

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

Third Report by the United Kingdom under  
Article 17

on the implementation of the Directive  
from January 2007 to December 2012  
Conservation status assessment for

Species:

S1283 - Smooth snake (*Coronella austriaca*)

## Reporting format on the 'main results of the surveillance under Article 11' for Annex II, IV & V species

<i>Field name</i>	<i>Brief explanations</i>	
<b>0.2 Species</b>	<b>0.2.1 Species code</b>	<b>S1283</b>
	<b>0.2.2 Species scientific name</b>	<b><i>Coronella austriaca</i></b>
	<b>0.2.3 Alternative species scientific name</b> Optional	
	<b>0.2.4 Common name</b> Optional	

<b>1.1 Maps</b>			
<b>1.1.1 Distribution map</b>	<b>True</b>	<b>Sensitive</b>	<b>False</b>
	The distribution map is based on species records which are considered to be representative of the range within the current reporting period. For further details see the 2013 Article 17 UK Approach document.		



<b>1.1.2 Method used - map</b>	<b>Estimate based on partial data with some extrapolation and/or modelling</b>		
	For further details see the 2013 Article 17 UK Approach document and relevant country-level reporting information.		
<b>1.1.3 Year or period</b>	<b>2002-2012</b>		
	The distribution map is based on species records which are considered to be representative of the range within the current reporting period. For further details see the 2013 Article 17 UK Approach document.		

<b>1.1.4 Additional distribution map</b> Optional	<b>False</b>
<b>1.1.5 Range map</b>	<b>True</b> The range map was produced by applying the UK range mapping tool to the distribution map presented in 1.1.4. The alpha value for this species was 25km. For further details see the 2013 Article 17 UK Approach document.



<b>2.1 Biogeographical region &amp; marine regions</b>	<b>ATL</b>
<b>2.2 Published sources</b>	<p><b>ARNOLD, H.R. 1995. Atlas of amphibians and reptiles in Britain. ITE Research Publication No.10. HMSO, London.</b></p> <p><b>BEEBEE, T.J.C. &amp; GRIFFITHS, R.A. 2000. Amphibians and Reptiles: A Natural History of the British Herpetofauna. The New Naturalist series. HarperCollins, London.</b></p> <p><b>BRAITHWAITE, A.C. 1995. Pilot study for smooth snake <i>Coronella austriaca</i> Species Recovery Programme. English Nature Research Reports No. 138, English Nature, Peterborough.</b></p> <p><b>BRAITHWAITE, A.C., BUCKLEY, J., CORBETT, K.F., EDGAR, P.W., HASLEWOOD, E.S., HASLEWOOD, G.A.D., LANGTON, T.E.S. &amp; WHITAKER, W.J. 1989. The distribution in England of the smooth snake (<i>Coronella austriaca</i> Laurenti). Herpetological Journal 1: 370-376.</b></p> <p><b>EUROPEAN HABITATS FORUM. 2006. Towards European Biodiversity Monitoring. Assessment, monitoring and reporting</b></p>

	<p><b>of conservation status of European habitats and species. Wien, Cambridge, Bruxelles.</b></p> <p><b>GENT, T. &amp; GIBSON, S. 2003. Herpetofauna Workers Manual. Joint Nature Conservation Committee, Peterborough.</b></p> <p><b>GLEED-OWEN, C.P. 2004. Initial surveillance baseline datasets for the sand lizard <i>Lacerta agilis</i>, natterjack toad <i>Bufo calamita</i> and smooth snake <i>Coronella austriaca</i> in England. Report for English Nature, Peterborough.</b></p> <p><b>GLEED-OWEN, C, BUCKLEY, J, CONEYBEER, J, GENT, T, MCCRACKEN, M, MOULTON, N, &amp; WRIGHT, D. 2005. Costed plans and options for herpetofauna surveillance and monitoring. English Nature Research Report No. 663, English Nature, Peterborough.</b></p> <p><b>LANGTON, T.E.S., BECKETT, C.L. &amp; 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.</b></p> <p><b>PERNETTA, A.P. 2009. Population ecology and conservation genetics of the smooth snake (<i>Coronella austriaca</i>) in a fragmented heath landscape. PhD Thesis, University of Southampton.</b></p> <p><b>The Amphibian &amp; Reptile Conservation Trust: Rare Species Database and Reptile and Amphibian Dataset (provided via the NBN Gateway)</b>  <b>UK distribution map data sources</b></p> <p><b>ARC Rare Species Dataset update prior to loading on the NBN Gateway August 2012</b>  <b>NBN Gateway Aug2012 Hampshire Biodiversity Information Centre GA001133 HBIC Protected and notable species</b></p> <p>UK Distribution Map data sources</p> <p>ARC Rare Species Dataset update prior to loading on the NBN Gateway August 2012  NBN Gateway Aug2012 Hampshire Biodiversity Information Centre GA001133 HBIC Protected and notable species</p>
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## 2.3 Range

