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IGUANAS

Brown Anole

Anolis sagrei

Anolis sagrei is a small, fast, ground-oriented anole from Cuba, the Bahamas and the east coast of Central America. The male is brown with a yellow to deep red dewlap under the throat and defends his territory with head-bobs and push-ups. The species is hardy and active by day but very shy, and it needs UVB, live food and an enclosure with both branches and floor to run on.

Family: Dactyloidae Former name: *Anolis sagrae; Norops sagrei; Anolis ordinatus; Anolis greyi*

KEY FACTS

THE ANIMAL

Adult size	**13-22 cm** total length incl. tail
Lifespan	**4-8 years**
Active	**By day**
Lifestyle	**Arboreal and terrestrial**
Habitat	**Dry forest and rainforest**
Difficulty	**Intermediate**

CARE

Min. enclosure	**60 × 45 × 60 cm** L × W × H for 1 adult
Temperature, day	**26-29 °C**
Basking spot	**32-35 °C**
Temperature, night	**20-24 °C**
Humidity	**60-80%**
Water	**Water dish**
UVB	**Essential** Ferguson zone 2
Diet	**Insects**
Kept	**Singly or one male with several females**

BREEDING

Reproduction	**Egg-laying**
Sexually mature	**9-12 months**
Clutch size	**1-2 eggs**
Clutches per year	**15-18**
Incubation	**28-56 days** at 26-28 °C

PROTECTION AND PAPERWORK

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

About the species

Anolis sagrei is a small, slender lizard with a wedge-shaped snout, long toes with adhesive toe pads and a long tail. The base colour is light to dark brown, often with a paler stripe along the back flanked by darker markings and pale lines down the sides. The animal can shift between shades of brown, black and grey and sometimes shows yellowish spots when excited. The tail has a keel that continues up the nape. The male has a large dewlap under the throat, which can be pale yellow, orange or deep red, and which he unfolds together with a rapid head-bob to impress females and threaten rivals.

The total length is 13-22 cm including the tail. The male is the largest, and the female is smaller and slimmer. Females show several patterns, from stripes to chevrons.

The species was described in 1837 by Duméril and Bibron. The species name honours the Spanish botanist Ramón de la Sagra. It is closely related to *Anolis nelsoni* and belongs to the large genus of anoles, whose species look very much alike.

A. sagrei is hardy and lively but very shy: it runs at the slightest disturbance. The species is an animal to look at, not to handle. It is invasive across large parts of the world (including Florida, Hawaii, Taiwan and Singapore), where it has arrived with potted plants and pushes out native lizards, and an animal must therefore never be released.

Distribution and habitat

Anolis sagrei is native to Cuba, the Bahamas, the Cayman Islands (Little Cayman and Cayman Brac), Jamaica and along the east coast of Central America: the Yucatán Peninsula in Mexico, Belize and the Caribbean coast of Guatemala and Honduras. The species has been introduced to many other places, including the south-eastern USA, Hawaii, the Caribbean, Taiwan and Singapore. The map shows only the native range.

> **Native range:** Cuba, Bahamas, Cayman Islands, Jamaica, Mexico, Belize, Guatemala and Honduras.

HABITAT

The species lives in open, dry to humid lowland: coastal scrub, forest edges, gardens, walls and fences and close to human settlements. It is active by day and less arboreal than other anoles. It sits mostly on the ground, on low branches, trunks and rocks and likes to bask when the weather is warm. When it is cold, it retreats into shelter.

The males are territorial and defend an area with several females by bobbing, unfolding the dewlap and turning sideways. The species is an omnivorous insectivore: it takes insects and spiders, but also snails, earthworms, smaller lizards (including its own young) and occasionally plant food such as figs.

Care

THE ENCLOSURE

A single adult needs an enclosure of at least 60 × 45 × 60 cm (length × width × height). Larger is better, and an enclosure of 60 × 60 × 90 cm gives far more to use without a much larger footprint. The species uses both floor and branches, so the enclosure must have both.

Furnish it with branches at several heights and horizontal basking spots, cork, vines and dense foliage of live plants such as *Epipremnum* or *Philodendron*. The substrate is at least 5 cm of coconut fibre and garden soil with leaf compost on top. Remove droppings daily, and replace the whole substrate every 3-4 months. The enclosure should preferably open from the front and be well ventilated, so the air does not stand still. The lid must be tight, because the species is fast and escapes easily.

Keep only one animal per enclosure. Several animals easily cause conflicts, and two males must never live together. If you want to keep several, it only works with one male and two to three females in a larger enclosure with many hiding places and branches. Remember that the females will then lay eggs.

TEMPERATURE

The air should be kept at 26-29 °C by day, and the basking spot should have a surface temperature of 32-35 °C measured with an infrared thermometer. The cooler side is 24-26 °C. At night 20-24 °C is suitable. The warmest spot should be at the top, and the animal must always be able to get away from the heat.

