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LACERTIDS

Red Tegu

Salvator rufescens

Salvator rufescens is the most heavily built tegu: a diurnal, burrowing lizard from the dry Chaco and western Argentina, Paraguay and Bolivia, which becomes redder with age. Males grow to 140 cm. The species needs a purpose-built enclosure of at least 300 × 150 × 150 cm, a deep burrowing substrate, strong heat and UVB, and it lives for 15-20 years.

Family: Teiidae Former name: *Tupinambis rufescens*

KEY FACTS

THE ANIMAL

Adult size	**80-140 cm** total length incl. tail
Lifespan	**15-20 years**
Active	**By day**
Lifestyle	**Terrestrial and burrowing**
Habitat	**Semi-desert and dry forest**
Difficulty	**Experienced**

CARE

Min. enclosure	**300 × 150 × 150 cm** L × W × H for 1 adult
Temperature, day	**24-35 °C**
Basking spot	**52-57 °C**
Temperature, night	**20-23 °C**
Humidity	**70-80%**
Water	**Water dish**
UVB	**Essential** Ferguson zone 3
Winter rest	**15-20 °C** 17-22 weeks
Diet	**Insects, fruit, plants, vertebrates and worms/snails**
Kept	**Singly**

BREEDING

Reproduction	**Egg-laying**
Sexually mature	**24-36 months**
Clutch size	**15-35 eggs**
Clutches per year	**1**
Incubation	**40-75 days** at 29-30 °C

PROTECTION AND PAPERWORK

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

About the species

Salvator rufescens is a powerful tegu with a broad head, a heavy body and a long, round tail. It is the most heavily built of the tegus. The name *rufescens* comes from the Latin rufescere, to become reddish, and alludes to the colour. Newly hatched young are brownish to greenish with black crossbands and several broken white stripes along the body and have almost no red colour. The red colour comes with age and is usually strongest in the males.

Females grow to about 90 cm including the tail. Males grow considerably larger, up to 140 cm and about 60 cm from snout to vent, and develop large cheeks as the jaw muscles grow. The species grows quickly and is sexually mature after 2-3 years.

S. rufescens is closely related to *Salvator merianae*, and the two species interbreed naturally in a stable hybrid zone in central Argentina, where their ranges meet. It also resembles *Salvator duseni*. The species was formerly listed as *Tupinambis rufescens*.

It is an intelligent lizard that can be trained and learns to recognise its keeper, but it is still a wild animal and not a pet: it bites, scratches and lashes with its tail when frightened. An adult requires an enclosure the size of a small room, a diet that costs a great deal, and 15-20 years of care.

Distribution and habitat

Salvator rufescens lives in western and northern Argentina (including Chaco, La Rioja, San Juan, Mendoza, Córdoba, San Luis and La Pampa), in Paraguay and in Bolivia (Beni, Santa Cruz and Tarija). The type locality is Mendoza. The species does not occur in Brazil; the older record from Paraná has been rejected. The hybrid zone with *Salvator merianae* lies in the transition between the dry Chaco and the Espinal in central Argentina.

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

HABITAT

Salvator rufescens lives in the dry Chaco with thorny dry forest and scrub and in dry, scrubby areas further to the south-west, where the climate is temperate with hot summers and cold winters. The species is diurnal and lives in burrows that it digs itself, and it also digs outside dormancy.

In winter the animal burrows down and is largely inactive during the coldest periods; in some areas dormancy lasts up to seven months. The temperature in the burrow is not documented for the species. Breeding takes place in the South American spring and early summer, from October to December, and females lay one clutch a year.

The species is opportunistic and eats both animals and plants: insects and other arthropods, rodents, birds and bird eggs, lizards, fish, carrion, fruit and seeds.

Read more: Brumation and the seasons

Care

THE ENCLOSURE

Little specific knowledge exists about the care of *Salvator rufescens*. The species is about the same size as *Salvator merianae* and lives in much the same way, and its care is the same; the figures for enclosure, temperature, humidity and light are common to the Argentine tegus and have not been measured specifically for this species.