### 2.3.1 Surface area Range

**5283.4**

The surface area of the range was calculated from the map presented in 1.1.5. For further details see the 2013 Article 17 UK Approach document.

<b>2.3.2 Method used</b> <b>Surface area of Range</b>	<b>Estimate based on partial data with some extrapolation and/or modelling</b>	
	For further details see the 2013 Article 17 UK Approach document and relevant country-level reporting information.	
<b>2.3.3 Short-term trend</b> <b>Period</b>	<b>2001-2012</b>	
	For further details see the 2013 Article 17 UK Approach document and relevant country-level reporting information.	
<b>2.3.4 Short term trend</b> <b>Trend direction</b>	<b>increase</b>	
	The short term trend direction was derived by comparing the range map in 1.1.5 with the range map produced in the 2007 report, by considering the range trend in the 2007 report, and by considering any further information provided by the UK country conservation agencies. For further details see the 2013 Article 17 UK Approach document and relevant country-level reporting information.	
<b>2.3.5 Short-term trend</b> <b>Magnitude</b>  Optional	<b>a) Minimum</b>	
	<b>b) Maximum</b>	
<b>2.3.6 Long-term trend</b> <b>Period</b>  Optional		
<b>2.3.7 Long-term trend</b> <b>Trend direction</b>  Optional		
<b>2.3.8 Long-term trend</b> <b>Magnitude</b>  Optional	<b>a) Minimum</b>	
	<b>b) Maximum</b>	
<b>2.3.9 Favourable reference</b> <b>range</b>	<b>a) Value in km<sup>2</sup></b>	<b>5417</b>
	In 2007 the surface area of range was set at 10% below the FRV. The FRV has been updated by running the data used for reporting in 2007 through the revised UK range mapping tool, and then setting the FRV so this revised 2007 area figure is 10% below the FRV. For further details see the 2013 Article 17 UK Approach document.	
	<b>b) Operator for FRR</b>	
	<b>c) FRR is unknown (indicated by "true")</b>	<b>False</b>

	<b>d) Method used to set FRR</b>	<b>In 2007 the surface area of range was set at 10% below the FRV. The FRV has been updated by running the data used for reporting in 2007 through the revised UK range mapping tool, and then setting the FRV so this revised 2007 area figure is 10% below the FRV. The 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 please see the 2013 Article 17 UK Approach document.</b>
	In 2007 the surface area of range was set at 10% below the FRV. The FRV has been updated by running the data used for reporting in 2007 through the revised UK range mapping tool, and then setting the FRV so this revised 2007 area figure is 10% below the FRV. The 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 please see the 2013 Article 17 UK Approach document.	
<b>2.3.10 Reason for change</b> Is the difference between the reported value in 2.3.1 and the previous reporting round mainly due to...	<b>a) Genuine change?</b>	<b>False</b>
	Although there is thought to have been a slight increase in range, most of the increase in the reported surface area of range is due to use of the revised UK range mapping tool.	
	<b>b) Improved knowledge/more accurate data?</b>	<b>False</b>
	Although there is thought to have been a slight increase in range, most of the increase in the reported surface area of range is due to use of the revised UK range mapping tool.	
	<b>c) Use of different method (e.g. "Range tool")?</b>	<b>True</b>
	Although there is thought to have been a slight increase in range, most of the increase in the reported surface area of range is due to use of the revised UK range mapping tool.	

