INTERNATIONAL CHAMELEON DAY

Here's to celebrating chameleons! Wildlife Madagascar and our many partner organizations are establishing May 9 as a dedicated day each year to appreciate and raise awareness about chameleons and their habitats. In honor of these amazing lizards, we have developed materials that you can use and share for your own chameleon celebration, including fact sheets, activities, and puzzles.

Help spread the word on social media, too, and use the hastags:
#chameleonday #showyourcolors #internationalchameleonday

International Chameleon Day Acknowledgments

With Gratitude

These International Chameleon Day materials have been made possible by a generous grant from the San Diego Foundation.
Our sincere thanks to them for their enthusiasm and support!

Hervey Family Fund at San Diego Foundation

Wildlife Madagascar

Debra Erickson, Executive Director
Dr. Tim Eppley, Chief Conservation Officer
Tojo Lytah Razafimahefa, Country Director and Chief Ecotourism Officer
Karen Worley, Editor and Writer
Matthew Steele, Board Member and Social Media
Jenn Beening, Board Member and Social Media
Jenna Pyle, Media Librarian

Materials

Peggy Scott, Writer
Noelle Phillips, Graphic Design
August Stein, Logo Design
Susie Louis, Education Advisor
Dr. Frank Glaw, Scientific Advisor
Dr. Christopher Anderson, Scientific Advisor
Aline Owens, French Translation
Olivia Rafetison, Malagasy Translation
Photographers: Dr. Tim Eppley, Tojo Lytah Razafimahefa,
Dr. Frank Glaw, Dr. Christopher Anderson,
Dragomir Vujovic, Ken and Mary Campbell,
iNaturalist contributors

wildlifemadagascar.org

Species Spotlight

May 9, 2024

INTERNATIONAL CHAMELEON DAY

Species

African Chameleon

Camaroon Sailfin Chameleon

Indian Chameleon

Knysna Dwarf

Labord's Chameleon

Tarzan Chameleon

Nano Chameleon

Panther Chameleon

Parson's Chameleon

Veiled Chameleon

Photo credit: Dr. Tim Eppley

Species Spotlight

African Chameleon

Chamaeleo africanus

Photo credit: Edouard Veuillet

While people tend to imagine chameleons in dense, humid rainforests, there are many species that live in very different conditions. The African chameleon is one, native to the hot, semi-arid savannas of the Sahel region of Africa. This habitat is covered with grassland and some **shrubland** and woodland dominated by Acacia trees, and the climate is similar to, although less extreme than, the climate of the Sahara desert north of the Sahel.

The African chameleon is about 13 to 18 inches long, including the tail, and is similar in appearance and behavior to other medium and large chameleon species. It is usually found perched on lower branches of trees and shrubs, or clinging with its gripping feet to sturdy reeds, where it waits for its prey of insects, which it captures by shooting out its catapult-like, sticky tongue.

An interesting fact about this chameleon species is that it has an established population in Greece. This is thought to have been the result of the species being introduced to the region from the Nile River Delta in ancient times.

Species Spotlight

Cameroon Sailfin Chameleon

Trioceros montium

Photo credit: Dr. Christopher Anderson

This unusual chameleon gets its common name from the flat crest, or "**sailfin**," that males have running down their back and that becomes particularly enlarged on the tail. It's formed with skin that stretches over elongated vertebral spines. The males also sport two "horns" made of scales, which jut out from the snout and are used for display and jousting when courting females during the breeding season. Both males and females are typically shades of green and blue, with a variety of markings in other colors.

The Cameroon **sailfin** chameleon is only found in the humid, mountainous cloud forests in the highlands of Cameroon, at elevations from 1,640 to 4,900 feet (500 to 1,500 meters). The species requires habitat with high humidity and moderate to cool temperatures, so its range is very limited. It is thought to live in only about 10 locations with suitable conditions. As a result, habitat loss is particularly serious for these chameleons, and the species is listed by IUCN as Near Threatened.

These elusive chameleons are medium in size, with males reaching about 10 inches (25 cm) in length and females 8 inches (20 cm).

Species Spotlight

Indian Chameleon

Chamaeleo zeylanicus

Photo credit: Avinash Bhadat

The Indian chameleon is the only chameleon species native to India. It is also found in Sri Lanka and parts of Pakistan. It is adapted to live in a number of habitats, including tropical rainforests, dry forests, bamboo thickets, palm groves, and coastal mangroves.

This is a fairly large chameleon species, reaching up to about 18 inches (45 cm) long, including the tail. Its lifestyle is arboreal and solitary, and like other chameleon species, it uses color changes to communicate. Males are territorial and can be aggressive towards rivals or intruders, especially during the breeding season, which takes place from October into the winter months.