An adult male needs an enclosure of at least 300 × 150 × 150 cm (length × width × height) and an adult female at least 240 × 120 × 120 cm. Enclosures this large have to be built or ordered specially. Bigger is better.

The animal also digs outside dormancy, so the substrate is the most important part of the setup. Provide a deep layer, preferably 30-60 cm, at least at one end. A mixture of about 40 % fertiliser-free garden soil, 40 % coconut fibre and 20 % play sand with a layer of leaf litter on top holds moisture and is good to dig in. Avoid dry sand, potting compost with additives, and pine and spruce shavings. Replace the whole substrate at least every quarter.

The enclosure should have front opening and mesh in the ceiling, and all lamps must be firmly fixed and guarded, because tegus knock them over. The door must be lockable. Provide a large, low water bowl, and change the water daily, because the animal drags substrate into it and leaves droppings. Also provide a hide box with damp sphagnum and several dry hides.

The animal is kept singly. Two animals can be kept together in an enclosure twice as large, but it is not certain that this works. A male and a female are not kept together outside the breeding season, and small animals are not kept with large ones.

Read more: Humidity, misting and ventilation

TEMPERATURE

The basking spot should have a surface temperature of 52-57 °C, measured with an infrared thermometer. The warm side is 32-35 °C and the cool side 24-29 °C, and at night lights and heat are switched off so that the temperature falls to 20-23 °C. Use halogen spots or incandescent bulbs, several close together, so that an adult is warmed evenly over its whole body. Ceramic heaters and heat mats are too weak for the basking spot.

Salvator rufescens comes from an area with cold winters and is adapted to a long dormancy. Brumation is nevertheless optional in captivity. A healthy animal can be kept active and fed all year, and that is the right choice for juveniles in their first year, newly acquired animals, underweight animals and all animals whose health is uncertain.

If you want to give a brumation period, the rules in the theme on brumation apply: only healthy animals in good condition, a wind-down over several weeks and an empty gut before the temperature is lowered. The theme's fasting times cover animals up to 3 kg; for tegus weighing several kilos there is no established rule, so the fast should last at least a month, and the temperature is kept above 13 °C while the gut empties. After that, hold 15-20 °C with a deep, damp burrowing layer and access to drinking water. The rest lasts 4-5 months. Temperature and duration are borrowed from *Salvator merianae*; in the wild, dormancy in *S. rufescens* lasts up to seven months. Weigh the animal before and during the rest, and end it if there is clear weight loss or signs of illness. On waking, the temperature and light are raised gradually over a few days, water is given first, and food is offered once the animal is active and warm.

Read more: Heat and temperature

HUMIDITY AND WATER

Air humidity should be 70-80 %, as for the other Argentine tegus. Keep the substrate damp but not muddy by watering it weekly, and mist daily. The species comes from a drier area than *Salvator merianae*, so the warm end should be dry and airy, while the hide box with damp sphagnum (90-100 %) and the deep, damp substrate provide the humid spots. Measure with two hygrometers, one at each end. The animal must always have fresh drinking water.

LIGHTING AND UVB

Salvator rufescens is diurnal and needs strong light and UVB for 12-14 hours a day. In addition to the heat bulbs, the enclosure needs strong daylight lighting, and direct sun in a secure outdoor enclosure is a good supplement when the weather allows.

Tegus belong to Ferguson zone 3. Use a T5 HO tube of 10-14 % in a fitting with a reflector over the basking spot, so that the tube covers about half the length of the enclosure. The aim is a UV index of 3-4 at the basking spot and lower elsewhere. Without mesh, the distance between tube and back is typically 43-55 cm depending on the tube; mesh blocks part of the UVB, and the distance must then be shorter. Tubes lose output and are replaced according to the manufacturer's instructions.

