

**European Community Directive
on the Conservation of Natural Habitats
and of Wild Fauna and Flora
(92/43/EEC)**

**Fourth Report by the United Kingdom
under Article 17**

on the implementation of the Directive
from January 2013 to December 2018

Conservation status assessment for the species:

S1261 - Sand lizard (*Lacerta agilis*)

UNITED KINGDOM

IMPORTANT NOTE - PLEASE READ

- The information in this document represents the UK Report on the conservation status of this species, submitted to the European Commission as part of the 2019 UK Reporting under Article 17 of the EU Habitats Directive.
- It is based on supporting information provided by the geographically-relevant Statutory Nature Conservation Bodies, which is documented separately.
- The 2019 Article 17 UK Approach document provides details on how this supporting information contributed to the UK Report and the fields that were completed for each parameter.
- The reporting fields and options used are aligned to those set out in the European Commission guidance.
- Maps showing the distribution and range of the species are included (where available).
- Explanatory notes (where provided) are included at the end. These provide additional audit trail information to that included within the UK assessments. Further underpinning explanatory notes are available in the related country-level reports.
- Some of the reporting fields have been left blank because either: (i) there was insufficient information to complete the field; (ii) completion of the field was not obligatory; and/or (iii) the field was not relevant to this species (section 12 Natura 2000 coverage for Annex II species).
- The UK-level reporting information for all habitats and species is also available in spreadsheet format.

Visit the JNCC website, <https://jncc.gov.uk/article17>, for further information on UK Article 17 reporting.

Report on the main results of the surveillance under Article 11 for Annex II, IV and V species (Annex B)

NATIONAL LEVEL

1. General information

1.1 Member State	UK
1.2 Species code	1261
1.3 Species scientific name	Lacerta agilis
1.4 Alternative species scientific name	
1.5 Common name (in national language)	Sand lizard

2. Maps

2.1 Sensitive species	No
2.2 Year or period	2013-2018
2.3 Distribution map	Yes
2.4 Distribution map Method used	Complete survey or a statistically robust estimate
2.5 Additional maps	No

3. Information related to Annex V Species (Art. 14)

3.1 Is the species taken in the wild/exploited?	No	
3.2 Which of the measures in Art. 14 have been taken?	a) regulations regarding access to property	No
	b) temporary or local prohibition of the taking of specimens in the wild and exploitation	No
	c) regulation of the periods and/or methods of taking specimens	No
	d) application of hunting and fishing rules which take account of the conservation of such populations	No
	e) establishment of a system of licences for taking specimens or of quotas	No
	f) regulation of the purchase, sale, offering for sale, keeping for sale or transport for sale of specimens	No
	g) breeding in captivity of animal species as well as artificial propagation of plant species	No
	h) other measures	No

Report on the main results of the surveillance under Article 11 for Annex II, IV and V species (Annex B)

3.3 Hunting bag or quantity taken in the wild for Mammals and Acipenseridae (Fish)

a) Unit

b) Statistics/ quantity taken	Provide statistics/quantity per hunting season or per year (where season is not used) over the reporting period					
	Season/ year 1	Season/ year 2	Season/ year 3	Season/ year 4	Season/ year 5	Season/ year 6
Min. (raw, ie. not rounded)						
Max. (raw, ie. not rounded)						
Unknown	No	No	No	No	No	No

3.4. Hunting bag or quantity taken in the wild Method used

3.5. Additional information

BIOGEOGRAPHICAL LEVEL

4. Biogeographical and marine regions

4.1 Biogeographical or marine region where the species occurs

Atlantic (ATL)

4.2 Sources of information

England

ARNOLD, H.R. 1995. Atlas of amphibians and reptiles in Britain. ITE Research Publication No.10. HMSO, London.

BEEBEE, T.J.C. & GRIFFITHS, R.A. 2000. Amphibians and Reptiles: A Natural History of the British Herpetofauna. The New Naturalist series. HarperCollins, London.

AMPHIBIAN AND REPTILE TRUST. 2017. Sand Lizard and Smooth Snake Species Action Plan for United Kingdom. May, 2017.

