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ANGUIDS

Scheltopusik

Pseudopus apodus

Pseudopus apodus is a large, legless lizard from south-eastern Europe and western Asia that looks like a snake but has eyelids, ear openings and a stiff, armoured body. It grows to about 135 cm, is diurnal and robust, and can live for decades. It feeds on snails, insects and small vertebrates and needs a long enclosure with a diggable substrate, a warm basking spot and a brumation period.

Family: Anguidae Former name: *Ophisaurus apodus*

KEY FACTS

THE ANIMAL

Adult size	**90-135 cm** total length incl. tail
Lifespan	**20-50 years**
Active	**By day**
Lifestyle	**Terrestrial and burrowing**
Habitat	**Semi-desert and temperate woodland and meadow**
Difficulty	**Intermediate**

CARE

Min. enclosure	**150 × 60 × 60 cm** L × W × H for 1 adult
Temperature, day	**22-30 °C**
Basking spot	**30-35 °C**
Temperature, night	**18-22 °C**
Humidity	**40-60%**
Water	**Water dish**
UVB	**Recommended** Ferguson zone 2
Winter rest	**8-12 °C** 8-12 weeks
Diet	**Insects, vertebrates and worms/snails**
Kept	**Singly or in pairs**

BREEDING

Reproduction	**Egg-laying**
Sexually mature	**24 months**
Clutch size	**6-12 eggs**
Incubation	**45-55 days** at 26-29 °C

PROTECTION AND PAPERWORK

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

About the species

Pseudopus apodus is a powerful, legless lizard in the family Anguidae. The body is elongated and stiff and covered in scales in regular rings, and a deep fold runs along each side, giving room when the animal has eaten or is carrying eggs. The tail makes up more than half of the total length. The forelimbs are completely absent, and of the hind limbs only two small stumps of 2-3 mm remain at the vent. Adults are yellowish to reddish brown with a paler, yellowish underside and a slightly paler head. The young are pale grey with brown crossbands and keeled scales for the first two to three years; the scales later become almost smooth.

The total length is 90-135 cm, and the largest animals measure up to 58 cm from snout to vent. The species is easy to tell from a snake: it has eyelids that can be closed, a visible ear opening, a stiff body and no broad ventral scales. The genus name means "false foot" and the species name "without foot". The species was described in 1775 by Peter Simon Pallas and was formerly placed in the genus *Ophisaurus*. Three subspecies are recognised: *P. a. apodus* from the Caucasus and Central Asia, *P. a. thracius* from the Balkans and western Turkey, and *P. a. levantinus* from the Levant.

If the animal is grabbed, it twists violently around its own long axis to break free, and if that fails, it may lie completely still as if paralysed. Biting is not part of its defence. Like other species in the family, it can shed its tail, and the new tail is shorter and differently coloured. The species does not tolerate much handling, but it settles well in captivity and in time takes food from tweezers. The skin is shed about every two months: it is pushed together and sloughed off as a ridge.

Distribution and habitat

Pseudopus apodus lives from south-eastern Europe to Central Asia. In the west it occurs along the Balkan coast from Croatia and Herzegovina through Montenegro, North Macedonia and Albania to Greece, including several of the Greek islands (e.g. Corfu, Lesbos, Chios, Samos, Lemnos and Rhodes), and on into Bulgaria and Turkey. To the south it reaches Syria, Lebanon, Jordan and Israel, and to the east it occurs in Georgia, Armenia, Azerbaijan, Iran, Iraq, Turkmenistan, Uzbekistan, Kyrgyzstan, Tajikistan, Kazakhstan and Afghanistan. To the north it lives in European Russia and southern Ukraine.

P. a. thracius lives in the western part of the range, *P. a. levantinus* in the Levant and *P. a. apodus* in the eastern part.

