Crested gecko: A comprehensive care guide

Crestiezoo Crested gecko breeder – Reared to the highest quality
About the species:
This fantastic little reptile was lost to science and believed extinct until it was rediscovered in 1994. Rhacodactylus (Correlophus) Ciliatus along with several other Rhacodactylus and Correlophus species, are being considered for protected status by the Convention on the International Trade in Endangered Species of Wild Flora and Fauna.

Physical Description:
The Crested Gecko is primarily characterized by the series of spine-like scale projections found above the eyes, which leads to one of their alternate names the “Eyelash Gecko”. These hair like projections run along the sides of their wide, flat, wedge like heads creating a crest that runs, in some cases, to the base of the tail. Usually these crests are the same colour as the animals base colour, however in some cases they appear lighter in contrast. This colour difference has been exploited through selective breeding to produce highly contrasting pinstripes, a fantastic and eye catching morph.

The underside/ base of the extremities or toes are covered in tiny projections known as setae. These setae can also be located directly on a flat pad at the very tip of the tail. Each seta is made up by even smaller structures called spatula. With each spatula being no more than 200nm in size. It is widely presumed that these very tiny hairs generate a weak electrical force, through friction while moving, allowing them to climb and almost adhere to any surface in any direction, much in the way static electricity allows a balloon to “stick” to walls.

Natural Habitat:
The Crested Gecko or Rhacodactylus (Correlophus) Ciliatus, is a species of gecko native to the southern province of New Caledonia, and potentially Ile des Pins with surrounding satellite islands. It is reported that there are three individual populations, one found on the Isle of Pines and surrounding islets, and two other populations found on the main island of Grande Terre. In addition to this there are also two reported populations within protected
areas, one population along the Blue River, which is a protected provincial park, and the other is further north, just south of Mount Dzumac.

There is also a very closely related gecko, visually identical to the crested gecko found on the Iles Belep. This gecko, Correlophus Belepensis, has only recently been established as a separate species and is believed to have alternative evolutionary lineage to that of the crested gecko. Up until this point it was believed to be a separate population of Rhacodactylus (Correlophus) Ciliatus.

Crested gecko's are found in trees and large plants. During the day these gecko's would be hiding under tree bark and leaves to escape the higher day time temperatures and direct sunlight. However as a nocturnal species these animals are primarily active at night, and miraculously transform into a rapid and energetic animal found leaping from the top of one tree down into another.

**Captivity Housing:**
One adult requires at least a 1.5 - 3 foot tall terrarium, they are an arboreal species so will need more height than width. A male can be kept with females but never with another male. When males are kept together at maturity they will fight for dominance. This can not only lead to direct and immediate injury of an animal but can also indirectly elevate stress levels which can in turn raise additional health implications through a lack of appetite.

Provide several hiding places throughout the terrarium. Because crested geckos are nocturnal they require places to hide up and rest during the day. Twisted branches running diagonally across the set-up, vertically and horizontally provide great climbing facilities. As for plant life I have found that Plastic plants work better. They are easier to keep and clean than real plants and require no additional maintenance in the form of feeding/ watering.

You will need some form of substrate, the best substrate I have found is Eco-earth it holds moisture and looks great. However for a new keeper the most simple and effective
substrate is Kitchen tissue. It’s simple to clean and easily highlights faecal matter.

Water must always be available in a heavy dish but only provide a thin film no more than a few mm, however you may find that your gecko prefers to lap up water droplets from the vivarium’s sides or leaves after spraying the tank. You will need to spray your tank with water so that everything is “dripping wet” to ensure the correct humidity is given. The optimum air temperature should be kept between 65°F and 75°F with hot spots reaching 80°F. To achieve these temperatures, You can use a heat mat along the side of the tank, and attach it to the side because Crested Geckos do not like under-floor heating. However this being said, room temperature is likely between 65 and 75 (this is a suitable range, but you may find your animals will respond better to slightly elevated temperatures).

Locate the tank out of direct sunlight to avoid overheating. If temperatures drop to 60°F it’s not too dangerous providing it isn’t exposed to this temperature for a prolonged period. However if it reaches above 80°F it can cause stress for the animal and trigger it to become ill.

Exo -terra Arboreal vivs (as pictured) are great for crested geckos.

**Diet:**

Crested Geckos *can* be fed on baby food but it is not the best diet for them, and not a diet that I would recommend for long term use. If you do need to feed this diet on a short term basis, make sure it is 100% pure fruit, failing that puree your own fruits e.g. banana, mango and melon as these all work well. Please be aware banana should not be fed too frequently due to the high concentration of potassium, and because of this I would stick primarily with melon and mango. Ensure that you add a sprinkle of Nutrobal supplement to the puree, Feed this three times a week. When feeding this diet also feed crickets twice a week (this helps them grow faster and more healthily). I have found that crickets are best suited when they are the length of the distance between the crested geckos eyes, this helps minimize the risk of impaction and digestion implications.

