

# Correlophus ciliatus



The **crested gecko** (*Correlophus ciliatus*) is a species of [gecko](#) native to southern [New Caledonia](#). In 1866, the crested gecko was discovered by a French zoologist named [Alphone Guichenot](#), who is also credited with naming the species.<sup>[2]</sup> This species was thought [extinct](#) until it was rediscovered in 1994 during an expedition led by Robert Seipp.<sup>[3][4]</sup> Along with several [Rhacodactylus](#) species, it is being considered for protected status by the [Convention on the International Trade in Endangered Species of Wild Flora and Fauna](#). It is popular in the pet trade.

## Taxonomy

The species was first described in 1866 as *Correlophus ciliatus* by the [French zoologist Alphone Guichenot](#) in an article entitled "Notice sur un nouveau genre de sauriens de la famille des geckotiens du Muséum de Paris" ("Notes on a new species of lizard in the gecko family") in the *Mémoires de la Société Scientifique Naturelle de Chérbourg*. It was later renamed *Rhacodactylus ciliatus*. Recent [phylogenetic analysis](#) indicates that *R. ciliatus* and *R. sarasinorum* are not closely related to the other giant geckos, so these two species have been moved back to the genus [Correlophus](#).<sup>[5]</sup>

The [specific name](#), *ciliatus*, is [Latin](#), from *cilia* ("fringe" or "eyelashes") and refers to the crest of skin over the animal's eyes that resembles eyelashes.

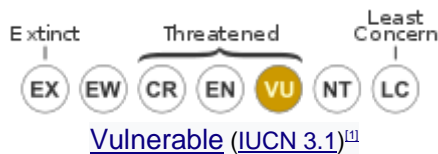
## Physical description



This captive crested gecko has a tricolor extreme harlequin pattern that is not found in the wild.

Crested geckos are among the largest gecko species and typically range from 6–10 inches (15–25 cm) in length, including 4–6 inches (10–15 cm) of tail length.<sup>[3]</sup> Among the most distinctive features of these geckos are the hair-like projections found above the [eyes](#), which greatly resemble [eyelashes](#). Crested geckos also have two rows of spines that run from the sides of their wedge-shaped head to the base of their [tail](#). Crested geckos do not have eyelids and so they use their long tongues to moisten their eyes and remove debris. The toes and

the tip of the semi-[prehensile tail](#) are covered in small hairs called [setae](#). Each seta is divided into hundreds of smaller (approximately 200 nanometres in diameter) hairs called spatulae. It is believed these structures exploit the weak [van der Waals force](#) to help the gecko climb on most solid surfaces. The toes have small claws which aid in climbing surfaces to which their toes



### Scientific Classification

Kingdom:	Anamalia
Phylum:	Cordata
Class:	Reptilia
Order:	Squamata
Suborder:	Serpentes
Family:	<a href="#">Diplodactylidae</a>
Genus:	<a href="#">Correlophus</a>
Species:	<b><i>C.ciliatus</i></b>

### Binomial Name

***Correlophus ciliatus***  
[Guichenot, 1866](#)



### Synonyms

- *Rhacodactylus ciliatus*  
([Guichenot, 1866](#))

cannot cling. They possess a semi-[prehensile](#) tail which they use to assist in climbing. The tail can be dropped (via [caudal autotomy](#)) as a deterrent to predators. Unlike some other geckos, once they lose their tail, it will not grow back; however, this is not as harmful to the gecko as it is in other species, such as the [leopard gecko](#), which store fat reserves in their tails.<sup>[6]</sup> In fact, most adults in the wild lack tails.<sup>[4]</sup>

The crested gecko has many naturally occurring color groups, including [grey](#), [brown](#), [red](#), [orange](#), and [yellow](#) of various shades. They have three color morphs in the wild, which include pattern-less, white-fringed, and tiger. Breeders of the species have achieved many other patterns such as the extreme harlequin pattern that are not observed in the wild.<sup>[7]</sup>

The crested gecko has distinct structural morphs in head size and crest abundance. Geckos with a head length less than 1.3 times its width are considered "crowned". The numbers and sizes of crests can vary; some geckos have crests that extend to the base of the tail and some lack crests on one side of their body.

## Geographic distribution

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A tailless New Caledonian crested gecko

The crested gecko is [endemic](#) to [South Province, New Caledonia](#). There are three disjunct populations, one found on the [Isle of Pines](#) and surrounding islets, and there are two populations found on the main island of [Grande Terre](#). One population is around the Blue River, which is a protected provincial park, and the other is further north, just south of Mount Dzumac.