EDGAR, P. 2015. Natural England notification strategy: SSSI notification review for amphibians and reptiles. Natural England, November 2015.

BEEBEE, T.J.C. & ROWE, G. 2001. A genetic assessment of British populations of the sand lizard (*Lacerta agilis*). Herpetological Journal 11: 23-27.

CORBETT, K.F. 1988a. Distribution and status of the sand lizard *Lacerta agilis* in Britain. Mertensiella 1: 92-99.

CORBETT, K.F. 1988b. Conservation strategy for the sand lizard *Lacerta agilis* in Britain. Mertensiella 1: 101-109.

CORBETT, K.F. 1994. Pilot study for Sand Lizard UK Recovery Programme. English Nature Research Reports No.102. English Nature, Peterborough.

CORBETT, K.F. and MOULTON, N. 1998. Sand lizard Species Recovery Programme project (1994-1997): final report. English Nature Research Reports No. 288, English Nature, Peterborough.

CORBETT, K.F., & TAMARIND, D.L. 1979. Conservation of the sand lizard, *Lacerta agilis*, by habitat management. British Journal of Herpetology 5: 799-823.

DUNFORD, R.W. and BERRY, P. M. 2012. Climate change modelling of English amphibians and reptiles: Report to the Amphibian and Reptile Conservation

Report on the main results of the surveillance under Article 11 for Annex II, IV and V species (Annex B)

- Trust (ARC-Trust). Environmental Change Institute, Oxford.
- EUROPEAN HABITATS FORUM. 2006. Towards European Biodiversity Monitoring. Assessment, monitoring and reporting of conservation status of European habitats and species. Wien, Cambridge, Bruxelles.
- FEARNLEY, H. 2009. Towards the ecology and conservation of sand lizard (*Lacerta agilis*) populations in southern England. PhD Thesis, University of Southampton
- GLEED-OWEN, C.P. 2004. Initial surveillance baseline datasets for the sand lizard *Lacerta agilis*, natterjack toad *Bufo calamita* and smooth snake *Coronella austriaca* in England. Report for English Nature, Peterborough.
- GLEED-OWEN, C, BUCKLEY, J, CONEYBEER, J, GENT, T, MCCracken, M, MOULTON, N, & WRIGHT, D. 2005. Costed plans and options for herpetofauna surveillance and monitoring. English Nature Research Report No. 663, English Nature, Peterborough.
- LANGTON, T.E.S., BECKETT, C.L. & DUNSMORE, I. 1993. UK herpetofauna: a review of British herpetofauna populations in a wider context. Report 99F2AO69 to Joint Nature Conservation Committee. Joint Nature Conservation Committee, Peterborough.
- Limburn, B. and Wilkinson, J.W., 2016. The New Forest Smooth Snake Survey (NFSSS). Amphibian & Reptile Conservation, 2016.
- The Amphibian & Reptile Conservation Trust: Rare Species Database and Reptile and Amphibian Dataset (2018)
- Wales
- AMPHIBIAN AND REPTILE CONSERVATION TRUST 2011. Sand lizard and natterjack toad recovery project 2009-2011. CCW Contract Science Report 963, Countryside Council for Wales, Bangor.
- BRIG 2007. A preliminary assessment of the implications of climate change for the implementation of UK BAP targets. Report to UK Biodiversity Partnership Standing Committee. (Draft).
- EDGAR, P 2007. The conservation status of the natterjack toad *Bufo calamita* and sand lizard *Lacerta agilis* in Wales. CCW Contract Science Report 788. Countryside Council for Wales, Bangor.
- GLEED-OWEN, C, BUCKLEY, J, CONEYBEER, J, GENT, T, MCCracken, M, MOULTON, N, & WRIGHT, D 2005. Costed plans and options for herpetofauna surveillance and monitoring. CCW Contract Science Report 666. Countryside Council for Wales, Bangor.
- GREEN, K & MOULTON, N 2015. Sand lizard rapid site assessment 2014: Assessment of the status of sand lizards *Lacerta agilis* in Great Britain through a Rapid Site Assessment approach. Amphibian & Reptile Conservation Research Report 15/02.
- HERPETOLOGICAL CONSERVATION TRUST 2001. Sand lizard and natterjack toad recovery project 2000. CCW Contract Science Report 467. Countryside Council for Wales, Bangor.
- HERPETOLOGICAL CONSERVATION TRUST 2003a. Sand lizard and natterjack toad recovery project 2002. CCW Contract Science Report 573. Countryside Council for Wales, Bangor.
- HERPETOLOGICAL CONSERVATION TRUST 2003b. Database and geographical information system. CCW Contract Science Report 574. Countryside Council for Wales, Bangor.
- HERPETOLOGICAL CONSERVATION TRUST 2005. Sand lizard and natterjack toad recovery project 2004. CCW Contract Science Report 665. Countryside Council for Wales, Bangor.
- HERPETOLOGICAL CONSERVATION TRUST 2006. Sand lizard and natterjack toad

