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## Western Indian leopard gecko

# *Eublepharis fuscus*

A stocky, ground-dwelling gecko from western India with dark spot bands across the back, velvety skin and movable eyelids. It is nocturnal, eats insects and needs higher humidity than its close relative *Eublepharis macularius*. Only a few husbandry experiences have been described for this species specifically, so much of the guidance is based on the relative.

Family: Eublepharidae  Former name: *Eublepharis macularius fuscus*

KEY FACTS

### THE ANIMAL

| | |
|---|---|
| Adult size | **18-25 cm**<br>snout-vent length |
| Lifespan | **10-20 years** |
| Active | **At dusk and at night** |
| Lifestyle | **Rock-dwelling and terrestrial** |
| Habitat | **Dry forest and rocky terrain** |
| Difficulty | **Intermediate** |

### CARE

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|---|---|
| Min. enclosure | **90 × 45 × 45 cm**<br>L × W × H for 1 adult |
| Temperature, day | **22-28 °C** |
| Basking spot | **32-35 °C** |
| Temperature, night | **16-21 °C** |
| Humidity | **60-75%** |
| Water | **Water dish** |
| UVB | **Recommended**<br>Ferguson zone 1 |
| Diet | **Insects** |
| Kept | **Singly or one male with several females** |

### BREEDING

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|---|---|
| Reproduction | **Egg-laying** |
| Clutch size | **1-2 eggs** |
| Clutches per year | **6-8** |
| Incubation | **35-89 days**<br>at 27-32 °C |

### PROTECTION AND PAPERWORK

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

## About the species

*Eublepharis fuscus* is a robust gecko with movable eyelids, so it does not need to lick its eyes clean as many other geckos do. The skin is velvety, the body yellowish brown with dark spots, and the spots lie in distinct bands on the back. The spots are less sharply defined and the colours more subdued than in *E. macularius*. The animal has a relatively short, thick tail that is used as a fat store. The toes have no adhesive lamellae, so the species cannot climb smooth, vertical glass.

*E. fuscus* differs from *E. macularius* in details of the scalation. The middle lamellae under the toes are smooth rather than tuberculate, there is one broad, pale dorsal band instead of two, and there are eight scales behind the nostrils instead of six. The small tubercles on the back are cone-shaped and smaller than the distance between them. The species was originally described as a subspecies of *E. macularius* by Achim-Rüdiger Börner and has been treated as a separate species since 1997. The scientific name means dark or dusky.

The greatest measured length from snout to vent is 25 cm, and with the tail an adult animal is longer. The species is still poorly known, and only a few described experiences with it in captivity exist. What is stated about humidity, temperature and light is based on the little that has been described for the species; the rest of the care and breeding is borrowed from *E. macularius* and should be read as a good starting point, not as an answer key for *E. fuscus*. Keep an eye on the animal's weight and behaviour, and adjust the care accordingly.

Read more: Humidity, misting and ventilation

## Distribution and habitat

*Eublepharis fuscus* is found in western India. It has been recorded in northern Karnataka, in Maharashtra and in Gujarat. The type locality lies about 60 km north of Mumbai. Finds from the Western Ghats mountains have been described, and it is unresolved whether the range also extends into south-eastern Pakistan.

The exact limits of the species have not been established. The map therefore shows only recorded finds and a centre point, and finds outside India may be misidentified or come from captive animals.

> **Native range:** India.

### HABITAT

The species lives in scrub and bush forest, on wooded hills and in areas with large stones and boulders in western India. It lives further south than *E. macularius* and in a more humid climate. It is ground-dwelling and nocturnal, and by day it hides in holes, crevices and under stones. Its food consists of arthropods, including scorpions and crickets.

No measurements of temperature and humidity at the species' habitats exist. Western India has a distinct monsoon rainy season and a long dry season, and it is reasonable to assume that the animals are most active and find most food in the more humid months. This is an assumption and not documented. In the enclosure the species needs a warm daytime area, cooler nights and markedly higher humidity than *E. macularius*.

Read more: Feeder animals: keeping and breeding

## Care

### THE ENCLOSURE

The enclosure dimensions are borrowed from *Eublepharis macularius*. An adult needs an enclosure of at least 90 × 45 × 45 cm (length × width × height), and floor area is more important than height, because the species lives on the ground. Bigger is better, as long as the layout ensures a clear temperature gradient. The enclosure should have a mesh or ventilation lid so that the humidity does not become stagnant.