**However** crested gecko diet (CGD), a powdered food that is simply mixed with water, is a far more nutritional option for them. CGD has been specially formulated
to ensure correct nutrition for Crested Geckos, it has a balanced make up of their entire nutritional requirements. To make the transition from baby food diet to CGD great results are achieved when you mix 1 part fruit to 1 part CGD. The CGD provides all nutrition that the geckos need, when mixed with fruit the flavours are enhanced which can often promote a feeding response in fussy animals.

CGD is by far the best diet available for crested geckos. It can be fed solely as a staple diet and does not require the use of feeder insects. During my years of breeding the species I have found that Repashy manufacture the best CGD, their most recent formula now has elevated protein and fat levels. They have recently swapped whey protein for a pea protein isolate which triggers an almost 20% increase in feeding response, a terrific improvement!

Lighting:
Crested Geckos do not require additional UV lighting however it can be used to help them distinguish between night and day. Place the UV light above the tank so as not to increase the Set-up temperature too much. Use a low UV bulb so it is not too strong. A lot of Crested Gecko keepers and breeders (including myself) have been experimenting with UV lighting to highlight evidence either for or against the use of UV lighting for crested geckos. However the results have been and still are inconclusive and we know that Crested Geckos are happy enough without UV lighting. It may be beneficial to provide a low UVB bulb for crested geckos however no prominent evidence has been found, but it will not hurt to use one.

Cleaning:
Clean the full tank once a month with reptile/ small animal disinfectant, this will remove any harmful bacteria that might build up within your geckos enclosure due to spilt food and faecal matter. The monthly cleaning should also include replacing the entire substrate within the tank if you are using Eco-earth. If you are using Kitchen tissue, it should be changed on a weekly basis to prevent the development of mould, which can lead to repertory infections. “Spot cleaning” or removing faecal matter and spilt food should be done as and when you see it, regardless of substrate choice.

Household surface sprays ‘can’ be used. However please ensure it has been fully washed off, and allowed to air for several hours, because the disinfectant may be harmful to your pet. Clean the food bowls and water bowls daily. Hides and fake plants should be cleaned weekly. It is possible to place them in a dishwasher without tablets/ salts. The steam dish washers produce is great for cleaning and cuts through any dirt or mess. Please ensure you run the dishwasher at least one 1 cycle without tablets before washing your hides and plants, this allows any detergents left within the dishwasher to be washed off before use.
A great, safe method for removing water marks in hard water areas is to use natural diluted lemon juice. This cuts through the watermarks and leaves a nice clean view into the setup. Dry the sides off with newspaper, this helps prevent further watermarks developing after cleaning.

Health:
Skin:
Healthy crested geckos are rarely affected by skin parasites, nor do they have discharge around their nose, eyes or vent (where they excrete). Many geckos have raised, coloured scales or Dalmatian spots that should not be mistaken for parasites, injuries or lesions. An “unfired” gecko may appear dull, but this is because they are somewhat polymorphic and their colour is controlled by their mood/ time of day. Geckos in shed may have some stuck to their heads, body or limbs; shed stuck to the toes should be removed as this can cause the loss of digits through lack of bloodflow.

Occasionally they may have a problem shedding. If you can see that your gecko is having trouble shedding you can try lightly misting your gecko and increasing humidity in the tank. **DO NOT** try to pull the skin off. There are sprays for example ‘Shed Ease’, however these are not always necessary because spraying water should be good enough. If it is a stubborn stuck shed you can place your animal in a small cricket tub with moist sphagnum moss 3 times a day for 15 minutes at a time. This can help soak in under the stubborn shed and aid in naturally lifting it off.

If your gecko is still having serious trouble shedding (several days of stuck shed) it could be time to take a more active approach. Place the gecko in a shallow bath of warm water, no more than a few mm. use a spoon to drizzle water over the stubborn area in the hopes it will soak off the stubborn shed. You can then try gently rubbing with cotton wool to try and tease the skin up piece by piece. In extreme cases we have needed to use tweezers to help lift up very stubborn areas, but this is not recommended for new keepers, and should only ever be attempted in very serious conditions because it can damage the new skin underneath.

**Cuts, scratches and grazes:**
Treat any cuts or grazes with tea, this is a natural, weak disinfectant so will not harm the gecko but will help fend of any bacterial infection that could be attempting to develop thus promoting a healthy recovery.

**Tail related conditions:**
A crested gecko may drop its tail, this can be cause by rough handling. However it is more likely that it is caused by an aggressive gecko also kept in the same enclosure. **Don’t panic** loss of a tail is not harmful or serious, however it will not grow back like other reptiles.
Floppy tail syndrome can also occur this is when the tail can no longer stay straight at its base and comes off at a slight angle. It is not serious and will not effect breeding for males. Again if it is FTS it is permanent. There is a link with egg binding in females with FTS, the hip bone can deform slightly which will in turn effect egg laying and may cause egg binding. It is recommended not to breed a female Crested Gecko with FTS

**MBD:**

*Metabolic bone disease* is an umbrella term referring to abnormalities of bones caused by deficiencies. The most common cause of MBD in reptiles is a lack calcium and/or vitamin D3. This results in bones becoming slightly softer, and in most cases miss-shaped.

