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IGUANAS

Common Basilisk

Basiliscus basiliscus

Basiliscus basiliscus is a slender, fast lizard from the forests along rivers and streams in Central America and northern South America, with a long tail, tall crests in the male and the ability to run on two legs across water. It grows to 45-80 cm, is diurnal and omnivorous and needs a tall, humid enclosure with a water section, many hides and UVB. It is shy and not suited to handling.

Family: Corytophanidae Former name: *Basiliscus americanus; Basiliscus barbouri; Basiliscus guttulatus; Basiliscus mitratus; Lacerta basiliscus; Lophosaura goodridgii*

KEY FACTS

THE ANIMAL

Adult size	**45-80 cm** total length incl. tail
Weight	**200-500 g**
Lifespan	**6-10 years**
Active	**By day**
Lifestyle	**Arboreal, terrestrial and semi-aquatic**
Habitat	**Dry forest, rainforest and wetland**
Difficulty	**Intermediate**

CARE

Min. enclosure	**120 × 60 × 120 cm** L × W × H for 1 adult
Temperature, day	**25-30 °C**
Basking spot	**35-40 °C**
Temperature, night	**23-26 °C**
Humidity	**60-80%**
Water	**Water section**
UVB	**Essential** Ferguson zone 2
Diet	**Insects, fruit and vertebrates**
Kept	**Singly, in pairs or one male with several females**

BREEDING

Reproduction	**Egg-laying**
Sexually mature	**10-24 months**
Clutch size	**2-20 eggs**
Clutches per year	**1-5**
Incubation	**56-90 days** at 28-31 °C

PROTECTION AND PAPERWORK

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

About the species

Basiliscus basiliscus is a slender, low-built lizard with long toes, sharp claws and a very long tail, which makes up 70-75 % of the total length. The colour is brown, olive green or bronze with darker crossbands and two pale, cream to yellow stripes along the upper lip and flanks. Young animals are more contrasting and have three longitudinal stripes on the throat. All ages have brown to bronze-coloured eyes.

Males are larger than females and have a tall, pointed head crest as well as a sail-like crest on the back and tail, supported by elongated vertebral spines. Females lack the large crests. The crest grows with age and is absent in small juveniles. Adults measure 45-80 cm in total, and most of that length is tail. The weight is about 200-500 g. The body alone (snout to vent) reaches 20-25 cm.

The species has broad hind feet with fringes of rolled-up scales along the toes. When the animal flees across water, it rises up on its hind legs, and the fringes unfold so that the feet trap air. Small animals can run 20 metres or more across the surface of the water, while large animals sink after a few metres and swim or dive on.

Parthenogenesis (reproduction without a male) has been described in the species. It was described by Carl Linnaeus in 1758 under the name *Lacerta basiliscus* and is the type species of the genus *Basiliscus*. It is easily confused with *Basiliscus vittatus*, which has keeled belly scales, a more pointed head crest and only one pale stripe on each flank. *Basiliscus plumifrons* is green and has a double head crest.

Distribution and habitat

Basiliscus basiliscus lives on the Pacific side of Costa Rica and in Panama and on through northern and western Colombia to north-western Venezuela. In Colombia it is found from the coastal lowlands up to about 1,200 m. Older records from south-western Nicaragua are unconfirmed, and the population in Guyana is introduced.

> **Native range:** Costa Rica, Panama, Colombia and Venezuela.

HABITAT

The species lives in lowland forest, both humid and dry, almost always close to rivers, streams and other watercourses. It is common and is regarded in western Costa Rica as one of the most frequently seen large lizards. The altitudinal range is 0-600 m in most of the area and higher in Colombia.

The day is spent foraging, basking and resting along the water's edge, mostly on the ground and in low scrub. At night the animals sleep on branches, often high up, up to about 20 m above the ground. When in danger they run out onto the water or dive. Males are territorial, display with head-bobbing and chase smaller males away, so many males do not breed until they are three to four years old.

