Slow-worm
Anguis fragilis
Species Action Plan

1. Introduction
The slow-worm was listed as a priority UK BAP species and subsequently listed in Section 41 of the Natural Environment and Rural Communities (NERC) Act 2006.

2. Current Status
2.1 Ecology and habitat requirements
Despite its snake-like appearance, the slow-worm is a legless lizard. In common with other species of lizard, they are distinguishable from snakes by the visible eyelids and the ability to shed their tail: a defence response to help escape from predators by providing a distraction.

Female slow-worms tend to have dark flanks and a thin, dark stripe down the back. They also have relatively smaller heads than males. Males tend to be a uniform grey colour, lacking the longitudinal stripe and often have a scattering of blue spots. Older slow-worms tend to have a duller appearance and are often battle scarred. In spring the males often fight, presumably to see off potential rivals for mates. Mating itself can also be quite aggressive, with males holding females tightly in their jaws. Despite these conflicts slow-worms are harmless to humans and do not bite. Slow-worms are long-lived: 20 years or more in the wild and over 50 years has been recorded in captivity.

A brood of live young is produced in September or October. Each baby is born in a transparent membrane, from which it emerges almost immediately. Newly hatched slow-worms are like miniature versions of adult females, with dark sides and a stripe along the back, contrasting with a striking yellow, gold or copper background. Adult slow-worms can grow up to 45 cm in total length, whereas the newly-born young are 7 to 10 cm long.

The slow-worm can be found in almost any open or semi-open habitat. It likes warmth but instead of basking in the open sun it prefers to hide under a stone, log or piece of discarded rubbish such as a sheet of corrugated iron or plank of wood exposed to the sun. Slow-worms also use compost heaps where they find warmth and plenty of food. They feed on slow moving prey, particularly slugs. Slow-worms hibernate throughout the winter months, sometimes sharing hibernation sites with other animals.

2.2 Population and distribution
The slow-worm is probably the most commonly encountered reptile in Britain. It is naturally absent from Ireland (those found there, in the area of the Burren, are thought to be introduced). It occurs throughout most of Europe, including virtually all of Great Britain, although it tends to be most abundant in the southern counties. However, slow-worms are very patchily distributed and tend to be aggregated into small pockets on a given site. Allotments provide ideal conditions for slow-worms and surveys in several counties have shown a high

correlation between allotments and reptile, particularly slow-worm, presence. Railway embankments and sidings are also frequently inhabited.

In Worcestershire the species is widely distributed, although due to its secretive nature it is often under-recorded. There is also a tendency for the species to be misidentified as a snake.

