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IGUANAS

Lesser Antillean Iguana

Iguana delicatissima

Iguana delicatissima is a large, herbivorous iguana from the northern Lesser Antilles that grows up to 130 cm long. It is critically endangered in the wild and is kept and bred only in a few zoos and by a few private keepers. It needs a very large, tall enclosure with strong heat, UVB, a seasonal rhythm and a permanent nesting site.

Family: Iguanidae Former name: *Iguana nudicollis*

KEY FACTS

THE ANIMAL

Adult size	**80-130 cm** total length incl. tail
Lifespan	**20-32 years**
Active	**By day**
Lifestyle	**Arboreal and terrestrial**
Habitat	**Dry forest, rainforest and wetland**
Difficulty	**Expert**

CARE

Min. enclosure	**200 × 150 × 180 cm** L × W × H for 1 adult
Temperature, day	**26-34 °C**
Basking spot	**38-45 °C**
Temperature, night	**18-28 °C**
Humidity	**60-80%**
Water	**Water dish**
UVB	**Essential** Ferguson zone 3
Diet	**Plants**
Kept	**Singly or one male with several females**

BREEDING

Reproduction	**Egg-laying**
Sexually mature	**24-36 months**
Clutch size	**4-26 eggs**
Clutches per year	**1-2**
Incubation	**83-97 days** at 29-31 °C

PROTECTION AND PAPERWORK

CITES	**Appendix II**
EU annex	**Annex B**
IUCN	**Critically Endangered (CR)**

About the species

Iguana delicatissima is a large iguana with a blocky head that is shorter than that of *Iguana iguana*. It lacks the large, round scale below the ear and the dark crossbands on the tail that characterise *I. iguana*. The tail is slate grey without bands.

The juveniles are bright emerald green, often with white stripes on the lower jaw and shoulder and three white spots on the side for the first 6-9 months. The colour darkens with age, first on the limbs and finally on the belly. The change may be complete by two years of age, but especially in females it can take up to six years. In most populations the adults turn grey to grey-brown, but in some the females keep the green colour all their lives. The head, jaws and throat turn white with age. Males have pink cheeks, especially in the breeding season, and often a bluish sheen on the dorsal crest and head scales. They have a larger head, heavier cheeks, taller dorsal spines and larger femoral pores than females.

The largest male measured was 131 cm long and weighed 2.9 kg, the largest female 123 cm. The body measures up to 33 cm from snout to vent.

The species is more nervous and sensitive to stress than *I. iguana*, and this shapes its care. In the wild it is critically endangered. It has disappeared from many islands, and the greatest threat is hybridisation with *I. iguana*, which has been introduced to the Antilles. Loss of habitat and introduced predators such as dogs, cats and mongooses are also threats.

Distribution and habitat

Iguana delicatissima is native to the northern Lesser Antilles, from Anguilla to Martinique. Today it lives on St Eustatius, St Barthélemy, Guadeloupe (especially Petite-Terre and La Désirade), Dominica and Martinique, with the largest populations on Dominica. On Anguilla and Basse-Terre the last animals live alongside *I. iguana* and hybrids.

The species has disappeared from Saint-Martin/Sint Maarten, Antigua, Barbuda, St Kitts, Nevis and Marie-Galante and recently also from Grande-Terre and the Îles des Saintes. The map shows the original range.

> **Native range:** Anguilla, St Martin, Sint Maarten, St Barthélemy, Caribbean Netherlands, St Kitts & Nevis, Antigua & Barbuda, Guadeloupe, Dominica and Martinique.

HABITAT

Iguana delicatissima lives in dry scrub and dry forest, humid forest and mangrove, from the coast up to about 300 m. It is most frequent in open terrain with rocks and scattered vegetation. The animals are diurnal, live both in the trees and on the ground and bask in the canopy. They sleep on branches in the open.

The climate is tropical, warm and humid. From January to April it is slightly cooler and drier, especially at night, but the air is humid all year round because of the sea. The temperature seldom falls below 24 °C, and below 18 °C is lethal.

