

THE CARE AND BREEDING OF COMMON BRITISH REPTILES  
AND AMPHIBIANS  
PART VI — THE SLOW WORM (*ANGUIS FRAGILIS*)

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INTRODUCTION

The Slow Worm (*Anguis Fragilis*) is also known as the blindworm, but both these appellations are inappropriate for this species is neither slow in its movements, blind or even poor-sighted. It can move through long grass or burrow into light soil with surprising speed and is keen-sighted enough to spot intended prey or potential predators from several feet away.

It is rather secretive by nature, being often overlooked in areas where it is reasonably plentiful. Perhaps this is fortuitous for the slow worm as it is still occasionally killed when encountered in the mistaken belief that it is a venomous snake. Although it is in fact a limbless lizard it does superficially resemble a serpent, an attribute which has been the main reason for widespread persecution in the past.

Wood (1865) informs us that "according to popular notions, the blindworm is a terribly poisonous creature, and by many persons is thought to be even more venomous than the viper whereas it is perfectly harmless, having neither the will nor the ability to bite, its temper being as quiet as its movements, and its teeth as innocuous as its jaws are weak. The origin of this opinion may be found in the habit of constantly thrusting out its broad, black, flat tongue with its slightly forked tip: for the popular mind considers the tongue to be the sting, imagining it to be both the source of the venom, and the weapon by which it is injected into the body and so logically classes all creatures with forked tongues under the common denomination of poisonous".

More than 120 years on, there are, unfortunately, some who still subscribe to these beliefs. Anyone examining a slow worm carefully would note that its movements are altogether stiffer, less supple than a snake and that it possesses eyelids which snakes do not.

DESCRIPTION, DISTRIBUTION AND HABITAT

Slow worms average 40-45cm in overall length when fully grown although some specimens may attain 50cm. Adult males are fairly uniform in colour above and on the sides; brown, grey, reddish or coppery, occasionally with blue spots. The underside is usually greyish with dark grey or black mottlings.

Females frequently have a dark brown or black vertebral stripe; the sides are dark and often flecked or striped dark brown or black. The underside is usually black. Males have larger heads than females. In both sexes the scales are very smooth, the individual scales quite small in size.

The range of the slow worm is extensive, almost the whole of Europe with the exception of South Iberia, Ireland and North Scandinavia. It is also found eastwards as far as the Ural Mountains, in South-West Asia and North-West Africa. It is fairly widespread in the U.K., being most numerous in the south and south-west of England. In north and east England it is less plentiful and in many parts of Scotland local.

The slow worm likes well vegetated areas with good ground cover. It favours a range of habitats: heaths, commons, hedgerows, pastures, open woodlands, gardens, scrub-land and railway embankments. It may occasionally be found basking in the sun especially during spring, but is more likely to be discovered under sun-warmed objects such as flat stones or sheets of discarded iron. It can also be found under piles of rubble or scree, in dry stone walls and even among the crumbling and fallen gravestones in churchyards.

In late summer gravid females can be observed basking in the open; this assists incubation of the developing eggs inside her body.

## CARE IN CAPTIVITY

### Accommodation

Slow worms can be kept successfully outdoors in a walled enclosure or under glass in a greenhouse or cold-frame. If the former mode is used, a good layer of soft soil must be provided to a depth of at least 50cm to enable the slow worms to burrow down a sufficient depth to escape winter frosts. The enclosure should be covered with netting to prevent predation by cats or large birds.

If a greenhouse is used it must be well ventilated as slow worms do not like excessive heat. A cold frame is probably the best form of outdoor housing; it can be set up and maintained in exactly the same way as I described for keeping viviparous lizards in my previous article.

Slow worms enjoy burrowing in soft soil, spending much time with just their heads protruding; in captivity they will quickly make a network of underground tunnels. Within a short space of time they will become confiding enough to allow gentle handling, weaving themselves around the fingers to gain anchorage.

By contrast a wild slow worm when first caught will thrash wildly about, quite often voiding the contents of its cloaca. Males will sometimes extrude their penes. The tail will be readily shed (the specific name, "*fragilis*" refers to this propensity). It regenerates but as little more than a stump.

