

Laemantus serratus

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Laemantus serratus adult with juvenile

The Casquehead Iguana



Within the family Iguanidae, the subfamily Basiliscinae includes the basilisks, genus *Basiliscus*; the helmeted iguanas, genus *Corytophanes*; and the casquehead iguanas, genus *Laemantus*. The two species of casquehead iguanas, *L. longipes* and *L. serratus*, differ from each other greatly. *L. longipes* is smaller, has no dorsal crest, and lacks the spiny crown on the helmet that is characteristic of *L. serratus*.

Description

The serrated casquehead iguana, *Laemantus serratus* Cope, 1864, inhabits tropical rain forests from southern Mexico to Honduras in Central America. It spends most of its time clinging to thin branches, climbing down to the ground only in pursuit of prey or to bury eggs.

This lizard reaches a total length of 50–75 centimeters, but three-quarters of the length is tail. The body is laterally flattened and the head is triangular. The name “*serratus*” refers to the distinctive spiny, or serrated, crest that crowns the head, and a low serrated dorsal crest down the back. The legs and toes are extremely long and thin and well adapted to the arboreal lifestyle of the species. The very long tail is not easily broken off or dropped by autotomy. We usually catch the lizards by their tails, and none have ever broken.

The color of the lizard changes from brown to bright green to shades of blue depending on temperature. Dark brown longitudinal stripes are present along the center of the back and on the flanks. Also, dark crossbands appear on the flanks of gravid females.

This species does not have evident sexual dimorphism, but distinguishing males from females is not difficult. The male has visible hemipenial bulges at the base of the tail, and also has a wider head with a larger serrated crown than the female.

This species is kept in captivity at the Centre of Natural Scientists in Prague, Czech Republic. In 1999, we managed to acquire a pair, both approximately 2 years old. A year later we acquired four juveniles, which were later determined to be three males and one female. All of them were bred in captivity in the Czech Republic.

Terrarium

The older pair was initially housed in a terrarium of 80 x 80 x 80 centimeters, furnished with thin branches and live plants (*Hoya*, *Schefflera*). For substrate we used peat mixed in equal parts with river sand — at least 5 centimeters deep. We provided a large basin for water, but later removed it so the female would not lay eggs in

it (which we had happen with a different species). Also, crickets were hiding under it. In any case, the lizards were not using the water basin at all.

Our casquehead iguana terrariums are located in a greenhouse, so they have plenty of natural light. We do not use any special lamps for UV light. Heating is provided with a 60-watt ceramic bulb, which is kept on 24 hours a day — except on hot summer days, when it is switched off. The temperature directly under the bulb stays at about 35°C (95°F). Temperatures in other parts of the terrarium vary from about 26°C (79°F) to 30°C (86°F). At night the temperature drops a little, but not below 23°C (73°F). During winter the greenhouse is heated to at least 24°C (75°F). It is important to note that these animals love high temperatures. Even at 35°C (95°F) they continue to bask in the highest levels of the terrarium. However, if the temperature drops below 22°C (72°F) they stop eating and become brown in color.

At first, the four younger lizards were housed in a smaller (similarly furnished) terrarium, but when they reached the same size as the older pair, all six animals were put together in a larger terrarium of 120 x 80 x 80 centimeters (LxWxH).

Feeding

Adult and older juvenile casquehead iguanas are fed three times a week, as much as they will eat. Gravid females and younger specimens are fed smaller quantities daily. We feed them a diet of mostly crickets (*Acheta domestica*, *Gryllus assimilis*), locusts (*Locusta migratoria*), and cockroaches (*Periplaneta americana*, *Blaptica dubia*). We also sometimes offer larvae of the scarab beetle *Pachnoda marginata peregrina*, and approximately once a month we feed each lizard a 1- or 2-day-old pinky.

All prey insects are always dusted with a mixture of dietary supplements (Vitamax, Roboran H, Roboran for exotics, Plastin, and crushed eggshells and cuttlebone). Once a month, the lizards are given drops of liquid vitamin A, D₃, and E supplements. And two or three times a year we give them a vitamin B-complex supplement.

Frequent spraying with water is very important. In winter, two or three times a day is enough, but on hot summer days, when the temperature in the greenhouse goes above 35°C (95°F), it is necessary to spray more often.

