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GECKOS

Turner's thick-toed gecko

Chondrodactylus turneri

Chondrodactylus turneri is a sturdy, nocturnal gecko from savanna and rocky country in southern and eastern Africa, with large orange eyes, brown bands and adhesive lamellae under the toes. It is easy to keep, but shy and fast, so it suits best the keeper who wants to watch the animal rather than handle it.

Family: Gekkonidae Former name: *Pachydactylus turneri; Homodactylus turneri*

KEY FACTS

THE ANIMAL

Adult size	**15-22 cm** total length incl. tail
Lifespan	**6-10 years**
Active	**At night**
Lifestyle	**Rock-dwelling**
Habitat	**Savanna and rocky terrain**
Difficulty	**Intermediate**

CARE

Min. enclosure	**60 × 40 × 40 cm** L × W × H for 2 adults
Temperature, day	**25-28 °C**
Basking spot	**33-35 °C**
Temperature, night	**18-22 °C**
Humidity	**30-50%**
UVB	**Optional**
Diet	**Insects**
Kept	**Singly or in pairs**

BREEDING

Reproduction	**Egg-laying**
Clutch size	**1-2 eggs**
Incubation	**50-60 days** at 27-29 °C

PROTECTION AND PAPERWORK

CITES	**Not listed**
EU annex	**Not listed**
IUCN	**Least Concern (LC)**

About the species

Chondrodactylus turneri is a robust, medium-sized gecko with a broad, triangular head and a flattened body. It has large, keeled tubercles on the back, arranged in regular rows, which give the skin a rough look, and a tail with distinct rings of angular scales. The ground colour is sandy brown to medium brown, often with a reddish or greyish tinge, and dark crossbands run across the back, most distinct towards the front. Under the toes are broad adhesive lamellae, so the animal can climb on rocks and walls. The eyes are large and orange.

Adults measure about 10 cm from snout to vent and 15-22 cm including the tail. Weight is not known. Lifespan is probably 6-10 years, as in related geckos of the same size.

The species was described by John Edward Gray in 1864 as *Homodactylus turneri* and named after the British entomologist James Aspinall Turner. It was long regarded as a subspecies of *Pachydactylus bibronii*, and for many years it was called *Pachydactylus turneri*. The genus *Chondrodactylus* was expanded in 2005 to include a number of former *Pachydactylus* species. The boundary with the closely related *Chondrodactylus laevigatus* has been unclear, and parts of the older literature on *turneri* are in reality about *laevigatus*. This means that older care advice and distribution maps should be read with caution.

In the enclosure it is an animal to watch. It is fast, can jump several centimetres and is hard to catch if it escapes. Its temperament varies from day to day, and handling cannot be recommended.

Distribution and habitat

Chondrodactylus turneri occurs in southern and eastern Africa: South Africa, Botswana, Zimbabwe, Mozambique, Zambia, Malawi and Tanzania, and with a question mark also Eswatini. Kenya and Rwanda are also mentioned, and there are registered records from Kenya, Eswatini and Namibia. Some of the outlying records may be due to confusion with *laevigatus*, so the map shows only the countries where the species is best documented. In South Africa it is known from, among other places, Gauteng, Limpopo, Mpumalanga, KwaZulu-Natal and North West.

The type locality is Tete in Mozambique on the Zambezi River, but the animals of the type series probably come from several places in the lower Zambezi valley. The species has been introduced to Florida in the USA and probably also to New Zealand. The dots on the map are registered records, and they also include a few records outside Africa, which come from introduced animals.

> **Native range:** South Africa, Zimbabwe, Mozambique, Botswana, Eswatini, Tanzania, Malawi and Zambia.

HABITAT

Chondrodactylus turneri is nocturnal and lives on rocks and buildings. The habitats are scrub and dry acacia woodland in savanna, rock piles and dry woodland at the edge of the savanna, and also villages, where there is cover in the masonry and plenty of flies. What the sites have in common is many hiding places where the animal can shelter from the heat of the day.