One of the earliest signs of MBD is a “kinked” tail, MBD usually starts at the bodies extremities so the legs and tail are the first to be effected. It can however spread to the spine and skull, these can cause serious problems for Crested gecko. If you notice your gecko is beginning to get swollen joints or a slightly kinked tail ensure you supplement efficiently with calcium, D3 and CGD. Early on with MBD, when not correctly suplimented the body will take the required nutrients from joint fluid which can lead to a kinked tail and swollen elbows, this can be reversed and does not mean miss shaped bones.

However If you notice bent/ kinked legs or severely wobbly tail take it to the vets. It may be that once it reaches this point the bones are permanently miss-shaped. In some rare and more extreme cases MBD can effect the jaw first, causing the lower jaw to “hang” un-naturally, you need to take it to the vets ASAP. Vet treatments may include splints, bindings and injections to help negate the effect of MBD and prevent further damage. Once you have seen the vet, proceed to supplement extra Calcium and D3. *Feeding the correct CGD diet will prevent this problem ever occurring.*

**Parasites:**

Crested geckos are susceptible to many parasitic organisms. A lot of parasites only affect their specific “host” species. There are some parasites that require an intermediary host (like an insect that in turn gets eaten by the reptile) in order to complete the lifecycle. Even if you remove the original secondary host, it’s possible the parasite can migrate to a new one. Other diseases are spread by bacteria (especially salmonella), viiri, and fungi. Wild-caught animals are the most likely to host and pass on parasites to others. Even captive bred animals can carry parasites at levels that may not be detected in one or two
faecal exams, or they might not cause undue hardship on the animal so they appear healthy. Mixing animals even of the same species carries risk of parasite transmission.

Some of the most virulent and deadly parasites are protozoa: unicellular eukaryotic organisms that include amoeba (like deadly entamoeba), coccidia and Cryptosporidium. So-called “worms” are nematodes that live in the intestine and in some cases actually assist with digestion in some herbivorous animals. As crested geckos are frugivorous as well as insectivorous, it is possible they use symbiotic organisms to help break down their food, but there have not been any studies to my knowledge. Note that there can be many different strains (mammal-only, reptile-only, etc) of each type and usually found as pathogenic in their targeted group of animals.

**Entamoeba (Amoeba)** – has been known to decimate crested gecko collections relatively quickly. Signs include rapid weight loss. Can be treated with Flagyl (metronidazole) with great success

**Pinworm (Nematode)** – a common affliction in cresties; outbreaks generally present with visible worms in the feces accompanied by a worse than usual smell. Treated with Panacur (Fenbendazole) with great success

**Cryptosporidium (Sporozoan)** – another “wasting disease” caused by protozoan parasites. Can be treated with paromomycin but the gecko will always be “crypto-positive”. May shed the parasite and infect other reptiles. Very rare diagnosis in Rhacodactylus, but possible.

**Impaction:**
This can and often is a deadly issue, however with the correct substrate and a watchful eye is a rare concern. There is not much in the way of treatment for this problem, so it is best to prevent the problem occurring in the first place. Impaction occurs usually when large quantities of abstract shape substrate is accidently ingested and causes digestive complications.

**Sexing:**
There are a couple of options available for sexing crested gecko’s. One way is more accurate but less visible, and the other is more visible but less accurate at young ages.

1. The hemi penal bulge. If there is a hemi penal bulge below the vent on a crested gecko, that resembles male gentiles of most animals then you can safely say it is a male. However if the gecko is below 8months old these bulges are not really present, at this age they would be very slight bulges.

This method allows you to check adults with 100% certainty but sub adults with 65% certainty depending on size and age. With juveniles it would be nearly impossible to tell.
2. For sub adults (between 5-9 months) it is best to check pores. These pores can be located in a line that runs between both of the hind legs, from one to the other.

At this age they will look like normal scales however upon a close inspection using a 10x (or above) jewellers loupe, you should see a dark spot on each scale. If these pores are visible then you can say your Crested Gecko is male with 90% certainty. As you become more confident at sexing you will rarely get it wrong.

**Male:**
This is an example of a sub adult male, the highlighted area is where you will see the pores. As you can see there are small dark spots on the scales within this region, these are pores.

**Female:**
This is an example of a sub adult female. If you look at the same area as highlighted on the male, you will see there are no dark spot which mean there are no pores.

If you require any more information please feel free to contact me whenever you need to. If you wish to see larger pictures for help with sexing I can provide them upon request.

Hopefully this care guide has helped answer any questions that you may have about the species, however if you have any further questions then please don’t hesitate to contact me:

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