

# Natural History and Biology

Crested Geckos (*Correlophus ciliatus*) originate from the islands of New Caledonia in the western Pacific, where they live in cool rainforests. Hatchling Crested Geckos are around 5-6 cm in length and mature into adults of around 20-24 cm long. Well-fed animals will reach maturity between 9-12 months of age. Longevity under captive conditions is quite variable with 8-12 years being the norm but double this being achievable on occasions. The typical wild-type Crested Gecko is relatively pattern less in varying shades of brown and grey. However, all specimens available as pets originate from captive-bred stock and can come in a wide variety of colours and patterns, including deep reds, oranges and yellows, with spots, stripes or chevron markings down the back to name but a few variants. They have small scales which give their skin a smooth velvety texture with an obvious crest leading from the eyes and past the neck. They also have a fringe around the eyes.

Like most arboreal geckos, they have pads at the end of the feet allowing them to readily cling to vertical surfaces. Crested Geckos do not normally bite and can be handled easily. They are quite flighty, however, and will often jump. It is best to restrict handling of newly acquired specimens and young animals, until they are comfortable being handled. Care must always be taken when handling them since they will readily shed their tail and this will not regrow if lost. In fact, wild geckos rarely retain their tails into adulthood as they are extremely quick to drop it if they feel threatened. When choosing a Crested Gecko, look for an animal that appears alert and that when moving holds its head and body well above the surface. It should have clear eyes and these, as well as the nostrils and mouth, should be free of discharge. The tail should appear rounded and the body should be well filled with little evidence of excess skin folds. There should be no signs of diarrhoea in the holding enclosure.

## Housing

In the wild, Crested Geckos typically live in loose groupings of a male with one or more females in relatively close proximity on the same tree. In captivity, Crested Geckos can be kept singularly, in true pairs, female: female 'pairs' or groupings of one male and two or more females depending on the preferences of the owner and the size of accommodation being used. Two adult males should not be kept together since fighting and injury is almost inevitable.

Crested Geckos should be kept in a glass terrarium at least 45 x 45 x 60 cm although larger is preferred. Since this species is arboreal, the largest dimension should be in the height of the enclosure. Pairs or groups will need larger enclosures whilst hatchlings and juveniles can be housed either singularly or in small groups in enclosures appropriate to their size and number without any significant aggression being exhibited. If kept in a group, males will need to be separated as they mature to prevent fighting.

## Substrate

A variety of substrates can be used when housing Crested Geckos. At Blue River Diets, we choose ProRep "Crestie Life". This is a perfect blend of different organic components. However, orchid bark, coconut fibre, humus mixes or cage carpet are all popular choices either used on their own or mixed with sphagnum moss. Whichever substrate is used it should be kept slightly damp to maintain the humidity in the enclosure at about 65-80%. A shallow water dish and regular spraying will also help to keep the correct humidity. Good ventilation is essential to prevent stagnant conditions which could lead to disease. It is essential to provide a variety of climbing and resting facilities for Crested Geckos. These can be in the form of natural or artificial vines and plants, cork bark tubes, etc. The vivarium can also be lined with cork bark slabs in order to provide a greater surface area on which the animals can move.

## Heating

Crested Geckos can best be maintained at moderate temperatures with over-heating being more of a problem than being too cool. Temperatures in the region of 23-25°C are ideal during the day with a night time temperature of 15-18°C. A night time temperature drop is highly beneficial for these lizards. Supplementary heating can be provided by either a heat mat or cable or a low wattage heat lamp fitted to a thermostat and turned-off at night. The keeper must check that the correct temperature gradient has been achieved with the use of two thermometers, one near the heat source and one at the cool end of the vivarium.

#### Lighting

Crested Geckos are nocturnal but should be provided with UVB lighting. The provision of a Zone 1 UVB tube will support the animals' circadian rhythms and other aspects of their wellbeing, resulting in more robust animals and better success rates when breeding. At Blue River Diets, we provide all our crested, gargoyle and leachianus geckos with UVB using Reptile Systems Zone 1 T5 bulbs.

### Feeding

In the wild, crested geckos feed on soft, over-ripe fruits and insects. In captivity, breakthroughs in product development have allowed products such as Blue River Diets to provide absolutely everything the animal needs in one, easy to mix formula. In this case, additional supplements are not required. However, if the keeper chooses to use different brands, they must pay careful attention to the ingredients and ensure that supplementary vitamins and calcium are used. Without the correct vitamins, minerals and calcium, crested geckos can fall victim to Metabolic Bone Disease (MBD). Live foods should also be provided alongside Blue River Diets. These allow the gecko to exercise as they chase them across the enclosure. Locusts, crickets, dubia roaches and silkworms all make excellent prey items.

## Breeding

During winter, the temperatures in the vivarium should be dropped slightly and the day length reduced. In the spring, the daylight and temperature are returned to normal and this will trigger breeding. As the females develop eggs then a suitable egg laying site should be provided filled with damp moss, peat moss or potting compost and checked regularly for eggs. Once laid, the eggs should be placed into a container of dampened vermiculite and incubated at temperatures between 24-26°C. At these temperatures hatching should take place in around 60-70 days and result in a mix of male and female offspring.

## Health

Cared for correctly, Crested Geckos do not suffer from many serious illnesses. Problems that you may see are:

**Impaction** – If the Crested Gecko eats some substrate this may become impacted in the gut. This is a problem to be particularly aware of when raising hatchlings. Fine silicabased sands are implicated particularly with this problem although any substrate can cause it.

**Metabolic Bone Disease (MBD)** – This is when the animal does not receive enough calcium or Vitamin D, causing the bones to bend and twist as they grow. Once the bones are deformed they cannot be corrected and the animal will be crippled for life. A good regime of vitamin supplementation and correct lighting will stop this disease from developing or worsening.

**Incomplete Skin Sloughing** – This is usually caused by keeping the geckos too dry. Correcting this will usually cure the problem but if a lot of skin is stuck then the animal should be placed into a small container of damp moss overnight. This will soften the stuck skin and allow the animal to remove it. If the skin remains stuck then you can gently remove it with tweezers but be extremely careful not to damage the animals skin, particularly on the toes or around the eyes.

**Floppy-tail Syndrome** — Crested Geckos can be prone to this condition. Although requiring further research it is most likely caused by insufficient calcium and/or the lack of provision of adequate climbing and arboreal resting décor. In all cases of ill health a qualified vet should be consulted.