<b>2.4 Population</b>		
<b>2.4.1 Population size estimation</b> (using individuals or agreed exceptions where possible)	<b>a) Unit</b>	
	<b>b) Minimum</b>	
	<b>c) Maximum</b>	
<b>2.4.2 Population size estimation</b> (using population unit other than individuals)	<b>a) Unit</b>	<b>number of map 1x1 km grid cells</b>
	The population unit is the same as reported in 2007.	

Optional (if 2.4.1 filled in)	<b>b) Minimum</b>	<b>359</b>
	For further details see the 2013 Article 17 UK Approach document and relevant country-level reporting information.	
	<b>c) Maximum</b>	<b>359</b>
	For further details see the 2013 Article 17 UK Approach document and relevant country-level reporting information.	
<b>2.4.3 Additional information on population estimates / conversion</b> Optional	<b>a) Definition of "locality"</b>	
	<b>b) Method to convert data</b>	
	<b>c) Problems encountered to provide population size estimation</b>	
<b>2.4.4 Year or period</b>	<b>2007-2012</b>	
	For further details see the 2013 Article 17 UK Approach document and relevant country-level reporting information.	
<b>2.4.5 Method used Population size</b>	<b>Estimate based on partial data with some extrapolation and/or modelling</b>	
	For further details see the 2013 Article 17 UK Approach document and relevant country-level reporting information.	
<b>2.4.6 Short-term trend Period</b>	<b>2001-2012</b>	
	For further details see the 2013 Article 17 UK Approach document and relevant country-level reporting information.	
<b>2.4.7 Short-term trend Trend direction</b>	<b>stable</b>	
	For further details see the 2013 Article 17 UK Approach document and relevant country-level reporting information.	
<b>2.4.8 Short-term trend Magnitude</b> Optional	<b>a) Minimum</b>	<b>1.4</b>
	<b>b) Maximum</b>	<b>1.4</b>
	<b>c) Confidence interval</b>	
<b>2.4.9 Short-term trend Method used</b>	<b>Estimate based on partial data with some extrapolation and/or modelling</b>	
	For further details see the 2013 Article 17 UK Approach document and	

	relevant country-level reporting information.		
<b>2.4.10 Long-term trend – Period</b>	<b>1989-2012</b>		
	Optional	For further details see the 2013 Article 17 UK Approach document and relevant country-level reporting information.	
<b>2.4.11 Long-term trend Trend direction</b>	<b>increase</b>		
	Optional	For further details see the 2013 Article 17 UK Approach document and relevant country-level reporting information.	
<b>2.4.12 Long-term trend Magnitude</b>	Optional	<b>a) Minimum</b>	<b>5</b>
		<b>b) Maximum</b>	<b>10</b>
		<b>c) Confidence interval</b>	
<b>2.4.13 Long term trend Method used</b>	<b>Estimate based on expert opinion with no or minimal sampling</b>		
	Optional	For further details see the 2013 Article 17 UK Approach document and relevant country-level reporting information.	
<b>2.4.14 Favourable reference population</b>		<b>a) Number of individuals/agreed exceptions/other units</b>	<b>395</b>
		The FRV for population is the same as reported in 2007. For further details please see the 2013 Article 17 UK Approach document and relevant country-level reporting information.	
		<b>b) Operator</b>	
		<b>c) FRP is unknown (indicated by "true")</b>	<b>False</b>
		<b>d) Method used to set FRP</b>	<b>The FRV for population is the same as reported in 2007. The value is considered to be large enough for the population to be viable and no lower than the population estimate from when the Habitats Directive came into force in the UK. For further details please see the 2013 Article 17 UK Approach document and relevant country-level reporting information.</b>
	The FRV for population is the same as reported in 2007. The value is considered to be large enough for the population to be viable and no		



	lower than the population estimate from when the Habitats Directive came into force in the UK. For further details please see the 2013 Article 17 UK Approach document and relevant country-level reporting information.	
<b>2.4.15 Reason for change</b> Is the difference between the value reported at 2.4.1 or 2.4.2 and the previous reporting round mainly due to:	<b>a) Genuine change?</b>	<b>True</b>
	The increase in the population estimate is thought to be genuine.	
	<b>b) Improved knowledge/more accurate data?</b>	<b>False</b>
	The increase in the population estimate is thought to be genuine.	
	<b>c) Use of different method (e.g. "Range tool")?</b>	<b>False</b>
The increase in the population estimate is thought to be genuine.		

