herpy

LACERTIDS

Asian Grass Lizard

Takydromus sexlineatus

Takydromus sexlineatus is a slender, diurnal lizard with an exceptionally long tail, found in tall grass and low vegetation in South-East Asia. It reaches 20-30 cm, most of which is tail, and feeds on small insects. The species is tropical and does not need brumation, but it dries out quickly and needs a tall, densely planted enclosure with moderate humidity.

Family: Lacertidae

KEY FACTS

THE ANIMAL

Adult size	**20-30 cm** total length incl. tail
Lifespan	**5-7 years**
Active	**By day**
Lifestyle	**Arboreal and terrestrial**
Habitat	**Savanna**
Difficulty	**Intermediate**

CARE

Min. enclosure	**60 × 40 × 60 cm** L × W × H for 2 adults
Temperature, day	**25-30 °C**
Basking spot	**34-40 °C**
Temperature, night	**20-23 °C**
Humidity	**60-70%**
Water	**Water dish**
UVB	**Recommended** Ferguson zone 2
Diet	**Insects**
Kept	**In pairs or one male with several females**

BREEDING

Reproduction	**Egg-laying**
Clutch size	**1-4 eggs**
Clutches per year	**2-5**
Incubation	**40 days** at 26 °C

PROTECTION AND PAPERWORK

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

About the species

Takydromus sexlineatus is a small, extremely slender lizard whose tail is normally more than three times as long as the body. It is the relatively longest tail of any lizard. The body (snout to vent) is typically 5-7 cm, with females averaging about 6 cm, and adults reach 20-30 cm including the tail. Hatchlings measure about 2 cm in body length. The head is small and pointed, and the scales on the back are enlarged and keeled.

The back is brown, green or beige with light and dark longitudinal stripes, and the underside is white to cream. Males have white spots on the flanks and a tail that is thicker at the base, and their yellow stripes are more distinct than those of females. Two subspecies are recognised, and the pattern varies between populations.

The species name means "with six lines" and refers to the six longitudinal stripes on the back. The tail can be shed when the animal is caught and regrows only partially. It is an important aid when climbing in dense vegetation, where it is used as a brace. The lizards are fast and have lightning reactions; they can leap up after flying prey. The temperament is shy and nervous, and the species is suited to observation rather than handling.

Distribution and habitat

Takydromus sexlineatus has a wide range in South and South-East Asia. It occurs in north-eastern India (including Sikkim and Assam), in southern and south-eastern China (including Yunnan, Guangxi, Guangdong, Fujian, Hainan and Hong Kong), in Myanmar, Thailand, Laos, Cambodia and Vietnam, and on through the Malay Peninsula to Indonesia (Sumatra, Java, Borneo and the Natuna Islands). Its presence in Bhutan is unconfirmed.

Two subspecies are recognised: *Takydromus sexlineatus sexlineatus* over much of the range and *Takydromus sexlineatus ocellatus* in southern China, Indochina, northern Myanmar, northern Malaysia and on Sumatra. The species is assessed as Least Concern.

> **Native range:** India, China, Myanmar (Burma), Thailand, Laos, Cambodia, Vietnam, Malaysia and Indonesia.

HABITAT

Takydromus sexlineatus lives in tall grass, dense low vegetation, scrub, and forest clearings and edges. It moves nimbly through plants and can both run on the ground and climb stems and twigs, using its long tail as a brace. When danger threatens, the lizards first freeze and then flee quickly into the vegetation.

The climate is tropical, with warm temperatures all year and a rainy season. The species is diurnal and basks early in the morning. Active animals maintain a body temperature of around 31 °C, and in a temperature gradient they select 28-34 °C. Prolonged exposure to temperatures below 6 °C or above 42 °C is fatal. The species dries out quickly in the heat and is therefore tied to humid, dense vegetation.

Read more: Heat and temperature

Care

THE ENCLOSURE

A small glass tank is too small for *Takydromus sexlineatus*, even though the animal is small. A pair needs at least 60 × 40 × 60 cm (length × width × height), and one male with two females at least 90 × 60 × 60 cm. Height matters because the lizards climb plants and twigs, but floor area is just as important because they spend a lot of time running on the ground. The more space, the better.

