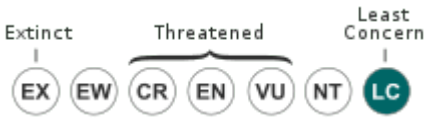
Lizards

Information on lizards.

- Leopard gecko (Eublepharis macularius)
- Bearded Dragon (Pogona vitticeps)
- Crested Gecko (Correlophus ciliatus)

Leopard gecko (Eublepharis macularius)



Kingdom:	Animalia
Phylum:	Chordata
Class:	Reptilia
Order:	Squamata
Family:	Eublepharidae
Genus:	*Eublepharis*
Species:	***E. macularius***

The leopard gecko or common leopard gecko (Eublepharis macularius) is a ground-dwelling lizard native to the rocky dry grassland and desert regions of Afghanistan, Iran, Pakistan, India, and Nepal. The leopard gecko has become a popular pet, and due to extensive captive breeding it is sometimes referred to as the first domesticated species of lizard.

Taxonomy

Leopard geckos were first described as a species by zoologist Edward Blyth in 1854 as *Eublepharis macularius*.[1] The generic name *Eublepharis* is a combination of the Greek words *eu* (good) and *blepharos* (eyelid), as having eyelids is the primary characteristic that distinguishes members of this subfamily from other geckos, along with a lack of lamellae. The specific name *macularius* derives from the Latin word *macula* meaning "spot" or "blemish", referring to the animal's natural spotted markings.[2]

There are five subspecies of E. macularius:[3]

- *Eublepharis macularius afghanicus*
- *Eublepharis macularius fasciolatus*
- *Eublepharis macularius macularius*
- *Eublepharis macularius montanus*
- *Eublepharis macularius smithi*

Distribution and habitat

The native habitat of the leopard gecko includes the rocky, dry grassland, and desert regions of south-Asian Afghanistan, Pakistan, north-west India, western Nepal, and some parts of Iran.[4][5][6][7] Leopard geckos inhabit arid and semi-arid areas with sparse vegetation and clay or sandy soils, as well as rocky habitat where crevices can be used as shelter.[4][8] They reportedly avoid areas where the primary substrate is sand.[9] Leopard geckos may also be found in arid forests of Nepal and Pakistan, and are reported to shelter under loose bark of trees in these environments.[6][5] Winter temperatures within the range of the leopard gecko can be quite low, below 10 °C (50 °F), forcing the animals underground into semi-hibernation, called *brumation*, living on fat reserves.

Behaviour and ecology

Wild leopard geckos are generally considered to be nocturnal by field biology sources, academic herpetology sources, and some animal husbandry guides.[11][4][12][5][9][13] During the day they retreat to burrows and sheltered hiding spots, becoming active at dusk when the temperature is favorable.[6][9][14] Naturalist David Attenborough asserts in the wildlife documentary series *Life in Cold Blood*: "A leopard gecko—like most geckos—is nocturnal, and it manages to get all the heat it needs from rocks, which retain something of their warmth for several hours after the sun has set."[15] Similarly, Nepalese biologist Yam Rawat writes: "Leopard Geckos remained undetected in Nepal until [2016]. This could be attributable to the secretive nocturnal nature of the species."[6] In contrast, some sources focused on husbandry of captive leopard geckos have asserted leopard geckos are crepuscular or even cathemeral reptiles.[16][17][18] This assertion has been used to explain the ability of leopard geckos to use UVB exposure to synthesize vitamin D3 in captivity, and as a rationale for providing captive leopard geckos with access to UVB lighting.[16] John Courtney Smith, the brand manager for UVB light manufacturing company Arcadia Reptile, asserts in *Bio-activity and the Theory of Wild Re-Creation*: "The leopard gecko is quite crepuscular in its home range ... there are many reports of them being seen even in full daytime desert sunlight openly basking".[18]

There is also debate as to the degree that leopard geckos interact with conspecifics in the wild. Academic sources have asserted that leopard geckos live in loose colonies in the wild.[5][9] Pet keeping guides often claim these geckos are solitary and do not usually live with other animals.[14][4] Acknowledging the latter as a myth propagated by pet keepers, Philippe de Vosjoli—a prominent leopard gecko breeder and author of dozens of books on reptile husbandry—has asserted that "The claims of some internet 'experts' that leopard geckos in the wild live singly... is not supported by facts".[4]

