

Guidance on managing woodlands with sand lizard and smooth snake in England

1. Background and purpose of document

The Habitats Directive¹ aims to conserve various species of plant and animal which are rare across Europe, and it requires Member States to provide legal protection for these species. Many of the protected species which are found in the UK (European Protected Species, or EPS) are either associated with or can be found in woodland, for instance dormice, otters, all species of bat, great crested newts, smooth snakes and sand lizards. The EU Directive was transposed into UK law by the Habitats Regulations in 1994 and as the Conservation of Habitats and Species Regulations 2010. The Regulations have increased the protection afforded to EPS and does not include the 'incidental result' defence under which many forestry operations were carried out.

The Forestry Commission (FC) and Natural England (NE), with assistance from relevant conservation organisations, have produced a suite of guidance to help you understand the legislation and to use good practice to operate within the law, avoid licensing and benefit EPS. Following the guidance will show that you have taken all reasonable steps to comply with the Regulations. This document is one of a series providing guidance for woodland managers and operators. It focuses on the sand lizard (*Lacerta agilis*) and smooth snake (*Coronella austriaca*).

Guidance is given on routine and on-going forestry and woodland operations and activities. For more unusual operations, such as development, construction or land-use change (i.e. removal of forest) you should seek further advice from the FC. Similarly, whilst it covers low-key recreational usage, expert advice should be sought for more unusual or intensive activities in woodlands e.g. music concerts or motor rallying.

This guidance should be used in conjunction with wider guidance on forestry and woodland management, and should not be followed in isolation. If the guidance has been followed, but you nevertheless do inadvertently cause damage, disturbance or harm to these protected species, a prosecution is unlikely to be considered to be 'in the public interest'². However, you are reminded that it remains your responsibility to ensure all your actions do comply with the law.

Sources of more detailed information on conserving the species are given in the further reading section.

¹The formal title is: Council Directive 92/43/EEC on the Conservation of natural habitats and of wild fauna and flora.

²The public interest test is used by the regulators to decide whether it is appropriate to take a matter any further bearing in mind all the circumstances of the case.

2. Complying with the Habitats Regulations through good practice

Conserving rare and protected species present in a wood requires a careful and well-planned approach to woodland management. Smooth snake and sand lizard are both protected under the Habitats Regulations. If you manage your woodland according to

this guidance you are unlikely to inadvertently commit an offence against smooth snake and sand lizard.

The overall outcome of management should be a mosaic of suitable and undisturbed habitats, which are interconnected and will provide a continuity of habitats over time. The key principle is to limit operations in proximity to areas of concentrated usage by species (or foci) to minimise the risk of damage, disturbance and harm. The undisturbed areas act as reserves or 'refugia' from which the population of sand lizard and smooth snake can colonise worked areas as they develop suitable habitat.

2.1. What woodland habitats do smooth snake and sand lizard use?

The smooth snake and sand lizard use areas of heathland, scattered scrub and rough grassland. Sand lizards also use frontal sand dune habitats. Both species may also use woodland habitats, in particular woodland edges and ride edges, grassy glades, clearfelled or young restock sites and open pine stands within plantation woodlands. The more open the habitat the larger the populations of smooth snake and sand lizard are likely to be. Such conditions are more likely within stands prior to canopy closure (0-15 years) or after thinning (40+ years). Areas with closed canopy are usually avoided, though the immediate edge may be used where it adjoins favourable open habitat. Foci tend to be associated with unshaded, south-facing areas with varied local topography such as slopes and gullies, with a mosaic of low-level vegetation, bare ground and limited scrub. It is likely that foci will remain in such locations as long as the habitat conditions remain suitable.

Further information and advice on habitat requirements of these species is available from The Herpetological Conservation Trust, also see further reading list.

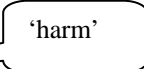
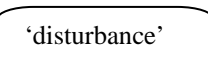
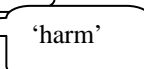
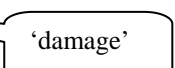
3. Forest operations, smooth snake and sand lizard – avoiding committing an offence

Sand lizards and smooth snakes are unable to move around woodland quickly, for instance to flee from a threat. The use of habitats by these species away from the foci can be very difficult to predict. Therefore the foci identified through survey, represent the core areas that need to be conserved for these species. As such, carrying out woodland management activities such as timber harvesting, scarifying, mowing, planting and excavation, in close proximity of foci constitutes a high risk of causing them damage, disturbance or harm and will therefore require careful thought.

