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Caiman Lizards (*Dracaena guianensis*)

“Crocodilians” of the Trees

Caiman lizards, also occasionally known as “water tegus”, are large bodied lizards of the family Teiidae indigenous to the Amazonian river basin of South America. These large lizards are semi-aquatic and semi-arboreal, often basking in overhanging branches, vegetation, and snags over rivers, streams, pools, and other wetlands within their range. As with many lizard species, caiman lizards will drop down from these overhanging basking platforms when startled or threatened, and will either dive to seek refuge underwater for up to 30 minutes or more or swim to safety away from the threat. As with many lizards, they also have a parietal eye atop their heads which serve as both light sensitive, or photosensitive organs, and as built in vision for foraging underwater.

Caiman lizards are also powerful climbers and burrowers as well, and have high-set nostrils as another adaptation for their semi-aquatic lifestyles. Caiman lizards are large, stout bodied teiid lizards with short, stocky limbs, very distinctive teal to dark green or olive-green colored bodies with bony scales, scutes, and osteoderms from the back of the head and neck down, and long, dorsoventrally flattened tails resembling the caimans, alligators, and other crocodilians. Their heads and jaws are large, blunt, and bulky, and are a contrasting red, orange, to reddish-orange in color. Caiman lizards have increased in popularity and prevalence in the private captive breeding efforts of the herpetocultural industry, and have gone from a species suitable mostly for experienced zoos, to the more experienced private sector. Unfortunately, populations of these lizards have declined in the wild due to overcollection for the leather industry and other threats, and they are now listed as a CITES I species.

Taxonomy

Life: All living, physical, and animate entities

Domain: Eukaryota

Kingdom: Animalia

Phylum/Sub Phylum: Chordata/Vertebrata

Class: Reptilia

Order: Squamata

Suborder: Lacertilia

Infraorder: Scincomorpha

Family: Teiidae

Genus: *Dracaena*

Species: *Dracaena guianensis**

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**Taxonomy subject to change and revision.*

Lifespan and Longevity

Relatively little is still known about the caiman lizard's longevity or habits in the wild, although other sources have reported a captive longevity of at least 10 or more years under the correct care.

Distribution and Habitat

Caiman lizards are indigenous to the Amazonian river basin of South America, where they occupy the overhanging shrubs, trees, and other vegetation, as well as the banks of rivers, swamplands, streams, pools, and other flooded wetlands. They occur in the countries of Brazil, Colombia, Ecuador, Peru, and the Guianas.

Conservation Status

Not Evaluated for the IUCN Red List (NE) or otherwise Data Deficient (DD).

Experience Level Required

Advanced.

Size

As hatchlings and juveniles, caiman lizards are 10 to 12 inches in length. Caiman lizards are a sexually dimorphic species, with males attaining larger sizes and lengths than females. On average, males can reach up to 4 to 5 feet, including their tails, or about 48 to 54 inches, while females reach 3 to 4 feet, or 36 to 48 inches. Their average weight ranges from 8 to 12 lbs.

Housing and Enclosure

Caiman lizards of any size and age should be provided with a suitably large, semi-arboreal and semi-aquatic enclosure that provides for basking, climbing, and swimming/diving opportunities, as well as be sturdy, secure, and escape proof, and be adequately ventilated as well. Housing caiman lizards will be one of the most challenging aspects to maintaining this species in captivity. Young lizards under or around one year or so can be maintained in a 55 gallon terrarium or other similarly sized enclosure, but will soon require larger and more permanent housing and setups. As adults, these lizards will require very large enclosures, and some of the options for housing adults can include some of the commercially available glass, plastic, or other injection molded enclosures designed specifically for large snakes and lizards, and perhaps even more appropriately, room sized customized or custom built enclosures. At a minimum, a four foot by eight foot by five foot enclosure is suggested. Being semi-aquatic, these lizards will absolutely require a sufficient sized pool within their enclosure for swimming and diving opportunities. Plastic or galvanized metal troughs, cement mixing tubs, or stock tanks available at hardware and agricultural supply stores can work well. These pools should be kept well filtrated and cleaned, as well as be easy to clean, as caiman lizards can dirty or foul their water, and perhaps the easiest way of maintaining cleanliness of their water is to purchase tub models with built in drains or spigots. They should also be kept flush with the rest of the enclosure to allow the lizard easy access and exit. The pool should be roughly 1/3 to 1/2 of the enclosure, and be deep enough for the lizard to submerge itself in, and will also help to maintain humidity levels in the enclosure. Water should also be heated and maintained at 78 to 82 degrees F using a 25 watt or so submersible water heater. Also ensure that any filtration used, as well as the water current in the enclosure is slow or not otherwise too strong or fast moving.

The other 1/2 to 2/3 of the enclosure should be a terrestrial and semi-arboreal setup. Substrate that can be used should be able to retain moisture and humidity well, and can include cypress mulch, reptile bark, coconut fibers, or other particulate, woody substrates. Do not use cedar, pine, or

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other dryer bedding, which can be toxic or irritating to reptiles and/or are less adequate for maintaining humidity levels. Caiman lizards are also strong climbers, and should be given adequate climbing and basking opportunities as well. Grape-vine, Manzanita, and home grown branches can be used, but should first be thoroughly sanitized and disinfected prior to use through either a 10% bleach solution or by cooking them in an oven. Be sure any branches, plants, and other foliage in the enclosure is sturdily mounted or planted as well. Other furnishings than can be provided can include artificial or natural plastic hide boxes, cork bark slabs, log or rock hides, and other similar hides to make the lizard feel safe and secure. A humid hide can also be created by lining any hides with sphagnum moss or vermiculite, which also helps with humidity. Plastic or PVC pipes and tubing can also be used for climbing and burrowing opportunities as well. Live or artificial plants can also be used in a caiman lizard enclosure, but must be non-toxic and be selected carefully, as well as be firmly planted, as caiman lizards will uproot them if they are not.

