

amphibian and reptile conservation

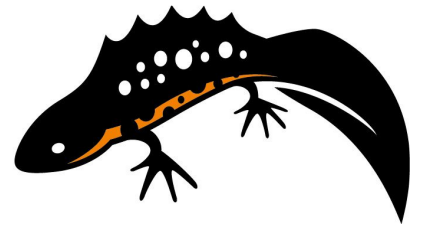


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Sand Lizard and Smooth Snake Species Action Plan

Version: July 2009

Next Review March 2010

Introduction

This document outlines the actions required to conserve the sand lizard (*Lacerta agilis*) and smooth snake (*Coronella austriaca*) in Britain and provides a framework for all conservation work. More detail of each action is provided in the implementation guide. Each action has been assigned the appropriate level for implementation i.e. United Kingdom, country, region or local. Key actions have been identified through a 'signposting' exercise; these statements are shown in two shades of green and the corresponding signposted actions are marked with a similarly coloured signpost symbol.

Action Level Key

- UK All high-level actions, including European actions
- C Country
- R Region
- L Local

sign post → Signposted action related to each preceding Signpost Statement

A few of the signposts cover a wide range of issues (and sections of the action plan). In these instances the signposts are used in both parts of the plan, with the relevant section marked in bold.

Action for both the sand lizard and smooth snake is targeted to specific counties:

Smooth snake: Only occurs in southern England on lowland heath sites. Action is therefore targeted in the following counties: Dorset, Hampshire, West and East Sussex, Surrey, Berkshire, Wiltshire, Devon and Kent.

Sand lizard: Dorset, Hampshire, Surrey, Kent, West and East Sussex, Wiltshire, Berkshire, Devon, Cornwall, Merseyside, Cheshire, South Lancashire, Flintshire, Denbighshire, Conwy, Anglesey, Gwynedd and Ceredigion (Scottish site is excluded).

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Targets as agreed by Government

Sand Lizard

1. Achieve an increase in the range from current 14 occupied vice counties to 18 occupied vice counties by 2010

	Baseline	2010	2015	2020	2030
UK	14	18	22	24	26
E	11	13	15	16	17
S	1	1	1	1	1
W	2	4	6	7	8

2. Achieve an increase in the range from current 384 occupied kilometre squares to 388 occupied kilometre squares by 2010

	Baseline	2010	2015	2020	2030
UK	384	388	392	394	396
E	379	381	383	384	385
S	1	1	1	1	1
W	4	6	8	9	10

3. Increase the potential area of occupancy from current 1019 ha of occupied habitat to 1,252 ha of occupied habitat by 2010

	Baseline	2010	2015	2020	2030
UK	1019	1252	1500	2000	2702
E	1000	1200	1398	1848	2500
S	2	2	2	2	2
W	17	50	100	150	200

Smooth Snake

The smooth snake was added as a Biodiversity Action Plan priority species in the 2007 Priority Species Review. There are no agreed targets for this species at the moment. Numeric targets will be developed by the steering group in the first year of this action plan. The absence of targets will not delay conservation action. It is clear that effort is required to increase the range and the occupied habitat for this species, as outlined in this rare reptile action plan.

Information about the Species Action Plan targets

The sand lizard Species Action Plan has three range targets. Occupied vice counties, 1km squares and occupied habitat (hectares). Occupied vice counties measures overall distribution, ensuring the species is present in all parts of its natural range, and 1km squares allows for the magnitude of distribution to be determined at a coarse scale. Occupied habitat (ha), is the third target and measures the actual habitat utilised by sand lizards.

The 2050 targets equate to long-term viability assuming continuing active habitat maintenance at the majority of sites.

Progress towards the targets will be undertaken through re-introductions at 11 sites. Targets will be revised as additional information becomes available; further work is needed to refine the Welsh vice-county targets. Detailed guidance for LBAP practitioners on the delivery of these targets will be provided by the Sand Lizard SAP Steering Group, including how Local Species Action Plans can achieve their local targets.

1. Action Plan/SAP Management

Objective 1.1

To provide direction and ensure efficient implementation of the sand lizard and smooth snake Species Action Plan.

		<i>Action Level</i>
(i)	Coordination	UK, C, R, L
(ii)	Produce guidance as required	UK, C, R, L
(iii)	Review Action Plan	UK, C, R, L
(iv)	Review targets and objectives	UK, C, R, L
(v)	Reporting	UK, C, R, L
(vi)	Liaison with key BAP Partners	UK, C, R, L

2. Policy and Legislation

Objective 2.1

To have legislation and policy that is effective for sand lizard and smooth snake conservation that ensures no net loss of conservation status and promotes opportunities for enhancement of the status of the species and their habitats and to ensure its effective transposition and implementation.