Like other chameleons, it is an ambush predator, watching and waiting for prey to come within reach of its lightning-fast tongue. It eats mostly insects, particularly locusts, grasshoppers, crickets, and beetles.

Species Spotlight

Knysna Dwarf Chameleon

Bradypodion damaranum

Photo credit: Colin Ralston

This brightly colored little chameleon is a species of the dwarf chameleons in the genus *Bradypodion*—which means "slow footed," although that seems rather unfair, since they seem to move pretty much like other chameleons!

The **Knysna** dwarf chameleon has more than one particular claim to fame. For one thing, it has a limited range, found only in the montane forests near **Knysna**, South Africa, on the south-facing slopes of the **Outeniqua** and **Tsitsikamma** mountains down to the coast of the Western Cape. For another, it has the longest tail of any *Bradypodion*, relative to body size. The chameleon's total body and tail length reaches up to about 8 inches (20 cm), and the tail is more than half of that.

But the most surprising thing about the **Knysna** dwarf chameleon is that it is one of the chameleon species that gives birth to live young, instead of laying eggs. The eggs develop and then break open inside the female's body, and then she gives birth to the baby chameleons. A female can give birth to anywhere from 8 to 20 young at a time, after a gestation period of 4 to 6 months.

Species Spotlight

Labord's Chameleon

Furcifer labordi

Photo credit: a_f_r

This chameleon species is distinctive for an extraordinary reason: it has the shortest lifespan of all chameleons. Not only that, it has the shortest lifespan of any four-legged vertebrate animal. It spends eight to nine months developing as an egg buried in the ground; then once it hatches, it only lives another four to five months!

And it gets even weirder. All the **Labord's** chameleons in an area's population hatch at pretty much the same time, grow rapidly, breed, and the females lay eggs around the same time too. Then both males and females age rapidly and die out. That means there aren't any adult **Labord's** chameleons around until the next batch of eggs hatches to repeat the cycle. Scientists have found that in less harsh conditions some individuals may live a bit longer than the majority, but for the most part each generation lives only for about a year!

Why would this chameleon have evolved such a strange lifecycle? Scientists aren't entirely sure, but they think it may be because the species is found in a harsh, dry environment of spiny forests where it doesn't rain most of the year. If the eggs remain underground, they are protected against the drought, only hatching when the seasonal rains arrive and there will be water and food available for the lizards. What an extreme way to live!

Labord's chameleon males can grow to a length of 12 inches (30.8 cm), including the tail, and females are smaller, up to 7 inches (17.7 cm). These chameleons live in the spiny and deciduous forests of southwest Madagascar and feed mostly on insects. Interestingly, this is one of the few chameleon species in which the females are more colorful than the males.

Species Spotlight

Nano Chameleon

Brookesia nana

Photo credit: Frank Glaw

The chameleon genus *Brookesia* is known for having the smallest known reptiles in the world. And in 2021, the record was broken when the tiniest one yet was discovered: the nano chameleon (*Brookesia nana*). An adult male was measured at just 0.9 inch (22 mm) long, and that includes the tail! The female found was a bit larger, 1.1 inches (29 mm) including the tail—but that's only 0.2 inches (7 mm) larger. Either way, this species is not much larger than a sunflower seed.

The nano chameleon is one of 13 known (there may well be more) mini chameleons found in the rainforests and dry forests of northern Madagascar. Scientists aren't sure why they are so small, especially because some are found in the same areas as larger chameleon species. More exploration and study are in order to solve the mystery.

Since the nano chameleon is such a newcomer to the chameleon family tree, researchers will need to find out more about its habits. It seems that these little lizards make their living by traveling through leaf litter on the forest floor, snatching up mites and other tiny food by zapping them with the famously fast chameleon tongue, just like the big guys. And at night, they also go upward like their larger cousins—but it's up a blade of grass, rather than a tree!

Species Spotlight

Panther Chameleon

Furcifer pardalis

Photo credit: Frank Glaw

The first thing you notice about panther chameleons is their vibrant coloration—one of their main claims to fame. There are some consistent color patterns, referred to as "morphs," or "localities," within different habitat regions. But overall, these chameleons show a riot of color, including many shades of blue, green, and turquoise, bright yellow, pink, and orange, and even startling red. There is also wide variation of patterns, spots, stripes, and bands. Males are typically more brightly colored than females, and like all chameleons, this species uses color as a form of communication.