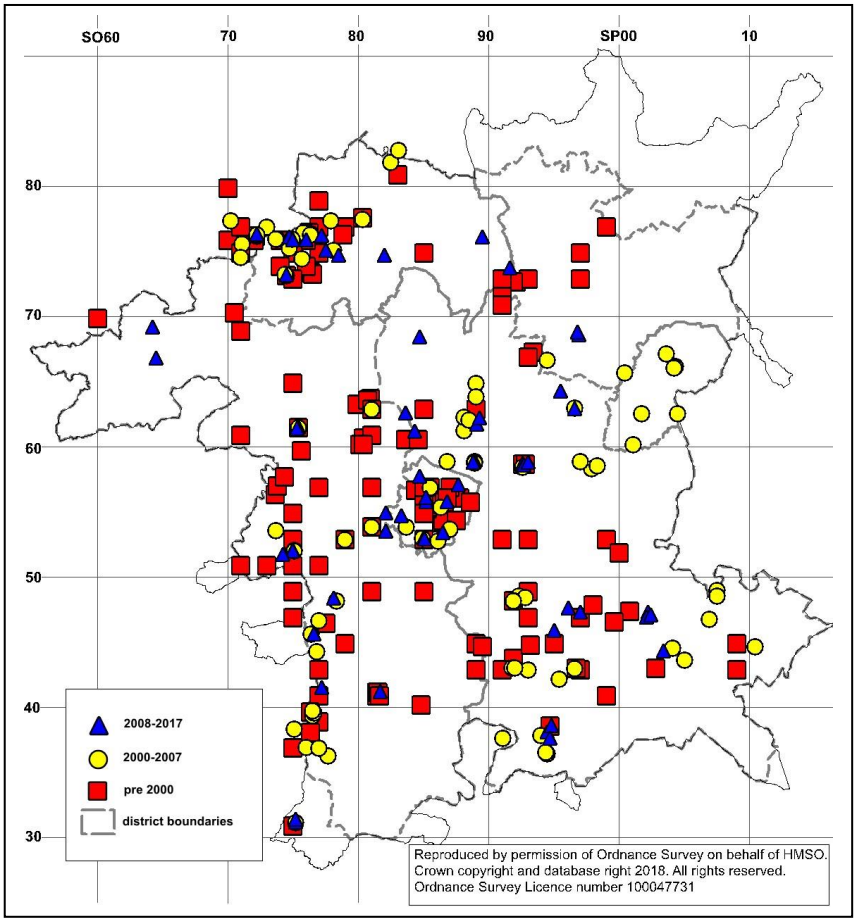

Figure 1. Records of slow-worm in Worcestershire. Data supplied and map prepared by Worcestershire Biological Records Centre.

2.3 Legislation

The slow-worm is protected under schedule 5 of the Wildlife and Countryside Act 1981 (as amended) and listed in Section 41 of the NERC Act 2006.

2.4 Summary of important sites

Worcester city is now considered to be nationally important for its slow-worm populations. Significant sites include the Lansdowne Crescent allotments and Cherry Orchard Local Nature Reserve (LNR). Most rural records tend to come from nature reserves.

3. Current factors affecting the species

- Loss of habitat due to intensive agricultural land use and increased use of pesticides causing a shortage of prey items.

- Deliberate attacks by humans who mistakenly believe them to be dangerous.

- Accidental killing due to their frequency of occurrence in allotments and gardens.

- Predation by domestic cats.

- Lack of connectivity between sites leading to poor recruitment and ageing, isolated populations.

- Loss of allotments and brown-field sites to development.

- The translocation of slow-worm populations from development sites to smaller and more fragmented receptor sites as part of development mitigation is not sustainable and is leading inevitably to the further decline of the species in Worcestershire (a problem reflected nationally).

- The unsympathetically timed management of fields, roadside verges and other sites using mechanical equipment can have severe impacts on slow-worm populations, particularly if pregnant females are killed.

4. Current Action

4.1 Local protection

The Lansdowne Allotments Local Wildlife Site (LWS) in Worcester was listed due to the high density of slow worms found in this area of the city. The LWS boundary incorporates three of Worcester city's allotment sites (Lansdowne Road South, Lansdowne Crescent and The Grove) as well as unmanaged areas of grassland and scrub in between.

4.2 Site management and programmes of action

- Worcester City Council provided purpose-built hibernacula on the Lansdowne Allotments in 1998. The Worcester Allotment Forum promotes slow worm conservation and habitat provision to its members.

- Worcester City Council manages 18 wildlife sites across the city, including 8 LNRs and a number of LWS. Slow-worms are a conservation priority where suitable habitat occurs.

- A substantial population of slow-worms was translocated to the National Trust's Croome estate in 2013 as part of development mitigation. The relocation site is actively managed and monitored by National Trust staff.

- Advice on slow-worm conservation can be obtained from the Amphibian and Reptile Conservation Trust.

4.3 Survey, research and monitoring

- A survey of the slow-worm populations within Worcester city was undertaken in 1997 by Worcestershire Wildlife Consultancy on behalf of Worcester City Council’s Project Greenspace. Refugia were positioned at 27 sites and re-visited to gather highest count data. The results confirmed that Worcester has a large and widely distributed slow worm population and led directly to the listing of the Lansdowne Allotment complex as a Local Wildlife Site.

- The **National Amphibian and Reptile Recording Scheme** (NARRS), led by Amphibian and Reptile Conservation (ARC), began in 2007 and uses volunteer-based efforts to monitor and report on the status of amphibians and reptiles.

- The **Worcestershire Reptile and Amphibian Group** volunteers undertake survey work and community engagement activities, particularly within Worcester city, to promote and conserve amphibians, reptiles and their habitats.

5. Associated Plans

Traditional Orchards, Scrub, Urban, Grassland, Road Verges.

6. Conservation Aim

That the county, in particular Worcester city, remains a national stronghold for the slow-worm

7. Conservation Objectives

- Raise the profile of the species amongst gardeners and allotment holders with local publicity, to promote recording and sympathetic land management practices

- Better liaison and engagement with managers of the county's road verge, rail and canal networks over habitat provision and habitat management for the species

References and further information

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Worcestershire Reptile and Amphibian Group https://www.wrag.club/