

Gargoyle Geckos

Gargoyle gecko (*Rhacodactylus auriculatus*) information, care and breeding.

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During the spring of 1987, I purchased my first *Rhacodactylus auriculatus*, often referred to as gargoyle geckos. At that time there were only a few gargoyle geckos in the United States, and most were in zoological collections. The two adult pairs of gargoyle geckos proved to be very hardy and by the following year were reproducing.

From these humble beginnings I have produced nearly 700 gargoyle gecko offspring. While long since non-reproductive, two of the four gargoyle geckos lived well into 1999, and a lone male is alive today. My affinity for the gargoyle gecko has never wavered, and thus it has maintained a high profile in my collection to this day.

Much has been learned about gargoyle geckos over the years; however, there is a strange paucity of relevant information in the English language literature. In this article, it is my hope to bring together my experience and information from the literature to provide a detailed account of the natural history, captive maintenance and reproduction of gargoyle geckos.

Natural History

All six species of *Rhacodactylus* are endemic only to New Caledonia and/or to one of its small offshore islands. Situated in the Coral Sea, this French overseas territory is located approximately 940 miles (1,500 kilometers) east of Queensland, Australia.

Often referred to as "Grande Terre," the main island is cigar-shaped and about 250 miles (400 kilometers) long by 40 miles (65 kilometers) wide. A mountain range with peaks above 5,000 feet (1,525 meters) runs along the long axis of the island dividing it climatically into a wet east coast receiving up to 13 feet (3.9 meters) annual rainfall and a flatter, drier western portion receiving only about a quarter of that amount. The east coast is, therefore, dominated by rain forest or similar vegetation and the western region is dominated by savannahs and dry forests (Bauer, 1995).

Rhacodactylus auriculatus is the most common of the six species of this genus. It has been observed from the high-tide line to nearly 3,000 feet (915 meters) elevation (Bauer, 1995). This gargoyle gecko is distributed principally over the southern and south-central sections of the main island (Bauer, 1990a). Gargoyle geckos are mainly nocturnal and are found on the lower levels of tree trunks. Gargoyle geckos have been observed basking on tree trunks 1 to 3 yards (1 to 3 meters) above the ground during the day (Meier, 1979; Bauer, 1990a). They are also sometimes found crossing dirt roads between forest stands (Bauer, 1990a). These traits do not appear to be shared by other members of this genus.

Morphologically, it is the smallest member of the genus, measuring about 5 inches (13 centimeters) in total length. The largest specimen examined by Aaron Bauer was a female measuring 4.6 inches (118 millimeters) in snout-to-vent length (Bauer, 1990b). Boulenger (1873) reports a maximum snout-to-vent length of 5 inches (125 millimeters).

Members of this species are sometimes referred to as gargoyle geckos, owing to the large nodules protruding from the skull, a characteristic found in no other species member. The species name is also derived from these protuberances (Bauer, 1995). The body of the gargoyle gecko is robust, and the tail has some prehensile ability. Many wild-caught gargoyle geckos have regenerated tails. I feel from my long personal experience that this is principally due to interaction between other members of the species rather than from attempted predation or other external factors. While their coloration is invariably more vivid at night, most *R. auriculatus* have a rather drab marbled pattern. A few specimens, however, have a much more vivid pattern often consisting of bold longitudinal stripes and/or orange/red body coloration. I have even noted nearly white gargoyle geckos observed at night.

In the wild, gargoyle geckos diet consists of flowers (Bavay, 1869), lizards (Bauer and DeVaney, 1987), insects, spiders and pollen (Bauer, 1995).

There is virtually nothing known about the breeding behavior of gargoyle geckos in the wild, and no breeding site has ever been found (Bauer, 1990a). However, in captivity they are frequently reproduced, and therefore a formula evolved for successful maintenance and reproduction.

Captive Husbandry

I find gargoyle geckos to be extremely hardy in captivity, and they generally thrive with minimum care. There are two

methods for maintaining gargoyle geckos. One is an elaborate enclosure where the principal goal is display, and the other is a simplistic enclosure where the main desire is easy maintenance and reproduction. Both should lead to healthy, reproducing specimens.

The more elaborate display enclosure should have plenty of vertical climbing surfaces, such as branches of at least 2½ inches (4.7 centimeters) in diameter. The substrate is less important and can be planted with any number of durable terrarium plants. The "furniture" should be situated in such a fashion as to provide security for the gargoyle geckos but allow them to be viewed.