Panther chameleon males can grow to a length of 20 inches (53 cm), including the tail, while females are smaller, up to 12 inches (38 cm). They can live up to about 7 years, and they are mostly solitary. They can be found in trees in forests and **shrubland** of northern and coastal Madagascar, and like all chameleons, they are largely active during the day.

These chameleons feed mostly on invertebrates, including grasshoppers, locusts, beetles, moths, and flies. These chameleons are considered opportunistic hunters: they watch and wait for prey to pass by within range of their long tongue.

The panther chameleon is considered a species of "Least Concern" by the IUCN, because it is widespread and even more abundant in plantations and other secondary habitats than in primary forests.. However, it is one of the most sought-after species of chameleon in the international pet trade, which could begin to negatively impact wild populations. Stricter trade quotas have been enforced in Madagascar, and recent export levels are thought to be within a sustainable range.

Species Spotlight

Parson's Chameleon

Calumma parsoni

Photo credit: Ken & Mary Campbell

Parson's chameleons have the distinction of being one of the two largest chameleon species (the other is **Oustalet's** chameleon). They can measure 26.8 inches (68 cm) long, including the tail, and weigh up to 1.5 pounds (700 g). That is one hefty chameleon! They are also among the most long-lived, with a lifespan of 10 to 14 years.

This species is found in pockets of humid forest in eastern and northern Madagascar, where it lives an arboreal and solitary life and is mostly active during the day. It eats insects, which it catches with its super-fast and super-powerful tongue, but it has also been observed eating some plant material and occasionally even birds.

Male Parson's chameleons have some consistent coloration in certain areas of their habitat, which are known by loose descriptions. There is the "orange eye," mainly green or turquoise by with yellow or orange eyelids; the "yellow lip," green or turquoise but with yellow along its mouth; the "yellow giant," larger than the others and overall yellow and buff in color; and the "green giant," also larger but mostly green. It's not known if that one is jolly or not!

This species has a polygynous breeding strategy, with males mating with more than one female during the breeding season between May and October. Unlike many chameleons, females only produce eggs once every two years rather than each year, laying up to 50 at a time. It can take up to two years for the eggs to hatch. Perhaps developing to grow into one of the largest chameleons takes extra time!

Species Spotlight

Tarzan Chameleon

Calumma tarzan

Photo credit: Frank Glaw

With its dense forest habitats and extraordinary biodiversity, Madagascar still has secrets to share and new species to reveal. One of them is a chameleon that was just discovered in 2010: the Tarzan chameleon. It is known to live in only 14 forest fragments, one of which is near the village of **Tarzanville**, leading to its name. But the name was also chosen to call attention to this species and promote awareness and protection, because it is listed as Critically Endangered.

The Tarzan chameleon's range is small and fragmented, and the forest it depends on is under pressure from agriculture, logging, and mining. This chameleon has been called one of the world's top 100 most threatened but neglected species. Fortunately, it has champions in organizations that have made it a priority species for two new protected conservation sites.

This little chameleon with a big name and reputation is only about 4.7 to 5.9 inches (12 to 15 cm) long from its nose to the tip of its tail. It has a flat, spade-like snout and is typically green or yellow but produces stripes when it is agitated. Its habitat is humid forest, where it forages in small trees and shrubs. Not much is known about its behaviors yet—but more will be revealed!

Species Spotlight

Veiled Chameleon

Chamaeleo calyptratus

Photo credit: diomedea_exulans_li

The veiled chameleon is known for the distinctive casque on its head, which has been described as looking like a cone, a helmet—or a party hat. Both males and females have this decorative feature, and it continues to grow as the animal matures, reaching about 2 inches (5 cm) in the largest adults. But it's not only decorative: it also used as a signal to potential mates or between rival males.

These colorful chameleons are found in the mountain regions of Yemen and Saudi Arabia, often in valleys but also on high plateaus. They are one of the chameleon species that can tolerate wide temperate ranges, though they prefer 75 to 95 degrees F (23 to 35 degrees C). They are a fairly large species, with males measuring 17 to 19 inches (43 to 48 cm) from the snout to the tip of the tail, and females up to 14 inches (35 cm). They are arboreal and feed mainly on insects, but they will also eat plant leaves and flowers, which is thought to be a way to obtain water during dry seasons.

Veiled chameleons breed more than once a year. Males are territorial and aggressive, and patrol and defend their territories. They also display for females during courtship, performing behaviors such as "head rolls" and "chin rubs," and a sort of shivering called a "**biotremor**." Both males and females show color changes when they are ready to breed. As an adaptation to an unpredictable climate, females can delay the implantation of eggs after breeding, then resume development when conditions are more favorable. Females can lay up to three clutches each year, each one containing up to 85 eggs.