The diet is wide: arthropods, small lizards, snakes, birds, mammals, fish, freshwater shrimp and occasionally frogs, but also flowers and fruit. The proportion of plant food increases with age, and young animals are more insectivorous. The female digs the hole for the eggs herself and fills it in again.

Care

THE ENCLOSURE

An adult needs a tall enclosure of at least 120 × 60 × 120 cm (length × width × height), and larger is better. A male with one or more females needs a larger enclosure with several basking spots and hides. The species is fast and runs into the glass if it feels exposed. A tall enclosure is therefore needed, with plenty of hides, dense planting, an opaque back wall and an opaque strip along the bottom of the glass front.

Furnish with sturdy, sloping branches and raised resting places, so that the animal can climb and sleep high up. Potted plants of robust, non-toxic species provide cover and keep humidity up. A large water section where the animal can bathe and dive is part of the set-up (see the section on water). The substrate must hold moisture: coconut soil, cypress bark or garden soil without fertiliser and perlite. Clean the substrate and water section continually, and replace the substrate completely a couple of times a year.

The lid must be tight and secure, because the species is a skilled escape artist. Heat lamps must sit in ceramic fittings and be shielded with a guard.

Read more: Humidity, misting and ventilation

TEMPERATURE

The air should be kept at 25-30 °C during the day, and the basking spot should have a surface temperature of 35-40 °C, measured with an infrared thermometer. At night 23-26 °C is suitable. The figures are the same for the three common basilisks. Use a halogen spot over a branch high up and a ceramic heat emitter on a thermostat for the night if the room is cold, and shield all lamps so that the animal cannot burn itself.

The rest of the enclosure must be cooler, so that the animal can choose between warmth and shade. Measure with digital thermometers at the basking spot and in the cool end. Too low a temperature causes poor digestion and a weakened immune system, and the animal must always be able to get away from the heat.

Read more: Heat and temperature

HUMIDITY AND WATER

Humidity should be 60-80 %. Mist the enclosure and foliage 1-2 times a day, or use a fogging or rain system on a timer, and measure with a hygrometer. Plants, a moist substrate and the water section keep humidity up, and the animals drink droplets from the leaves. A slightly drier and cooler period in winter, with 45-55 % humidity, can be used before breeding, and for the breeding itself humidity is raised to 80 % or more.

Ventilation must not be sacrificed for humidity. If the air stands still and wet, mould grows and the animal gets respiratory and skin problems.

WATER AND WATER QUALITY

The enclosure must have a water section that is large and deep enough for the animal to swim and dive in. The species flees out onto and into the water when frightened, so the water section must lie under branches and be easy to climb out of. The animal defecates in the water, so it must be filtered or changed often.

LIGHTING AND UVB

Basiliscus basiliscus is diurnal and needs UVB all day to produce D3 and absorb calcium. The species basks in sun and partial shade by the water, and the UVB lamp should give Ferguson zone 2, i.e. a UV index of no more than about 3 at the basking spot and less in the rest of the enclosure. A 6 % T5 tube or a similar lamp is usually suitable, but the distance depends on the type of lamp, so follow the manufacturer's instructions and measure if you can. UVB does not pass through glass or plastic, and the tubes are replaced according to the manufacturer's instructions.

The light is on for 12 hours and off for 12 hours all year round. Supplement with strong LED lighting for the plants and the animal. Natural sunlight in a mesh cage outdoors in summer is an advantage, but the animal must have shade and must never stand in direct sun in a glass enclosure.

Read more: Lighting and UVB Read more: Calcium, vitamins and supplements

FEEDING

Basiliscus basiliscus is omnivorous with a clear emphasis on animal food. Adults are given mainly insects: crickets, grasshoppers, cockroaches, large mealworms and the odd earthworm. In addition a small fish or a thawed newborn mouse can be given once or twice a month. Fruit such as berries, mango and papaya is given sparingly and only to adults, because it causes loose stools in juveniles. Juveniles are given small crickets, small mealworms and the odd waxworm.