The diet is leaves, flowers, fruit, seeds and shoots from more than 100 plant species. In the wet season (August-December) both leaves and fruit are eaten, in the dry season (January-May) mostly leaves. Females migrate from the forest to open, sunny spots to lay eggs.

Care

THE ENCLOSURE

An adult needs at least 3 m² of floor space, and a pair at least 4 m², for example 200 × 150 cm for one animal. The height should be at least 180 cm plus room for the lamps above the branches, because the animals only feel safe when they can sit higher than a person. In practice this is a room or enclosure built for the purpose. Mesh must have openings of more than 2 cm so that the claws do not catch and get torn off. Males must not be able to see other males or other large iguanas through glass or mesh.

Furnish with sturdy branches with rough bark at all heights. The branches at the basking spot must be at least as wide as the largest animal, because the species is not a sure-footed climber and can fall from thin, smooth branches. Cork bark can be screwed or tied on to make branches wider. Large plants such as *Ficus*, yucca and palms, or hanging palm fronds, provide visual barriers. The substrate must retain moisture and must not be pure sand, which is swallowed with the food and can cause constipation and intestinal obstruction. Mix sand with soil or clay. Hide boxes are not necessary.

Females must always have a nesting site, even without a male: an area of slightly damp sand at least 50 cm deep, heated so that it is 28-30 °C at the depth of the nest, and large enough for a tunnel up to 1 m long. A tub of more than 70 litres laid on its side, filled with sand and soil in a ratio of 3:1, can be used as a smaller nesting site, but not all females accept it.

Read more: Heat and temperature

TEMPERATURE

The basking spot should be 38-45 °C all year, and the heat should cover an area larger than the largest animal, so that the whole body is warmed evenly. This usually requires several lamps side by side: halogen spots or metal halide lamps, preferably supplemented with a quartz heater. Never use ceramic heaters for the basking spot.

The air follows the season. In summer (June-September) it should be 30-34 °C during the day and 24-28 °C at night. Spring and autumn are 28-32 °C during the day and 22-26 °C at night. In January and February, 26-28 °C during the day and 18-22 °C at night is suitable. For at least one month in the dry season the night should be 20-22 °C, and it must never fall below 18 °C. The cooler period keeps the animals' annual rhythm and breeding going.

HUMIDITY AND WATER

Humidity should be high all year, around 60-80 %. Mist the enclosure every morning and in summer also in the evening, more heavily in the wet season than in the dry. In large rooms a humidifier helps. Ventilation should be good so that mould does not grow.

Read more: Humidity, misting and ventilation

WATER AND WATER QUALITY

Provide a bowl of clean water, changed daily. The species swims well but seldom enters the water of its own accord in captivity, so a pond is not necessary. It can, however, help keep humidity up.

LIGHTING AND UVB

Iguana delicatissima is diurnal and needs very strong light and UVB. The basking spot should have a UV index of 5-6 for adults and 3-4 for juveniles, and there should be a gradient down to zero in the low, shaded parts. The species belongs to Ferguson zone 3. A panel of T5 tubes over the basking spot gives the most stable UVB, and metal halide lamps give a natural light spectrum and plenty of light. Measure the UV index regularly with a UV meter. Daylight from a skylight is an advantage. UVB does not pass through glass or plastic.

The light should follow the season, with at most 14 hours in summer and at least 10 hours in winter.

Read more: Lighting and UVB

FEEDING

Iguana delicatissima is herbivorous. The basic diet is a mixture of as many kinds of dark green leaves and herbs as possible all year: dandelion, plantain, clover, alfalfa, thistles, ground elder, nettles and short-cut grass. Cabbage and other brassicas are given only sparingly or not at all, because they can cause gas and intestinal obstruction. In summer the mixture is extended with flowers and a little fruit such as persimmon, mango and papaya, as well as grated vegetables, while fruit is largely left out in the winter half of the year. Whole branches of hazel, lime, black locust, willow and hornbeam provide extra food and occupation.

Chop everything coarsely and mix it so that the animal does not pick out its favourite pieces. Feed every day, preferably with one fasting day a week. Juveniles and nervous animals eat only high up, so fix the bowls in the branches. If the bowl stands on the ground, it should have high sides.

