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GECKOS

East Indian leopard gecko

Eublepharis hardwickii

A stocky, ground-dwelling gecko from the forests of eastern India and Bangladesh with broad dark brown and pale bands and a thick tail that stores fat. It is closely related to *Eublepharis macularius*, but must be kept cooler and more humid and is still rare in vivaria.

Family: Eublepharidae

KEY FACTS

THE ANIMAL

Adult size	**20-23 cm** total length incl. tail
Weight	**50-60 g**
Lifespan	**15-20 years**
Active	**At night**
Lifestyle	**Rock-dwelling and terrestrial**
Habitat	**Dry forest and rocky terrain**
Difficulty	**Intermediate**

CARE

Min. enclosure	**90 × 45 × 45 cm** L × W × H for 1 adult
Temperature, day	**25-28 °C**
Basking spot	**28-30 °C**
Temperature, night	**21-23 °C**
Humidity	**60-80%**
Water	**Water dish**
UVB	**Optional**
Winter rest	**15-18 °C** 6-12 weeks
Diet	**Insects**
Kept	**Singly**

BREEDING

Reproduction	**Egg-laying**
Sexually mature	**12-18 months**
Clutch size	**1-2 eggs**
Clutches per year	**1-6**
Incubation	**50-70 days** at 26-32 °C

PROTECTION AND PAPERWORK

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

About the species

Eublepharis hardwickii is a stocky gecko with short legs, short toes and a thick tail that swells up and ends in a point. Unlike most other geckos it has movable eyelids and claws. The body is covered in small, flat scales, and between them sit numerous round, cone-shaped tubercles. The male has 14-18 pores in front of the vent.

The markings consist of broad dark brown bands on a pale ground: a band over the head, two very broad bands across the back and three or four rings around the tail. The bands are edged with black, and the underside is white. The species grows to 20-23 cm including the tail and typically weighs 50-60 g, but can become heavier. Each animal has its own head pattern, and the broad bands are kept in adult colouring, so the colour change from young to adult is less marked than in the other species in the genus.

The species was described by John Edward Gray in 1827 and is the type species of the genus *Eublepharis*. The species name honours Thomas Hardwicke, an English naturalist and collector who served in the Bengal Army. New species in the genus have been described from India, so older finds may be confused with closely related species.

The animal is shy, but allows itself to be lifted by hand and takes many kinds of insects. Prey is detected by movement. The species can eat smaller conspecifics, so the animals should be kept singly. Locally in Odisha it is believed that the species is venomous, but it is not. When surprised it can emit a shrill, vibrating sound.

Distribution and habitat

Eublepharis hardwickii is found in eastern India and in Bangladesh. In India it has been reported from Odisha, West Bengal, Jharkhand, Bihar, Madhya Pradesh, Uttar Pradesh and Tamil Nadu, including the Anaimalai Hills in the south. The type locality is given as Chittagong, and in Bangladesh the species is known from the south-eastern part of the country. Finds from Dalma and Saranda in Jharkhand are recent additions to the range map.

The gecko has also been found in towns, for example in a public bathhouse in Waltair near Visakhapatnam, so it can live close to people.

> **Native range:** India and Bangladesh.

HABITAT

The species is a strictly nocturnal ground dweller that lives in humid and dry deciduous forest in low mountain regions, typically 500-800 m above sea level, though it is reported up to 1,500 m. By day it hides under large stones, in crevices and in hollows at the foot of trees. At night it is seen on forest roads and open surfaces in the summer half of the year and the rainy season, especially during rain showers. It can also climb.

The region is marked by monsoon. The animals are most active in the rainy season from June to September, when humidity can reach 80-100%, and the temperature rarely exceeds 30 °C by day and falls to 22-24 °C at night. From December to March the climate is drier and cooler, with around 20 °C by day and 13 °C at night, and in that period the animals are inactive. It is thus a cooler and more humid species than *Eublepharis macularius*, and the enclosure must be set up accordingly.

Read more: Humidity, misting and ventilation

Care

THE ENCLOSURE

An adult should have an enclosure of at least 90 × 45 × 45 cm (length × width × height), the same minimum as for *Eublepharis macularius*. Floor area is the most important, because the gecko lives on the ground, but it likes to climb on stones and branches.

A naturalistic enclosure suits the species best, because it is shy and otherwise hides all the time. Use a substrate of soil mixed with coconut fibre, ideally with live plants, dry leaves and moss on parts of the floor. Damp soil and moss keep the humidity up. Provide many hides of stone, bamboo and wood with different humidity, so that the animal can choose a dry or a humid hide, and set out a humid hide with slightly damp peat or moss, which the females also use for egg laying. Paper or kitchen roll is a safe choice for young and in quarantine. Fine sand should be avoided.

The enclosure should have ventilation so that the humidity does not become stagnant.

Read more: Quarantine and hygiene

TEMPERATURE

Eublepharis hardwickii must be kept cooler than the other species in the genus. By day the temperature should be 25-28 °C and the hottest spot 28-30 °C, not warmer. A heat mat controlled by a thermostat under one end is a good heat source; spotlights are not necessary. At night the temperature should drop 2-4 degrees, to around 21-23 °C.

In winter adult animals are given a rest period of 2-3 months, typically from December to February, which imitates the dry, cool season. Stop feeding about two weeks beforehand so that the gut is empty, then lower the temperature gradually over a couple of weeks to 15-18 °C, and turn off the light. There must still be water and a humid hide. Raise the temperature gradually again afterwards. Young and weak animals should not be given a winter rest.

Measure the temperature with a digital thermometer in both the warm and the cool end. Heat rocks without control should not be used.

