

Sand Lizard

Lacerta agilis



1: Male sand lizard, 2: Female Sand Lizard head, 3: Common Lizard head, 4: Female Sand Lizard back pattern, 5: Juvenile Common Lizard, 6: Sand Lizard hatchling. © Andrew Hampson and Pete Hill.

Identification

Sand Lizards can be identified by their size, shape and back markings. Adult, male Sand Lizards are very distinctive with bright green flanks between April and June.

Size: Sand Lizards are larger than the more frequently seen Common Lizard and can grow up to 20cm in length. Adult Common Lizards reach up to 15cm long.

Shape: A Common Lizard is much slenderer in appearance, with an almost pencil-shaped body and head. A Sand Lizard is quite chunky, with a more angular head.

Back markings: Sand Lizards may be identified by their back markings, specifically ocelli (white spots with a dark frame) that run along either flank and down the centre of its back. The ocelli along the back sit between two light-brown stripes running parallel down the back. The ocelli on Dorset and Surrey Sand Lizards are much bolder than Merseyside lizards. Common Lizards have a single dark dorsal stripe and a speckled or striped pattern.

Sexes: Males have an obvious bulge at the base of the tail, bright-green flanks during the breeding season and the ocelli along the flanks are much less distinctive. Outside of April-June, the males' green flanks fade away so it can be harder to distinguish between sexes. Females are pale-brown or grey in colour and her ocelli are much more pronounced. Females are larger in size and have a slenderer head and neck.

Hatchlings: Sand Lizard hatchlings have a bulbous head, the same back-markings as adults and are much lighter in appearance compared with Common Lizard young. The darker coloured Common Lizard juveniles have a pencil-shaped body and a slender head.

Surveying

Where: In the UK, Sand Lizards are confined to coastal sand dunes and sandy heaths. Surveys should be focussed





A male Sand Lizard (in the blue circle) basking at the interface between bare sand and vegetation – a typical basking spot.

where the right habitat characteristics are present, specifically southerly facing slopes where bare sand and tussocky vegetation is present.

Sand Lizards typically bask on southerly facing slopes, just within the cover of tussocky or dense vegetation where it meets bare sand or short turf. Focus on small areas of bare ground between the vegetation, specifically sheltered spots that act as sun-traps.

When: March to May is the most productive time of year to survey for Sand Lizards. The animals have just emerged from hibernation and the strength of the sun is still quite weak, therefore spend long periods of time basking.

March and April – survey during the middle of the day (11am-3pm) in sunny or bright conditions.

April and May - the days warm up quicker and so do the animals, surveys should take place mid-morning (9am-11am) and late-afternoon (4pm-6pm). At this time of year, periods of bright but overcast weather or intermittent cloud may force lizards to bask longer into the day.

End of May onwards - surveys will be much less productive as lizards spend little time basking – survey in early-morning (before 9am) and in the evening (after 6pm).

September and October – weather conditions for surveys should mirror March-April.

After a period of cool/wet/dull/overcast weather, the first days, or sometimes hours, of sunshine can often be particularly productive for lizard surveys. Avoid surveying during prolonged periods of hot, dry weather.

Males are much more noticeable from March to May as they emerge earlier than females and spend their time basking. Gestating females, late-May to early-June, may venture slightly more into the open as basking helps them gain energy needed for egg development. From August onwards, hatchlings may start to emerge. To begin with, hatchlings are not very cryptic and may often be in the open. Over time, they will bask further into the vegetation.

How: Aim to undertake a minimum of 10 surveys of each survey area. Carry out a visual search of the survey area, walk slowly scanning a couple of meters ahead of you as you walk. Keep the sun behind you or to your side but try to avoid casting a shadow over any potential basking spots. If you need to climb large slopes, start at the bottom and zig-zag your way up, still taking care to look ahead and also above. From June onwards, avoid standing on bare sand on southerly-facing slopes to prevent disturbing egg-laying sites. If you disturb a lizard before you get a chance to identify it, make a note of where it was basking, carry on surveying and circle back to the location after 10 minutes.

What to record

Records in the field should be captured on a recording form, in a notebook or using a digital app. For each survey, the date, start time, end time and weather conditions should be recorded. For each sighting, record the 10-figure grid reference (British National Grid), species, sex and life-stage. Grid references can be captured using a handheld GPS or mobile phone with a grid-reference app.

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 and all records must be submitted to Amphibian and Reptile Conservation. Always obtain the landowners permission prior to carrying out any surveys.

Personal safety

All lone-working should be avoided if possible. If lone-working, a buddy system must be enforced; provide someone local with your start and estimated end time, mobile phone number and the location of your survey area.