A systematic approach will be required in order to minimise the risk of committing an offence. This guidance is structured around the following five stages:

- Are the species **present** in the wood?
- Could proposed activities and operations potentially cause **damage, disturbance or harm** to the species?
- Are operations in habitats these species use and when the species use them?
- Are other parts of the woodland being managed using good practice for the species?
- When and how should I seek a **licence**?

The phrase 'causing damage, disturbance or harm' is actually a simplification, and it is important to understand the precise offences that can be committed. The Habitats Regulations state:

A person who—
(a) deliberately captures, injures or kills any wild animal of a European protected species, 
(b) deliberately disturbs wild animals of any such species, 
(c) deliberately takes or destroys the eggs of such an animal, or 
(d) damages or destroys a breeding site or resting place of such an animal, 
is guilty of an offence.

(2) For the purposes of paragraph (1)(b), disturbance of animals includes in particular any disturbance which is likely—

- (a) to impair their ability—
 - (i) to survive, to breed or reproduce, or to rear or nurture their young, or
 - (ii) in the case of animals of a hibernating or migratory species, to hibernate or migrate; or
- (b) to affect significantly the local distribution or abundance of the species to which they belong.

Causing 'damage', even when the animal is not present, is an absolute offence but 'disturbance' or 'harm' is only considered an offence when caused deliberately. In the Directive, the term 'deliberate' is interpreted as being somewhat wider than just intentional and could be thought of as including an element of recklessness. A person would be acting recklessly if they could reasonably have been expected to foresee that an operation could cause disturbance or harm to a protected species but took no action to assess the risk and consider what to do about it. Where an operation is carried out with sensible precautions then the risk of deliberate disturbance and harm can be greatly minimised.

You should be aware that there is the potential for more than one protected species in your woodland, which for example may support dormice and bats, and you will need to follow the good practice guidance for each of the species present.

A series of tools have been developed to help support and advise woodland owners and managers on how to manage woodland where there are protected species present. This guidance is in compliance with sustainable forestry management practices and the Habitats Regulations.

A checklist - **European Protected Species and woodland operations v3** (PDF 104 kb) has been developed to guide woodland owners and managers through the decision-making process of seeking grant or felling permission approvals.

Immediately prior to woodland management operations taking place an **Operational Site Assessment Form** should be filled in. This has also been developed to help woodland owners and managers consider the potential impacts of operations on site features including EPS and identify the measures required to follow good practice.

For more information on EPS (including access to the above checklists) and the steps land managers should take to safeguard them please see our EPS web page. www.forestry.gov.uk/england-protectedspecies

3.1 Are sand lizard and/or smooth snake present in the woodland?

There are several ways of determining the likelihood of sand lizard and/or smooth snake being present in your woodland:

a. Is your woodland within the current known range of either species?

The maps below show the known distribution of the sand lizard and smooth snake. You will see that both of these species are very localised in their distribution. These reptiles mainly occur on protected heathland sites in Surrey, Dorset and Hampshire (with the sand lizard also on the protected Merseyside dunes systems). Sand lizards have also been re-established at many other sites in these counties and, to restore its historic range, to protected dune sites in north and west Wales, Kent, west Sussex, Devon and Cornwall.

Please note that not all recent occurrences of sand lizard and smooth snake may be mapped.

Smooth snake



Map Source: National Biodiversity Network copyright C Crown Copyright. All rights reserved NERC 100017897 2004
Picture: Forestry Commission

Sand lizard



Map Source: National Biodiversity Network copyright C Crown Copyright. All rights reserved NERC 100017897 2004
Picture: Forestry Commission

b. Are there records of sand lizard and/or smooth snake in your woodland?

The National Biodiversity Network (NBN) is available on the web and can be checked for presence of smooth snake and sand lizard near or in your woods. The interactive maps <https://data.nbn.org.uk/imt/> for smooth snake and sand lizard, can be used to zoom to your area of interest (please note that not all recent occurrences of the species may be shown on the maps and a lack of records does not necessarily confirm absence of these species). Further records may be available from the Local

Biological Record Centres (follow 'LRCs' link at: www.nfbr.org.uk), Natural History Societies, and local amphibian and reptile groups (contact details through national representative body: www.arg-uk.org.uk). The Herpetological Conservation Trust or your local County Wildlife Trust representative may also be able to give site specific information on likelihood of protected reptiles being present in your woodland.

c. Is there field evidence of sand lizard and/or smooth snake in your woodland?

