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GECKOS

Northern spiny-tailed gecko

Strophurus ciliaris

Strophurus ciliaris is a slender, delicate gecko from inland and northern Australia with long spines above the eyes, a spiny tail and a brightly coloured mouth. It climbs about in shrubs and spinifex, likes to bask and can squirt a foul-smelling fluid from the tail if threatened.

Family: Diplodactylidae Former name: *Diplodactylus ciliaris* Published 15 November 2026

KEY FACTS

THE ANIMAL

Adult size	**12-15 cm** total length incl. tail
Lifespan	**6-10 years**
Active	**By day, at dusk and at night**
Lifestyle	**Arboreal**
Habitat	**Semi-desert**
Difficulty	**Intermediate**

CARE

Min. enclosure	**30 × 30 × 45 cm** L × W × H for 1 adult
Temperature, day	**25-29 °C**
Basking spot	**30-32 °C**
Temperature, night	**18-25 °C**
Humidity	**30-50%**
UVB	**Recommended** Ferguson zone 2
Diet	**Insects**
Kept	**Singly, in pairs or one male with several females**

BREEDING

Reproduction	**Egg-laying**
Sexually mature	**12-24 months**
Clutch size	**1-2 eggs**
Clutches per year	**6-10**
Incubation	**55-65 days** at 27-29 °C

PROTECTION AND PAPERWORK

CITES	**Appendix III**
EU annex	**Annex C**
IUCN	**Least Concern (LC)**

About the species

Strophurus ciliaris is the largest of the spiny-tailed geckos in the genus *Strophurus*. The species name *ciliaris* means "with eyelashes" and refers to the row of long spines above each eye. More spines run down along the tail. The species was described by Boulenger in 1885 as *Diplodactylus ciliaris* and has since been moved to *Strophurus*.

The colour is highly variable, from uniform grey with a few black or orange scales to rich brown with a pattern of grey, white and orange scales. The animal can change between cream and chocolate brown depending on the time of day, temperature, light and mood, and many have a contrastingly coloured tail with patches of yellow to orange. Females are clearly larger than males.

The size is given differently. Figures for the total length range from up to 14 cm to 15-16 cm, and an average length of 9 cm probably refers to the body without the tail. The fact box therefore shows a total length of 12-15 cm. There are no reliable weight figures. In captivity the spiny-tailed geckos live 6-10 years or more.

Like all species in the genus, the gecko can squirt a viscous, foul-smelling and harmless fluid from the tail at enemies such as birds. If it feels threatened, it gapes to show a brightly coloured palate while raising the tail. Two subspecies are recognised: the tropical *S. c. ciliaris* in the north and the desert form *S. c. aberrans* in the dry interior.

In the enclosure the species is lively and fairly bold, but not an animal for daily handling. It is mostly for watching, especially in the evening, when it comes down the branches to meet the insects.

Distribution and habitat

Strophurus ciliaris occurs only in Australia, where it lives in the interior and northern part of the continent. The subspecies *ciliaris* is known from the northern half of the Northern Territory and right up into the far north of Western Australia, with the type locality at Port Darwin. The subspecies *aberrans* occurs from the north-west coast of Western Australia through the dry interior to the southern Northern Territory, northern South Australia, western New South Wales and south-western Queensland.

Just under half of all recorded finds are from the Northern Territory, just under a third from Western Australia and about a tenth from South Australia. The rest are divided between Queensland and New South Wales. The species has not been recorded in Victoria.

> **Native range:** Australia.

HABITAT

Strophurus ciliaris lives in dry and semi-arid country: open shrubland, acacia scrub, subtropical scrub and tussocks of spinifex grass. It is more arboreal and shrub-dwelling than most desert geckos and often sits in the open on thin branches. The spiny-tailed species of the genus are known to bask in full sun among the small branches, and this species is also seen basking by day, even though it is mainly nocturnal.

At night it hunts insects and other arthropods among the branches and goes down to the ground only to get from shrub to shrub. It has also been seen licking sap from acacias. The climate in the distribution area ranges from tropical in the north to dry desert climate in the interior, with hot days, cooler nights and a cool dry season. There are no detailed temperature and humidity measurements for the species in the wild, so the enclosure figures are based on experience in captivity.

Read more: Humidity, misting and ventilation

Care

THE ENCLOSURE

Height matters more than floor area, because *Strophurus ciliaris* is a climber. Single animals, pairs and trios can be kept in enclosures of 30 × 30 × 45 cm (length × width × height) or larger, and that is a good minimum for one adult. For a pair or a trio a larger enclosure, for example 40 × 40 × 60 cm, is preferable; that measurement is an estimate. Keep males apart.

Furnish it with many slanting and vertical branches, preferably dry branches with forks, so that the gecko can climb, bask and rest in the shade. A couple of pieces of cork bark provide hiding places, and dry, tall grass works as additional cover. The animal can climb smooth surfaces, so the enclosure must be tightly closed. For substrate, use a 1-2 cm layer of sand. Young animals manage in small, simple boxes with mesh in the lid and a couple of branches.

TEMPERATURE

The enclosure for *Strophurus ciliaris* should have a warm zone at the top and a cooler zone at the bottom. Provide a warm spot of about 32 °C high up and 25-27 °C at the bottom in summer. At night the heat is switched off completely, and the temperature may fall to room temperature, about 22-25 °C. During winter dormancy the day is at 24-29 °C and the night down to about 18 °C.

The gecko tolerates cold well, and it copes with single-digit temperatures in winter, but it is still wise to give a little warmth by day. Use a small heat bulb or a halogen spot at one top corner of the enclosure, controlled by a thermostat, and measure with a thermometer both at the top and at the bottom. Check that the animal is not gaping or hiding in the shade all day; if so, it is too hot.