Smooth Snake & Sand Lizard Signposted Action

Wider Action- Planning: Land use planning policy needs to ensure that (i) sites are safeguarded and (ii) potential linkage/ corridors between them are protected and managed, especially in light of likely effects of climate change (where non-heath habitats may be seen to have increasing importance for these thermophilic species).

		<i>Action Level</i>
(i)	sign post Evaluate the effectiveness of legislation in attaining conservation for the species, and identify and promote mechanisms for improvement.	UK, C
(ii)	sign post Use the Biodiversity Duty introduced by the Natural Environment and Rural Communities Act 2006 and the Nature Conservation (Scotland) Act 2004, to embed species conservation needs in all relevant policies.	C, R, L
(iii)	sign post Interpret, implement and enforce legislation and policy in such a way as to ensure effective conservation for sand lizard and smooth snake.	UK, C, R, L
(iv)	sign post For key areas, encourage the preparation and implementation of supplementary planning guidance and local spatial strategies to ensure the strategic long term safeguard and management of populations.	C, R, L
(v)	sign post Promote the inclusion of sand lizard and smooth snake in development control policy frameworks and relevant strategic policies as a 'species of principal importance to nature conservation'.	C, R, L
(vi)	sign post Review licensing regime and the impact of derogations on European Protected Species of sand lizard and smooth snake and promote mechanisms for improvement.	UK, C,
(vii)	sign post Develop standard guidance and protocols to ensure consistent high quality advice and clear working practices in (to inform developers/consultants and local authorities).	C

Objective 2.2

Ensure adequate information and knowledge base is available for decision-making.

		<i>Action Level</i>
(i)	sign post Ensure availability of and access to appropriate data and ecological knowledge early in policy development or decision-making and that there is an appropriate framework and skills base for interpretation.	UK, C, R, L
(ii)	sign post Incorporate sand lizard and smooth snake data/knowledge into strategic and spatial plans.	UK, C, R, L
(iii)	sign post Ensure understanding of habitat use and distribution, and the extent and impacts of fragmentation and possible changes due to climate change, and that information is available to incorporate these into planning and policy decisions.	UK, C, R, L

Objective 2.3

To ensure mechanisms are in place to support policies that achieve BAP objectives.

Sand Lizard Signposted Action

Wider Action – Agri-Environment: Agri-environment schemes need to ensure effective, and non-detrimental, management of heath and dune sites and of their surrounding areas (e.g. for connectivity and range expansion).

Smooth Snake Signposted Action

Wider Action- Agri-Environment: Agri-environment schemes need to ensure effective, and non-detrimental, management of heath sites and of `peripheral areas` (e.g. for connectivity and range expansion).

		<i>Action Level</i>
(i)	sign post Ensure agri-environment schemes are able to support sand lizard and smooth snake conservation and see that these are developed. Target agri-environment strategies to deliver habitat creation and management targets/objectives.	UK, C, R, L
(ii)	Review existing non-agricultural funding mechanisms for habitat creation, restoration and management and population linkages, especially heaths and dunes.	UK, C, R, L
(iii)	Consider and promote expansion of funding mechanisms where gaps exist.	UK, C, R, L
(iv)	sign post Integrate sand lizard and smooth snake conservation needs into landscape and ecosystem level schemes and approaches.	UK, C, R, L

Objective 2.4

Ensure effective and appropriate site safeguard.

Smooth Snake *part* Signposted Action

Species Specific – On protected sites, the condition and connectivity of heathland habitat has to be enhanced and maintained to restore this species to its former population levels and via translocation, if needed, to restore the former range. ***On SSSIs where the species occurs it needs to be specifically identified as a listed 'Interest Feature' in more cases than at present to promote & draw attention to its conservation need. Should be cross-linked to Lowland Heathland plan (but only if species specific requirements are acknowledged e.g. noting danger of inappropriate management such as use of burning and impact of over-grazing on reptiles on heathland) and/or could be grouped with actions for sand lizard on heaths.***

		Action Level
(i)	Review the role of all designated sites for sand lizard and smooth snake conservation in England, Scotland & Wales, and evaluate and refine the selection criteria. (All SAC, SSSI and Local Sites).	UK, C, R, L
(ii)	Produce a register of key sites and, where appropriate, forward site details to SNCOs, NGOs and/or local authorities for consideration as protected sites.	UK, C, R, L
(iii)	sign post Where appropriate ensure that sand lizard and smooth snake are noted as SSSI 'interest features' to promote appropriate habitat management.	UK, C
(iv)	Pursue opportunities for site acquisition to benefit the conservation of these species.	UK, C, R, L

3. Species and Habitat Management

Objective 3.1

To maintain the range and populations of the species through favourable management of occupied sites, linking populations and the restoration and creation of sufficient new sites to compensate for local losses.