<b>2.5 Habitat for the species</b>		
<b>2.5.1 Area estimation</b>	<b>72.9</b>	
	For further details see the 2013 Article 17 UK Approach document and relevant country-level reporting information.  There is thought to be a sufficient amount of habitat in the UK to support a viable population of the species.	
<b>2.5.2 Year or period</b>	<b>2007-2012</b>	
	For further details see the 2013 Article 17 UK Approach document and relevant country-level reporting information.	
<b>2.5.3 Method used Habitat for the species</b>	<b>Estimate based on partial data with some extrapolation and/or modelling</b>	
	For further details see the 2013 Article 17 UK Approach document and relevant country-level reporting information.	
<b>2.5.4 Quality of the habitat</b>	<b>a) Habitat quality</b>	<b>Moderate</b>
	For further details see the 2013 Article 17 UK Approach document and relevant country-level reporting information.	
	<b>b) Assessment method</b>	<b>Assessed through a combination of smooth snake surveys and expert opinion.</b>
For further details see the 2013 Article 17 UK Approach document and relevant country-level reporting information.		
<b>2.5.5 Short-term trend Period</b>	<b>2001-2012</b>	
	For further details see the 2013 Article 17 UK Approach document and relevant country-level reporting information.	
<b>2.5.6 Short-term trend Trend direction</b>	<b>stable</b>	
	For further details see the 2013 Article 17 UK Approach document and relevant country-level reporting information.	

<b>2.5.7 Long-term trend Period</b> Optional	<b>1989-2012</b>	
	For further details see the 2013 Article 17 UK Approach document and relevant country-level reporting information.	
<b>2.5.8 Long-term trend Trend direction</b> Optional	<b>increase</b>	
	For further details see the 2013 Article 17 UK Approach document and relevant country-level reporting information.	
<b>2.5.9 Area of suitable habitat for the species</b>	<b>a) Value in km<sup>2</sup></b>	<b>238.8</b>
	<b>b) Absence of data indicated as '0'</b>	
<b>2.5.10 Reason for change</b> Is the difference between the value reported at 2.5.1 and the previous reporting round mainly due to	<b>a) Genuine change?</b>	<b>False</b>
	The area of occupied habitat was not reported in 2007 (the figure given in 2007 referred to area of suitable habitat) so no comparison is possible. However, the area of occupied habitat is thought to have increased.	
	<b>b) Improved knowledge/more accurate data?</b>	<b>False</b>
	The area of occupied habitat was not reported in 2007 (the figure given in 2007 referred to area of suitable habitat) so no comparison is possible. However, the area of occupied habitat is thought to have increased.	
	<b>c) Use of different method (e.g. "Range tool")?</b>	<b>False</b>
The area of occupied habitat was not reported in 2007 (the figure given in 2007 referred to area of suitable habitat) so no comparison is possible. However, the area of occupied habitat is thought to have increased.		

<b>2.6 Main pressures</b>		
<b>a) Pressure</b>	<b>b) Ranking</b>	<b>c) Pollution qualifier</b>
	H = high importance (max 5 entries) M = medium importance L = low importance	
A04: grazing	H	
B06: grazing in forests/ woodland	H	
G05: Other human intrusions and disturbances	H	
J01: fire and fire suppression	H	
K02: Biocenotic evolution, succession	H	
B01: forest planting on open	M	

ground		
B02: Forest and Plantation management & use	M	
E01: Urbanised areas, human habitation	M	
G01: Outdoor sports and leisure activities, recreational activities	M	
J03: Other ecosystem modifications	M	
B04: use of biocides, hormones and chemicals (forestry)	L	OTX
C01: Mining and quarrying	L	

For further details see the 2013 Article 17 UK Approach document and relevant country-level reporting information.

