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AGAMAS

Reeves' butterfly lizard

Leiolepis rubritaeniata

Leiolepis rubritaeniata is a ground-dwelling, diurnal agamid from Thailand, Laos, Cambodia and Vietnam that digs burrows in sandy soil and can spread its flank skin like a butterfly. It is kept like the closely related *Leiolepis belliana*: a dry enclosure with a deep, diggable substrate, strong heat and UVB. There is little knowledge about this particular species, so most of the figures are borrowed.

Family: Agamidae English name: Reeves' Butterfly Lizard Former name: *Leiolepis belliana rubritaeniata; Leiolepis reevesii rubritaeniata*

KEY FACTS

THE ANIMAL

Adult size	**30-40 cm** total length incl. tail
Lifespan	**8-10 years**
Active	**By day**
Lifestyle	**Terrestrial and burrowing**
Habitat	**Savanna**
Difficulty	**Intermediate**

CARE

Min. enclosure	**120 × 60 × 50 cm** L × W × H for 2 adults
Temperature, day	**26-35 °C**
Basking spot	**35-37 °C**
Temperature, night	**20-25 °C**
Humidity	**30-50%**
Water	**Water dish**
UVB	**Essential** Ferguson zone 3
Diet	**Insects and plants**
Kept	**Singly or in pairs**

BREEDING

Reproduction	**Egg-laying**
Clutch size	**3-8 eggs**
Incubation	**55-75 days** at 28-30 °C

PROTECTION AND PAPERWORK

CITES	**Not listed**
EU annex	**Not listed**
IUCN	**Least Concern (LC)**

About the species

Leiolepis rubritaeniata is a slender, flattened agamid with a long tail and small, granular dorsal scales. The back has many small, closely set spots with dark edges that form a fine net. The name means "red-banded" (Latin *ruber*, red, and *taenia*, band) and refers to the carmine band along the flanks. Males also have 2-3 black crossbands by the forelimbs and show off their colours by spreading their flank skin like wings. Females often lack black bands and are more subdued.

Males grow to 17 cm from snout to vent and females to about 11 cm; including the tail the animal probably reaches 30-40 cm. The total length is not documented and is an estimate based on the two measurements. The species was described by Robert Mertens in 1961 as a subspecies of *Leiolepis belliana* and has later also been treated as a subspecies of *Leiolepis reevesii*, to which it is most closely related. Today it is regarded as a species in its own right. In older literature and in the trade it may therefore appear under both species names, so it is worth making sure the animal has been identified correctly. The genus includes both species that reproduce sexually and all-female species; *L. rubritaeniata* reproduces sexually.

The animal is shy and flees into its burrow at the slightest disturbance. It suits a keeper who wants to watch an active animal that digs and basks, and who does not want to handle it.

Distribution and habitat

Leiolepis rubritaeniata lives in South-East Asia: Thailand, Laos, Cambodia and Vietnam. In Thailand it is found mainly in the north-east, on and around the Khorat Plateau, and the type locality is Pak Chong in Nakhon Ratchasima Province. It is also known from central Thailand, for example Saraburi.

> **Native range:** Thailand, Laos, Cambodia and Vietnam.

HABITAT

The species lives in open, sandy savanna landscape where the soil is loose enough to dig in. The animals live in burrows that they dig themselves and use them as a refuge, for spending the night and for laying eggs. The burrows have not been measured for this species; in the close relative *Leiolepis belliana* they are about 30 cm deep and 70 cm long, often Y-shaped with several openings.

The animals are diurnal and bask on open ground, stumps and mounds of earth. They are shy and retreat into the burrow at the slightest disturbance. On the Khorat Plateau the species lives close to the rock-dwelling *Leiolepis glaurung*, but keeps to the sandy savanna between the rocks, and the two species do not appear to affect each other.

Care

THE ENCLOSURE

There is little knowledge about the care of *Leiolepis rubritaeniata*. The figures in this guide are borrowed from *Leiolepis belliana*, which has the same way of life and lives in the same kind of landscape.

A pair needs an enclosure of at least 120 × 60 × 50 cm (length × width × height). Floor area is most important, because the species is ground-dwelling, but the height must accommodate a deep substrate. A single animal can manage with 90 × 45 × 45 cm.

The substrate should be at least 20 cm deep, preferably more, and consist of a mix of sand and unfertilised garden soil, so the burrows hold. The bottom layer should be slightly damp, the rest dry. Lay flat stones, cork and roots, so the animal has basking spots and hides, and fix them in place so they do not topple when the animal digs under them. Ventilation must be good, and the lid must be lockable, because the animals are fast and shy.

