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LACERTIDS

Paraguay Caiman Lizard

Dracaena paraguayensis

Dracaena paraguayensis is a large, heavily built, semi-aquatic lizard from the flooded lowlands of Paraguay, Bolivia and Mato Grosso in Brazil. It has a large, heavy head and flat, molar-like teeth that crush the shells of snails and mussels, its main food. Its care is hardly documented and requires a very large, warm paludarium and an experienced keeper.

Family: Teiidae

KEY FACTS

THE ANIMAL

Adult size	**80-100 cm** total length incl. tail
Lifespan	**10-15 years**
Active	**By day**
Lifestyle	**Arboreal and semi-aquatic**
Habitat	**Savanna and wetland**
Difficulty	**Experienced**

CARE

Min. enclosure	**180 × 90 × 120 cm** L × W × H for 1 adult
Temperature, day	**27-32 °C**
Basking spot	**38-41 °C**
Temperature, night	**24-27 °C**
Humidity	**60-80%**
Water	**Water section** depth 30-40 cm
Water temperature	**24-29 °C**
UVB	**Recommended** Ferguson zone 3
Diet	**Insects, vertebrates and worms/snails**
Kept	**Singly**

BREEDING

Reproduction	**Egg-laying**
Clutch size	**4-7 eggs**
Incubation	**160-180 days** at 28-30 °C

PROTECTION AND PAPERWORK

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

About the species

Dracaena paraguayensis is a heavy, powerfully built lizard in the family Teiidae, which also includes the tegus. The head is large and pyramid-shaped, and the five lateral teeth in each upper jaw are very large and flat like molars, with an oval, flat crushing surface that can crack shells. There is a double gular fold. The tail is laterally compressed and is used as a paddle when the animal swims, while the legs are held against the body. As in *Dracaena guianensis*, the back is covered in large, convex scales, and the skin resembles that of a caiman.

Colours and sexual differences have not been documented. Size, weight, lifespan and age at sexual maturity have not been studied either; 80-100 cm and 10-15 years in the specification box are estimates based on the closest relative, *Dracaena guianensis*, and on the tegus.

The species was described in 1950 from São Lourenço in Mato Grosso, Brazil. The other species in the genus is *Dracaena guianensis*, which lives farther north in the Amazon.

Distribution and habitat

Dracaena paraguayensis occurs in central South America: in Paraguay, in Bolivia (Santa Cruz) and in Brazil (Mato Grosso). It is the southern of the genus's two species, while *Dracaena guianensis* lives in the Amazon. The exact range and the size of the population have not been studied, but the species is not considered threatened.

> **Native range:** Paraguay, Brazil and Bolivia.

HABITAT

Dracaena paraguayensis is tied to watercourses, lakes, swamps and flooded forests and meadows in the lowlands, where the water level changes with the season. Its way of life and daily rhythm are known only in broad outline, so the care advice is based on the relationship to *Dracaena guianensis*, which is better described. The genus is diurnal and semi-arboreal: the animal basks on branches and roots over the water and takes to the water when alarmed.

Both species in the genus are mollusc specialists, and the food is mainly snails and mussels. The animal crushes the shell with its molar-like teeth, swallows the soft body and spits out the shell remains. *Dracaena guianensis* lays its eggs in a burrow in the bank or in a termite mound by the water; where, how many and when this species lays has not been documented. The climate is tropical to subtropical.

Care

THE ENCLOSURE

Almost nothing is known about the care of *Dracaena paraguayensis*, and the species is rarely kept and is demanding. The care advice is based on *Dracaena guianensis*, which is better known in captivity, and all figures are borrowed from it unless stated otherwise. Wild-caught animals often accept only snails and are difficult to keep alive; captive-bred animals accept food and surroundings more easily.

An adult needs an enclosure of at least 180 × 90 × 120 cm (length × width × height), and larger is better. A young animal can live in an enclosure of about 120 × 30 × 60 cm but quickly outgrows it, so the adult enclosure must be planned from the start. Such an enclosure is usually custom-built, preferably as a paludarium with a mesh or grille top that tolerates moisture. The lid must be firmly fixed, because the animal is strong.

Furnish it with a large water section, a large land section and plenty of height. The water section is described in the section on water. Place sturdy branches at several heights and especially over the water, so the animal can bask with the option of diving; the branches must be fixed firmly, because the animal climbs and digs and knocks over loose items. The substrate on the land section can be a mixture of cypress bark, coir and clean sand. Robust plants provide cover, but the animal may tear at them, and artificial plants work just as well. The animal needs a hide it can go completely into: about 25 × 15 × 10 cm for young animals and at least 45 × 30 × 20 cm for adults.

Keep one animal. A pair needs an even larger enclosure with more basking sites and more hides.

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

TEMPERATURE

By day the air should be 27-32 °C. The basking spot is a powerful basking branch over the water with a surface temperature of 38-41 °C, measured with an infrared thermometer. At night the temperature should be 24-27 °C and must not fall below 24 °C. The figures are borrowed from *Dracaena guianensis*; a winter rest has not been documented, and the animal must be kept warm all year.