The enclosure should be densely planted with tall grasses, low shrubs and climbers that the lizards can climb and hide in. Artificial and live plants can be combined. All hides must be able to dry out. The substrate is a layer 4-5 cm deep of moist soil or coir, ideally with a damper corner, and flat pieces of tile or bark serve as hides. Ventilation must be generous, because stagnant, humid air causes disease. The lid must be completely secure, as the lizards are fast and escape through even small gaps. Open it slowly and calmly.

TEMPERATURE

The gradient is the most important thing. The daytime temperature is 25-30 °C, and the surface at the basking spot is 34-40 °C, measured with an infrared thermometer. This matches the body temperature of 28-34 °C that the lizards choose for themselves. Use a small spotlight over a branch or a flat stone, and let the lizards choose between sun and shade. The heat must not become so high that the enclosure dries out, as the lizards lose moisture quickly. In a room at normal living temperature with a basking spot, no further heating is often needed.

At night the temperature should fall to 20-23 °C. Warning signs are lizards that gape, lie flat with the mouth open or hide all day (too hot), and lizards that do not emerge until late morning (too cold). The species comes from a tropical climate and does not need brumation, but a slight drop in night temperature and day length during the winter months is fine.

Read more: Brumation and the seasons

HUMIDITY AND WATER

Humidity should be 60-70 %. Mist the enclosure with water twice a day so that the lizards can drink droplets from the leaves and walls and so that humidity is kept up. Also provide a shallow water bowl, kept clean, which adds extra humidity. The enclosure must not be permanently wet and stagnant; good ventilation and a dry period each day are necessary so that the hides dry out.

The lizards drink almost exclusively water droplets and rarely drink from the bowl. A lizard that does not get enough fluid becomes lethargic and has difficulty shedding. Shedding should be monitored, and any remaining skin on the toes should be removed with lukewarm water so that circulation is not cut off.

Read more: Humidity, misting and ventilation

LIGHTING AND UVB

Takydromus sexlineatus is diurnal. The enclosure needs a small basking lamp and UVB lighting. The UVB lamp should provide Ferguson zone 2 (UV index of around 1-3 at the basking spot) and be mounted over a branch or stone that the lizards bask on. Zone 2 suits an animal that lives in dense grass and alternates between sun and shade. A daylight tube or an LED lamp lights the rest of the enclosure so that the plants thrive. UVB helps prevent metabolic bone disease and promotes appetite.

Day length is 12 hours all year round, as in the tropics. Replace UVB tubes according to the manufacturer's instructions, typically every year. Glass and acrylic block UVB, so the lamp must be inside the enclosure or above a mesh.

Read more: Lighting and UVB Read more: Common diseases and signs of illness

FEEDING

Takydromus sexlineatus is an insectivore and takes small live insects. Suitable foods are small crickets, flies, fruit flies, springtails, mealworms, waxworms, small locusts and small cockroaches. Feeder insects must be small: no larger than the distance between the lizard's eyes. The lizards are fast and can leap up after flying insects, so flies and fruit flies are well suited as enrichment.

Adults are fed daily or every other day, in amounts they finish within 10-15 minutes. Many hard-shelled insects can cause constipation, so choose a varied diet and avoid a lot of mealworms and superworms. Obesity is a common problem, so do not give more than the lizards use. Dust the food lightly with calcium at most feedings, and with a supplement containing D3 once every 1-2 weeks if the lizards do not get sufficient UVB. Avoid overdosing supplements. Do not give wild-caught feeder insects, as they may have been sprayed.

Read more: Feeder animals: keeping and breeding Read more: Calcium, vitamins and supplements Read more: Buying animals: captive-bred, wild-caught and transport

BEHAVIOUR AND HANDLING

Takydromus sexlineatus is fast, shy and an animal for observation. It should not be picked up: the tail can be shed when the lizard is caught and regrows only partially with a different structure, and the lizards are so fast that they easily escape. If a lizard has to be moved, catch it in a transparent container. A large, densely planted enclosure with many hides makes the lizards more visible because they feel safe, and they become accustomed to being fed with tweezers.