## Ecology and behavior

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Jumping crested gecko



A captive crested gecko cleaning its eyes.

Crested geckos do not have eyelids. Instead, a transparent scale, or [spectacle](#), keeps each eye moist, and the geckos use their tongues to clear away debris. Like the closely related *Rhacodactylus* geckos, crested geckos have webbed legs and digits. They are a mostly [arboreal](#) species, preferring to inhabit the canopy of the New Caledonian [rainforests](#), and because of this they can jump considerably well. They are primarily [nocturnal](#), and will generally spend the daylight hours sleeping in secure spots in high branches. Crested geckos are, however, less strong climbers than [Tokay Gecko](#) species. <sup>[[citation needed](#)]</sup>

Crested geckos shed their skin up to once a week when young. When fully grown, the process only occurs once every one or two months. <sup>[[8](#)]</sup>

The crested gecko – unlike the closely related [gargoyle gecko](#) (*Rhacodactylus auriculatus*) – will not regrow its tail once lost. <sup>[[6](#)]</sup> The cells around the base of the tail are brittle, allowing the tail to break away when threatened or caught by a predator. The [capillaries](#) to the tail will close almost instantly, so there is little to no [blood](#) loss. The tails will move independently of the body for 2–5 minutes. The loss of their tail is not problematic, and most adults in the wild do not have their tails.

Unlike most species of gecko, this species is an [omnivore](#), also considered [frugivorous](#), feeding on a variety of [insects](#) and [fruit](#). <sup>[[6](#)]</sup> In captivity, they should be fed a commercially prepared, fruit-based diet with live feeder insects as a supplement. An unbalanced diet containing insufficient calcium can quickly lead to [metabolic bone disease](#) (MBD).

## Captivity

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Though the export of wild crested geckos is now prohibited, biologists exported several specimens for breeding and study before New Caledonia stopped issuing permits to export the species. From these specimens, different breeding lines were established both in [Europe](#) and the [United States](#). The crested gecko is now one of the most widely kept and bred species of gecko in the world. <sup>[[6](#)]</sup>

These geckos can be very long-lived. While they have not been kept in captivity long enough for a definitive life span determination, they have been kept for 15–20 years or more. <sup>[[8](#)]</sup> They can be kept healthy on specially prepared diets with sufficient calcium and other nutrients.

## Reproduction

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Crested geckos mating

Little is known about the wild reproductive behavior of crested geckos, but in captivity they breed readily, with the female laying two [eggs](#), which hatch 60–150 days after they are laid. Eggs are generally laid at four week intervals as long as the [fat](#) and [calcium](#) reserves of the female are still at healthy levels. Crested geckos have two small sacs for calcium on the roof of their mouths. If an egg-laying female does not have enough calcium her sac will be depleted, and she can suffer from calcium deficiency. This can lead to a calcium crash, where the female appears shaky or wobbly, lethargic, has a lack of appetite, and can even result in death.<sup>[6]</sup> Eggs laid by a female whose calcium reserves are low occasionally exhibit signs of congenital metabolic bone disease, such as an underbite and/or a kinked or wavy tail.

It is currently unknown whether heat plays a role in determining the sex of the [embryo](#), as it can with other gecko species.

Newly hatched crested geckos will generally not eat until after they have shed and eaten their skin for the first time, relying on the remains of their [yolk](#) sack for nutrition.<sup>[6]</sup>

A female crested only has to mate with a male once in order to lay 2 eggs every 4–6 weeks for upwards of 8–10 months. Sperm retention ensures that the eggs the female lays will remain fertile throughout her breeding cycle. After those 8–10 months, females in the wild go through a "cooling" cycle, usually prompted by slight temperature and daylight changes over the winter season. During this time, the females are able to regain the body mass and nutrients they lost during egg-laying. This cooling cycle must be implemented in captivity or females will lay eggs continuously, resulting in calcium depletion, poor health, and even death.

## Status in the wild

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Long believed extinct, the species was rediscovered in 1994 after a tropical storm.<sup>[4]</sup> It is currently being assessed for [CITES](#) protection and vulnerable status.<sup>[9]</sup> The biggest single threat to the wild population appears to be the introduction of the [little fire ant](#) (*Wassmania auropunctata*) to New Caledonia.<sup>[6]</sup> The ants prey on the geckos, stinging and attacking in great numbers, and they also compete with the geckos for food by preying on [arthropods](#).