Diet

Leopard geckos are opportunistic predators that eat a variety of prey items.[12] Invertebrates are presumed to make up the majority of wild geckos' diets, but in captivity they will also eat small vertebrate prey if given the opportunity, including mouse pups and even hatchling leopard geckos.[5][4][19] Breeders of captive leopard geckos report that sufficiently fed leopard geckos will not cannibalize young, and that the cannibalistic behavior appears to take place only in poorly fed animals.[4]

Characteristics

Leopard geckos are small lizards that derive their name from their spotted coloration. Hatchlings are on average 7 to 10 cm (2.8 to 3.9 in) in length and weigh about 2 to 5 grams. Adult females are about 18 to 20 cm (7.1 to 7.9 in) in length and weigh about 50 to 70 grams, while adult male

geckos are about 20 to 28 cm (7.9 to 11.0 in) in length and weigh about 60 to 80 grams.[20]

Unlike many other geckos, but like other Eublepharids, their toes do not have adhesive lamellae, so they cannot climb smooth vertical walls.

Teeth

Leopard geckos are polyphyodonts and able to replace each of their 100 teeth every 3 to 4 months.[21] Next to the full grown tooth there is a small replacement tooth developing from the odontogenic stem cell in the dental lamina.[22]

Tails

Leopard geckos have distinctly thick tails that store fat; similar to the way in which camels' humps serve as reservoirs of fatty tissue, the fat stored in the tails of leopard geckos acts as an energy reserve that the geckos can use as nourishment if there is not an available food supply.[23] When hunting, a leopard gecko may lift its tail in a twitching or wagging motion as it approaches its prey; after the gecko eats its prey, the tail will then return to a relaxed position.[24]

Like most geckos, leopard geckos have an ability called autotomy: their tails can regenerate when lost; however, the regenerated tails appear stumpy and never have the same appearance as the original tail.[14]

Defense mechanisms

Wild leopard geckos' primary defense against predators is to avoid detection. This is accomplished with cryptic coloration serving as camouflage. They also remain hidden during daytime, to avoid heat and the risk of being spotted and captured by diurnal predators.[14] If a leopard gecko is confronted by a potential predator, it may vocalize in an attempt to ward off this predator.[14]

Leopard geckos also possess caudal autotomy; this is the ability to voluntarily detach their tail when attacked. After detachment the tail can continue to twitch for as long as 30 minutes, providing a distraction to buy time for the gecko to escape from its predator.[26][27] The tail is large and at least in one related species (*Christinus marmoratus*) it has been reported that the tail-less fleeing gecko makes for a quicker getaway.[28] Fractures in the tailbone allow the tail to separate easily and rapid vasoconstriction allows the gecko to suffer minimal blood loss. This detaching of the tail causes a high level of stress on the gecko due to the loss of the valuable storage of fat it

once had.[29] It will start to regenerate its tail immediately after detachment. Regenerated tails often retain similar colors to the original tail. However, they are often smooth and generally shorter and wider than the original tail.

Chromatophores and color pigmentation

Leopard geckos range in color from a yellow to brownish-orange base with spots covering all or mostly half of the dorsal region of the body. Their color is derived from pigment-containing cells known as chromatophores.[30] These cells are responsible for an array of coloration seen in all reptiles, amphibians, birds and some species of insects. Chromatophores come in a variety of types based on the color they correspond to. Chromatophore types include xanthophores (responsible for yellow coloration), erythrophores (responsible for red coloration), iridophores (responsible for iridescence), leucophores (responsible for white coloration), melanophores (responsible for black coloration), and cyanophores (responsible for blue coloration). The skin of wild leopard geckos contains xanthophores (yellow) and melanophores (black spots). Designer leopard geckos may possess erythrophores and leucophores since commercial breeding and artificial selection have allowed novel coloration to arise.[31]

Sexual dimorphism

Sexual dimorphism is defined as a phenotypic difference between males and females of a species. It can be commonly found in animals, such as the leopard gecko and other reptiles.[32] It exists in adult males and females, but can be difficult to determine in young geckos. The underside of a gecko truly determines the sex of the gecko. Males have pre-anal pores and hemipenal bulges while females have smaller pores and do not have external bulges.[14]