The food is dusted with calcium with D3 a couple of times a week and with a vitamin supplement on the other days. Feeder insects should be gut-loaded before they are fed to the lizard. Juveniles are fed daily, adults every second to third day. The water must always be fresh. New animals may refuse to eat for up to several weeks, especially males, if the enclosure is open or without hides.

Read more: Feeder animals: keeping and breeding

BEHAVIOUR AND HANDLING

Basiliscus basiliscus is shy and fast and rarely becomes truly tame. The animal is suited to being observed and not to regular handling. Stress shows as fleeing, snout rubbing against the glass and refusing food. Handle only when necessary, and hold on firmly, because the animal slips away easily. It can bite and whip with its tail, but is not dangerous. The tail can be shed, and it only partly grows back.

Males are territorial and must not be kept together. Fighting is seen as early as the first months, and the weaker male does not thrive and may die. A male can be kept with several females in a large, densely planted enclosure, but the females can be greedy and stress a young male. Juveniles should therefore be separated early and grow up singly or in small groups of the same sex. Wash your hands after contact with the animal, the enclosure and the food, because reptiles can carry *Salmonella*.

Read more: Quarantine and hygiene

Breeding

SEXUAL MATURITY AND SEXING

The male has a taller head crest and a crest on the back and tail and is larger than the female. Females become sexually mature from the age of 10 months and by about 20 months at the latest, at a body length (snout to vent) of about 14 cm, males in their second year. Larger males keep smaller males from breeding, so many males only get started after three to four years. Males can begin to fight from about five months of age.

MATING

Mating is initiated with head-bobbing from the male. Breeding is governed by humidity, temperature and light: a period of slightly dry conditions and lower temperature, followed by high humidity of 80 % or more and 29-32 °C, with 12 hours of light and 12 hours of darkness, starts the mating. In the wild the breeding season begins in March. The male should be put together with the female in a large enclosure with many hides, so that she can withdraw, and removed if he is rough.

EGG-LAYING AND CLUTCHES

The female lays 2-20 eggs per clutch, most often 8-12. Larger females lay more eggs. She can lay several clutches a year, up to four to five, spread over almost a whole year. She digs a hole and covers it after laying. Give the female a deep laying container with moist sand and soil, at least 30 cm deep, otherwise she may hold the eggs back.

INCUBATION

The eggs are marked on top with a pencil, so that their orientation is kept, and buried two thirds of the way down in a moist substrate of vermiculite and water in the ratio 1:1 by weight in an incubator. The temperature should be 28-31 °C and humidity high, especially in the first four weeks. The eggs hatch after 56-90 days, and the whole clutch hatches within a couple of days.

Read more: Incubating eggs

REARING THE YOUNG

The young stay in the incubator until the yolk sac has been absorbed and are then moved to an enclosure built like the adults', but smaller. Feed daily with small crickets and small mealworms, dusted with calcium, and provide UVB. Juveniles have a high calcium requirement. Males must be separated at about five months of age, because they begin to fight. Keep the young singly or in small groups of the same size.

Health and common mistakes

Most illnesses are caused by faults in the set-up. The typical problems are:

- Metabolic bone disease from too little UVB and calcium.
- Injuries to the snout from snout rubbing against the glass. Provide calm, hides and an opaque lower edge.
- Gastrointestinal problems and loose stools from too much fruit or too low a temperature.
- Respiratory infections from too low temperatures and stagnant, humid air.
- Parasites, especially in wild-caught animals. New animals are kept in quarantine.
- Egg-laying difficulties in females without a suitable laying site. This is life-threatening and requires a vet.
- Shedding problems from air that is too dry.

A healthy animal has clear eyes, a rounded tail and a robust body and is alert. It eats regularly and breathes with its mouth closed. Weigh the animal regularly, because weight loss is often the first sign of illness. See a vet with experience of reptiles if the animal loses weight, does not eat or seems lethargic. Captive-bred animals are strongly preferable, because wild-caught animals are more stressed and have more parasites.

Read more: Common diseases and signs of illness Read more: Buying animals: captive-bred, wild-caught and transport

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.