**2.6.1 Method used – Pressures**

**mainly based on expert judgement and other data**

For further details see the 2013 Article 17 UK Approach document and relevant country-level reporting information.

**2.7 Threats**

<b>a) Threat</b>	<b>b) Ranking</b>	<b>c) Pollution qualifier</b>
	H = high importance (max 5 entries) M = medium importance L = low importance	
A04: grazing	H	
B06: grazing in forests/ woodland	H	
G05: Other human intrusions and disturbances	H	
J01: fire and fire suppression	H	
K02: Biocenotic evolution, succession	H	
B01: forest planting on open ground	M	
B02: Forest and Plantation management & use	M	
E01: Urbanised areas, human habitation	M	
G01: Outdoor sports and leisure activities, recreational activities	M	
J03: Other ecosystem	M	

modifications		
M01: Changes in abiotic conditions	M	
M02: Changes in biotic conditions	M	
B04: use of biocides, hormones and chemicals (forestry)	L	OTX
C01: Mining and quarrying	L	

For further details see the 2013 Article 17 UK Approach document and relevant country-level reporting information.

**2.7.1 Method used – Threats**

**expert opinion**

For further details see the 2013 Article 17 UK Approach document and relevant country-level reporting information.

**2.8 Complementary information**

**2.8.1 Justification of % thresholds for trends**

**2.8.2 Other relevant information**

**2.8.3 Trans-boundary assessment**

**2.9 Conclusions (*assessment of conservation status at end of reporting period*)**

**2.9.1 Range**

**a) Conclusion**

**Inadequate**

Range has been assessed as Inadequate because the surface area of range is slightly below the FRV, although the short term trend is increasing.

**b) Qualifier**

**improving**

The short term trend is increasing.

**2.9.2 Population**

**a) Conclusion**

**Inadequate**

Population has been assessed as Inadequate because the population is slightly below the FRV. The short term trend is stable.

**b) Qualifier**

**stable**

**2.9.3 Habitat for the species**

**a) Conclusion**

**Favourable**

Habitat for species has been assessed as Favourable because there is thought to be sufficient habitat to support a viable population, the

	habitat quality is moderate and the short term trend is stable.	
	<b>b) Qualifier</b>	
<b>2.9.4 Future prospects</b>	<b>a) Conclusion</b>	<b>Favourable</b>
	Future prospects is assessed as Favourable on the basis of assessments of the future prospects of the three parameters, range, population and habitat for species: Range future prospects: Good Population future prospects: Good Habitat future prospects: Good Overall future prospects:Favourable.	
	The species is thought to be fairly resilient to existing habitat pressures, and its range is expanding.	
	<b>b) Qualifier</b>	
<b>2.9.5 Overall assessment of Conservation Status</b>	<b>Inadequate</b>	
	The overall assessment is Inadequate because range and population have been assessed as Inadequate.	
<b>2.9.6 Overall trend in Conservation Status</b>	<b>improving</b>	
	On balance, the overall trend is improving.	

**3 Natura 2000 coverage & conservation measures - Annex II species**  
(only applies to species listed under Annex II of the Directive)

<b>3.1 Population</b>		
<b>3.1.1 Population size</b>  Estimation of population size included in the SAC network	<b>a) Unit</b>	
	<b>b) Minimum</b>	
	<b>c) Maximum</b>	
<b>3.1.2 Method used</b>		

<b>3.1.3 Trend of population size within the network</b> (short-term trend)	
	Optional

<b>3.2 Conservation measures</b>															
Conservation measures taken (i.e. already being implemented) within the reporting period and provided information about their importance, location and evaluation.															
<b>3.2.1 Measure</b>	<b>3.2.2 Type</b>					<b>3.2.3 Ranking</b>  H = high importance M = medium importance L = low importance	<b>3.2.4 Location</b>  where the measure is PRIMARILY applied			<b>3.2.5 Broad evaluation of the measure</b>					
	a) Legal/statutory	b) Administrative	c) Contractual	d) Recurrent	e) One-off		a) Inside	b) Outside	c) Both inside & outside	a) Maintain	b) Enhance	c) Long term	d) No effect	e) Unknown	f) Not evaluated

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