Sightings of animals - Smooth snake and sand lizard hibernate during the winter months but are usually active for the rest of the year (see calendar of species activities). During the active season they can be observed basking in sunny, sheltered locations close to vegetation cover. Smooth snakes are less often observed basking in the open than sand lizards, and are more typically found under refuges or wrapped around clumps of heather or in grass tussocks. Suitable sites tend to have a south or south-westerly aspect and are on well drained substrate. Areas of wetter habitat e.g. purple moor-grass bogs will also be used especially during the hottest period of the summer. Searching is best carried out in April, May and September, when the air temperature is between 9-18°C and on dry, calm days. Searching on south-facing banks in March and April may reveal animals that have just emerged from burrows used for hibernation. When not basking, the species shelter in dense vegetation in sunny locations, under debris and in underground holes (mammal burrows, tree root systems, etc). Searching sites repeatedly (more than 10 times per season) and/ or for sustained periods (more than 3 hours per day) and getting closer than 5m to the animals during sensitive periods (emergence, courtship, mating, egg laying) may result in disturbing animals. Searching by turning over potential refuges e.g. logs and rocks may damage resting sites and result in disturbing animals. Intensive searching is therefore not recommended unless carried out by a licensed specialist.

Signs - Reptile skins (sloughs), that are periodically shed, can indicate reptile presence though it may be difficult to identify which species without training. Sloughs tend to be found next to rough vegetation, rocks and logs that have been used to rub against.

Breeding indications - sand lizard eggs are usually laid in burrows dug in areas of open sand with a southerly aspect and about 50cm from vegetation cover. Searching such areas in September may reveal hatchlings. It is not recommended to dig up sand to search for egg shells as this might damage breeding sites. The smooth snake does not lay clutches of eggs, this species is ovoviviparous (eggs are produced but the young hatch out of these inside the adult, and are born live).

For more information on surveying for smooth snake and sand lizard see Froglife (1999) and Moulton & Corbett (1999) (further details given in reference list below).

Calendar of smooth snake and sand lizard activities:

	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
Smooth snake and Sand lizard												
		Hibernating										
		Breeding										
		Using resting sites but unable to flee from forest operations										

Note: Hatchlings may be active until late October.

Dates given are guidelines relating to the typical active period for these species. Whether or not they are active when you carry out operations will depend on local temperature conditions and do vary considerably. For example, a particularly early or late spring will normally mean reptiles emerge earlier or later respectively; southern populations will generally be active for longer in a given year than northern ones.

If you suspect that smooth snake and/or sand lizard are using your woodland and you intend to carry out management your survey will need to have identified the foci which will contain the resting/breeding/hibernation sites. Identifying foci can be difficult and you may wish to consider engaging local specialists, for example, a local reptile group may be interested in carrying out a site visit in your woodlands and assist in determining presence of these species and identifying foci.

Once foci have been identified these will need to be mapped and incorporated into both your Forest design Plans and Woodland Management Plans. You may choose to avoid the areas identified, or alternatively proceed with management in these areas in accordance with the good practice described in this document.

If by self-assessment and survey (using the information above) or specialist survey you are confident that smooth snake and/or sand lizard are not using your woodland then no further action is necessary other than keeping a record of your decision and the information used to reach it, (for example a specialist survey) and the operation may proceed. If smooth snake or sand lizard or fresh signs of them are discovered during operations (especially from likely breeding or resting places), you should immediately stop work, review your plans and employ the 30m buffer prescribed in the good practice (see Section 3.4). If this is not possible, contact Natural England for further advice. It is therefore important for operators to remain vigilant for smooth snake and sand lizard while undertaking work.

3.2 Could proposed activities and operations potentially cause damage, disturbance or harm?

Carrying out any operations that 'exceed' the thresholds or do not comply with the good practice guidance below constitute an offence or carry a significant risk of committing an offence. Some possible examples are:

- Any operations using machinery within 30m of known foci.
- Planting on established foci.
- Raking/scarifying/burning brash beyond the 1 year post-felling period.
- Felling trees to comply with plant health notices.

The level of risk will depend on several factors:

- **Distance from the foci:** any machine working within 30m constitutes a significant risk, whereas if you are you working more than 100m from the foci there is a very low risk.
- **Intensity of operation:** scarifying is both intensive and affects the whole area treated, driving a forwarder once through an area to extract timber will have a much lower risk of causing disturbance, damage or harm provided areas with foci are avoided.
- **Nature of the habitat:** a relatively bare and plain forest floor below a conifer canopy (15- 30yrs) will contain few potential resting places compared to a recent restock site or a well-thinned stand of trees (conifer or broadleaf) which may contain many individual animals.

3.3. Are operations in habitats this species uses and when the species uses them?

Foci represent the core areas of species use and where habitat conservation needs to be focussed. Species will be using these areas between April and late October. Both species hibernate for approximately 4-5 months over the winter, using underground features or burrowing beneath dense vegetation and deadwood. Depending on the proposed operation, these species should be at lower risk at this time of year.