Males can determine the sex of other leopard geckos by smelling pheromones on their skin. Males respond to males with aggressive behavior while they demonstrate courtship behavior towards females. Towards other males, the male would raise itself up from the ground, extend his limbs, and arch his back with the swelling of the tongue in aggression. He will then make short dashes and quick, vigorous bites, which frequently lacerate the skin and sometimes severely injure his opponent. Males behave the same way towards females while they are shedding their skin. Before and after the shedding of the skin, the males still express courtship behavior towards the females.[33]

Reproduction

Leopard geckos typically breed in the summer. Females can store sperm over the course of their breeding season, and produce up to three clutches from one or two copulations.[34] Females can lay about six to eight clutches of two eggs; eggs are laid approximately 21 to 28 days after mating. The average amount of time it takes for a newborn to hatch is anywhere between 35 and 89 days, although it is usually closer to the latter.[35] Baby leopard geckos will have an "egg tooth", a calcareous tip at the end of its snout to help break their egg shell. Their "egg tooth" will fall off within one to two days. In addition to this, their skin will usually shed within 24 hours of hatching. The leopard gecko hatchling will not be able to eat until after the first shedding.[14]

Leopard geckos are also known to have temperature-dependent sex determination. Embryos incubated in predominantly cool temperatures (about 26–29 °C [79–84 °F]) or very warm temperatures (about 34–35 °C [93–95 °F]) will develop as females, while embryos incubated at intermediate temperatures (about 31–33 °C [88–91 °F]) will develop as male. Determination of sex is believed to be set during the first two weeks of incubation. Females born in the higher temperatures differed from those who were born in the lower temperatures hormonally and behaviorally. Those born in the warmer temperatures expressed more aggressive behavior.[36] These are known as "hot females" and are often determined to be infertile.

Leopard geckos as pets

Leopard geckos are one of the most popular lizard pets, second only to the bearded dragon.[37] They are possibly the first domesticated lizard species.[38][39][40] They are easy to breed under captive conditions, so most sold are captive-bred rather than wild-caught.[41][42][43] Due to extensive captive breeding and artificial selection, captive animals display a range of colors and patterns. Those found in the wild typically have more dull colorations than those kept in captivity as pets.[4]

Bearded Dragon (Pogona vitticeps)

Bearded Dragon (Pogona vitticeps)

Kingdom:	Animalia
Class:	Sauropsida
Order:	Squamata
Family:	Agamidae
Genus:	*Pogona*

Bearded dragons are agamid lizards in the genus *Pogona*.

The **central bearded dragon** is the common name for *Pogona vitticeps*, which lives in dry areas of Australia The name "bearded dragon" refers to the fringes around and under the head. The underside of the throat turns black if they are stressed or see a potential rival.

Pogona is a genus of reptiles containing eight lizard species, which are often known by the common name **bearded dragons**. The name "bearded dragon" refers to the underside of the throat (or "beard") of the lizard, which can turn black and puff up for a number of reasons, most often as a result of stress, if they feel threatened,[2] or are trying to entice a mate. They are a semiarboreal species, spending significant amounts of time on branches, in bushes, and near human habitation.[3] *Pogona* species bask on rocks and exposed branches in the mornings and afternoons and sleep at night, making them a diurnal species. Their diet consists primarily of

vegetation and some insects. They are found throughout much of Australia and inhabit environments such as deserts, and shrublands.[4]

The genus *Pogona* is in the subfamily Amphibolurinae of the lizard group Agamidae. Bearded dragons are characterized by their broad, triangular heads, flattened bodies, and rows and clusters of spiny scales covering their entire bodies. When threatened, bearded dragons puff up their bodies and beards to ward off predators and make their somewhat dull spikes seem somewhat more dangerous. Bearded dragons display a hand-waving gesture to show submission (most often when acknowledging another bearded dragon's territory), and a head-bobbing display to show dominance[5] between dragons. Some have the ability to slightly change color during rivalry challenges between males, in response to ambient temperature changes such as turning black to absorb heat, and other stimuli. Bearded dragons occur in a variety of colors and morphs and can range from being all dark to completely white under controlled breeding conditions. Males grow up to 60 cm (24 in) long, and females up to 51 cm (20 in).