Furnish with at least two hides, one in the warm and one in the cold end, and an extra humid hide in the cold half. The humid hide is filled with lightly dampened substrate, but not with sphagnum, which the animal may swallow. A natural substrate with coconut fibre suits this species best, for example unfertilised soil mixed with coconut fibre and a little sand, at least 10 cm deep, so that the animal can dig and so that the substrate can hold the moisture. Paper or kitchen roll is a safe alternative for sick or weakened animals and for quarantine. Flat stones, cork and branches provide variety, and the animal likes to climb a little on low stones and branches.

As a starting point, keep the animals separately. Several animals together can lead to lost tails, bites and, in the worst case, broken bones, especially males. A male with one or two females or a small group of females can work if there is plenty of space, but the animals must be able to be separated immediately.

Read more: Heat and temperature Read more: Quarantine and hygiene

### TEMPERATURE

In summer the hottest spot under the heat source should be around 35 °C, a warm hide 32-33 °C and the rest of the enclosure 22-28 °C, coolest at the opposite end. At night the temperature may drop to around 16-21 °C; a drop at night is healthier than constant heat around the clock. In winter the temperature is lowered to around 20 °C. The gradient and the night temperature are borrowed from *Eublepharis macularius*.

Heat best with a halogen or incandescent bulb above the enclosure, so that the heat comes from above as from the sun. If a little warmth is needed in a hide, a heat mat under the hide can be used, but only controlled by a thermostat and covered by 2-3 cm of substrate. Never use heat rocks. Coloured night lamps are not necessary and can disturb the animal's daily rhythm. If it is cold at night, a ceramic heat emitter in a protected fitting is better. Measure with a digital thermometer or an infrared thermometer, and check both the warm and the cold end.

### HUMIDITY AND WATER

*Eublepharis fuscus* needs much higher humidity than *E. macularius*. Humidity should be 60-75%, up to 85% at night if possible. In winter the humidity may fall a little. A coconut fibre substrate kept lightly damp, and misting in the evening, gives the right climate. At the same time provide good ventilation so that the air does not become stagnant.

Also provide a humid hide with lightly dampened substrate for shedding and egg laying. Shedding problems with stuck remains on the toes are common in enclosures that are too dry. There should always be a stable, low bowl of fresh water that the animal cannot drown in. Change the water daily, and never add vitamin drops to the water.

Read more: Common diseases and signs of illness

### LIGHTING AND UVB

The species is active at dusk and at night, but light during the day regulates the daily rhythm and stimulates appetite. Give around 14 hours of light in summer and gradually turn it down to around 8 hours in winter, preferably controlled by a timer. Dark at night.

A weak UVB light for shade-dwelling animals (Ferguson zone 1) is recommended all year round. Use a T5 tube of 2.5-7%, mounted above or inside the enclosure, so that the UV index at the animal's resting place is around 0.5-1.5. Always provide shade in part of the enclosure. UVB tubes lose strength and must be replaced after about 12 months. If the animal does not receive UVB, the food must be dusted with a supplement containing vitamin D3.

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

### FEEDING

The animal eats only insects. Give crickets, mealworms and giant mealworms, dubia roaches, silkworms and black soldier fly larvae in rotation. Waxworms and butterworms are fatty and are only a treat once a week. Choose insects that are no longer than the animal's head and no thicker than half its width. Do not give insects caught in the garden.

As a rule of thumb, the animal gets as many insects as it can eat in 15 minutes. Young are fed daily, young adults every second to third day and adults with a thick tail every fifth day. Do not leave live insects in the enclosure, because crickets can bite a sleeping gecko.

Insects are fed a nutritious diet for at least 24 hours before they are passed on. Dust them with calcium without D3 when there is UVB, and with calcium with D3 when there is not. Occasionally give a multivitamin with vitamin A rather than beta-carotene. Periods of appetite loss during winter or the mating season are normal, as long as the weight is reasonably stable.

