Paramesotriton caudopunctatus

Paramesotriton caudopunctatus is a robust, almost fully aquatic newt of up to 16 cm from the mountain forests of south-central China. The species name refers to the small spots on the tail. The species grows unusually slowly, is rare in captivity and needs cool, clean water.

Family: Salamandridae

Mild skin toxins

KEY FACTS

THE ANIMAL

Adult size	**13-16 cm** total length incl. tail
Lifespan	**10-15 years**
Active	**At dusk and at night**
Lifestyle	**Aquatic**
Habitat	**Rainforest, montane forest 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	**16-22 °C**
Temperature, night	**14-18 °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**
Sexually mature	**108-120 months**
Eggs per season	**20-115**
Clutches per year	**1**
Hatching	**21-56 days** at 18-25 °C
Larval period	**80-110 days** from hatching to metamorphosis
Larval diet	**Other larvae and small aquatic invertebrates (daphnia, mosquito larvae)**
Parental care	**None**

PROTECTION AND PAPERWORK

CITES	**Appendix II**
EU annex	**Annex B**
IUCN	**Near Threatened (NT)**

About the species

Paramesotriton caudopunctatus is a robust newt. Females reach up to 16 cm in total, and males are usually slightly shorter. The species name *caudopunctatus* means 'spotted tail' and refers to the spots on the tail. The skin is granular and brown, and the belly has orange to red blotches as in the rest of the genus. Young that live on land are slightly duller in colour than animals in the water.

The skin secretes a toxin when threatened. Tetrodotoxin has been detected in the skin of several species in the genus, including *Paramesotriton chinensis* and *Paramesotriton deloustali*, but the species itself has not been examined, and how strongly the secretion affects humans is not known. Wash your hands after contact, do not touch your eyes or mouth, and handle the animals only when necessary.

The species was described in 1973 by Liu and Hu. It is one of the slowest-growing species in the genus: the young live on land for several years and must then grow for several years in the water, so about 10 years pass from hatching to first egg-laying. Lifespan is not documented; species in the genus can reach 10 years or more.

Distribution and habitat

Paramesotriton caudopunctatus lives in south-central China: south-eastern Chongqing, south-western Hunan, eastern Guizhou and Fuchuan in eastern Guangxi. The species was described from Leigong Shan in Guizhou and occurs at 500-1,800 m elevation.

> **Native range:** China.

HABITAT

Paramesotriton caudopunctatus lives in forested mountain areas at 500-1,800 m elevation, where it frequents still water in and beside the mountain streams. The climate is subtropical with warm, rainy summers and cool winters, which are coldest in the highest parts of the range. The daily and seasonal rhythm in the wild is not described in detail. The species is vulnerable to habitat loss.

Care

THE ENCLOSURE

Little is known about the care of *Paramesotriton caudopunctatus*, and the species is rare in captivity. It is kept like *Paramesotriton hongkongensis*, which is far better known, and the figures for aquarium, eggs, hatching and larval period are borrowed from it.

A pair needs an aquarium of at least 60 × 30 × 35 cm. A large male can stress smaller females, so keep the animals apart, or divide the aquarium with a glass pane if the females do not thrive. Provide plenty of hiding places of rocks, bark and roots. Young that are still terrestrial need a land area of rocks or cork. Keep the lid tight.

Use sand, large rocks or no substrate. Fine gravel can be swallowed and cause intestinal blockage.

TEMPERATURE

Paramesotriton caudopunctatus must be kept cool: 16-22 °C by day and 14-18 °C at night, and the water must not become warmer than 22 °C. In summer it may take a fan, cooling elements or a cool room to keep the aquarium below the limit. Hibernation is not documented for the species.

Read more: Brumation and the seasons

HUMIDITY AND MISTING

Paramesotriton caudopunctatus is almost fully aquatic, so air humidity plays a small role; 70-90 % is fine. A land area must be moist for as long as the animals use it.

Read more: Humidity, misting and ventilation

WATER AND WATER QUALITY

The water should be 15-20 cm deep. Use dechlorinated tap water or spring water. The water must be clean, and extreme values of pH and hardness are avoided. A sponge filter or a small internal filter with a gentle current is suitable. Change part of the water regularly, and remove uneaten food.

LIGHTING AND UVB

Paramesotriton caudopunctatus 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 caudopunctatus eats the same as the rest of the genus: chopped earthworms, crickets, freshly moulted mealworms, cockroaches and pieces of shrimp. Adults are fed twice a week, young 3-4 times a week. Accustom the animals to taking food from tongs. Young land animals eat small garden worms and small insects; switch to chopped earthworms as they grow larger.

Read more: Feeder animals: keeping and breeding

BEHAVIOUR AND HANDLING

Paramesotriton caudopunctatus is more active than most species in the genus. Young land animals, by contrast, are very secretive and rarely seen. Differences in size can cause problems: a large male can stress the females, so divide the aquarium with a glass pane, or keep the animals apart. The animals must not be handled more than necessary; use a net for moving them.

Breeding

SEXUAL MATURITY AND SEXING

Outside the breeding season the sex is hard to tell. In the breeding season the male gets a swollen cloaca, and the female becomes plumper. Females usually grow slightly longer than males, but a male can well be the largest in a group. Sexual maturity is reached very slowly: the animals reach breeding size only after several years of life on land and several years of growth in the water, about 9-10 years in all. The figure is based on few animals.

MATING

The breeding season is not documented for *Paramesotriton caudopunctatus*. Mating probably follows the pattern of the genus, in which the male nudges the female, fans his tail and deposits a spermatophore, which the female picks up with her cloaca. Animals that have been kept apart are put together once they have reached breeding size.

EGGS AND LARVAE

The female of *Paramesotriton caudopunctatus* probably lays the eggs singly on aquatic plants like the rest of the genus. The number per season is not documented for the species. Move the eggs to a tub with an air stone, or put them in a rearing net.

METAMORPHOSIS

The eggs hatch after 3-8 weeks at 18-25 °C, and the larval period is 80-110 days. The larvae can eat one another, so sort them by size. Feed them daily on live daphnia, mosquito larvae, grindal worms and newly hatched artemia. At metamorphosis the gills shrink, and the animal moves onto land.

Read more: Rearing tadpoles

REARING THE YOUNG

The newly metamorphosed young go onto land and need a moist land area or a box with damp kitchen paper and moss. They take small garden worms, newly hatched crickets and small insects; switch to chopped earthworms as they grow larger. The young are terrestrial for several years, but a few animals stay in the water after metamorphosis. Growth is very slow, and the young hide so much that it is hard to see whether they are eating. A tight lid is important, because the young escape easily.

Health and common mistakes

Typical mistakes and diseases in *Paramesotriton caudopunctatus*:

- Heat and poor water: keep the temperature below 22 °C and the water clean.
- Fine gravel, which 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, need to see a vet with amphibian expertise.

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.