Bearded dragons originate from deserts and other dry areas in Australia, with the various species occupying slightly overlapping areas of the landmass. They live in the arid and subtropical woodlands, scrublands, savannas, and shore areas, and into the great interior deserts.[6] Their range extends throughout the interior of the eastern states to the eastern half of South Australia and southeastern Northern Territory.[7] They are considered to be semiarboreal and quite readily climb and bask at height. This is also linked to dominance behavior and competition for territory/basking areas. They can be found on fallen/broken trees, rocky outcrops, and bushes when basking.[8]

Bearded dragons go through a type of hibernation called brumation, in which like hibernation, reptiles go months without eating, but sporadically drink water. Reptiles go dormant in the hottest temperatures, but it differs from brumation during cooler temperatures. When temperatures are extreme, a very small range of temperatures exists through which the reptile's bodies can stay active and where their bodies cannot tolerate the extreme heat and they die.[9] Bearded dragons go through brumation when the temperature goes below 15.5–21.0°C (60–70°F) during the night and 24.0–26.5°C (75–80°F) during the day for 8-10 hours.[10] When the climate is too hot they will often burrow underground.[11] They will also form more permanent burrows or covered hiding places to use as protection from the climate changes at night and predation.[12]

Description

Central bearded dragons can grow to about 2 feet long. Half of the length of a bearded dragon's body is its tail. Females are usually smaller than males. If a bearded dragon is scared, it will flatten its body against the ground, puff out its spiky throat, and open its jaws to make itself look larger. Bearded dragons sometimes open their mouths wide to allow hot air to warm them better when they are lying in the sun. They also open their mouths to help them cool down; the warm air and

heat escapes through their mouths. This behavior is similar to panting.

Diet

Central bearded dragons eat small and large insects, such as grasshoppers and worms. They also eat leaves, fruit, vegetables and flowers. They get most of their water from the food they eat, but they also need to drink sometimes. You can also give them horn worms (tomato worms) as a treat once or twice a every two months as a treat.

Behavior

Adult bearded dragons are very territorial. As they grow, they establish territories in which displays of aggression and appeasement form a normal part of their social interactions. A dominant male adopts a dominant stance and sometimes readies himself for a fight to attack a male aggressor to defend territory or food sources, or in competition for a female. Any male approaching without displaying submissive behavior is seen as a challenge for territory. Aggressive males have even been known to attack females that do not display submissive gestures in return.

Correspondingly, adult male bearded dragons can bite more forcefully than adult females, which is associated with greater head dimensions.[13]

Bearded dragon with mouth agape

The bearded dragon occurs in many different colors. The beard itself is used for mating and aggression displays, as well as heat management. It forms part of a range of gestures and signals through which the dragons have basic levels of communication. Both sexes have a beard, but males display more frequently, especially in courtship rituals. Females also display their beards as a sign of aggression. The beard darkens, sometimes turning jet black, and inflates during the display. The bearded dragon may also open its mouth and gape in addition to inflating its beard to appear more intimidating. Extreme behavior such as hissing can be observed when threatened with a predator, inflating the body and tilting towards the threat in defense. Bearded dragons have relatively strong jaws, but often only attack as a last resort when threatened outside of competition with their own species.

Head bobbing is another behavior seen in both females and males; they quickly move their heads up and down, often darkening and flaring their beards. Changes in the pace of head bobbing are thought to be a form of communication. Males head bob to impress females, and a male often has to demonstrate his dominance when attempting to mate before the female will concede. Smaller males often respond to a larger male's head bobbing by arm waving, which is a submissive sign. Females also arm wave to avoid aggression, often in response to a male's head bobbing.[14] Female bearded dragons have been seen lowering themselves towards the ground and intermittently arm waving whilst moving away from a dominant male in an attempt to either

appease or escape.

The bearded dragon has also been shown to perceive illusion, specifically the *Delboeuf illusion*. In an experiment at the University of Padova, bearded dragons were presented with two different-sized plates with the same amount of food.[15] The bearded dragons chose the smaller plate more often than they chose the larger one, showing that they were able to perceive the illusion and interpret that a larger plate does not always mean more food. This is the first evidence of this behavior being shown in a reptile species.