### Feeding

The slow worm is inordinately fond of slugs, particularly the small, greyish-pink garden slug, *Agrotimax agrestis*. When this species is in plentiful supply all other prey is likely to be ignored. Other types of slug will be eaten when *A. agrestis* is not available and earthworms, leatherjackets (crane-fly larvae), maggots, spiders and small snails will also be taken but usually with little relish. I have found that some specimens will eat mealworms while others will refuse them completely.

Slugs or earthworms offered can be occasionally dusted sparingly with multi-vitamin powder to provide all the necessary nutritional requirements.

Periodically during the year food will be refused; in a healthy slow worm this is a sure sign it is about to slough its skin. After this has occurred feeding will recommence.

### Breeding

This is not difficult even in a fairly small vivarium; mating takes place during late April, May or June. Males will fight during this time and can inflict serious injuries upon each other in confinement, so it is best to keep one male with several females or at least segregate the males during mating time.

When the females become noticeably gravid it is advisable to remove them to a nursery vivarium, smaller than the main accommodation but furnished in a similar way. They can then give birth unmolested by the males after which they can be returned to their permanent quarters leaving the young in a safe environment.

The slow worm is ovo-viviparous, giving birth to an average litter of 6-12 young in late August, September or early October depending on the warmth or coolness of the summer. The young are born in a protective membrane which they rupture and escape from either at birth or a few minutes afterwards.

They measure 65-90mm in overall length; the dorsal colouring is quite variable, pale golden brown or light yellowish, greenish or silvery. The sides of the head and body and the undersides are jet black. There is a small black parietal spot just behind the eyes which is continued as a stripe down the middle of the back to the tip of the tail.

New born slow worms are very lively little creatures which appear to enjoy burrowing into soft soil even more than the adults. I have experienced difficulty in rearing them in captivity because I can never seem to find enough tiny slugs and earthworms. However, I have partially overcome this problem by introducing a handful of garden compost into their vivarium every day. This provides many small invertebrates for the baby slow worms as well as providing an excellent

flooring medium which retains a certain amount of heat. This is beneficial to the baby slow worms which love to burrow into this warmth, there to remain for long periods.

Fruit flies, whiteworms, baby mealworms and hatchling crickets were all ignored by my baby slow worms but small spiders and caterpillars captured by grass-sweeping were accepted, albeit rather reluctantly. The same slug, *Agrolimax agrestis* was as much relished as it was by the adults.

I never try to raise more than 3 or 4 young at a time; the remainder are released on a nearby railway embankment.

### Hibernation

During the latter part of October, activity will slow down and the slow worms will cease feeding. They will shortly disappear from view burrowing into the soil for the duration of the winter often using a communal hibernaculum as they do in the wild.

They will re-appear the following year about mid-March; actual dates will, of course, vary with temperatures outside. It may well be a week or two after emergence before they start feeding. Water for drinking is very important at this time of year.

### Conclusion

The slow worm is an interesting and unusual lizard which will live happily for many years in captivity, breeding readily if the correct conditions are provided. Young slow worms are comparatively difficult to rear in confinement unless enough tiny slugs or very small earthworms can be provided. It is therefore not advisable to attempt raising more than a small number at once. Slow worms can be safely housed with viviparous lizards, wall lizards and small amphibians such as *Bombina variegata*.

All our native herptiles are under threat due to the rapid changes taking place in their environment by man's activities. The situation is likely to become far worse in future years as increasing pressures are exerted on the resources of our small and very overcrowded island.

Responsible herptile keeping, where surplus offspring are used to boost existing wild colonies or to pioneer new ones can go a long way to ensure the continued survival of our indigenous herptiles for future generations to see.

### Footnote

I have not included the adder (*Vipera berus*) in the series of articles although it is our most widespread British snake. Its care in captivity is realistically beyond the scope of the average herpetologist and best left to zoological institutions or specialist breeders.

Jones (1985) adequately described the stringent legal requirements for keeping this species in captivity, which I feel sure is enough to deter all but the most determined individual.

The Grass snake (*Natrix natrix helvetica*) is rather more difficult to maintain in captivity than any of our common amphibians or lizards. It is also under intense pressure in the wild due mainly to changes in land usage. However, to complete the series an additional article on keeping grass snakes with the emphasis on conservation will appear in the "Bulletin" soon. I am indebted to Marcus Langford of the BHS Conservation Committee who has agreed to co-write this article with me.

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