



## Collared Lizard

Collared lizards belong to the genus *Crotaphytus*, and are native to North America, ranging from Colorado, Utah and New Mexico to Arkansas and Texas. There are various species belonging to the family, including the most commonly found in captivity, the *collaris* (the common collared lizard). The *C. collaris* is divided into five sub-species: *C. c. collaris* (the eastern collared), *C. c. baileyi* (the western collared), *C. c. fuscus* (the Chihuahuan collared), *C. c. auriceps* (the yellow headed collared) and *C. c. melanomaculatus* (the black spotted collard lizard).

The *C. collaris* is characterised by its broad head and blunt snout and has a cylindrical tail that makes up half to two-thirds of its total snout to tail length. Adults measure an average of ten to twelve inches long, males reaching their maximum size by the age of three, with females continuing to grow steadily throughout their lives. They are one of the most colourful lizards in North America, with dorsal colouration varying from green to blue or turquoise. Females are less brightly coloured than males and are usually a green to brown or fawn colour, except in mating season when they develop vivid orange or red bands and spots across their necks, backs and sides. Males display impressive dewlaps that again vary in colour, depending on the species and range, from green or blue to yellow or orange. A pair of collars is always present, lending to the common name of these lizards.

### Sexing

Gender can be determined primarily by these distinct differences in appearance, although as hatchlings both sexes appear visually identical. Adult males also have enlarged preanal pores that are much more prominent than that of a female.

### Housing

These lizards can be territorial so it is not recommended to house males together. Collards can be kept singly or in pairs or groups of one male to several females. They are active lizards which cannot have too much space, so it is best to provide the largest tank possible. The vivarium should be at minimum three feet in length for a pair of collards, to allow them to move about freely. If given enough space these curious reptiles are able to run on just their hind legs, which are long and robust in order to allow the lizards to speedily sprint and jump great distances.

### Lightning

Collards are diurnal lizards and therefore require UV lighting, which can be provided by a good quality bulb or tube that emits high levels of UVA and UVB. The bulb or tube should be situated where the lizards can get within, at most, twelve inches of it, as the further away the light the less effective the UV benefits.

### Temperature

Temperatures need to be high and the basking spot should reach 100-110 Fahrenheit, while the rest of the tank remains 80-90 Fahrenheit. Night time temperatures should stay in the high 70s. Under tank heating pads, ceramic heating elements and bulbs can be used as heat sources, controlled by thermostats to ensure that the temperature remains constant and accurate. Humidity

should be low, reflecting the natural dry, arid habitat of collards. In a tank where more than one lizard is housed, more than one basking site should be provided, to prevent territorial conflict.

## Substrate

Substrate may consist of paper towels, newspaper or carpet, though collards like to dig, so sand is an especially good medium to use, although, as with any particle substrate, there is the risk of impaction. If sand or a similar floor covering is used, consideration should be taken when feeding, or alternatively a box or area of sand or soil could be provided for the lizards to dig in.

## Decoration

The lizards home may be decorated with a hide or hides, a branch or log to climb on, and some rocks which may provide basking areas, though care must be taken that nothing can fall onto the lizard and cause harm. Climbing accessories are not a must, but collards will actively seek out the highest spot in their enclosure, and seem to enjoy the opportunity to climb.

## Food & Water

Hatchlings and young collared lizards require feeding daily whereas adults can be fed less often. Collards are voracious feeders and anything that they can fit in their mouths is food. For this reason only similar sized lizards should be housed together, and hatchlings should never be placed with adults. Collards lack parenting skills and cannibalism will occur if they are allowed near their young. Appropriately sized crickets, locusts, meal worms, wax worms and other gut loaded insects should be fed, and every other feed should be supplemented with a calcium and multi-vitamin product. Some collards may also occasionally eat plant matter and vertebrate prey such as other lizards and small rodents. Vast water intake is unnatural to a collared lizards wild habitat but fresh, clean water should always be provided. Some individuals will drink from a water bowl, while others may prefer to drink droplets of water from leaves or cage furniture, although a lot of water will also be absorbed from the food that is eaten.

## Breeding

Male collards reach sexual maturity in their first year, but many will not reproduce until their second season. When a female is ready to mate, or is gravid, she will display a visual sign to the male to indicate that she wants to breed, in the form of orange or red bands and spots across her back, neck and sides. A period of brumation is recommended before breeding these lizards, and is induced by decreasing temperatures and photoperiod. Daylight hours should be slowly reduced over a few weeks, and temperatures should be taken down to 50-60 Fahrenheit. Feeding should be discontinued two weeks before temperatures are lowered, in order to completely empty the gastro-intestinal tract. Lizards should be of optimum weight and health before brumation takes place. Failure to ensure these important factors could result in illness or death over the winter period. The lizards should remain in this sleepy state for a couple of months, after which time the temperatures should be slowly increased back to normal and the photoperiod should be resumed to summer hours. Feed the lizards, in particular the female, extra supplementation of calcium, as this will help her to produce strong, healthy eggs when she becomes gravid. Collards display an impressive mating ritual, and the male will approach the female to instigate courtship by performing a series of rapid head-bobs. The couple will circle each other, head-bobbing at the prospective mate in front of them. The male will then bite the females neck and attempt to mate her. The female may be submissive, or, if she is not ready to mate or is already gravid, will roll the male off of her and may even mount the male in an attempt to subdue his advances.

If the mating attempts were successful the female will gain weight over a few weeks and bumps will be visible near her abdomen when she is almost ready to lay her eggs. Her appetite will decrease and she will begin digging. It is advised that a lay box be placed in the enclosure, or that an area of the tank be made into an egg-laying site, as if there is not a suitable site dystocia (egg-

binding) may occur. The lay box or site should be comprised of a suitable medium such as soil and vermiculite or moist sand, in which the female will lay between one and thirteen eggs, although an average clutch size is six eggs. A female will lay typically one to two clutches of eggs per year.

The eggs should be incubated at a temperature range of 82-86 Fahrenheit, although it has been suggested that temperature fluctuations from high 70s to low 90s will ensure a mixture of both sexes. The incubation medium should be moist vermiculite, and care should be taken that the eggs are not rotated when transferring from the egg-laying site to the incubator, as movement could result in the drowning of the embryo or the tearing of the yolk stem. If the eggs begin to dimple it may be an indication that the humidity is too low, and increasing the moisture in the vermiculite should prevent the egg from drying. A fertile egg grows in size and, during the later stages of incubation, pink or red veins may be seen in the egg. The average incubation time is forty to sixty days, and the young collards can take several hours to hatch out of the egg. The umbilical cord may remain attached for a few days, and the hatchlings will survive on the yolk absorbed through the egg for the first days of their lives. Appropriately sized food items may be offered after a day or two, where some of the hatchlings may begin feeding right away, while others might take up to a week before their natural hunting instincts kick in. Hatchlings measure about three inches in length, including tail, and are perfect miniature replicas of their mothers, displaying the orange bands and spots that she exhibits when gravid. UV light is essential to their health and they should be misted with water several times a day to allow them to drink. Once they are established feeders they will grow quickly and may be able to eat adult c