TEMPERATURE

The basking spot should have a surface temperature of 35-37 °C. The air at the warm end is 30-35 °C, and the cool end is 26-29 °C. At night the temperature falls to 20-25 °C.

The animal must always be able to move away from the heat, down into the substrate or into a hide. Use halogen spots or ceramic heaters with a guard in front and a thermostat. Measure with digital thermometers and an IR thermometer, and check the basking spot regularly. An animal that constantly seeks shelter from the heat is too hot, and an animal that does not bask is too cold.

Read more: Heat and temperature

HUMIDITY AND WATER

Humidity should be 30-50 %, and the enclosure should be dry. Spraying is normally not necessary. The animal needs a bowl of fresh water, large enough to bathe in, and the bowl is filled daily. The substrate must not be wet, because that causes mould.

Read more: Humidity, misting and ventilation

LIGHTING AND UVB

The species is diurnal and basks in open country, so it needs strong light and UVB. Use a tube or LED of 6,500 K over the whole enclosure and a T5 HO UVB tube of 10-12 % over the basking spot. The Ferguson zone has not been established for the species; zone 3 is an estimate for a lizard that basks in open country. Check the distance with a UV meter, and replace the tubes according to the manufacturer's instructions. The light must be on for 10-12 hours a day.

Read more: Lighting and UVB

FEEDING

The genus *Leiolepis* is omnivorous, and *L. rubritaeniata* eats both insects and plants; the proportions are not known for the species. Give crickets, roaches, mealworms and superworms, and offer dark green leaves such as dandelion, cabbage leaves and mustard greens as well as flowers. Fruit is given only sparingly. Lettuce has almost no nutritional value and is avoided.

Juveniles and adults are fed every day. Give what the animal eats in about 10 minutes. Dust the insects with calcium at every feed and with a multivitamin with D3 once a week. Vary the food.

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

BEHAVIOUR AND HANDLING

The animal is shy and fast and flees into a burrow when anything moves. It tolerates handling poorly. In the genus, a male and a female often share a burrow.

The animals can be kept singly or in pairs. Two males must never be put together, because they fight. Provide plenty of basking spots and hides, and quarantine new animals.

Read more: Quarantine and hygiene

Breeding

SEXUAL MATURITY AND SEXING

Males have 16-19 femoral pores on each side and are more colourful than females. When the species becomes sexually mature is not documented. A female must be fully grown and in good condition before mating, because egg-laying draws on her calcium reserves and strength.

MATING

Mating has not been described for the species. In *Leiolepis belliana* the animals breed in the warm, dry season, and males fight by circling each other and displaying their coloured flanks. Only keep a pair together for as long as it goes peacefully.

EGG-LAYING AND CLUTCHES

The female lays 3-8 eggs per clutch as in *L. belliana*, and this fits the genus (2-8 eggs in *L. reevesii*). Give the female the chance to dig a burrow at the warm end of the enclosure in substrate at least 30 cm deep and slightly moist. A female without a suitable site can retain the eggs, and that is life-threatening.

INCUBATION

Incubation is not documented for the species. 28-30 °C and about 55-75 days is an estimate based on other egg-laying agamids. Place the eggs in damp vermiculite in a closed box in an incubator with a thermostat, and do not turn them.

Read more: Incubating eggs

REARING THE YOUNG

Rearing is not documented for the species. The hatchlings need an enclosure of their own with a deep substrate and many hides, and are fed daily with small insects dusted with calcium. They need UVB, because fast-growing juveniles otherwise develop metabolic bone disease.

Read more: Common diseases and signs of illness

Health and common mistakes

Most problems are caused by mistakes in the set-up: too little heat, too little UVB, a substrate that is too thin or wet and a diet that is too one-sided. The typical problems are:

- Metabolic bone disease from too little UVB and calcium. Provide UVB and calcium-dusted insects.
- Dehydration if there is no water. Provide fresh water daily.
- Intestinal blockage if the animal swallows a lot of loose sand; use a mix with soil so the burrows hold.
- Gastrointestinal diseases and parasites, especially in newly bought animals. Have a faecal sample examined.

- Egg-laying difficulties in females without a suitable digging substrate.
- Skin problems from a substrate that is too wet.

Lifespan is not documented; 8-10 years is borrowed from *L. belliana*. Contact a vet if the animal is lethargic, has no appetite or has problems shedding.

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.