Sand Lizard Signposted Action

Species Specific – Protected sites (either heathland or sand dune) require sympathetic habitat management (control/removal of trees and scrub, maintenance of areas of bare sand, firebreaks and dune mobilisation, implementation of fire-wardening, maintenance of diverse age structure of heather/dune vegetation) to accommodate requirements of this species if we are to re-establish previous range and population levels, using protected sites as the core of the distribution (See signposts under 3.2). Sand dunes (in particular) require management as a system, and not just as individual sites. Linkage between and within sites is important for reversing the effects of fragmentation. Some range restoration will require the translocation of species to suitable habitats. Should be cross-linked to Lowland Heathland and Sand Dune plans (but only if species specific requirements are acknowledged e.g. noting danger of inappropriate management such as use of burning and impact of over-grazing on reptiles on heathland) and/or could be grouped with actions for sand lizard on heaths.

Smooth Snake *part* Signposted Action

Species Specific – ***On protected sites, the condition and connectivity of heathland habitat has to be enhanced and maintained to restore this species to its former population levels and via translocation, if needed, to restore the former range.*** On SSSIs where the species occurs it needs to be specifically identified as a listed `Interest Feature` in more cases than at present to promote & draw attention to its conservation need. Should be cross-linked to Lowland Heathland and Sand Dune plans (but only if species specific requirements are acknowledged e.g. noting danger of inappropriate management such as use of burning and impact of over-grazing on reptiles on heathland) and/or could be grouped with actions for sand lizard on heaths.

		Action Level
(i)	sign post Produce and distribute advice on habitat management and restoration to encourage positive management of habitats and to prevent losses through mismanagement or neglect: target owners/managers of all important sites. Ensure rare reptile habitat requirements are catered for in programmes of controlled burning, cutting or grazing management.	UK, C, L
(ii)	Identify sites which have potential for restoration or creation of new habitats.	UK, C, R, L
(iii)	sign post Distribute information on grant schemes that help conserve sand lizard and smooth snake to land owners/managers and encourage uptake.	UK, C, R, L
(iv)	sign post Implement positive management.	C, R, L

Objective 3.2

Increase the number of populations and range sand lizard and smooth snake through habitat creation and management by encouraging natural dispersal and translocation where needed.

Sand Lizard Signposted Action

Species Specific – The extent of heathland and sand dune habitat has to be enhanced and linked to counter fragmentation to restore this species to its former range. Could be included as part of lowland heathland or coastal sand dune plans, but only if species specific requirements are acknowledged.

Sand Lizard Signposted Action

Species Specific – The condition of heathland and sand dune habitats has to be enhanced and maintained to restore this species to its former population levels. Could be included as part of lowland heathland or coastal sand dune plans, but only if species specific requirements are acknowledged. Should be grouped with actions for smooth snake on heaths.

Smooth Snake Signposted Action

Species Specific – Areas of habitat (mostly outwith the protected site series) require sympathetic habitat management to improve condition, connect formerly larger tracts of heathland, and to allow the expansion of the species range. This includes, the prevention of fires, management to provide adequate cover levels of appropriate heather growth stages, scrub and tree management/control/removal, appropriate grazing and heather management regimes (and avoidance of these if needed).

		<i>Action Level</i>
(i)	sign post Develop means for effective targeting of habitat creation/expansion/management using spatial planning techniques and see targets integrated into landscape level projects, sub-regional and local plans etc.	UK, C, R, L
(ii)	sign post Encourage landowner/land manager involvement in active sand lizard and smooth snake conservation e.g. via liaison through local conservation groups, distributing management advice and information on grant schemes.	C, R, L
(iii)	Translocate sand lizard and smooth snake species where appropriate according to good practice (eg JNCC/IUCN guidelines): develop & promote 'best practice' for deciding when translocations are appropriate. Produce a priority list for re-introductions. (4 sand lizard and 1 smooth snake re-introductions every two years to establish range).	UK, C, L
(iv)	Review role of current captive breeding projects; support and use captive bred animals where appropriate (sand lizard only).	UK, C
(v)	sign post Undertake positive habitat management and link sites where possible.	C, R, L

4. Advisory and Communications

Objective 4.1

To ensure understanding of habitat needs and management requirements, survey, conservation objectives and legal obligations by local authorities, land managers, volunteers, conservation professionals and others to raise standards and gain their further involvement to benefit sand lizard and smooth snake conservation.