Report on the main results of the surveillance under Article 11 for Annex II, IV and V species (Annex B)

recovery project 2005. CCW Contract Science Report 727. Countryside Council for Wales, Bangor.

HERPETOLOGICAL CONSERVATION TRUST 2007. Sand lizard and natterjack toad recovery project 2005-2006. CCW Contract Science Report 774. Countryside Council for Wales, Bangor.

HERPETOLOGICAL CONSERVATION TRUST 2009. Sand lizard and natterjack toad recovery project 2007-2009. CCW Contract Science Report 872. Countryside Council for Wales, Bangor.

HILL, P, MOULTON, N & FOSTER, J 2016. Sand lizard surveys at Newborough Warren NNR and sand dune habitat management guidance. Amphibian and Reptile Conservation Trust, Bournemouth.

MOULTON, N & BUCKLEY, J 2015. Sand lizard and natterjack toad recovery project 2011-2014. NRW Evidence Report. Report No.32. 23pp. Bangor.

MOULTON, N & CORBETT, K 1999. The sand lizard conservation handbook. English Nature, Peterborough.

ARC Data. Occupancy data for herpetofauna is based on data held internally by Amphibian and Reptile Conservation, combining a variety of data sources.

5. Range

5.1 Surface area (km ²)	10932.39
5.2 Short-term trend Period	2007-2018
5.3 Short-term trend Direction	Increasing (+)
5.4 Short-term trend Magnitude	a) Minimum b) Maximum
5.5 Short-term trend Method used	Complete survey or a statistically robust estimate
5.6 Long-term trend Period	
5.7 Long-term trend Direction	
5.8 Long-term trend Magnitude	a) Minimum b) Maximum
5.9 Long-term trend Method used	
5.10 Favourable reference range	a) Area (km ²) 7240 b) Operator c) Unknown d) Method The FRR is the same as in 2013. The FRR value is considered to be large enough to support a viable population and no lower than the range estimate from when the Habitats Directive came into force in the UK. For further details see the 2019 Article 17 UK Approach document.
5.11 Change and reason for change in surface area of range	Genuine change The change is mainly due to: Genuine change

5.12 Additional information

6. Population

6.1 Year or period	1989-2018
--------------------	-----------

Report on the main results of the surveillance under Article 11 for Annex II, IV and V species (Annex B)