### BEHAVIOUR AND HANDLING

The species is shy by day and active at dusk and at night. Let new animals settle in for two weeks before they are handled, and then accustom them to the hand with short sessions of around 5 minutes. Support feet, body and tail, and sit close to the floor in case the animal jumps. Never grab the tail, which can be dropped. The sounds can be clicks, squeaks, barks and, in young, screams. Quick tail twitches show excitement, while slow tail waving together with an upright posture means that the animal wants to be left alone.

Males must not be kept together, and the group should be protected against bites and lost tails. The species is regarded as at least as hardy as *E. macularius*.

## Breeding

### SEXUAL MATURITY AND SEXING

In *Eublepharis macularius* the sex is first visible when the animal is around 13-15 cm long: the male has a row of preanal pores in front of the vent and two oval bulges behind it that contain the hemipenes, while the female lacks both. Age and weight at sexual maturity are not documented for *E. fuscus*. Females of the much smaller *E. macularius* are sexually mature at around

45 g and nine to ten months, and those figures cannot be transferred to the larger *E. fuscus*. Do not put a female to breeding until she is fully grown and in good condition.

### MATING

In *E. macularius* the breeding season in the northern hemisphere typically runs from January to September. Females more than a year old can be cooled for six to eight weeks at 23-26 °C while still having access to water, and first-year females should not be cooled, because they are still growing. Stop feeding ten days before the cooling.

The male is put with the female. He vibrates his tail, grips her by the scruff of the neck and mates for a few minutes. Remove the female afterwards. The mating is normal even though it seems violent. A longer winter rest for adult animals is an advanced method that requires the animal to be healthy and to have a thick tail. No details are known for *E. fuscus*.

### EGG-LAYING AND CLUTCHES

In *E. macularius* the female lays eggs 16-28 days after mating. The clutch is two eggs, and the first clutch may be only one. The female then lays a new clutch at intervals of 15-22 days for four to five months, typically six to eight clutches per season, and around 80-100 eggs in a lifetime. The numbers and intervals may be different in *E. fuscus*.

Place a laying box of at least 15 × 15 cm and 10 cm high with damp vermiculite or a damp peat mix in the enclosure. The box should have a hole in the lid so that the females can get in and out. The substrate should be damp like fresh soil, but not wet. Give the female plenty of calcium and insects throughout the season. Poor nutrition is a frequent reason for infertile eggs.

### INCUBATION

The eggs are laid in a small box with 2-5 cm of vermiculite or perlite, mixed with equal parts water by weight, and buried halfway with at least 1 cm between each egg. The lid must fit tightly, with five to ten small air holes. If the eggs are dented, the medium is too dry. Then mist the inside of the box, not directly on the eggs.

Temperature determines sex, and this also applies to *E. fuscus*, but the precise limits are known only from the relative. In *E. macularius*, 27 °C gives only females, around 30 °C a roughly equal distribution and 32 °C almost only males. Below about 23 °C the eggs may die. Incubation takes 35-89 days, the warmer the faster. Use an incubator, and never put eggs in an incubator without a medium and moisture, because then they dry out.

Read more: Incubating eggs

### REARING THE YOUNG

In *E. macularius* the young are best reared singly in a small, simple box with paper on the bottom, a hide and a water bowl, until they are around 18 cm long. Keep 32 °C under the hide and 21-25 °C in the cold end. The young shed within the first day and eat after a few days.

Give small insects daily, dusted with calcium, and weigh them regularly. Rearing of *E. fuscus* is not documented.

## Health and common mistakes

No documented knowledge of diseases in *Eublepharis fuscus* exists, so the information is borrowed from *E. macularius*. The most frequent faults in care are:

- Too little calcium, D3 and UVB, which cause bone loss with soft jaws and bent limbs.
- Stuck shed remains on the toes, caused by too low humidity. The species must be kept more humid than *E. macularius*.
- Swallowed substrate materials, especially in young or weakened animals. Provide a suitable substrate and avoid fine sand for them.
- Respiratory infection in a cold enclosure with stagnant, humid air. High humidity requires good ventilation.
- Lost tail from handling or fights. The tail grows back, but often with a different appearance.

Weigh the animal once a week and note weight, feeding and shedding. An animal with a thick tail is healthy. Watch for sudden weight loss, and see a vet with experience in reptiles if the animal loses weight, does not eat for several weeks without being in winter rest 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.