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SKINKS

Italian Three-toed Skink

Chalcides chalcides

Chalcides chalcides is a slender, almost snake-like skink from Italy and North Africa with small legs, three toes on each foot and a tail at least as long as the body. It lives in sunlit meadows with dense, low vegetation, burrows and gives birth to live young. Little is known about its care, so this guide is based on the species in the wild and on its relative *Chalcides ocellatus*.

Family: Scincidae

KEY FACTS

THE ANIMAL

Adult size	**25-40 cm** total length incl. tail
Weight	**9-20 g**
Lifespan	**10-15 years**
Active	**By day**
Lifestyle	**Terrestrial and burrowing**
Habitat	**Temperate woodland and meadow**
Difficulty	**Intermediate**

CARE

Min. enclosure	**90 × 40 × 30 cm** L × W × H for 1 adult
Temperature, day	**22-28 °C**
Basking spot	**32-35 °C**
Temperature, night	**15-20 °C**
Humidity	**40-70%**
Water	**Water dish**
UVB	**Recommended** Ferguson zone 2
Winter rest	**8-12 °C** 8-12 weeks
Diet	**Insects and small invertebrates (springtails, fruit flies)**
Kept	**Singly**

BREEDING

Reproduction	**Live-bearing**
Litter size	**4-9 young**
Clutches per year	**1**
Gestation	**80-100 days**

PROTECTION AND PAPERWORK

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

About the species

Chalcides chalcides is a smooth, glossy skink with an elongated, cylindrical body, a small head and short legs ending in three toes on each foot. On the hind foot the middle toe is longer than the other two, which distinguishes the species from *Chalcides striatus*. At first glance it looks like a snake. Tail and body are about equally long, and the tail can be shed and regrow. There are three colour forms: uniformly silvery grey or bronze-brown, with four to six narrow longitudinal stripes, or with an extra pale band along the side.

The species typically reaches 25-30 cm including the tail; the largest animals approach 40 cm, and a few sources give up to 48 cm. Adult animals in the wild weigh 9-20 g. Lifespan in captivity is not documented; 10-15 years is an estimate.

The species was described by Linnaeus in 1758 and gave the genus its name. The name comes from the Greek chalkos, copper or bronze, and refers to the glossy skin. The subspecies *C. c. vittatus* lives in Tunisia and Libya, and *Chalcides striatus* is now regarded as a separate species. The species is only sparsely described in captivity, because it lives hidden in dense vegetation

and is hard to catch in the wild.

Distribution and habitat

Chalcides chalcides lives in Italy and in North Africa. In Italy it occurs almost everywhere on the peninsula south of the Po and on Sardinia, Sicily and Elba; on the Po plain it is largely absent. A few populations do occur near the Po Delta. In North Africa it lives in northern Algeria, in Tunisia and in north-western Libya, where its distribution is more patchy. The species lives from sea level up to just over 2,000 m.

> **Native range:** Italy, Algeria, Tunisia and Libya.

HABITAT

Chalcides chalcides lives in damp but sunlit meadows and grassland with dense, low vegetation, typically stems up to 40 cm tall, and at the edges of streams, marshes, banks and hedges. In mountain regions it also occurs on drier, scrub-covered slopes. It tolerates a certain amount of human disturbance and is found in grassland even where there is a lot of activity, but avoids the interior of forest.

The animal is strictly diurnal and is seen between about 8 and 18 h. In central Italy it emerges in the second half of March, mates in the first half of May, and the young are born from the end of July to mid-August. Surface activity ceases in the first half of October, and the animals go into brumation. After the mating season the animals live mostly buried in soil and dense vegetation, and from July almost only gravid females are seen in the open. The diet consists almost entirely of ground-dwelling arthropods. Spiders make up over 40 % of the prey; then come woodlice, beetle larvae and bugs such as shield bugs and cicadas. Flying insects play only a small role.

Read more: Brumation and the seasons

Care

THE ENCLOSURE

Little is known about the care of *Chalcides chalcides*. The species' habitat is known: damp, sunlit meadows with dense, low vegetation and a Mediterranean climate with mild winters and hot, dry summers. This guide is based on that and on the closely related *Chalcides ocellatus*, which is better known in captivity. The figures are therefore approximations.

A single animal needs an enclosure of at least 90 × 40 × 30 cm. Floor area is decisive, because the species moves like a snake between stems and under cover. The enclosure needs a dense, loose substrate at least 8 cm deep of topsoil and sand mixed, in which the animal can burrow, a layer of dry grass or leaves on top and plants or grass tufts that provide cover. Flat stones and cork must lie stably, so they cannot fall on an animal that burrows beneath them. The lid must close tightly, because the species can squeeze through small gaps.

Avoid calcium sand, gravel and coarse substrate. Remove faeces and uneaten food regularly.

