

# Sand lizard: European protected species

Where their ranges overlap the sand lizard can be confused with the common lizard, but the sand lizard is more robust, has a larger head and bolder scale patterns. A band of narrow scales runs down the middle of the sand lizard's back.

## Biology and distribution

The sand lizard *Lacerta agilis* has a highly restricted distribution in England. Around 80% of populations are in Dorset, with some substantial sites in Hampshire, Surrey and the Sefton coast. Smaller populations are also found in Kent, West Sussex, Devon and Cornwall. Some of the current populations are the result of reintroductions, mostly done as carefully planned conservation projects by the Herpetological Conservation Trust in conjunction with English Nature/Natural England, local authorities, NGOs and sympathetic landowners.

## Habitat

Sand lizards are found almost exclusively on lowland heathland or frontal sand dunes. The main habitat requirements are open, sunny areas to allow basking (but with adequate ground cover to allow predator avoidance and thermoregulation), and sun-exposed soft sand for egg-laying. Sand lizards are found less often in habitats that provide little cover (eg large extents of bare ground), and conversely in very shaded habitats that offer limited thermoregulation opportunity. Generally sand lizards favour a small-scale mosaic of low-level vegetation, bare ground and limited scrub. They are always found on free-draining substrates, often with a high sand content. Often sand lizard densities will be concentrated in certain areas of a large site, usually focused on south-facing slopes, banks or tracks with bare sandy patches.

## Lifecycle

Adult sand lizards emerge from hibernation



Photograph by Jim Foster

around March (though this is subject to wide local variation), and courtship takes place in April-May. During this period males develop very bright green flanks. Females lay 4-12 eggs in June-July in egg burrows that they have excavated. Eggs hatch in August-September, and juveniles then take around two years to reach sexual maturity. Hibernation occurs in burrows

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excavated by the lizards, in small mammal burrows, or in crevices under the ground.

Both young and adult sand lizards may feed on a wide range of small invertebrates, with young lizards specialising on flies and spiders, whilst adults are sometimes cannibalistic. Adults grow to around 18 cm maximum total length.

### Legislation

The sand lizard is strictly protected under the Wildlife & Countryside Act 1981 (as amended) and the Conservation (Natural Habitats &c.) Regulations 1994 (as amended). Capturing, disturbing, injuring and killing sand lizards is prohibited, as is damaging or destroying their breeding sites and resting places (note that this is a simplified summary of the legislation; see other texts for details).

### Issues

The sand lizard has undergone serious declines in England since the middle of the twentieth century. Declines have been due to the loss of habitat through agricultural intensification and development, reduction in habitat suitability (notably through shading after scrub invasion) and fragmentation of habitats. More recently, fires have been a serious problem for heathland populations.

### Sand lizards and farming

Common farming operations can have both positive and negative effects on sand lizards. Reduction of scrub can assist in maintaining an open aspect. Conversely, many farming activities would inevitably kill individual lizards or damage resting places if they are not taken into account. So long as there is no large-scale loss of high quality habitat (particularly sandy areas favoured for breeding), populations are unlikely to be compromised.

If an activity is likely to result in an offence (such as disturbing lizards), there are several options to proceed lawfully:

- Avoid carrying out the activity.
- Alter the methods or timing.
- Obtain a licence to allow otherwise unlawful activities.

A licence application would need to demonstrate that:

- The authorised activities are for a specified purpose (most commonly over-riding public interest or conservation).
- There is no satisfactory alternative.
- The activities would not compromise the conservation status of the species. Some activities would require habitat creation to offset damage or destruction, in order to meet the third test.

### Sand lizards and agri-environment schemes

For agri-environment agreements (eg Environmental Stewardship), ensuring the optimal timing of work will generally be the best approach, as avoidance may not be compatible with the aims of the agreement.

As a general guide, works that do not disturb the soil are best done during October to February (consistent with restrictions on timing included in your agri-environment agreement), as sand lizards will be hibernating below ground at this time.

In suitable habitats and locations works that involve disturbing the ground should only be carried out after a survey has confirmed the likely absence of sand lizards or after a licence has been obtained.

Common activities that might involve offences include:

- Groundworks to areas used by foraging, basking or breeding lizards (typically heathland or frontal dunes).
- Removal of materials (dead wood, rubble etc) piled on the ground.
- Renovation of buildings where ground excavations are involved.

Environmental Stewardship options and capital items where careful timing and planning will be essential to minimise the risk of committing an offence where sand lizards occur include the following:

- Bracken control supplement (HR05).
- Mechanical bracken control (BMA).

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- Maintenance and restoration of heathland (HO01, HO02, HO03).
- Maintenance and restoration of sand dunes (HP01, HP02).
- Major preparatory work for heathland recreation (LHX).

Common activities that are very unlikely to result in offences include:

- Tree surgery, pollarding and coppicing.
- Standard hedge, fence and stone wall management.
- Mowing grassland that has minimal tussock or thatch structure.

### Further information

If you have internet access please read:  
European protected species: frequently asked questions:

[www.naturalengland.org.uk/conservation/wildlife-management-licensing/habsregs.htm](http://www.naturalengland.org.uk/conservation/wildlife-management-licensing/habsregs.htm)

### Contact us

For questions regarding Wildlife Licensing please telephone 0845 6014523 (local rate) or email: [wildlife@naturalengland.org.uk](mailto:wildlife@naturalengland.org.uk)

If you have any concerns about your agri-environment agreement and its impact on sand lizards please contact your local Natural England adviser. If you do not know your local adviser or for any other enquiries please contact the Natural England Helpline on 0845 600 3078 or email: [enquiries@naturalengland.org.uk](mailto:enquiries@naturalengland.org.uk)

Natural England Information Notes are available to download from the Natural England website: [www.naturalengland.org.uk](http://www.naturalengland.org.uk)