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ANGUIDS

Iberian Worm Lizard

Blanus cinereus

Blanus cinereus is a limbless worm lizard from the Iberian Peninsula that lives its whole life underground, in loose, humus-rich soil and under stones. The animal is 15-25 cm from snout to vent and has a ringed body, a rounded snout and almost blind eyes. The species lays 1-2 eggs a year and needs a deep, slightly damp substrate, even warmth from below and peace. Little is known about its care.

Family: Blanidae Former name: *Amphisbaena cinerea; Blanus mariae*

KEY FACTS

THE ANIMAL

Adult size	**15-25 cm** snout-vent length
Lifespan	**5-10 years**
Active	**By day**
Lifestyle	**Burrowing**
Habitat	**Temperate woodland and meadow**
Difficulty	**Expert**

CARE

Min. enclosure	**40 × 30 × 30 cm** L × W × H for 2 adults
Temperature, day	**20-24 °C**
Temperature, night	**15-20 °C**
Humidity	**50-70%**
Water	**No water dish**
UVB	**Not required**
Diet	**Insects**
Kept	**Singly or in pairs**

BREEDING

Reproduction	**Egg-laying**
Clutch size	**1-3 eggs**
Clutches per year	**1**
Incubation	**60-90 days** at 22-26 °C

PROTECTION AND PAPERWORK

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

About the species

Blanus cinereus is a worm lizard in the family Blanidae. Worm lizards (Amphisbaenia) are limbless, worm-shaped lizards adapted to life underground. The body is cylindrical and elongated and covered with square scales arranged in regular rings, with 14-18 rings on the back and 14-20 on the belly. There are no limbs. The head is small, slightly set off from the body and has a rounded snout, which is used for digging. Sight is almost absent, the eyes lie beneath the skin, while the senses of smell and hearing are well developed. The tail is very short. The species has preanal pores. The base colour varies from violet to brown.

Males reach up to 25 cm from snout to vent and females up to 24 cm, but females typically measure about 16 cm. The weight is not documented. The sexes show no distinct external differences. The tongue is small and forked and is used to pick up scent molecules, and the mouth holds a row of small, sharp teeth. The animals communicate with scent trails that they deposit in the soil.

The animals in southern Portugal and Spain were described in 2009 as a separate species, *Blanus mariae*, on the basis of genetic differences between two main lineages, but are today again regarded as *B. cinereus*. The genus name comes from the Greek blanos, "blind", and the species name from the Latin cinis, "ash", after the colour. The genus is distinguished from *Trogonophis* in that *Blanus* has preanal pores and a longer tail that tapers towards the tip.

Distribution and habitat

Blanus cinereus is found only on the Iberian Peninsula: in Spain, Portugal and Gibraltar, from sea level up to about 1,800 m. The species is most numerous between 200 and 700 m. It is absent from the northern and north-eastern part of the peninsula. The species does not occur in Morocco.

> **Native range:** Spain, Portugal and Gibraltar.

HABITAT

Blanus cinereus lives underground in Mediterranean forest of holm oak, juniper, oak and pine, where the soil is loose, sandy and covered with leaf litter, and where scattered stones lie. The animal maintains an even body temperature by moving up and down in the soil and by choosing stones of different thickness to lie under.

The animals are active under stones or just below the surface in spring and summer, and where it is warm they can be active from February to November. They are most active by day, but can also be active at night in summer. They choose slightly damp soil and avoid the wettest ground. The skin loses unusually little water for a reptile of this size, and in drought the animals retreat under stones, where the soil retains moisture better.

The diet is mainly insects and insect larvae from the leaf litter, the soil and the underside of stones. *B. cinereus* is taken by many predators: snakes, other reptiles, mammals and birds.

Care

THE ENCLOSURE

Little is known about the care of *Blanus cinereus*. The species lives its whole life underground and is almost never seen, so the recommendations are based on the habitat and on short-term keeping of the species and of *Trogonophis wiegmanni* for research.

A single animal or a pair needs an enclosure of at least 40 × 30 × 30 cm (length × width × height). The substrate is the most important thing: the animals lie buried almost all the time, so the substrate determines how they fare. Make a loose substrate of coconut fibre, ideally mixed with sand, fertiliser-free soil and some leaf litter, which imitates the loose, sandy forest floor. 5 cm of loose coconut fibre is enough for the animals to lie buried, but 10-15 cm lets them choose both warmth and moisture.