In the wild, the geckos prefer large rocks with many crevices. Many animals share the same rocks, up to eight on a single one. Young animals are out in the open more often than adults, and activity varies with the phase of the moon and the time of night. The species is an ambush hunter that takes invertebrates and otherwise whatever it can catch and overpower.

Precise temperatures and humidity for the habitats are not documented. The climate is predominantly dry with a rainy season of a few months.

Read more: Humidity, misting and ventilation

Care

THE ENCLOSURE

A pair needs an enclosure of at least 60 × 40 × 40 cm (length × width × height), preferably 80 × 40 × 40 cm, because more space makes it easier to create both warm and cool zones. *Chondrodactylus turneri* moves little and lies still when undisturbed, so it is hides and structure that count, not volume. The care figures are partly borrowed from the close relatives *Chondrodactylus bibronii* and *Chondrodactylus angulifer*.

Furnish with large stones, cork bark and roots, so that many crevices appear at different heights. The stones must stand stably on the floor of the enclosure or be glued together, so that they cannot slide down onto the animal. A textured back wall of cork or foam gives more climbing surface. Coconut fibre works well as a substrate, and the female also likes to bury her eggs in it. Artificial plants or a few sturdy live plants give extra cover, and the animal does them no harm.

The lid must fit tightly and have ventilation. The species is fast and jumps, and a gecko that has escaped is hard to catch again.

TEMPERATURE

Keep 25-28 °C during the day, and create a warm spot, for example a stone under a spot lamp, where the temperature reaches 33-35 °C. The animals like to sit on the heated stone when the light is turned off and take the heat from it. At night the temperature may fall to room temperature, 18-22 °C.

Use a heat bulb or spot lamp at one end, controlled by a thermostat, so that the animal can choose between warm and cool. Measure with digital thermometers at both ends of the enclosure. The species has no known winter rest. Avoid long periods above 35 °C.

Read more: Heat and temperature

HUMIDITY AND WATER

Chondrodactylus turneri lives on dry rocks and in savanna, so the air should be kept relatively dry, around 30-50 %, as for its relatives *Chondrodactylus bibronii* and *Chondrodactylus angulifer*. Misting late in the evening or at night imitates natural conditions, and a water bowl mostly raises the humidity, while the animals hardly drink from it.

Still, put a shallow bowl of fresh water at the cool end, and change it regularly. Mist lukewarm water over part of the enclosure in the evening, so that the animal can lick the droplets, but let the substrate dry out again during the day. Keep a humid hide with slightly damp sphagnum or vermiculite ready, especially when the animal is about to shed and when the female is about to lay eggs.

LIGHTING AND UVB

Chondrodactylus turneri is nocturnal and sleeps in the crevices by day, so it does not need strong light. Use a timer to switch the light on and off, giving about 12 hours of day and complete darkness at night. Feel free to switch to slightly shorter days in winter.

UVB is optional, because the species spends the days in hiding. If you want to give a weak UVB tube for shade-dwelling animals (Ferguson zone 1), fit it over part of the enclosure and provide plenty of hides, so that the animal can choose for itself. Without UVB it is even more important to give calcium and vitamin D3 in the food. The hot spot can be a stone under a spotlight, which holds the heat even after the light has been switched off.

Read more: Lighting and UVB Read more: Calcium, vitamins and supplements

FEEDING

Chondrodactylus turneri has a good appetite and is not fussy. It eats crickets, cockroaches, mealworms, moths and grasshoppers. Crickets and cockroaches make a good staple, while moths and grasshoppers are a favourite treat in summer. It will also take newborn mice, but that is neither necessary nor a good habit.

The animal can take prey larger than its head, but do not often give insects that big. Adults are fed 2-3 times a week. Young animals need food more often. Many animals easily learn to take insects from tweezers, and feeding makes them less shy. A healthy adult gecko can go for two weeks without food if it has filled its belly beforehand, but only do this if necessary.

Dust the food with calcium, and give vitamin D3 at intervals, because all insects contain too little calcium. As in *Chondrodactylus angulifer*, give calcium at every meal for young animals and egg-laying females and once a week for other adults.