Read more: Heat and temperature

HUMIDITY AND WATER

Humidity must be far higher than in *Eublepharis macularius*, namely 60-80%. Mist the enclosure morning and evening, preferably with lukewarm water, and keep the moss and the planting soil damp. During the winter rest, misting is reduced, but the humid hide is kept damp.

Wild-caught animals often do not drink from a bowl, but lick the droplets off their heads and the surroundings after misting. Captive-bred animals also drink from a bowl. Provide a low bowl of fresh water and change it often, but also make sure that the animal can drink droplets after misting.

Read more: Buying animals: captive-bred, wild-caught and transport

LIGHTING AND UVB

The species is strictly nocturnal and most active in the first hours after dark. Give around 12 hours of light a day and up to 14 hours in the breeding season. During the winter rest light is not necessary. The animals prefer to come out when the light in the enclosure is off and the room is dimmed.

UVB is not necessary for adult animals, because they hide by day, but a full-spectrum or weak UVB tube for young and for live plants is an advantage. If UVB is used, there must be plenty of shade. Without UVB the calcium must contain vitamin D3.

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

FEEDING

Eublepharis hardwickii lives exclusively on insects and detects prey by movement. It takes crickets, grasshoppers, cockroaches and mealworms, but some animals will not take mealworms. Silkworms, waxworms and superworms are fatty and are given only as a treat. Feed the feeder insects a nutritious diet before they are passed on.

Adults receive 4-6 insects 3-4 times a week. Overfeeding is a common mistake. Females in the breeding season are fed every other day, and the interval is lengthened again once the egg laying is over. Young are fed 4-5 times a week, the smallest preferably daily. Remove insects that have not been eaten within a day.

Calcium is particularly important for the species. Dust the insects with calcium at most feedings, and also place a small dish of calcium powder with D3 in the enclosure.

Read more: Feeder animals: keeping and breeding

BEHAVIOUR AND HANDLING

The species is shy and calm, slower than *Eublepharis macularius*, but it becomes quick when food arrives. It tolerates handling and can become tame with regular contact. Give a new animal a couple of weeks in peace before you begin to handle it, and always support body and tail. Never grab the tail, because it can be dropped and grows back with a different appearance.

Males must never be kept together; they are territorial and fight. Females can be kept together with enough space and one hide per animal, and pairs or groups can live together all year, but this requires experience and close supervision. The safest approach is to keep the animals singly and only put them together for breeding. Young must not be kept with larger animals, because cannibalism is seen in the species.

Breeding

SEXUAL MATURITY AND SEXING

The male has 14-18 pores in an angular row in front of the vent and a distinct bulge at the base of the tail. Females may have weak pores, but they are far less distinct. The sex can be seen from around three months of age, but it is harder than in *E. macularius*, especially in young animals.

The animals become sexually mature after 12-18 months, depending on how much they are fed. A female should weigh at least 35-40 g before she is put to breeding.

MATING

Breeding is triggered by the winter rest. When the temperature has been raised again and the animals eat normally, the male is put with the female. A male can mate with several females. Watch the animals the first few nights, and remove the male if there is unrest.

Within about six weeks the females grow thicker, and the eggs can be sensed through the belly. Separate males and females after the season so that the females can regain their strength.

EGG-LAYING AND CLUTCHES

The female lays one or two leathery eggs of about 20 × 10 mm at a time and buries them. The season runs from April to June, and a female can lay up to 5-6 clutches, but often fewer. She stops eating a couple of days before laying, so she must be in good condition between clutches.

Place a laying box with slightly damp peat or coconut fibre in the enclosure, and keep it damp at all times. Remove the eggs daily without turning them, so that the young do not hatch in the enclosure and get eaten by the adults.

INCUBATION

The eggs can be incubated in vermiculite, coconut fibre or other common substrates, slightly damp, in a box with a couple of small air holes in the lid. Air it once a week, and remove condensation from the lid.

At 26-32 °C the eggs hatch after 50-70 days, fastest at high temperature. Temperature appears to influence sex: 26-28 °C gives females and 32 °C males, while temperatures in between give both sexes. This seems less certain than in *E. macularius*, and it is difficult to get males, so much is still unresolved.

REARING THE YOUNG

The young are about a quarter of the size of the adults when they hatch. Keep them singly in small boxes, set up like the adults' enclosure, or with damp kitchen roll in the first few days. They eat for the first time after 3-5 days or after the first shed, which comes after about ten days.

Give small crickets dusted with calcium 4-5 times a week, the smallest daily, and weigh the young regularly. Never keep young with larger animals, and be careful about putting young together, because cannibalism is seen. Move them to larger enclosures as they grow.

Health and common mistakes

Only a little species-specific health data exists for *Eublepharis hardwickii*. The typical problems are:

- Calcium deficiency and brittle bones (MBD), especially in young. This causes soft jaws, bent legs and tremors. Give calcium at almost every feeding and a dish of calcium in the enclosure. At the first signs in young, more calcium and UVB are needed, and a vet should see the animal.
- Conditions that are too dry, which cause shedding problems with skin remains on the toes and tail tip. Keep humidity up, and provide a humid hide.
- Too high a temperature. The species tolerates heat less well than *E. macularius*; keep the hottest spot below 30 °C.
- Stagnant, wet air without ventilation, which can cause respiratory and skin infections.
- Intestinal blockage if small animals swallow sand or loose substrate.
- Lost tail from handling or fights. The tail grows back, but never looks the same, and the animal loses part of its fat store.
- Parasites, which can cause weight loss and loose droppings. Have a faecal sample examined.

Weigh the animal regularly and note weight, appetite and shedding. Weight loss is often the first sign of illness. See a vet with experience in reptiles if the animal loses weight, does not eat for several weeks outside the winter rest or seems limp.

Read more: Common diseases and signs of illness

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.

The full guide with map and updates: herpy.org/en/geckos/eublepharis-hardwickii