6.2 Population size (in reporting unit)	a) Unit number of map 1x1 km grid cells (grids1x1) b) Minimum c) Maximum d) Best single value 368
6.3 Type of estimate	Best estimate
6.4 Additional population size (using population unit other than reporting unit)	a) Unit number of localities (localities) b) Minimum c) Maximum d) Best single value 608
6.5 Type of estimate	Best estimate
6.6 Population size Method used	Complete survey or a statistically robust estimate
6.7 Short-term trend Period	2007-2018
6.8 Short-term trend Direction	Stable (0)
6.9 Short-term trend Magnitude	a) Minimum b) Maximum c) Confidence interval
6.10 Short-term trend Method used	Complete survey or a statistically robust estimate
6.11 Long-term trend Period	
6.12 Long-term trend Direction	
6.13 Long-term trend Magnitude	a) Minimum b) Maximum c) Confidence interval
6.14 Long-term trend Method used	
6.15 Favourable reference population (using the unit in 6.2 or 6.4)	a) Population size 645 with unit number of localities (localities) b) Operator c) Unknown d) Method The FRP is the same as in 2013. The value is considered to be large enough to support a viable population and no less than when the Habitats Directive came into force in the UK. For further information see the 2019 Article 17 UK Approach document.
6.16 Change and reason for change in population size	Genuine change The change is mainly due to: Genuine change
6.17 Additional information	The genuine change in population is a result of reintroductions in England and Wales. This increase in population has been offset by an declines in 11% of English sub-populations due to fire, grazing, inappropriate levels/ lack of habitat management. As a result the short-term trend is considered 'stable'.

Report on the main results of the surveillance under Article 11 for Annex II, IV and V species (Annex B)

7. Habitat for the species

7.1 Sufficiency of area and quality of occupied habitat	a) Are area and quality of occupied habitat sufficient (for long-term survival)?	No
	b) Is there a sufficiently large area of unoccupied habitat of suitable quality (for long-term survival)?	No
7.2 Sufficiency of area and quality of occupied habitat Method used	Complete survey or a statistically robust estimate	
7.3 Short-term trend Period	2007-2018	
7.4 Short-term trend Direction	Stable (0)	
7.5 Short-term trend Method used	Complete survey or a statistically robust estimate	
7.6 Long-term trend Period		
7.7 Long-term trend Direction		
7.8 Long-term trend Method used		
7.9 Additional information	Habitat area in the UK is considered sufficient to support a viable population but not enough to reach Favourable Conservation Status (FCS). This is because in England, which holds the majority of the resource, it is considered that large areas of potential habitat have insufficient height and structure for this species. Habitat is considered of sufficient quantity and quality in Wales.	

8. Main pressures and threats

8.1 Characterisation of pressures/threats

Pressure	Ranking
Intensive grazing or overgrazing by livestock (A09)	H
Conversion to forest from other land uses, or afforestation (excluding drainage) (B01)	M
Other forestry activities, excluding those relating to agro-forestry (B29)	M
Conversion from other land uses to housing, settlement or recreational areas (excluding drainage and modification of coastline, estuary and coastal conditions) (F01)	H
Creation or development of sports, tourism and leisure infrastructure (outside the urban or recreational areas) (F05)	M
Sports, tourism and leisure activities (F07)	M
Vandalism or arson (H04)	H
Other human intrusions and disturbance not mentioned above (H08)	H
Natural succession resulting in species composition change (other than by direct changes of agricultural or forestry practices) (L02)	H
Threat	Ranking
Intensive grazing or overgrazing by livestock (A09)	H

Report on the main results of the surveillance under Article 11 for Annex II, IV and V species (Annex B)

Conversion to forest from other land uses, or afforestation (excluding drainage) (B01)	M
Other forestry activities, excluding those relating to agro-forestry (B29)	M
Conversion from other land uses to housing, settlement or recreational areas (excluding drainage and modification of coastline, estuary and coastal conditions) (F01)	H
Creation or development of sports, tourism and leisure infrastructure (outside the urban or recreational areas) (F05)	M
Sports, tourism and leisure activities (F07)	M
Vandalism or arson (H04)	H
Other human intrusions and disturbance not mentioned above (H08)	H
Natural succession resulting in species composition change (other than by direct changes of agricultural or forestry practices) (L02)	H
Change of habitat location, size, and / or quality due to climate change (N05)	M

8.2 Sources of information

8.3 Additional information

9. Conservation measures

9.1 Status of measures	a) Are measures needed? Yes
	b) Indicate the status of measures Measures identified and taken
9.2 Main purpose of the measures taken	Increase the population size and/or improve population dynamics (improve reproduction success, reduce mortality, improve age/sex structure) (related to 'Population')
9.3 Location of the measures taken	Both inside and outside Natura 2000
9.4 Response to the measures	Medium-term results (within the next two reporting periods, 2019-2030)
9.5 List of main conservation measures	