In any

case, the substrate should not become too wet, and the air in the terrarium should not be stifling, so adequate ventilation is also important.

Reproduction

A big advantage of keeping this species is that a large group can be housed in one terrarium. Males are not injured in competition for mating, and there is no apparent psychological pressure on weaker specimens.

The first attempts at copulation begin in April or May. In courtship, the male faces the female, puffs out his throat, and moves his head from side to side. We have

only seldom seen these lizards actually copulating, and in such cases we have chosen to leave them alone rather than disturb them. This is why we have no data about the copulation procedure or its duration.

Gravidity is soon evident — the female gains weight quickly, and crossbands appear on her flanks.

About 5 days before laying, the eggs can be felt through the sides of the female by palpation. At this time the female stops eating and starts climbing down to the ground to look for a suitable nest site. The substrate should be more than 5 centimeters deep

when females are laying eggs. Substrate moisture is also important. If the ground is too wet, the eggs can absorb too much water and quickly mold; if it is not moist enough, the eggs can quickly dry out. If the female does not find suitable conditions for laying, she may retain her eggs for several days and finally leave them scattered around the



L. serratus eating a cricket



Hatchling just a few days old



L. serratus adult male



Juvenile about 6 weeks old



L. serratus adult

terrarium. These eggs are usually unable to survive. In the worst case, the female can retain the eggs so long that she dies.

During the last week before egg-laying it is best to transfer all the males to a different terrarium to keep them from disturbing females that are trying to find nest sites and lay eggs. Also, we hand-feed the lizards with tweezers during the time before egg-laying. It is important to make sure there are no free-roaming crickets or other prey insects in the terrarium when eggs are laid. A few hungry crickets can destroy a whole clutch of eggs within minutes.

In most cases we have observed laying in the afternoon. Eggs are laid in substrate of 5–6 centimeters in depth, and the female always covers the nest perfectly, making it impossible to distinguish from the surrounding ground. Our clutches have consisted of 5–9 eggs measuring an average of 12 x 25 millimeters. Each female usually lays two clutches per season — the first in late June or early July; the second, 35–40 days later. One of our females laid three clutches one year — of nine, seven, and six eggs respectively.



Gravid female



L. serratus female laying eggs. The eggs are still soft and glossy



After laying, the female buries the eggs and conceals the nest



One clutch incubating in vermiculite



L. serratus hatchling a few days old

The third clutch was evidently of lower quality, but still produced five hatchlings. This reproductive effort was taxing for the female, but she soon recovered.

We incubate eggs in slightly damp vermiculite at a constant temperature of 29.5°C (85°F), for an incubation period of 52–56 days. Initially we had a problem with well-developed young dying in their shells, but we found that increasing the substrate moisture 2–3 days before expected hatching helps to prevent this from happening. Apparently the drier and harder eggshells were difficult for the baby lizards to break through. Hatchlings measure 13 centimeters in total length, of which 9.5 centimeters is tail. Size variation among babies is minimal.

Care of hatchlings

We house hatchlings (of the same size) together in terrariums of 40 x 30 x 40 centimeters (LxWxH). For fresh hatchlings we line the floor

with filter-paper instead of other substrate — until the umbilicus is well healed, it should be kept free of substrate particles and other impurities. The terrarium is furnished with

about 25°C (77°). At lower temperatures hatchlings refuse to start feeding and can die very quickly.

We feed hatchlings daily, giving them crickets that are smaller than those fed to adults, but dusted with the same mixture of dietary supplements. We give hatchlings liquid vitamin A, D₃, and E supplements for the first time at the age of 2 weeks. Juveniles grow very quickly. The sexes can be distinguished after 6–8 months, and sexual maturity is reached in 2 years.

Conclusion

The beautiful serrated casquehead iguana is not the easiest species to maintain in captivity. It needs a really warm and moist environment, regular spraying, and dietary supplements with every feeding. Also, problems with eggs during incubation are not uncommon. But if you are able to meet these challenges you can have the pleasure of successfully keeping this unusual and interesting lizard. ■



L. serratus juveniles

a few thin branches and live plants in pots.

Heating is provided by a 25-watt bulb. The temperature under the bulb stays at over 30°C (86°F); in other parts of the terrarium, at