Never give animal protein, and avoid pellets, which often contain it. Dust lightly with calcium once or twice a week. With good UVB, vitamin supplements should not contain D3, because too much calcium and D3 causes calcification in older animals.

Read more: Calcium, vitamins and supplements

BEHAVIOUR AND HANDLING

The species is calm, and aggressive clashes are rare, but it is more sensitive to stress than *Iguana iguana*. Persistent stress can stop breeding and in the worst case kill a female. Many visual barriers and high perches keep the animals calm. The animals can be accustomed to people and trained for, for example, weighing, so that they do not have to be caught. If an animal has to be held, take hold of the neck with one hand and the hips and base of the tail with the other. Gravid females must never be chased, because the eggs can be damaged.

One male can be kept with one to three females, and two or three females of the same size can live together without problems when there is enough space, basking spots and food bowls. Adult males must not be kept together. Never keep the species with other iguanas, because it readily hybridises with other *Iguana* species. Wash your hands after contact, because reptiles can carry *Salmonella*.

Read more: Quarantine and hygiene

Breeding

SEXUAL MATURITY AND SEXING

Males are larger and have a larger head, heavier cheeks, taller dorsal spines and larger femoral pores. The sex can be seen in juveniles from 4-6 months. The species becomes sexually mature after 2-3 years; in the wild it can take longer when food is scarce. Males are sexually mature at a body length of 27-28 cm from snout to vent, females at 24-25 cm.

MATING

In captivity the animals mate from March to September, mostly in April, when the male's cheeks turn a strong pink. The male bobs his head and bites the female on the nape, and mating lasts a few minutes. Small wounds on the female's nape heal quickly. Some males exhaust the female with repeated mating attempts, and then it helps to add another female or to separate the pair for a period. If the male has lost interest, a separation over the winter or for about a month revives it. Keep males and females together, even if no young are wanted, because females without a male are more prone to egg and follicular stasis.

EGG-LAYING AND CLUTCHES

Gestation lasts 30-45 days, and a female in good condition often does not look gravid. 7-10 days before laying she eats less, and up to two weeks beforehand she digs trial holes in several places. Fill the abandoned holes every day, and adjust temperature and humidity until she accepts the site. The clutch is 4-26 eggs, on average about 12, and some females lay two clutches a year. After laying, the flanks are clearly sunken. Egg and follicular stasis is the most common problem in the species and requires a vet immediately.

INCUBATION

Good eggs are white, even and firm; bad eggs are limp, yellowish and wrinkled. Place the eggs half to two thirds of the way into vermiculite mixed with water in a ratio of 1:1 by weight. At a constant 29-31 °C they hatch after 83-97 days with equal numbers of males and females. At 28 °C it takes about 94 days. The eggs tolerate some fluctuation, but a stable temperature is best. The species has sex chromosomes, so sex probably does not depend on temperature.

REARING THE YOUNG

The hatchlings are 7-9 cm from snout to vent and weigh 14-21 g at hatching. Take them out as soon as they have hatched so that they do not damage the other eggs. They are best reared in groups of 6-8 and are given the same food as the adults; whole flowers of squash, pumpkin, hibiscus or prickly pear get them started eating. Feed them high up. If they eat poorly, a little fresh faeces from healthy, parasite-tested adults can be smeared on the food so that they get the gut bacteria they need to digest plants. Males must be separated when the sex can be seen.

Health and common mistakes

Most problems are caused by stress, an incorrect diet or too little heat and UVB:

- Egg and follicular stasis and egg binding in females. This is the most common problem and can end in life-threatening peritonitis. A seasonal rhythm, male and female together, a stable nesting site and peace prevent it.
- Calcification and kidney damage from too much calcium, D3 or animal protein.
- Constipation and intestinal obstruction from swallowed sand and from cabbage.
- Falls from thin, smooth branches, which are particularly dangerous for gravid females.
- Overlong, crooked claws on branches that are too smooth.
- Skin infection with the bacterium *Devriesea agamarum*.
- Burns from heat sources.
- *Salmonella*, which can infect humans.

The species lives more than 20 years in the wild, and 32 years have been recorded in captivity. Find a vet with experience of large iguanas before you need one.

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.