		<i>Action Level</i>
(i)	Review the need for advice, produce a list of desirable publications with suggested lead organisations for their development.	UK, C
(ii)	Develop protocols for informing landowners of the presence of sand lizards and smooth snakes on their land, the legal implications and management requirements.	UK, C
(iii)	Produce and disseminate documents including: <ul style="list-style-type: none"> • guidance on habitat management • guidance on legislation and its application • the re-introduction process • application of agri-environmental schemes • Produce reptile mitigation guidelines • Produce reptile habitat guidance manual • Measures to prevent accidental killing/capture • FCS Conservation Strategies for key areas • Non-native species (animals and plants) 	UK, C
(iv)	Train professionals and volunteers involved in the surveying, management and conservation of sand lizard and smooth snake.	UK, C, L
(v)	Provide advice to landowners/managers.	L

Objective 4.2

To achieve, through publicity, media and other approaches, a wider and more sympathetic understanding of sand lizard and smooth snake conservation and provide opportunities for engaging more people.

		<i>Action Level</i>
(i)	Identify main audiences and messages to be conveyed to them to further sand lizard and smooth snake conservation and the appropriate mechanisms and approaches to achieve this.	UK, C, L
(ii)	Undertake activities to further the understanding of sand lizard and smooth snake conservation including the provision of seminars, conferences and workshops.	UK, C, R, L
(iii)	Produce information on sand lizard and smooth snake conservation, including via articles, press releases, websites, television and radio etc. to reach a wide audience.	UK, C, L
(iv)	Encourage positive interpretation material and displays about sand lizard and smooth snake conservation at country parks, visitor centres and zoological gardens etc.	UK, C, L
(v)	Develop sand lizard and smooth snake based environmental education initiatives.	C, L
(vi)	Provide opportunities to see sand lizard and smooth snake in the wild and their habitats.	C, L

5. Research and Monitoring

Objective 5.1

Understand the conservation status and distribution of all sand lizard and smooth snake species and changes therein.

Sand Lizard Signposted Action

Monitoring – **Monitoring of conservation status and distribution needs to be continued** and information disseminated to land managers and decision makers.

Smooth Snake Signposted Action

Survey/Monitoring – Ongoing survey work should be continued/expanded under NARRS umbrella, not only to monitor conservation status, but also to determine presence of this cryptic species at potential sites where status is unknown and to fully understand the species distribution.

		<i>Action Level</i>
(i)	sign post Develop monitoring and surveillance schemes to address the information needs. Further refine and develop the National Amphibian & Reptile Recording Scheme (NARRS) projects.	UK, C, R, L
(ii)	sign post Maintain and develop monitoring/surveillance networks, including via workshops/ training etc. Clarify and develop relationships between recording bodies/ organisations and establish effective mechanisms for data exchange and the flow of information.	UK, C, R, L
(iii)	sign post Undertake monitoring and surveillance exercises.	C, R, L
(iv)	sign post Define appropriate measurable units/descriptors of status and develop a measure of Favourable Conservation Status.	UK, C
(v)	Consider developing appropriate indicators to reflect the status of sand lizard and smooth snake.	UK, C,
(vi)	Identify threats to the species, the risks of incidental capture and killing, and the activities that give rise to them.	UK, C, R, L
(vii)	Develop recording and monitoring schemes to assess the impact of threats e.g. incidental capture/killing, and relate these to impacts on Favourable Conservation Status.	UK, C, R, L
(viii)	Promote distribution surveys amongst volunteer groups, local authorities.	UK, C, R, L
(ix)	Make distribution data collected under contract available to local/national recording schemes wherever possible.	UK, C, L

Objective 5.2

Disseminate appropriate information to stakeholders and fulfil reporting requirements.

Sand Lizard Signposted Action

Monitoring – Monitoring of conservation status and distribution needs to be continued and **information disseminated to land managers and decision makers.**

		Action Level
(i)	Prepare an analysis of stakeholder information needs as part of surveillance strategy.	UK, C, R, L
(ii)	sign post Ensure data from wide range of sources is made available in an appropriate format.	UK, C, R, L
(iii)	sign post Undertake status reporting.	UK, C, R, L

Objective 5.3

Undertake research that benefits sand lizard and smooth snake conservation.

		Action Level
(i)	Refine list of research subjects to be addressed, and identify appropriate organisations to undertake research.	UK, C
(ii)	Establish and undertake research. <ul style="list-style-type: none"> Conduct Population Viability Analyses especially as related to isolated or fragmented populations. Increase understanding of population genetics and their significance in different contexts e.g. populations on brownfield sites, those isolated by new development etc. Identify all populations of smooth snake within the UK. Determine whether a measure of the extent and quality of available habitat can act as a surrogate for population size (habitat suitability index) (smooth snake). Determine whether 'foci' (areas with a high density of the species) are a good measure of the population size and structure. The concept of a sand lizard focus also needs definition. Determine how habitat quality relates to both foci and overall population size and viability (habitat suitability index) (sand lizard). 	UK, C
(iii)	Disseminate results of the research and disseminate conservation messages.	UK, C