Prevent conversion of natural and semi-natural habitats, and habitats of species into agricultural land (CA01)
Adapt mowing, grazing and other equivalent agricultural activities (CA05)
Prevent conversion of (semi-) natural habitats into forests and of (semi-)natural forests into intensive forest plantation (CB01)
Adapt/change forest management and exploitation practices (CB05)
Manage conversion of land for construction and development of infrastructure (CF01)
Habitat restoration of areas impacted by residential, commercial, industrial and recreational infrastructure, operations and activities (CF02)
Reduce impact of other specific human actions (CH03)
Management of habitats (others than agriculture and forest) to slow, stop or reverse natural processes (CL01)

Report on the main results of the surveillance under Article 11 for Annex II, IV and V species (Annex B)

Implement climate change adaptation measures (CN02)

Reintroduce species from the directives (CS02)

9.6 Additional information

10. Future prospects

10.1 Future prospects of parameters

a) Range	Good
b) Population	Poor
c) Habitat of the species	Poor

10.2 Additional information

Future trend of Range is Overall stable; Future trend of Population is Overall stable; and Future trend of Habitat for the species is Overall stable. For further information on how future trends inform the Future Prospects conclusion see the 2019 Article 17 UK Approach document.

11. Conclusions

11.1. Range

Favourable (FV)

11.2. Population

Unfavourable - Inadequate (U1)

11.3. Habitat for the species

Unfavourable - Inadequate (U1)

11.4. Future prospects

Unfavourable - Inadequate (U1)

11.5 Overall assessment of Conservation Status

Unfavourable - Inadequate (U1)

11.6 Overall trend in Conservation Status

Improving (+)

11.7 Change and reasons for change in conservation status and conservation status trend

a) Overall assessment of conservation status

No change

The change is mainly due to:

b) Overall trend in conservation status

No change

The change is mainly due to:

11.8 Additional information

Conclusion on Range reached because: (i) the short-term trend direction in Range surface area is increasing; and (ii) the current Range surface area is not less than the Favourable Reference Range.

Conclusion on Population reached because: (i) the short-term trend direction in Population size is stable; and (ii) the current Population size is not more than 25% below the Favourable Reference Population.

Conclusion on Habitat for the species reached because: (i) the area of occupied and unoccupied habitat is not sufficiently large and (ii) the habitat quality is not adequate for the long-term survival of the species; and (iii) the short-term trend in area of habitat is stable.

Conclusion on Future prospects reached because: (i) the Future prospects for Range are good; (ii) the Future prospects for Population are poor; and (iii) the Future prospects for Habitat for the species are poor.

Overall assessment of Conservation Status is Unfavourable-inadequate because three of the conclusions is are Unfavourable-inadequate.

Overall trend in Conservation Status is based on the combination of the short-

Report on the main results of the surveillance under Article 11 for Annex II, IV and V species (Annex B)

term trends for Range - increasing, Population - stable, and Habitat for the species - stable.

12. Natura 2000 (pSCIs, SCIs and SACs) coverage for Annex II species

12.1 Population size inside the pSCIs, SCIs and SACs network (on the biogeographical/marine level including all sites where the species is present)