> **Native range:** Greece, Croatia, Bosnia & Herzegovina, Montenegro, North Macedonia, Albania, Bulgaria, Turkey, Lebanon, Syria, Israel, Jordan, Iraq, Iran, Georgia, Armenia, Azerbaijan, Russia, Ukraine, Turkmenistan, Uzbekistan, Kyrgyzstan, Tajikistan, Kazakhstan and Afghanistan.

HABITAT

Pseudopus apodus lives in dry, warm, open country with sparse vegetation: grassland, scrub, rocky slopes, dry valleys and cultivated fields, up to about 2,300 m above sea level. It hides in bushes, between stones and in holes in the ground and burrows into loose substrate.

The species is diurnal, often basks for long periods and is also out in rainy weather, when the snails are. Active animals in the wild have a mean body temperature of around 19-28 °C, lower than many other lizards. The diet is mainly insects and snails and, less often, small vertebrates such as shrews, lizards, snakes, mice and nestling birds. The climate has hot, dry summers and cold winters. From October to March the animals brumate in holes and under stones, and mating follows in March.

Care

THE ENCLOSURE

An adult needs an enclosure of at least 150 × 60 × 60 cm (length × width × height). The size is an estimate based on the animal's length: it moves along the ground and uses the whole floor area, so length is what matters most. Juveniles can be kept in smaller enclosures for the first few months. The lid must be firmly fixed and lockable, because the animal is powerful and pushes at lids and doors.

The substrate should be loose and at least 15 cm deep so that the animal can burrow: sand mixed with leaf litter, or fertiliser-free garden soil with coconut fibre and sand, which holds the tunnels. On top, lay bark, cork, roots and flat stones as hides, at least one at the warm end and one at the cool end. Place stones directly on the base so that the animal cannot dig in underneath them. Keep the substrate dry most of the time, with a small damp area by the water bowl.

The enclosure must be well ventilated, e.g. with a mesh lid. Remove droppings regularly, and replace the substrate completely when it is soiled. A pair or two animals of about the same size can be kept together in an enclosure of at least 200 × 80 × 60 cm (estimate).

TEMPERATURE

The basking spot should have a surface temperature of 30-35 °C, and the rest of the enclosure should sit at 22-30 °C by day. At night the temperature drops to 18-22 °C, and the heat can be switched off if the room is warm enough. Use a heat lamp over a flat stone or slate slab so that the animal can warm its whole body, and measure with thermometers at both ends and an infrared thermometer at the basking spot.

The species comes from areas with cold winters, and brumation is recommended; it is also a prerequisite for breeding. In the wild it lasts from October to March. Only healthy animals in good condition should brumate. Food is stopped, and day length and heat are lowered gradually over two weeks while the animal still has heat, so that the gut is empty. After that the animal is kept for 8-12 weeks at 8-12 °C in a box or enclosure with deep, slightly damp soil, a hide and a water bowl. Temperature and duration are estimates. On waking, the temperature is raised gradually, and the animal is given water before food.

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

HUMIDITY AND WATER

Air humidity should be 40-60 %. The species comes from dry country, and the enclosure is kept mostly dry, but the substrate at one end may be slightly damp. Mist lightly in the morning at the damp end and let it dry out during the day. Mist a little more often during shedding.

A low, stable water bowl with clean water is available at all times. The water is changed daily, because the animal drags substrate into the bowl, and the bowl is scrubbed once a week.

Read more: Humidity, misting and ventilation

LIGHTING AND UVB

The species is diurnal and basks a great deal, so it needs a warm basking spot and light for 12-14 hours a day in summer, shorter in autumn leading up to brumation. UVB is recommended: a UVB tube or a combined heat and UVB lamp over the basking spot, so that the animal can choose to move in and out of the UV light. Ferguson zone 2 is an estimate, with a UV index of 1-2 at the basking spot and lower in the rest of the enclosure. The distance between lamp and animal depends on the type of lamp and is checked with a UV meter. Replace the UVB source according to the manufacturer's instructions.

In summer the animal can go in an outdoor enclosure in warm weather. The enclosure must never stand in direct sun behind glass, as it overheats quickly.