3.4. Good practice guidance for woodlands with sand lizard and/or smooth snake

This good practice guidance for routine woodland operations should maintain or improve the habitat for sand lizard and smooth snake and minimises the risk of harming and disturbing animals or damaging their breeding sites or resting places. If you follow this good practice, and carry out the operations as described below, we would not expect you to require a protected species licence.

Include known locations of foci on your Forest Design Plans (FDP) or Woodland Management Plans (WMP) and proposed felling maps so that, where possible, they can be protected, and when developing work plans the location and timing of operations can be scheduled to avoid impacting on species. Where these species occur, felled woodland could be restored to heathland to extend existing habitat and create corridors. Creating scalloped bays on the south side of rides and woodland blocks will increase useful edge habitat. Whereas, windrows create excellent reptile habitat and may be used as hibernation sites.

- **Known foci** – avoid undertaking any mechanised operations within 30m of known foci.
- **Felling/thinning** – in woodlands with some heathland vegetation, ensure felling/thinning uses an integrated harvester/forwarder operation wherever possible to minimise ground damage.
- **Timber stacking** - avoid stacking timber within 30m of known foci or on sensitive ride edges and ensure that it has been removed within 6 weeks otherwise it may become a resting place for sand lizard and smooth snake. Stacking carries a very low risk if done during winter in areas not used for hibernation.
- **Ground preparation** – undertake any brash raking in the first winter after felling, and not within 30m of known foci. Where brash has been left for more than 1 year, it is likely to have become well colonised by reptiles and should not be raked, scarified or burnt.
- **Planting** – site new plantings so that the developing stand will not cast shade on known foci and future potential foci sites.
- **Bracken spraying** - minimise the use of tractor-mounted herbicide spraying on recent restock sites. Spot-spraying would be an ideal alternative to avoid damage, disturbance and harm caused by the vehicle, as well as maintaining good habitat between the spots for prey species for these reptiles.
- **Rabbit gassing** - to avoid poisoning sheltering reptiles, rabbit gassing should only be undertaken away from known or suspected foci and when reptiles are active (March- September).
- **Mowing** - restrict mowing to short sward areas i.e. those free of tussocks and thatch structure when within 30m of known foci.
- **Road & track maintenance** - avoid maintenance during period of egg laying and egg incubation (sand lizard), and similarly avoid prolonged use of heavy machinery in proximity to such breeding sites at this sensitive time of year.
- **Changes in recreational usage** – locate any new paths or recreational infrastructure at least 30m from known foci.

- **Trees on foci** - where necessary for conservation purposes, in winter hand-cut (and either stack or remove by hand and avoiding any ground disturbance) trees that are significantly shading known foci.

3.5. When and how should I seek a licence?

You can apply for a licence to carry out operations that will risk committing an offence, but your application will have to be able to demonstrate the operation is necessary to either:

- Preserve public health or public safety or other imperative reasons of overriding public interest including those of a social or economic nature and beneficial consequences of primary importance for the environment, for instance by delivering Government's woodland strategy and provide public benefits;
- Prevent the spread of disease; and
- Prevent serious damage to livestock, foodstuffs for livestock, crops, vegetables, fruit, growing timber or any other forms of property or to fisheries.

And you must be able to show:

- That there is no satisfactory alternative; and
- That the action authorised will not be detrimental to the maintenance of the species concerned at a favourable conservation status in their natural range.

Together these criteria make up the 'three tests' and will be considered by Natural England, licenses will only be issued in the three tests can be satisfied. More information is available at:

<http://www.naturalengland.org.uk/ourwork/regulation/wildlife/species/europeanprotectedspecies.aspx#licences>

Two versions of the application form are available: an electronic version and a manual version. We encourage electronic applications wherever possible. Electronic forms can be obtained from www.forestry.gov.uk/england-protectedspecies

A manual application form can be obtained from your local FC office. This will guide you through the process and the information you need to provide. To meet the third 'test' you will need to undertake works in such a way as to minimise harm to smooth snake and sand lizard and you may be required to carry out additional work to improve the habitat or 'compensate' for any adverse impacts. The FC will carry out initial checks but NE will make the ultimate decision and grant the licence.

If the package of work you are proposing does not meet the three 'tests' then it will not be possible to grant a licence. You are strongly advised not to proceed with operations that involve a high risk of committing an offence without a licence.

Sources of further information and references

Anon (2007) *Guidance document on the strict protection of animal species of Community interest under the Habitats Directive 92/43/EEC*, European Commission, http://ec.europa.eu/environment/nature/conservation/species/guidance/index_en.htm (Accessed October 2013)

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