- a) Unit
- b) Minimum
- c) Maximum
- d) Best single value

12.2 Type of estimate

12.3 Population size inside the network Method used

12.4 Short-term trend of population size within the network Direction

12.5 Short-term trend of population size within the network Method used

12.6 Additional information

13. Complementary information

13.1 Justification of % thresholds for trends

13.2 Trans-boundary assessment

13.3 Other relevant Information

Distribution Map

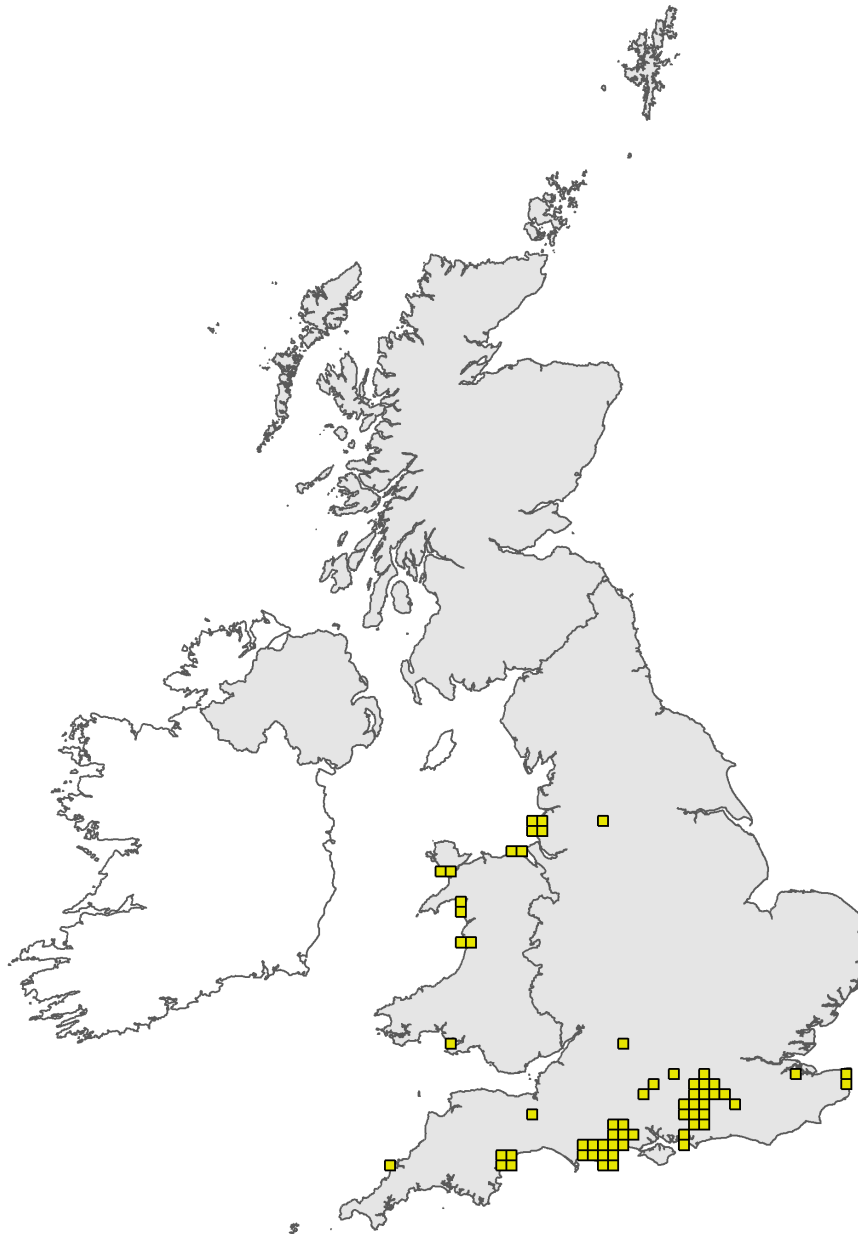


Figure 1: UK distribution map for S1261 - Sand lizard (*Lacerta agilis*). Coastline boundary derived from the Oil and Gas Authority's OGA and Lloyd's Register SNS Regional Geological Maps (Open Source). Open Government Licence v3 (OGL). Contains data © 2017 Oil and Gas Authority.

The 10km grid square distribution map is based on available species records within the current reporting period. For further details see the 2019 Article 17 UK Approach document.

Range Map



Figure 2: UK range map for S1261 - Sand lizard (*Lacerta agilis*). Coastline boundary derived from the Oil and Gas Authority's OGA and Lloyd's Register SNS Regional Geological Maps (Open Source). Open Government Licence v3 (OGL). Contains data © 2017 Oil and Gas Authority.

The range map has been produced by applying a bespoke range mapping tool for Article 17 reporting (produced by JNCC) to the 10km grid square distribution map presented in Figure 1. The alpha value for this species was 25km. For further details see the 2019 Article 17 UK Approach document.