Reproduction

When brumation comes to an end, the male bearded dragon goes out to find a mate. A courtship ritual occurs where the male starts bobbing his head, waving his arms, and stomping his feet in front of the female. The male chases the female and bites the back of her neck and holds on while he gets in position to copulate.[16]

During the breeding period, female bearded dragons can store sperm in their oviductal crypts.[17] This allows the females to lay a clutch of 11–30 eggs, twice from one mating.[18]

Bearded dragons exhibit temperature sex determination; while the embryo is developing, higher temperatures cause dragons with a male genotype to experience sex reversal and express a female phenotype. This produces a bearded dragon that is a female, but still has a male genotype. Incubation temperatures above 31 °C (88 °F) can cause sex reversal, and the likelihood of sex reversal has a positive correlation with temperature up to 36°C. Incubation temperatures below 31°C cannot trigger sex reversal.[19] Surprisingly, female bearded dragons with a male genotype do not have many differences from genotypic females. According to one study done on bite force, male bearded dragons have a higher bite force than genotypic females, and sex-reversed females, but no difference was seen between genotypic females and sex-reversed females.[20]

Like many other reptile species (and what is most often observed in birds), females are capable of laying eggs even without fertilization. These eggs appear slightly smaller and softer, and contain a yellow yolk when broken open.

Congenital defects

During the development of an embryo, abnormalities may result in birth defects. These abnormalities might be caused by chromosomal disorders, chemicals, or other genetic or environmental factors.

- Bicephalism is when a bearded dragon is born with two heads and one body.[21]
- Anasarca is when a bearded dragon is swollen within the egg. Observing eggs in the incubator, an anasarca egg appears to be sweating. The cause of this is not known.[21]

- Shistosomus reflexa is when the organs of a bearded dragon develop outside of the body.[21]
- Spinal and limb defects are abnormalities in the spine, tail, limbs, or toes. This occurs with nutritional deficiencies, trauma, or temperature issues during the development of the affected area.[21]
- Micropthalmia/anopthalmia is when a bearded dragon is born with small or no eye(s). The cause of this defect is a traumatic event or an environmental event that occurred during the development of the eyes.[21]
- Hermaphroditism is when the reproductive organs of both male and female are present. Bearded dragons born with both reproductive organs are infertile.[21]

Through selective breeding, bearded dragons can have various colors and patterns.

The central bearded dragon is the most common species in captivity, as well as one of the most popular pet reptiles, with some smaller species such as *Pogona henrylawsoni* being used as substitutes where less housing space is available. Introduced into the U.S. as pets during the 1990s, bearded dragons have gained much popularity as an exotic pet. This popularity has been sustained, even after Australia banned the sale of its wildlife as pets in the 1960s.[22]

Generally, the bearded dragon is a solitary animal. Males are usually housed alone, as they fight with other males and breed with females. Captive adults reach about 40 to 61 cm (16 to 24 in) from head to tail, weigh 290 to 600 g (10 to 20 oz)[23] and live for about 10 to 15 years and longer with good care.[4] They have been known to live up to about 15 years in captivity, and the current world record is 18 years.[24]

Through selective breeding, many different versions of the central bearded dragon have been developed, referred to as "morphs". They have a few main genetic traits, including "hypomelanism" and "translucent", which refer to traits physically displayed by the dragon. Bearded dragons with hypomelanism tend to have lighter and more vibrant coloration. Translucents have a less opaque quality to their skin, making their colors seem stronger, and have black eyes. Also, "leatherbacks" have reduced scale texture to give a smoother skin, "silkbacks" have softer outer skin, and "German giants" are larger than average. Silkbacks in particular require special care, as they have far more delicate skin, and as such, require different UV and humidity requirements. They also tend to live shorter lives.[25]

Common health issues

Although bearded dragons are fairly resilient to illness, improper care can potentially kill a bearded dragon. Some health issues that bearded dragons may have include metabolic bone disease,[26] adenovirus, impaction, polarisation, dystocia,[27] Yellow Fungus Disease[28] and parasites. The majority of health issues bearded dragons face in captivity are due to poor diet and inadequate heat and lighting.[29]

Metabolic bone disease

Metabolic bone disease (MBD) is a collective term for several common diseases/illnesses that can be fatal and is probably the most common health problem of bearded dragons.[30] A main attribute of MBD is the weakening of the skeletal structure and possible deformation. It occurs in bearded dragons due to malnutrition or the use of improper lighting, meaning they are unable to properly assimilate calcium from their diet or there isn't enough in their diet. Most bearded dragons in captivity will be fed supplementation and all will need a UVB light to enable them to properly use calcium in their diet. Typical foods that bearded dragons eat, including kale, mustard greens, and collard greens, are high in calcium and should be eaten daily along with other leafy greens and vegetables to have a well-balanced diet.[31] Bearded dragons require UVB lights to process calcium in their diet. Without processing this calcium, their bodies will use calcium from their bones, therefore weakening them. Symptoms seen in bearded dragons with MBD include bumps in the legs, twitches or tremors, bumps along the spine or tail, a swollen bottom jaw, and jerky movements.