Lay a flat tile or stone of about 15 × 15 cm on top of the substrate. It corresponds to the stones the animals lie under in the wild, and here they warm themselves and find food. Use only clean soil without fertiliser and pesticides. The enclosure needs a tight lid. There is no need for plants, branches or hides beyond the tile. Remove visible droppings and food remains, and replace the substrate if it turns sour or gets mould.

TEMPERATURE

The animals warm themselves by lying buried in heated soil, not in the heat of a lamp. The substrate should be 20-24 °C by day, slightly warmer at one end than at the other. Heat it from below with a heating cable or heat mat under one end of the enclosure, controlled by a thermostat. Measure the temperature of the substrate with a probe in the soil, not the air temperature.

A heat lamp from above dries out the substrate and is not used. At night the temperature may fall to 15-20 °C. Whether a cool winter period is necessary is not documented.

Read more: Heat and temperature

HUMIDITY AND WATER

It is the humidity of the substrate that counts, not that of the air. The substrate should be slightly to moderately damp, not wet: it should hold its shape when squeezed in the hand, without sticking or dripping. Mist the substrate lightly with water every day. This keeps the soil damp and gives the animals drinking water. Create a gradient, so that one end is slightly damper than the other and the animals can choose for themselves.

The animals avoid the wettest ground. In a substrate that dries out completely the animals become stressed and do not gain weight, but they recover when the substrate becomes damp again. A substrate that is always wet causes mould and skin problems. A water bowl is not necessary. The air in the enclosure can sit at 50-70 % humidity.

Read more: Humidity, misting and ventilation

LIGHTING AND UVB

The animals lie buried and are not seen in the light. UVB is not necessary. The enclosure should stand in a room with a natural day-night rhythm, either with daylight from a window (not in direct sun, where it quickly becomes too hot) or with lighting on a timer that follows the season.

Read more: Lighting and UVB

FEEDING

Blanus cinereus eats insects and insect larvae. Mealworm pupae and larvae and small, freshly killed crickets, dusted with a multivitamin powder, are suitable food. Place food under the tile three times a week. Remove untouched food after a day, so that it does not go mouldy.

The amount to feed is not documented; adjust the amount according to whether the animals maintain their weight.

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

BEHAVIOUR AND HANDLING

Blanus cinereus is rarely seen. The animals lie buried and come out only under the tile. This is normal. Do not dig for the animals to check on them: stress makes them move less and use a smaller area. Lift the tile carefully to see whether food has been eaten. The species is not an animal for handling.

The animals can be kept singly or as a male-female pair. Do not keep two males together. The animals deposit scent trails in the soil, so the substrate is changed rarely and only partly.

Breeding

SEXUAL MATURITY AND SEXING

The age at sexual maturity is not documented. The sexes show no distinct external differences. Sex is determined reliably by everting the hemipenes at the vent, which requires experience, and should be done by a vet with experience in reptiles.

MATING

The species breeds in spring from March to June, and mating takes place from April to May. Nothing more is documented in captivity. A male-female pair can be kept together all year; if there are wounds or signs of stress, the animals are separated.

EGG-LAYING AND CLUTCHES

The female lays 1-2 eggs once a year, rarely 3, and leaves them in the soil. The eggs are long and narrow, about 34 × 6 mm. Give the female a deep, slightly damp substrate and peace, and do not dig for the eggs. The number of clutches in captivity is not documented.

INCUBATION

Incubation time and temperature are not documented. 60-90 days at 22-26 °C is an estimate based on egg-laying lizards from the same climate. The eggs lie in damp soil and must not dry out.

Read more: Incubating eggs

REARING THE YOUNG

Rearing in captivity is not documented. Juveniles need the same substrate, humidity and warmth as the adults and small prey such as springtails and small mealworms. The young measure about 8 cm from snout to vent at hatching.

Health and common mistakes

Almost nothing is known about diseases in the species in captivity. The problems that can be expected are almost always caused by the set-up:

- Dehydration and stress in a substrate that is too dry, so that the animals do not gain weight.
- Mould and skin problems in a substrate that is always wet.
- Injuries from soil with residues of fertiliser or pesticides.
- Lack of food: the animals do not gain weight if they do not find food under the tile.

The animals are hard to observe. Watch whether the food is eaten and whether the animals come out under the tile. An animal that lies on the surface for a long time is sick or unwell. See a vet with experience in 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.