Temperature, Lighting, and Humidity

A thermal gradient should also be provided in the enclosure. Consider that larger enclosures can be more difficult to heat, but ambient temperatures, as well as the cooler areas of the enclosure should be within 80 to 90 degrees F. Nighttime temperatures can be allowed to drop to around 75 to 80 degrees F. Heating devices and elements which can be used to maintain enclosure temperatures can include overhead ceramic or radiant heat emitters, under-tank heating pads, or overhead incandescent lighting. An overhead basking area using UVA/UVB lighting to promote vitamin D3 and calcium development should also be provided for caiman lizards. A basking temperature of 120 to 130 degrees F is suggested, but it is also important to never allow direct contact with any lighting or heating device. General, overall enclosure humidity should be monitored and maintained at around 60 to 80% humidity, and can also be supplemented by either manually, or purchasing any of the commercially available fogging or misting systems and humidifiers as well. More specific lighting, heating, and humidity product suggestions and recommendations that can best suit one's needs, as well as those of one's animals can be given as well.

Feeding, Diet, and Nutrition

Insectivorous to Carnivorous; Caiman lizards are primarily carnivorous, specialized feeders in the wild. They are perhaps most well-known for consuming aquatic and semi-aquatic snails, including apple snails, as well as other gastropods, crustaceans, mollusks, insects, and other invertebrates, as well as occasionally carrion, small fish, and other similar food items. These lizards use their powerful heads and jaw muscles, as well as heavily blunted molars to crush and consume many of these hard shelled prey items.

In captivity, caiman lizards can be fed a more widely varied diet, but still have relatively specialized diets, making them suitable more for the more advanced or well-resourced enthusiast. Encouraging your caiman lizard to accept a more varied and/or readily available diet from an early age is recommended towards greater feeder options, as well as ease of feeding for older/adult animals down the road. Different methods of feeding may also be preferred or accepted by different individuals, and can include providing food from tongs or from plates or dishes. Feeding frequency should generally be daily to every other day for younger animals up to around one year or so, and two to three times weekly for most adult animals.

As previously mentioned, caiman lizards are well known for their natural diet of snails and other gastropods in the wild. In captivity, this diet can be difficult to replicate, however. Live snails can be purchased from a variety of sources, but may not always be suitable for use as feeders due to their parasite loads, as well as exposure to potentially harmful chemicals or pesticides.

Alternatively, one can purchase and grow their own source for feeder snails, although this requires additional effort and considerations. Other food items that have been offered with

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success for caiman lizards can and have included shrimp, live or cooked fish, frozen/thawed or pre-killed rodents, commercially available cat foods, commercially available carnivorous fish diets, some of the canned or commercially available monitor and tegu diets, crayfish, clams or other mollusks, and many other food items. Processed meats, particularly those that are high in fat, or are otherwise nutritionally incomplete, should be avoided. Fresh and/or frozen human grade foods are perhaps the most suitable choices for a caiman lizard's diet. Although the full extent of the caiman lizard's vitamin D3 requirements are not yet fully known as of this article, additional vitamins and supplements are highly suggested for this species. It is thus important to supplement their diets with additional calcium and vitamin D3 at least once to twice weekly, particularly for younger and growing animals. Some fruits may also be accepted as well, and can include kiwi, bananas, mangos, and others. More specific dietary and supplementary product suggestions and recommendations that can best suit one's needs, as well as those of one's animals can be given as well.

Handling

Caiman lizards have temperaments and handling requirements similar to, or comparable to that of tegus or other large teiids and many monitors. Caiman lizards in general, are animals that require considerable amounts of regular time, patience, and commitment in order to become docile, handleable adult animals. Many different techniques and mindsets are out there with regards to handling and working with these reptiles, which can certainly go into far greater depth than the scope of this basic care sheet. Many believe a more hands off approach is more successful overall, and allowing the animal to gradually and routinely become accustomed to their keeper's presence, to being touched, and handled. Others may choose to practice a more direct, routine handling approach, which may or may not be effective, but often unfortunately causes greater stress and/or injury to the keeper and the animal. Once in the hand, hatchling lizards can be handled with both hands cupped with care not to drop or restrain them tightly. An adult caiman lizard (as well as other species of large lizards) should always receive adequate bodily support from underneath using the hand, and arm for support. Additional restraint can be made by tucking or pinning the animal's tail or hind quarters between the arm and body as well. Each animal is an individual, and these techniques may not be effective for all specimens, but are nonetheless the most commonly utilized. Caiman lizards certainly are not for everyone, but with the right techniques and husbandry, can make for very intelligent and personable pets for the more advanced enthusiast.

****Also be sure to practice basic cleanliness and hygiene associated with proper husbandry after touching or handling any animals or animal enclosures to prevent the possibility of contracting salmonellosis or any other zoonotic pathogens****

Contact

Authored by Eric Roscoe. For any additional questions, comments, and/or concerns regarding this animal, group of animals, or this care sheet, please email and contact the Madison Area Herpetological Society at info@madisonherps.org

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