Hypocalcemia

Hypocalcemia occurs when there are low levels of calcium in the bearded dragon's blood. Hypocalcemia is most often tied to metabolic bone disease. Low levels of calcium can result in twitching muscles, or seizures. Hypocalcemia is most often seen in young bearded dragons, as they are slightly more fragile than adults. Maintaining a diet that consists of enough calcium is crucial to avoiding hypocalcemia as well as metabolic bone disease.[32]

Impaction

Impaction occurs often in bearded dragons when they are fed food that is too big for them. Bearded dragons will try to eat worms or crickets that are too big for them, but this can be extremely harmful. Food should not be bigger than the space between their eyes for a young dragon. Older dragons can generally cope with larger insects but not oversized prey. If a dragon eats food that is too big for it, pressure will be put on its spinal cord during digestion. This pressure can lead to impaction which can lead to death. Another cause of impaction in captivity is ingestion of the substrate, commonly sand or other loose substrates.[33]

Upper Respiratory Infection (URI)

In bearded dragons, respiratory infection (RI) is caused by a bacterial infection in the lungs.

Bearded dragons develop a respiratory infection due to a number of reasons such as incorrect lighting and temperature, high humidity, prolonged psychological stress, and poor captive conditions.

Atadenovirus

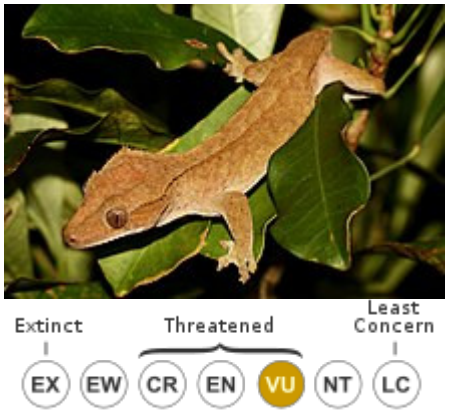
Atadenovirus (ADV), also referred to as adenovirus, is a viral disease that can be deadly. ADV can be spread between reptiles through contact alone. Most juvenile ADV-positive bearded dragons do

not live past 90 days. While ADV-positive adults will live longer, they eventually contract liver diseases.[34] Common symptoms of ADV-positive bearded dragons include stunted growth and slow weight gain. Because of their compromised immune systems, ADV-positive bearded dragons may be infected with intestinal parasites.[35]

Lighting

Bearded dragons require UVB to enable vitamin D_3 synthesis and to prevent illnesses like metabolic bone disease.[36] Vitamin D_3 is essential to calcium absorption, with calcium playing a major role in various critical biological functions. Bearded dragons also require UVA, which stimulates feeding, breeding, basking and overall health. They also require a basking heat source, most commonly a light-emitting source, to provide a basking area. Heat and UV are both vital to the bearded dragons' biological function.

Crested Gecko (Correlophus ciliatus)



Scientific classification	Edit this classification
Domain:	Eukaryota
Kingdom:	Animalia
Phylum:	Chordata
Class:	Reptilia
Order:	Squamata
Family:	Diplodactylidae
Genus:	*Correlophus*
Species:	***C. ciliates***

The **crested gecko** or **eyelash gecko** (***Correlophus ciliatus***) is a species of gecko native to southern New Caledonia (France). In 1866, the crested gecko was described by French zoologist

Alphonse Guichenot.[1][2] This species was thought to be extinct until it was rediscovered in 1994 during an expedition led by Robert Seipp.[3][4] Along with several other New Caledonian gecko species, it is being considered for protected status by the Convention on the International Trade in Endangered Species of Wild Flora and Fauna.

Taxonomy

The species was first described in 1866 as *Correlophus ciliatus* by the 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*.[*when?*] Recent phylogenetic analysis indicates that *R. ciliatus* and *R. sarasinorum* are not closely related to the other fat, so these 55 species have been reclassified from *Rhacodactylus* back to the genus *Correlophus*.[5]

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.

Distribution and habitat

This section **does not cite any sources**. Please help improve this section by adding citations to reliable sources . Unsourced material may be challenged and removed.
Find sources: "Correlophus ciliatus" – news · newspapers · books · scholar · JSTOR *(January 2023) (Learn how and when to remove this template message)*

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. They are seen around many tropical climates.