Since my principal goal is captive reproduction, I prefer a more Spartan but efficient enclosure. I use 10-gallon (40-liter) tanks oriented with their long axis on the horizontal (as with a fish tank). The substrate is outdoor carpet for easy cleaning with a wet/dry vacuum. I place curved bark in the tank in an oblique fashion for security and climbing. A simple nest box is utilized, such as a 1-quart (1-liter) freezer container in which a 4-centimeter (1½-inch) circular hole is cut 2 centimeters (¾ inch) above its base. Approximately 2.5 centimeters (1 inch) of vermiculite, slightly moistened, is used as nesting material. Water is provided in standing form in a small dish. I have produced in excess of 700 *R. auriculatus* in this manner.

Adult gargoyle geckos are fed a diet of adult crickets that are dusted in a gallon container, the bottom of which holds a mixture of a powdered avian vitamin-mineral supplement (Super Preen, Neon Pet Products, Inc.) and powdered calcium (Rep-Cal, Rep-Cal Research Labs). Once weekly, I supplement the cricket diet with peach baby food (Gerber Products Co.). The above calcium/vitamin/mineral mixture is added into the peaches at a concentration of about one-half pinch (1/8 cubic centimeter) per tablespoon. Occasionally, I use wax worms instead of crickets for particularly stubborn feeders. I have found that the gargoyle geckos cycle between having a voracious appetite and nearly total disregard for live prey. They usually, however, will continue to accept the baby food unless they have a significant underlying malady.

Breeding

I maintain all adult *R. auriculatus* in pairs, as I have found that while usually compatible, there is more potential for aggression and decreased reproduction in trios (one male with two females). Adult gargoyle geckos are easily sexed. Male gargoyle geckos display large hemipenile protrusions and enlarged tubercles, one on each side of the base of the tail. Female gargoyle geckos may have these tubercles, but they are far less prominent. I advise against trying to determine the sex of immature individuals, because a spuriously high female ratio may result. In my experience, *R. auriculatus* will become reproductively active at 12 to 18 months. The gargoyle gecko breeding season generally starts in March and is largely finished by August. Naturally, there are exceptions to nearly every rule, and I have obtained viable eggs in every month of the year.

Unlike some other members of this genus, the skin on the undersurface is too thick to see the developing eggs. Although not advised, late in development the eggs can be felt by a gentle stroking of the abdomen. Females usually lay their eggs in the evening or at night. They may lay their eggs on their first attempt or may dig in the nest box for days without depositing eggs.

While infertile eggs can be found throughout the enclosure, fertile eggs will always be buried in the nest box. Fertile eggs usually are firm, oblong and pearly white. Unlike *Rhacodactylus chahoua*, female *R. auriculatus* do not guard their eggs. On occasion, the females may remain in the nest box but are easily removed. Fertile eggs are removed from the nest box and placed on the slightly indented surface of a container of ¾-inch (2 centimeters) deep perlite, which is kept slightly moist. After much experimentation, I found the highest percentage of hatching is obtained by maintaining the eggs at room temperature of approximately 77 to 82 degrees Fahrenheit (25 to 28 degrees Celsius). At this temperature, hatching should occur in 50 to 60-plus days. Should the eggs fail to hatch at 60 days, a good rule-of-thumb is that as long as they appear firm and viable it is probably best not to open them.

Hatchling gargoyle geckos are miniature replicas of the adults. I house them one per container (in a 1-gallon jar with screen lid and sticks, or a shoebox with paper towels on the bottom). The babies are initially fed peach baby food with powdered calcium and mineral supplements prepared as previously outlined for the adults. They start taking dusted ¼-inch (.6 millimeters) crickets by two weeks. My preference is to feed the growing animals two to three times weekly, once with peach baby food and once or twice with crickets of the appropriate size.

Some gargoyle geckos refuse crickets initially, while continuing to feed on the baby food. In time, most will convert without detriment to avid cricket feeders. With more frequent feedings the offspring can reach adulthood in about 10 months, but the long-term effects of this practice on reproductive potential and longevity are not known.

I have found a dramatic difference in *R. auriculatus* between reproductive life and overall longevity. Under ideal

conditions, *R. auriculatus* can live to 15 years; however, I have found it to be unusual for females to lay viable eggs after their fifth or sixth year.

In brief summary, *R. auriculatus* are docile, hardy, long-lived gargoyle geckos that are easy to reproduce. If not for the typical purchase price of \$50 to \$100 for hatchlings and juveniles, they would rival the leopard gecko, *Eublepharis macularius*, as the perfect gecko for neophyte and advanced hobbyists alike.

References

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