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LACERTIDS

Crocodile Tegu

Crocodilurus amazonicus

Crocodilurus amazonicus is a semi-aquatic lizard from the Amazon and Orinoco basins with a long, laterally flattened swimming tail and elongated toes. It reaches about 50-60 cm, catches insects, crustaceans, fish and frogs in and beside the water, and basks on branches over the water's edge. The species needs a warm, humid paludarium with a large water section and an experienced keeper.

Family: Teiidae Former name: *Crocodilurus lacertinus; Tupinambis lacertinus*

KEY FACTS

THE ANIMAL

Adult size	**50-60 cm** total length incl. tail
Lifespan	**8-12 years**
Active	**By day**
Lifestyle	**Semi-aquatic**
Habitat	**Rainforest and wetland**
Difficulty	**Experienced**

CARE

Min. enclosure	**120 × 60 × 90 cm** L × W × H for 1 adult
Temperature, day	**27-31 °C**
Basking spot	**35-38 °C**
Temperature, night	**23-26 °C**
Humidity	**70-90%**
Water	**Water section** depth 15-25 cm
Water temperature	**25-29 °C**
UVB	**Recommended** Ferguson zone 2
Diet	**Insects, vertebrates and small invertebrates (springtails, fruit flies)**
Kept	**Singly**

BREEDING

Reproduction	**Egg-laying**
Clutch size	**2-6 eggs**
Incubation	**90-120 days** at 27-30 °C

PROTECTION AND PAPERWORK

CITES	**Appendix II**
EU annex	**Annex B**
IUCN	**Least Concern (LC)**

About the species

Crocodilurus amazonicus is the only member of the genus *Crocodilurus* and belongs to the Teiidae, the family of tegus and ameivas. Together with *Dracaena*, it is one of two semi-aquatic genera in the family. The tail is about twice as long as the body and laterally compressed, and it drives the animal through the water with serpentine side-to-side movements while the legs are held against the body. The neck is relatively long, and the nostrils sit close to the tip of the snout, so the head can be held above the water while swimming. The toes are elongated, and the fifth toe is unusually long.

Adults measure 16-22 cm from snout to vent. Total length has not been measured systematically, but with a tail about twice the body length it comes to 50-60 cm. Newly hatched young are about 7-9 cm from snout to vent. No reliable method of sexing has been documented, and weight, age at sexual maturity and lifespan in captivity have not been studied; 8-12 years in the specification box is an estimate borrowed from the tegus.

For a long time the species was listed under the name *Crocodilurus lacertinus*. The name *Tupinambis lacertinus* turned out to belong to a completely different species, and *Crocodilurus amazonicus* is the valid name.

Distribution and habitat

Crocodilurus amazonicus occurs in the Amazon basin and the Orinoco drainage in northern South America, from Peru in the west to Pará in Brazil in the east, and from the Orinoco in Venezuela south to the upper Madeira. It has been recorded in Brazil, Colombia, Venezuela, Peru and French Guiana. Its occurrence in Suriname is uncertain, and it is absent from Guyana. The type locality is the bank of the Solimões near São Paulo de Olivença in Amazonas, Brazil.

In central Amazonia the species is common along lake margins and in flooded forest, but far scarcer along the rivers themselves. It is tied to flooded forest and does not occur in forest streams that never flood. It occurs in several large protected areas, and the population is not considered threatened.

> **Native range:** Brazil, Colombia, Venezuela, Peru and French Guiana.

HABITAT

Crocodilurus amazonicus lives beside lakes, rivers and streams in rainforest, especially in blackwater forest (igapó) and flooded forest (várzea). It keeps to still or slow-flowing water and has not been seen in deep water. By day it basks on fallen tree trunks, rocks and thin branches over the water or on the bank, and when alarmed it flees into the water, where it swims up to 20 m along the bank or hides in the leaf litter on the bottom, in burrows in the bank or in hollow tree trunks. At night it may sleep in the leaf litter on the bottom of shallow water. The body temperature by day averages about 31 °C, with a range of 27-35 °C. In the hottest hours the water surface can reach about 35 °C.

The water level changes greatly through the year. At low water, from October to January, wide shorelines are exposed, and the animals gather there to hunt and bask. When the water rises they move into the flooded forest, and at high water they are almost impossible to find; they may be more arboreal in that period. The food is mainly aquatic: insects such as water bugs and beetles, crustaceans, spiders, fish and frogs, including tadpoles, with arthropods making up about two thirds and vertebrates one third of the prey. Fish are unusually important for a lizard. The young hatch at the start of the low-water period.

Read more: Rearing tadpoles

Care

THE ENCLOSURE

Little is known about the care of *Crocodilurus amazonicus*, and the species is rarely kept in captivity; captive breeding has scarcely been described. The care advice is based on the animal's way of life in the wild and on experience with the larger semi-aquatic tegus of the genus *Dracaena*, for example *Dracaena guianensis*.

An adult needs an enclosure of at least 120 × 60 × 90 cm (length × width × height), and larger is better. About half the floor area should be water (see the section on water). The enclosure dimensions are an estimate. The enclosure must have a tightly fitting lid, because the animal is fast and an escape artist, but the lid must allow ventilation, because still, humid air causes respiratory problems. The land section is furnished with sturdy, sloping branches and roots that reach out over the water, so the animal can bask and dive in when alarmed. The substrate can be a mixture of cypress bark, coir and clean sand, which holds moisture. Plants provide cover and higher humidity; robust species cope best. The animal needs at least two fully enclosed hides: one at the warm end and one at the cool end, each at least 25 × 15 × 10 cm.

Keep one animal. How the species behaves in a group has not been documented, and a pair needs an even larger enclosure with more basking sites and more hides.