Read more: Heat and temperature Read more: Brumation and the seasons

HUMIDITY AND WATER

Strophurus ciliaris needs low humidity. Concrete figures are not documented, but 30-50 % suits the species' dry habitats. Mist the sides of the enclosure and the branches lightly in the evening two or three times a week, and let it dry out completely, so that almost no droplets are left the next morning. The gecko drinks droplets from leaves and branches rather than from a bowl, but a small bowl of fresh water should still be available.

Keep the substrate dry. Wet sand causes mould, and the females lay eggs where it is damp, so the only damp spot should be the lay box. At shedding a little extra misting can help. During winter dormancy, mist only once a week.

LIGHTING AND UVB

Strophurus ciliaris is active at dusk and at night, but also basks by day. UV light is probably beneficial, even though animals have also lived long without it. UVB is therefore recommended. A good solution is a UV gradient with a UV index of about 3.0 at the highest point and shade in the rest, corresponding to Ferguson zone 2. Use a UVB tube, and make sure the animal can retreat from the light.

For breeding, daylight can be 14 hours in summer and 6 hours in winter. Without breeding, 12 hours of light in summer and 10 in winter is a simple rhythm. It must be dark at night.

Read more: Lighting and UVB

FEEDING

Strophurus ciliaris lives on arthropods and is not fussy. Adult animals get crickets, roaches and other insects of a suitable size three times a week, preferably gut-loaded with vegetables and insect feed for a day or two beforehand. The gecko has a surprisingly large mouth and takes large prey. Soldier fly larvae or hornworms can be given now and then for variety.

Give calcium and a vitamin and mineral supplement according to the manufacturer's instructions, and use calcium with vitamin D3 if there is no UVB. Egg-laying females need extra calcium. Young animals get small crickets and large fruit flies (*Drosophila hydei*) every day and later every other day. Feed in the evening, when the light goes off, and only when it is warm enough for the food to be digested. Fruit or fruit paste is not described as part of the diet.

Read more: Feeder animals: keeping and breeding Read more: Calcium, vitamins and supplements

BEHAVIOUR AND HANDLING

Strophurus ciliaris is curious and bold at feeding and often comes forward to meet the insects, but it is easily stressed by handling and is not an animal to be picked up every day. When in danger it can squirt its foul-smelling fluid, and it can drop its tail. The tail grows back, but often in a different shape. Wash your hands afterwards, and avoid getting the fluid in your eyes.

A trio can live together over the summer without signs of aggression, and the sexes are separated during winter dormancy. Never keep two males together, and watch for bites and stress. Tameness and handling are only sparsely described, so proceed with caution.

Breeding

SEXUAL MATURITY AND SEXING

Males of *Strophurus ciliaris* are recognised by the two hemipenal bulges at the base of the tail, which typically become visible at 6-12 months of age. Females are larger than males. Sexual maturity usually occurs at 12-18 months, but some animals take up to 24 months. Breeding too early drains the female of calcium, so wait until she is fully grown and in good condition.

MATING

Strophurus ciliaris normally breeds in a particular season, but can reproduce all year round in captivity. The best results come from separating male and female in late autumn, when the days and temperature fall. A cool period of eight to ten weeks is given, with daytime temperatures of about 24-29 °C and night-time temperatures down to about 18 °C, shorter days, misting once a week and only a little food. When temperature, light and food rise again, the breeding season gets under way, and the animals are put together.

Pairs can also live together all year without problems.

EGG-LAYING AND CLUTCHES

The female of *Strophurus ciliaris* normally lays two eggs at a time, occasionally only one. During the season a new clutch comes every three to five weeks. A season typically gives 6-8 clutches, and up to 10 clutches in a year have been recorded. This is hard on the female, so cut down on the food after about three clutches to dampen egg production, and give plenty of calcium.

The female sheds one to seven days before laying and then has a distinctly thick belly. Place a lay box on the bottom, for example an upturned terracotta dish or a plastic box with a hole in the lid, with 5 cm of damp sand, a mixture of sand and peat or damp sphagnum. The female goes in at night and lays the eggs right at the bottom. Keep the rest of the enclosure dry, so that she does not lay eggs elsewhere.

INCUBATION

The eggs of *Strophurus ciliaris* are carefully taken out and placed in a small box with perlite mixed 1:1 with water and incubated at 27-29 °C. At that temperature they hatch after 55-60 days. The substrate should be evenly damp without being wet.

Temperature-dependent sex determination has not been studied in the species. Do not turn the eggs, and mark the top with a pencil.

Read more: Incubating eggs

REARING THE YOUNG

The young of *Strophurus ciliaris* are very small, but there are no reliable figures for weight and length at hatching. They are raised individually in small tubs (about 1 litre) with mesh in the lid and kept like the adults. They eat small crickets, large fruit flies and bean weevils and are fed first every day, later every other day. If the young are fed very heavily, a female can lay eggs as early as her first year, but this is not recommended. Growth curves are not described.

Health and common mistakes

Illnesses in *Strophurus ciliaris* are only sparsely described, so the following is based on general experience with small insectivorous geckos:

- Too little calcium and vitamin D3, especially in the young and in breeding females with many clutches. It causes soft bones and tremors. Dust the insects and provide UVB.
- Overbreeding. A female who lays clutch after clutch without rest becomes thin and weakened. Cut down on the food and take a break.
- An enclosure that is too damp, with mould and skin problems. Keep the substrate dry, and mist only in the evening.
- Remnants of skin on toes and tail, which can constrict and cause loss of toes. Give a little extra humidity at shedding.
- A dropped tail from handling or fighting. The tail grows back, but looks different.

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