Read more: Lighting and UVB

FEEDING

Salvator rufescens is an omnivore with an emphasis on animal food. Juveniles and animals raised in captivity can be fussy and often prefer meat. The diet follows the same rules as for *Salvator merianae*: about 60 % animal food, 30 % vegetables and 10 % fruit for adults, and about 90 % animal food, mostly insects, and 10 % greens for juveniles. Fruit is given sparingly, because the animal easily becomes fat.

Juveniles up to 6 months are fed 5 times a week, 7-12 months 4 times, 1-2 years 3 times and adults 2 times a week. The portion is about the size of the animal's skull, and whole prey items should be a little smaller than the skull.

Offer cockroaches, crickets, grasshoppers, mealworms, earthworms and snails, chicks, quail, mice, rats, minced meat with calcium, whole fish and shrimp. Whole prey is better than meat because it contains calcium. Minced meat and insects are dusted with calcium and multivitamin. Eggs and fish are given cooked: raw egg white contains avidin, which prevents the absorption of biotin, and some fish contain thiaminase, which breaks down vitamin B1. Suitable plant foods are dandelion, kale and other cabbages, carrot, courgette and pumpkin. Never give avocado, onion, spinach, lettuce, broccoli or aubergine.

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

BEHAVIOUR AND HANDLING

Salvator rufescens has a reputation for being calm and relatively tame and can be trained. Tameness does not come by itself: the animal must be handled calmly and regularly from a young age, and juveniles are shy. Let them get used to your hand, approach from the side and not suddenly from above, and touch them while they eat so that they learn the difference between hand and food.

Like other tegus, young animals of 45-75 cm go through a period of a few months in which they are defensive and irritable. Give them peace and space, and use heavy gloves if the animal has to be handled. An adult has a powerful bite, sharp claws and a tail that lashes like a whip. The animal digs and explores and needs variety in the enclosure. Wash your hands after contact with the animal and the enclosure, because *Salmonella* is common in reptiles.

Read more: Quarantine and hygiene

Breeding

SEXUAL MATURITY AND SEXING

Males are considerably larger than females and develop large cheeks; the jaw muscles grow further during the breeding season. The species is sexually mature after 2-3 years. Females should be fully grown and in good condition before they are bred.

MATING

In the wild the animals mate in spring after dormancy; in Argentina the breeding season runs from October to December. The female lays one clutch a year. In captivity the male and female are kept apart outside the breeding season and put together under supervision once they have woken up and eaten again. Details of mating in captivity are not documented.

EGG-LAYING AND CLUTCHES

The female lays one clutch a year of 15-35 eggs, on average about 21. How the nest is built is not documented for the species; in *Salvator merianae* the eggs are laid in a nest of dry grass, twigs and leaves in the ground. Provide the female with a deep, damp burrowing layer, dry nesting material and peace.

INCUBATION

Incubation time and temperature are not documented for the species, so the figures are borrowed from *Salvator merianae*. The eggs hatch after 40-75 days, and a stable temperature of around 29 °C gives the most hatched eggs and the largest young.

Read more: Incubating eggs

REARING THE YOUNG

The young measure about 8 cm from snout to vent when they hatch. They grow very quickly and need insects and small prey, calcium, UVB and plenty of heat. Keep them separated by size, because large animals may eat small ones. Juveniles are kept active and fed through their first winter.

Health and common mistakes

The health problems are the same as in other tegus, and most are caused by faults in care:

- Metabolic bone disease from too little calcium, vitamin D or UVB.
- Obesity from too much fatty meat and fruit and too little exercise. Weigh the animal regularly.
- Respiratory infections from too low a temperature or a substrate that is constantly wet.
- Burns if the animal can reach the heat bulbs. Guard them.
- Intestinal worms and other parasites, especially in imported animals. New animals should be quarantined and have a faecal sample examined.
- Shedding problems from air that is too dry.
- Egg-laying difficulties in females without a suitable place to dig.
- Weight loss or illness during or after brumation in animals that were not in good condition.

The animal should see a vet with reptile experience if it loses weight, stops eating outside a brumation period, breathes with its mouth open or seems lethargic.

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.