Read more: Calcium, vitamins and supplements

TEMPERATURE

The species is diurnal and basks. Temperatures are not documented for captivity, and the figures here are estimated from the climate of Italy and from *Chalcides ocellatus*. The daytime temperature should be 22-28 °C with a basking spot of 32-35 °C air temperature, and the surface directly under the heat lamp can reach 40-45 °C, measured with an infrared thermometer. The animal must always be able to retreat to the cool side. At night the heat is switched off, and the temperature may fall to 15-20 °C.

In the wild the species is inactive from October to March. A cool brumation of 8-12 weeks at 8-12 °C is therefore probably natural, but the length and temperature are not documented. Only healthy animals in good condition are brumated. Lower the temperature gradually, and stop feeding when the animal no longer eats.

Read more: Heat and temperature

HUMIDITY AND WATER

The species lives in damp meadows, but not in water. Humidity should be moderate, 40-70 %, and the substrate should be slightly moist at depth and dry at the surface. Mist the enclosure lightly every second or third day, so that the substrate stays a little moist in the lower layers, and provide good ventilation so that the substrate does not go mouldy. A shallow dish of fresh water must always be available. The figures are estimates; they are not documented for the species in captivity.

Read more: Humidity, misting and ventilation

LIGHTING AND UVB

The species is diurnal and basks, so it needs strong light and UVB. Ferguson zone 2 is an estimate: UV index 2-3 at the basking spot and lower in the rest of the enclosure, slightly less than for *Chalcides ocellatus*, which lives in more open and drier terrain. A T5 HO tube of 5-6 % above the basking spot at a distance of 25-35 cm provides that. Glass and plastic block UVB. The light follows the seasons with about 10 hours in winter and 14 hours in summer, and a timer ensures a fixed rhythm.

Read more: Lighting and UVB

FEEDING

In the wild *Chalcides chalcides* eats almost exclusively ground-dwelling arthropods: spiders are the most frequent prey (over 40 %), followed by woodlice, beetle larvae and bugs such as shield bugs and cicadas. In the enclosure this corresponds to small, soft prey: crickets in small sizes, small cockroaches (e.g. *Blaptica dubia*), woodlice, mealworms and black soldier fly larvae. Variety is important.

The prey must be smaller than the animal's head. Juveniles are fed daily, adults 2-3 times a week. Dust the food with calcium and, a couple of times a month, a multivitamin supplement. The feeding frequency is an estimate; follow the animal's weight and body condition.

Read more: Feeder animals: keeping and breeding

BEHAVIOUR AND HANDLING

Chalcides chalcides is shy and lives hidden. In the wild it stays in dense vegetation and burrows, and in the enclosure it is seen mostly when basking or hunting. It is fast and smooth and easily slips from a hand, so it is not suited to handling. Give a new animal two to three weeks in peace, and do not move it unnecessarily.

Males fight fiercely in the mating season and bite hard, so two males must not be kept together. The animal is best kept singly. Females can probably be kept together in a roomy enclosure with many hides, but this is not documented. The sex cannot be seen on the animal from the outside.

Breeding

SEXUAL MATURITY AND SEXING

The age at sexual maturity in captivity is not documented. In the wild the animals are regarded as adult from about 9 cm snout-vent length, and gravid females most often measure 12-14 cm. There are no external sex differences; only large, gravid females can be recognised by their thick body. The males reveal themselves through the fights in the mating season.

MATING

In the wild mating takes place in the first half of May, after the animals have emerged from brumation. From mid-April to mid-May the males fight over the females and bite hard, so males must be kept apart. A cool brumation precedes mating and is probably a prerequisite for a normal breeding cycle, but this is not documented in captivity.

EGG-LAYING AND CLUTCHES

Chalcides chalcides gives birth to live young, and the species has one of the most complex placentae among reptiles, in which the mother transfers nutrients to the embryos. A litter is 4-9 young, and large females tend to have slightly more young than small ones. The female has one litter a year. In the wild the young are born from the end of July to mid-August. Give the gravid female peace, plenty of food, UVB and many hides.

INCUBATION

Chalcides chalcides has no incubation period, because the young are born alive. The length of gestation in captivity is not documented; 80-100 days is an estimate from the wild, where about three months pass from mating in May to birth in July-August.

Read more: Incubating eggs

REARING THE YOUNG

Rearing in captivity is not documented. The young are independent from birth and are fed like the adults with very small insects and woodlice, daily and dusted with calcium. Remove them from the adults, and give them a loose substrate, hides and UVB.

Health and common mistakes

There is no documented health information for *Chalcides chalcides* in captivity. The problems in related skinks are most often caused by husbandry:

- Too little UVB and calcium cause metabolic bone disease (MBD).
- Too little heat causes poor digestion and a weakened immune system; the animal must at the same time be able to retreat to cool places.
- A permanently wet substrate without ventilation causes mould and skin problems.
- Coarse or calcium-containing substrate can cause intestinal problems if swallowed.
- Males kept together fight and can injure each other.

A healthy animal has clear eyes, a plump body and smooth skin, and eats regularly. Signs of illness are emaciation, dull skin, loose faeces and lethargy. Animals in brumation must be weighed. Have a health check done by a vet with experience of reptiles.

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.