Use a halogen spot or a powerful heat lamp over the basking branch, and add a ceramic heater that gives off no light if necessary. All lamps must be protected from splashes, and a mesh must keep the animal away from the bulbs. Thermometers should be placed at several heights and at the basking spot.

Read more: Heat and temperature

HUMIDITY AND WATER

Humidity should be 60-80 %. The water section and plants hold moisture, and a damp substrate helps. A fogger or a rain system that runs a couple of times a day for 10 minutes gives an even humidity in a large enclosure. The enclosure must not be completely closed, because stagnant, humid air causes respiratory infections; ventilate with mesh at the top.

Read more: Humidity, misting and ventilation

WATER AND WATER QUALITY

The animal must be able to lie in water and dive completely under, so the water section is a permanent part of the enclosure and not just a bowl. The water depth should be at least 30 cm over as much of the floor as possible, and the water should be 24-29 °C, maintained by a submersible water heater.

The animal eats and defecates in the water, so it quickly becomes dirty. Use a large, powerful filter, but the filter does not replace water changes: change the water at least once a week, preferably two or three times. Without a filter the water must be changed once or twice a day. No gravel in the water, which can be swallowed and cause blockages; a bare bottom is safest and easiest to clean. Large river stones that cannot fit in the mouth can be used, but waste collects between them.

LIGHTING AND UVB

Dracaena paraguayensis is diurnal and basks a great deal, so it needs light, UVA and UVB for 12 hours a day. Which Ferguson zone the species belongs to has not been documented; zone 3 is borrowed from *Dracaena guianensis* and the tegus (*Salvator merianae*), which also bask daily, and is used to choose the lamp and distance. A powerful T5 HO tube with a reflector over the basking branch provides UVA, UVB and daylight. Follow the lamp's instructions, check with a UV meter if you can, and replace the tubes as the manufacturer advises, typically every year. Position the lamps so the animal can always withdraw from the light.

Read more: Lighting and UVB

FEEDING

In the wild *Dracaena paraguayensis* eats almost only snails and mussels. The staple diet should therefore be snails: farmed land snails (for example *Helix* and *Achatina*) without shells, thawed or tinned; farmed edible snails can also be given whole in the shell, thawed and lukewarm. Vary this with fillets of freshwater fish, shrimp, crayfish, mealworms, large crickets and other insects. Meat can be included but only as a supplement. Snails from the wild can carry parasites and should not be used.

Adults are fed three times a week with up to five snails at a time. Feeding frequency for young animals has not been documented. Dust the food with calcium twice a week, and give a multivitamin once a week. Use tweezers or a pole for feeding, because the animal may mistake a hand for food.

Wild-caught animals often take only snails and refuse everything else. Captive-bred animals are easier to accustom to a varied diet. Animals that refuse food for several weeks need a vet.

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

BEHAVIOUR AND HANDLING

Dracaena paraguayensis is a strong animal with a powerful bite and a hard tail. Threatened animals lash with the tail and bite. The animal is not aggressive by nature, but newly acquired animals need a few weeks of peace, and handling begins when the animal eats regularly. Avoid putting a hand into the enclosure at feeding time.

Keep the animal alone. Reptiles can carry *Salmonella*, so wash your hands after contact, and do not let small children touch the animal unsupervised.

Read more: Quarantine and hygiene

Breeding

SEXUAL MATURITY AND SEXING

Sexual differences, sexing and age or weight at sexual maturity have not been documented for *Dracaena paraguayensis*. In *Dracaena guianensis* the sex can be determined from the scales behind the vent, and it has not been studied whether this applies here.

MATING

Mating has not been documented for the species. What triggers it, and whether there is a season or a resting period, has not been described. As a rule, keep the animals apart; a pair needs a very large enclosure with several basking sites and hides.

EGG-LAYING AND CLUTCHES

The species is oviparous. The number of eggs and clutches per year has not been documented; 4-7 eggs in the specification box is borrowed from *Dracaena guianensis*. Give a female that is about to lay a deep, damp and warm land section or a large, closed 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 and temperature have not been documented for the species; 160-180 days and 28-30 °C in the specification box are borrowed from *Dracaena guianensis*. 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

Captive breeding of the species has not been described. Keep young animals in an enclosure with heat, UVB and a water section where they can dive and climb out, and offer small snails without shells and small food animals dusted with calcium. 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, especially wild-caught ones, often have intestinal worms and are stressed by transport.

- Intestinal worms and other parasites in new animals. Quarantine them, and have a faecal sample examined.
- Respiratory infections caused by too low a temperature or stagnant humid air.
- Shedding problems and skin wounds, especially in dirty water.
- Metabolic bone disease caused by too little UVB and calcium.
- Difficulty laying eggs in females without a suitable place to dig.
- Animals that will take only snails can become malnourished if the snails are not healthy.

A healthy animal has clear eyes, a plump tail and regular droppings, and eats willingly. Animals that lose weight, stop eating or breathe with the mouth open need a vet with experience of reptiles. A strong animal weighing several kilos is difficult to handle, so arrange transport and examination with the vet in advance.

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.