Use a halogen spot or another lamp above a branch, and guard it so the animal cannot burn itself. Heat mats and coloured bulbs are not suitable. Measure with digital probes at the basking spot and at the cool end. If the room is cold at night, a ceramic heat emitter on a thermostat can maintain the minimum temperature.

Read more: Heat and temperature

HUMIDITY AND WATER

Humidity should be 60-80 %: lower in the middle of the day and higher at night. Mist the plants and the enclosure morning and evening with a pressure sprayer, or use a fogging or rain system on a timer, and measure with a digital hygrometer in the middle of the enclosure. Anoles drink the water droplets from the leaves, and many animals do not understand how to drink from a bowl; a small bowl of fresh water and a drip system help. A humid hide with moss in the upper part of the enclosure also helps.

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

Read more: Humidity, misting and ventilation

LIGHTING AND UVB

Anolis sagrei is active by day and needs UVB every day to form D3 and absorb calcium. The UVB lamp should provide Ferguson zone 2, i.e. a UV index of at most about 3 at the basking spot. A 6 % T5 HO tube or a similar lamp in a reflective fitting is suitable if the distance to the branch matches the strength of the lamp, so follow the manufacturer's instructions and measure if you can. UVB does not pass through glass or plastic, so a window is no substitute. Replace the tube according to the manufacturer's instructions, usually every year.

The light is on for 12 hours a day and can follow the season: about 14 hours in summer and 10 hours in winter. It is switched off completely at night.

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

FEEDING

The species is insectivorous and takes live prey that moves: crickets, cockroaches (such as dubia and discoid), grasshoppers, silkworms, hornworms, small superworms and soldier fly larvae. Feeders should be slightly smaller than the animal's head. Variety is important, and fatty feeders such as mealworms and waxworms are given only occasionally.

Juveniles are fed daily, and adults every other day with 2-3 feeders per meal. Lightly dust the feeders with calcium without D3 at every meal and with a multivitamin 2-3 times a month, and gut-load the feeders for 1-2 days before offering them. Anoles prefer to eat off the ground, so a low feeding platform in the middle of the enclosure is practical. Water in a shallow bowl is changed daily, and the animal also drinks droplets from misted leaves.

Read more: Feeder animals: keeping and breeding

BEHAVIOUR AND HANDLING

The species is shy, fast and not an animal for handling. Captive-bred animals settle better than wild-caught ones. If you have to pick the animal up, do it calmly and briefly; the species can drop its tail, and it does not grow back in the same form. The male is territorial and bobs his head and unfolds his dewlap at other males and at his own reflection, so avoid mirrors in the enclosure. Females can be kept with a male if the enclosure is large enough.

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

Breeding

SEXUAL MATURITY AND SEXING

The male is larger and has a distinct, coloured dewlap under the throat; the female has only a small one. The female is slimmer and often has a pale stripe along the back. The animals reach sexual maturity within their first year and can breed as early as the summer after hatching. They should be fully grown and in good condition before being put together. Lifespan is about 4 years and at most 8 years in captivity.

MATING

One male and two to three females can be kept together in a large enclosure. The male bobs his head and shows the dewlap, and mating follows shortly afterwards. The female can store sperm for a long time, often for the whole breeding season, so a single mating can produce many eggs. The breeding season falls in the warm part of the year, and breeding follows warmth and day length.

EGG-LAYING AND CLUTCHES

The female lays one egg at a time, occasionally two, every week or every other week throughout the breeding season, 15-18 eggs per season in total. She buries the egg in moist, loose soil or coconut fibre and covers it. Give her a tray with at least 5 cm of moist, loose soil in the enclosure. The egg is small and soft-shelled. She can lay in flowerpots and plants, and that is how the species has spread across the world, so always check the soil before moving plants.

INCUBATION

The eggs are moved carefully, with the same side up, to a closed container with slightly moist vermiculite or sand. The temperature should be 26-28 °C; fluctuating temperatures with peaks above 33 °C cause many eggs to die. The eggs hatch after 4-8 weeks, fastest at high temperature. Check weekly that the substrate is moist and that no eggs are going mouldy.

REARING THE YOUNG

The hatchlings are very small at hatching, just under 2 cm from snout to vent. They need micro feeders such as flightless fruit flies and newly hatched crickets daily, dusted with calcium and vitamins, and misted leaves daily so they can drink. Keep the hatchlings in an enclosure furnished like the adults', but smaller, and separate the males as soon as the sex can be seen, so they do not fight.

Health and common mistakes

Most problems are caused by mistakes in the set-up. The typical ones are:

- Metabolic bone disease from too little UVB or too little calcium.
- Dry or retained shed on toes and tail in low humidity.
- Respiratory infections from poor ventilation or conditions that are too cool.
- Burns if the animal touches a lamp.
- Dehydration, emaciation and stress in newly bought, wild-caught animals.
- Mites and internal parasites; new animals are kept in quarantine.

See a vet if the animal does not eat for more than a week, is lethargic, has discharge from the mouth, nose or eyes, swellings, sores or large patches without scales.

Read more: Quarantine and hygiene 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.