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

TEMPERATURE

By day the air should be 27-31 °C. The basking spot should have a surface temperature of 35-38 °C, measured with an infrared thermometer; this figure is an estimate based on the animal's body temperature in the wild of about 31 °C and on its daily basking. At night the temperature should be 23-26 °C and must not fall below 22 °C. The animal comes from rainforest without seasons and does not need a winter rest.

Use a halogen spot or a small heat lamp over the basking branch, and add a ceramic heater that gives off no light if necessary. The lamps must be protected from splashes, and a mesh must keep the animal away from the bulbs. Place thermometers at the basking spot, at the cool end and by the water. The animal cannot keep itself warm in cold water and should not live in water that is colder than the air.

Read more: Heat and temperature

HUMIDITY AND WATER

Humidity should be 70-90 %. The water section, the plants and a damp substrate hold moisture, and a fogger or a rain system that runs a couple of times a day for 10 minutes gives an even humidity. The enclosure must not be completely closed: ventilate with mesh at the top so the air does not become stagnant.

WATER AND WATER QUALITY

The animal is a skilled swimmer and must be able to lie in the water and dive completely under. The water section must be a permanent part of the enclosure and not just a bowl, with a water depth of 15-25 cm over as much of the floor as possible and easy access to land by sloping rocks or roots. In the wild the species is seen only in shallow water, so deeper water does not make the animal more content, but a large surface does.

The water temperature should be 25-29 °C, maintained by a submersible water heater. The animal eats and defecates in the water, so it soon becomes dirty. Use a powerful filter, but also change part of the water at least once a week, and every other day without a filter. No fine gravel in the water, which can be swallowed; a bare bottom is easiest to clean, and large river stones that cannot fit in the mouth can be used.

LIGHTING AND UVB

Crocodilurus amazonicus is diurnal and basks, so it needs light, UVA and UVB for 12 hours a day. Which Ferguson zone the species belongs to has not been documented; zone 2 is an estimate based on the species living in shaded forest but basking regularly, and UVB is recommended to prevent bone disease. A T5 tube with a reflector over the basking branch provides UVA, UVB and daylight. Follow the lamp's instructions for distance, check with a UV meter if you can, and replace the tubes as the manufacturer advises, typically every year. The animal must always be able to withdraw from the light.

Read more: Lighting and UVB

FEEDING

In the wild *Crocodilurus amazonicus* eats mostly aquatic arthropods (insects, crustaceans and spiders), but also fish and frogs. The staple diet is therefore insects such as crickets, grasshoppers, mealworms and cockroaches, supplemented with small fish, shrimp and crayfish. Frogs and tadpoles are part of the wild diet but are not necessary in captivity.

Young animals are fed daily and adults two to three times a week; frequency and quantity have not been documented, so adjust to the animal's body condition. Dust the food with calcium twice a week and with a multivitamin once a week. The food can be served in a shallow dish, where it holds up in water, or from long tweezers.

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

BEHAVIOUR AND HANDLING

Crocodilurus amazonicus is a fast, shy animal that flees at the slightest disturbance: out into the water and into a hide. The animal does not settle easily in an enclosure where it is often disturbed, and newly acquired animals need several weeks of peace. Handling should be limited to what is necessary.

Keep the animal alone. Reptiles can carry *Salmonella*, so wash your hands after contact with the animal, the water and the enclosure.

Read more: Quarantine and hygiene

Breeding

SEXUAL MATURITY AND SEXING

Sexual differences and age at sexual maturity have not been documented. A female of 22 cm from snout to vent had apparently already laid eggs, whereas females of 17-18 cm had not. Age and weight at sexual maturity have not been studied in captivity.

MATING

Mating in captivity is scarcely described. What triggers it, and whether there is a season or a resting period, has not been documented. In the wild the young hatch at the start of the low-water period, so egg-laying probably falls in that period. Keep the animals apart, and put them together only under supervision, in a large enclosure with several hides.

EGG-LAYING AND CLUTCHES

The species is oviparous. The number of eggs and clutches per year has not been documented; 2-6 eggs in the specification box is an estimate based on the size of a female and on related teiids. Give a female that is about to lay a damp land section or a laying box with moist soil that she can dig in. Without a suitable site she can retain the eggs, which can become life-threatening.

INCUBATION

Incubation time, temperature and humidity have not been documented for the species. 27-30 °C and 90-120 days in the specification box are estimates based on the temperature of the species' habitat and on other teiids; a closed container with moist vermiculite and a small air hole is the usual solution for lizards. Leave the eggs undisturbed, and keep them moist without making them wet.

Read more: Incubating eggs

REARING THE YOUNG

Newly hatched young are about 7-9 cm from snout to vent and independent from the first day. Keep them in an enclosure with heat, UVB and a shallow water section that they can easily climb out of, and offer small insects and small fish dusted with calcium. The young grow quickly: from 8-10 cm to 18-23 cm from snout to vent in about two years. No detailed rearing guide exists.

Health and common mistakes

Many problems are caused by errors in husbandry: too low a temperature, too little UVB, a one-sided diet and dirty water. New animals often have intestinal worms and are stressed by transport.

- A poxvirus can cause raised, partly ulcerated nodules on the back, head, neck and tail and weight loss, and several animals in the same collection can be affected. Quarantine sick animals.
- Intestinal worms and other parasites in new animals. Have a faecal sample examined.
- Respiratory infections caused by too low a temperature or stagnant humid air.
- Skin infections in dirty water.
- Metabolic bone disease caused by too little UVB and calcium.
- Difficulty laying eggs in females without a suitable place to dig.

A healthy animal has clear eyes, a plump tail and regular droppings, and eats willingly. Animals that lose weight, stop eating or have skin changes need a vet with experience of reptiles.

Read more: Common diseases and signs of illness

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.