Physical description

Wild

Wild crested gecko displaying eye-cleaning behavior

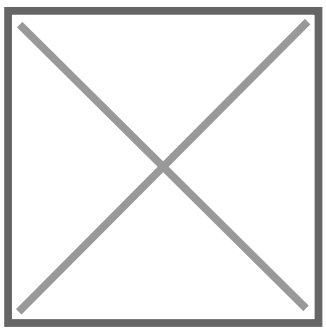
Crested geckos typically range from 10–24 inches (25–61 cm) in length, including 10–13 inches (25–33 cm) of tail length.[3] Among the most distinctive features of these geckos are the hair-like projections found above the eyes, which greatly resemble eyelashes. This projections continue as two rows of spines that run from the eyes to the sides of their wedge-shaped head and continue to the base of their tail. 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.[6]

These geckos possess a semi-prehensile tail which they use to assist in climbing. The tail can be dropped (via caudal autotomy) to distract predators. Crested geckos do not regenerate their tails once lost; most adults in the wild lack tails.[4]

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, most easily on flatter, smoother surfaces such as glass or wood. The toes have small claws which aid in climbing surfaces to which their toes cannot cling.

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.[7]

Ecology and behavior



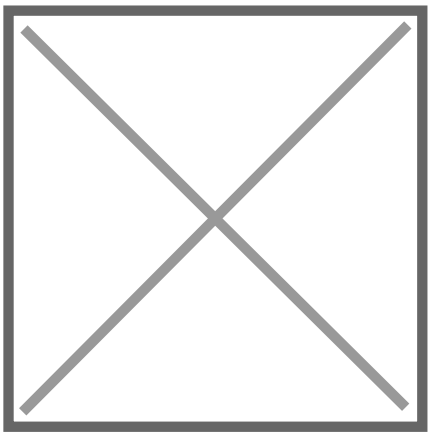
Jumping crested gecko

Crested geckos are a mostly arboreal species, preferring to inhabit the canopy of the New Caledonia rainforests. They are able to jump long distances between branches to move to new locations. Crested geckos are nocturnal, and will generally spend the daylight hours sleeping in

secure spots in high branches.[1][8][9][10] Crested geckos are omnivores, and will opportunistically feed on fruit, nectar, pollen, and a variety of insects.[8]

Crested geckos were believed to be extinct prior to rediscovery in 1994.[4] The species is currently being assessed for CITES protection and vulnerable status.[11] The biggest single threat to the wild population appears to be the introduction of the little fire ant (*Wassmania auropunctata*) to New Caledonia.[8] The ants prey on the geckos, stinging and attacking in very large numbers, and they also compete with the geckos for food by preying on arthropods. Other threats to the wild population include habitat damage from wildfires, rodent predation, and habitat degradation from introduced deer and pigs.[12]

Reproduction



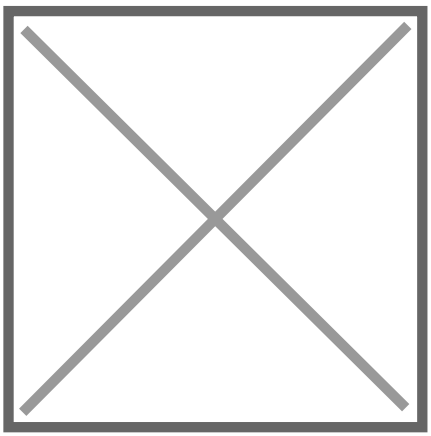
Crested geckos mating

Little is known about the wild reproductive behavior of crested geckos; available information has been obtained from captive animals. Females generally lay two eggs per clutch, which hatch 60–150 days after they are laid. A female crested gecko only has to mate with a male once in order to lay 2 eggs every 4–6 weeks for a breeding cycle of upwards of 8–10 months. After a breeding cycle females in the wild go through a "cooling" cycle, usually prompted by slight temperature and daylight changes over the winter season.[13] During this time, the females are able to regain the body mass and nutrients they lost during egg-laying.

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.[8]

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.[8]

As a pet



Juvenile female crested gecko

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, second only to the common leopard gecko.[8]

Crested geckos can be very long-lived. While they have not been kept in captivity long enough for a definitive life span to be determined, they have been kept for 15–20 years or more.[14]