

Sand Lizard

Lacerta agilis



Top: Male Sand Lizard, Bottom: Female Sand Lizard.
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Britain's only native egg-laying lizard, the Sand Lizard, is found exclusively in open sandy habitats such as coastal sand dunes or lowland sandy heaths.

At 20cm long, they are larger than the more frequently seen Common Lizard and have a slightly 'chunkier' appearance too. Males and females may be identified by their back markings, specifically ocelli or 'eye-spots' (white spots with a dark frame) and often by two thick, light-brown dorsal stripes running parallel down the length of their back. Males may be identified by their green-coloured flanks that become more striking during the mating season, before fading through the summer.

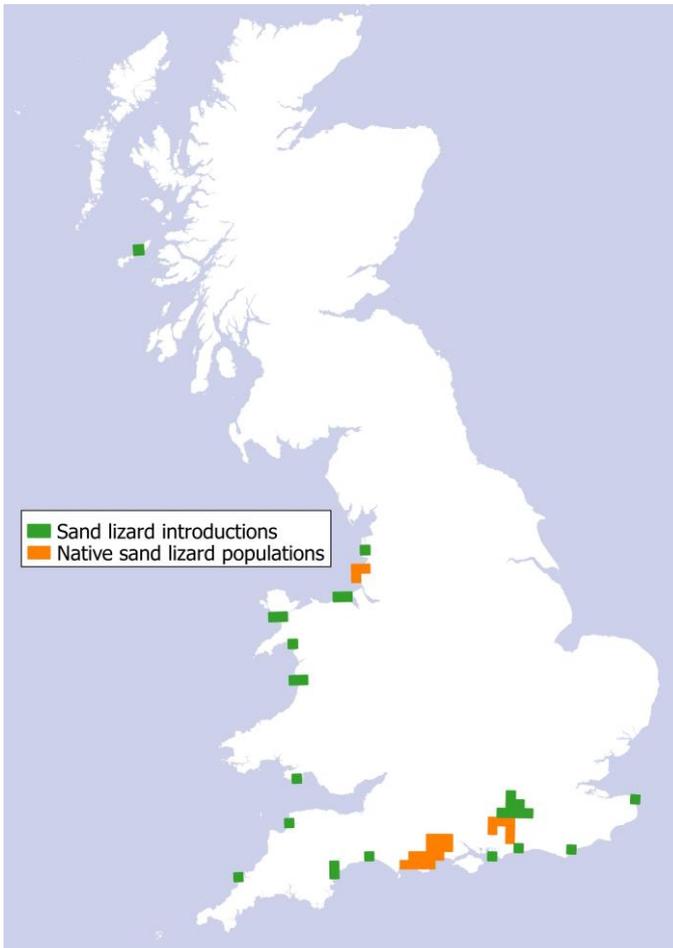
Lifecycle

Sand Lizards may emerge from hibernation any time from early-March, if conditions are right. Male Sand Lizards typically emerge before the females because they are infertile until they have basked in the sun for a few weeks.

Males begin to develop bright green flanks as the breeding season (April-June) approaches and may become aggressive towards one another during this time. After mating, males will often guard females from other potential suitors.

Female Sand Lizards are more secretive than the males, but when gravid (egg-bearing) they sometimes emerge further into the open to bask. By doing this they gain enough warmth from the sun to aid the development of their eggs. Clutches vary in size from between 6-12 eggs; in exceptionally warm and sunny summers, females can lay a second clutch.

Eggs are laid between late-May and early-July in southerly-facing sand patches at a depth of around 7.5cm. Females will dig a number of test burrows until they are happy with the conditions – temperature, humidity and texture are crucial. Once laid, she has nothing more to do with the eggs, which hatch throughout August and September. Hatchlings are about 5cm long and are lighter in colour than juvenile Common Lizards and have the same markings as the adults. They reach sexual maturity after 3 years and can live for up to 12 years.



Distribution of native and introduced populations of Sand Lizard

Distribution

There are native populations of Sand Lizards found on lowland sandy heaths in Surrey, Dorset and Hampshire and the coastal sand dunes of the North Merseyside Coast. There have been a number of successful introductions to sites in southern England, Wales and even Scotland.

Habitat

In Britain, the Sand Lizard is exclusively confined to sandy habitats. They favour a varied topography that provides multiple aspects for individuals to bask on at different times of the day. A mixed vegetation structure provides cover if they are disturbed or feel threatened and small areas of bare ground surrounded by vegetation are their favoured spots for basking. The mixed vegetation structure also provides habitat for their invertebrate prey. Around 20% bare sand across the site is considered ideal. Open areas of sand on southerly-facing slopes provide areas to lay their eggs.

Survey method

Surveys should be carried out under licence between March and September when the lizards are active. For further guidance, see the 'Sand Lizard – species survey guide'.

Protection

Sand Lizards are listed as a European Protected Species under Annex IV of the European Habitats Directive and are protected in the UK under the Wildlife and Countryside Act 1981 and as a Priority Species under the post-2010 Biodiversity Framework. A licence is strictly required to carry out surveys for Sand Lizards. Always obtain the landowners permission prior to carrying out any surveys.

Reasons for decline

The UK's coastal dunes and sandy heaths are in serious decline; research shows 81% of bare sand has been lost since 1945 on the Sefton Coast alone.

The dramatic reduction in the area of bare sand may be linked to a change in the use of sand dunes. Throughout the 19th and 20th Centuries, Marram Grass was used as thatch and rabbits were farmed on the dunes for their meat and fur. These two activities would have created large areas of bare, mobile sand which would maintain perfect habitat for Sand Lizards. Large rabbit populations remained until the outbreak of myxomatosis in the 1950s. Around the same time, it became apparent that fewer people were visiting coastal resorts resulting in less disturbance to the habitats, one reason for this is that air-travel became more accessible to a wider audience.

In more recent times, urban and agricultural expansion, the spread of invasive species such as Sea Buckthorn and Japanese Rose, climate change and increased levels of nitrogen are responsible for the rapid loss of habitat. Predation is likely to play a major role in their decline, corvids, kestrels and pheasant are a major threat as well as foxes and domestic cats.

Habitat management

Ideal Sand Lizard habitat is maintained by keeping tall, dense scrub to a minimum including invasive species such as Sea Buckthorn. Effort should be made to create and restore areas of bare sand on southerly-facing slopes. For further guidance, see the 'Creating and maintaining bare sand patches – habitat management guide'.