Read more: Feeder animals: keeping and breeding

BEHAVIOUR AND HANDLING

Chondrodactylus turneri is not an animal for handling. It can be wild and unpredictable. One day it basks calmly on a rock, and the next it bolts in panic as soon as anyone comes near. It is fast and can jump several centimetres. It suits the keeper who wants to watch a nocturnal animal through the glass. During feeding the shyness disappears, and the animals snap eagerly at the insects, so watch your fingers.

A pair can live together in the enclosure, and the adults may ignore the young, but that is not certain. One male with several females is not advisable, because after laying, a female can become very aggressive towards the other females, so that they fight violently. Males must be kept apart, because the males of related species are territorial. Keep the animals singly or as a pair, therefore, and be ready to separate them. In the wild several animals often share the same rock, but an enclosure is far more confined.

Breeding

SEXUAL MATURITY AND SEXING

In *Chondrodactylus turneri*, as in its relatives, males can be recognised by two bulges under the base of the tail, where the hemipenal pouches sit, and often by pores in front of the vent. Age and weight at sexual maturity are not known. The relative *Chondrodactylus angulifer* matures at 10-12 months, but females should wait until they are at least 18 months and in good condition, because the eggs demand a lot of calcium.

MATING

Breeding is fairly easy when the animals are well fed. The male courts by licking the female on the snout and luring her with squeaking sounds. The species has no known fixed breeding season or winter dormancy. Relatives such as *Chondrodactylus angulifer* are given a winter rest with lower temperature, drier air and shorter days for one to two months, but whether this is necessary in this species is not known.

Keep an eye on the female's weight and calcium supply, and separate the animals if she loses weight or is chased around.

Read more: Brumation and the seasons

EGG-LAYING AND CLUTCHES

The female lays one to two hard-shelled eggs at a time, like other geckos in the group. The number of clutches per year is not documented; close relatives lay two to six clutches per year.

Give the female a laying box with slightly damp sphagnum or damp sand, and look for eggs every day. The animals may also bury the eggs in coconut fibre in the substrate itself. The eggs are fragile once laid, so touch them as little as possible.

INCUBATION

At 27-29 °C and about 90 % humidity the eggs hatch after 50-60 days. It is not known whether temperature affects the sex of the young.

Keep the eggs on a slightly damp, never wet base, place them in a box with small ventilation holes, and do not turn them. Eggs that are left in the enclosure under good conditions can also hatch without an incubator. It is not the safest method, however.

Read more: Incubating eggs

REARING THE YOUNG

Size, weight and growth of the hatchlings are not known. Keep the hatchlings in small boxes that are easy to keep clean, with kitchen roll or a thin layer of substrate, a humid hide and a couple of flat stones. Give small insects, for example small crickets dusted with calcium and vitamins, and weigh them regularly so that you can follow their development.

The adults may ignore the young, but the young are easier to feed in a small box of their own. Split them up if they begin to fight or if any become noticeably larger than the others.

Health and common mistakes

Chondrodactylus turneri has no known diseases of its own, so the advice is based on general gecko care and on its relatives. The typical mistakes are:

- Too little calcium and vitamin D3, especially in young animals and egg-laying females. It causes soft bones and tremors. Dust the food, and provide a dish of calcium.
- Too high humidity or a constantly wet substrate, which causes mould and skin problems.
- Shed skin stuck on the toes because there is no humid hide. Provide a humid box, and gently loosen the remnants with lukewarm water.
- Overfeeding. The animal is greedy and eats more than it needs.
- Escape. The species is fast and jumps, so have a tight-fitting lid.
- Stress and fighting if animals are kept together without enough hides.

A healthy animal has clear eyes and a plump tail. See a vet experienced with reptiles if the gecko loses weight, does not eat for several weeks or seems limp.

Always ask someone who knows

This guide is a good place to start, but it cannot replace experience. Animals differ, and much of what matters most is learned from people who have kept the species for years. Talk to a breeder, an experienced keeper or a vet who knows reptiles and amphibians before you get the animal - and again if anything looks wrong.