Read more: Lighting and UVB

FEEDING

Pseudopus apodus is a carnivore. In the wild the diet consists mainly of insects (mostly beetles) and snails and, less often, small vertebrates. Broad, strong teeth crush snail shells and insect armour.

Offer a varied diet: snails, earthworms, grasshoppers, crickets, cockroaches and mealworms, occasionally a thawed pinkie or fuzzy mouse and strips of lean raw meat or fish. Mice and meat are supplements, not the staple, because the animal easily becomes fat. Dust the insects with calcium at most feedings and with a multivitamin once a week. Use captive-bred feeder insects rather than wild-caught ones, so that parasites and pesticides are not introduced.

Juveniles are fed daily or every other day, adults 2-3 times a week. Use a shallow dish or tweezers so that the animal does not swallow substrate. The animal becomes eager at feeding and can nip hard at the tweezers with its powerful jaws. It is normal for the animal to stop eating before brumation, but weight loss outside that period needs investigating.

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

Pseudopus apodus is calm and adapts well to captivity, but it should not be picked up every day. If the animal is lifted, it twists violently around its own axis; support the whole body, and never lift it by the tail, which can break off. New animals need a couple of weeks in peace before being handled, and in time they take food from tweezers.

Animals of about the same size can usually be kept together, but watch for unrest, especially in the breeding season, and separate the animals in case of bites or wounds. Do not house two males together, and keep animals of very different sizes apart. Like all reptiles, the species can carry salmonella, so wash your hands after contact with animals, enclosure and food.

Read more: Quarantine and hygiene

Breeding

SEXUAL MATURITY AND SEXING

The sexes are hard to tell apart. Males grow on average larger than females and have a broader head and a thicker tail base. The most reliable determination is by a vet with reptile experience. The species becomes sexually mature at around 2 years of age. Breed an animal only when it is fully grown, in good condition and has had a brumation period.

MATING

Mating follows brumation, in March in the wild. When the animals have warmed up again, the male is placed with the female under supervision for the first few hours, and the animals are separated if the female is wounded. The female needs plenty of food both before and after mating so that she can build up reserves for the eggs.

EGG-LAYING AND CLUTCHES

About 10 weeks after mating the female lays 6-12 eggs, most often around 8, but clutches as small as 2 and as large as 15 eggs occur. In the wild she lays them under bark or a stone, and she often stays with them and coils around the clutch. Provide a box with damp, loose soil or moss and a hide above, so that she can dig and lay in peace. Without a suitable site she may retain the eggs, which can become life-threatening. How many clutches she can lay per year is not known. After laying she needs plenty of food.

INCUBATION

The eggs are moved carefully to an incubation box without being turned and laid on damp vermiculite or perlite in a closed box with small air holes. The young hatch after 45-55 days. The incubation temperature has not been described for the species; 26-29 °C is an estimate, and the temperature must be stable. The young measure about 8 cm from snout to vent and begin to eat after about four days.

Read more: Incubating eggs

REARING THE YOUNG

The young need an enclosure with a deep, slightly damp substrate, many hides and a warm basking spot. Feed them daily or every other day with small crickets, small earthworms and small snails, dusted with calcium. Young of the same size can be kept together while they are small; separate them if they begin to bite each other, and no later than when they approach sexual maturity.

Health and common mistakes

The species is hardy, and most problems are caused by faults in the setup. The typical problems are:

- Obesity from too much fatty food such as mice and too little exercise. Weigh the animal regularly.
- Metabolic bone disease from too little calcium and UVB.
- Skin problems and mould in a substrate that is constantly wet.
- Intestinal worms and mites, especially in wild-caught animals. New animals are quarantined and have a faecal sample examined.
- Egg-laying difficulties if the female does not have a suitable place to lay.
- Sores in the mouth and jaws that can become inflamed and need a vet.

A healthy animal has clear eyes, steady weight and eats willingly. Reptiles hide illness, so contact a vet with reptile experience if the animal loses weight, does not eat outside brumation or breathes with its mouth open.

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.