The species can be kept in pairs or as one male with two to three females. Keep only one male per enclosure. Each female needs her own space in the enclosure, and all animals must be able to feed and bask without being displaced. Signs of stress are constant hiding, repeated escape attempts against the glass and loss of appetite.

Breeding

SEXUAL MATURITY AND SEXING

In adults, the sexes can be told apart by the male's thickened tail base with the hemipenial bulges and by the stronger yellow stripes and white spots on the flanks, while females are more cream-coloured. Juveniles cannot be sexed reliably.

The age at sexual maturity is not documented. Egg-laying females measure 45-65 mm from snout to vent, so the lizards should be fully grown and in good condition before they are used for breeding.

MATING

The species is tropical and does not brumate. The egg-laying season runs from April to August, and females mate and lay several clutches during it. Breeding works best with two females per male in a large, densely planted enclosure with moist soil, room daytime temperatures of 22-28 °C and a heat lamp on for 12 hours a day. The females tolerate each other if there are plenty of hides. Do not keep the females too warm: an extra 4 °C makes them lay eggs more often, but more eggs die early in development.

The male chases the female and holds on with a bite during mating. The females must be able to retreat, or they become stressed.

EGG-LAYING AND CLUTCHES

The female lays 1-4 eggs per clutch, most often 2-3, and from April to August she can lay up to five clutches. The first clutch is the largest and later ones are smaller, while the eggs are all the same size. The eggs weigh about 0.2 g. Provide the females with a separate laying box of about 20 × 20 × 20 cm with 4 cm of moist soil; a female that is clearly gravid is moved there and normally lays within two days.

The female digs a small hole in moist soil and covers the eggs. Once she has laid, she is returned to the group. Eggs laid in the enclosure are found by searching through the soil. Females that cannot find a suitable place to lay can become egg-bound. Signs of egg binding are a female that is visibly swollen, lethargic and not eating, and she must go to a vet.

INCUBATION

Carefully dig up the eggs and move them to a closed container with moist vermiculite or perlite (about 1:1 with water by weight). Mark the top of each egg, and do not turn them. Humidity in the container must be high, but the eggs must not sit in water.

At 26 °C the eggs hatch after about 40 days. The eggs develop more slowly than those of relatives from more northerly regions such as *Takydromus septentrionalis*. Higher temperatures shorten incubation, but the best temperature is not documented, and it should not exceed the lizards' preferred body temperature. The eggs absorb water and swell during incubation; this is a good sign.

Read more: Incubating eggs

REARING THE YOUNG

The hatchlings are about 2 cm from snout to vent and must be moved to their own enclosure where the adults cannot eat them. An enclosure of 40 × 30 × 40 cm with dense planting, hides, a basking spot and UVB is suitable for the first months, and hatchlings can be kept in groups of the same age. The substrate is moist at one end and dry at the other.

First foods are fruit flies, springtails and very small crickets, later small locusts and woodlice. Feed daily, dust with calcium, and provide UVB lighting so that metabolic bone disease does not develop. The young grow quickly. Adjust the amount so that they do not become overweight.

Health and common mistakes

Most problems are caused by too little heat, too little UVB, or an enclosure that is too dry or too stagnant. The typical problems are:

- Metabolic bone disease from too little UVB and calcium. The lizards become lethargic, with soft jaws and deformed limbs.
- Dehydration and shedding problems when humidity is too low. Skin remnants on the toes can cut off circulation and lead to loss of toes.
- Constipation from too many hard-shelled insects, and obesity from too much food.
- Mites on the skin and in the corners of the eyes. Mites can be treated by a vet, and all new animals must be quarantined.
- Internal parasites, especially in wild-caught animals. A faecal sample examined by a vet will reveal them.
- Egg binding in females that do not have a suitable place to lay.
- Tail loss through stress and incorrect handling.

If a lizard has not eaten for more than three or four days, or is lethargic, swollen or has trouble using its legs, it must go to a vet experienced with reptiles.

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.