

**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

Supporting documentation for the  
conservation status assessment for the species:

**S1083 - Stag beetle (*Lucanus cervus*)**

**WALES**

## **IMPORTANT NOTE - PLEASE READ**

- The information in this document is a country-level contribution to 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.
- The 2019 Article 17 UK Approach document provides details on how this supporting information was used to produce the UK Report.
- The UK Report on the conservation status of this species is provided in a separate document.
- The reporting fields and options used are aligned to those set out in the European Commission guidance.
- Explanatory notes (where provided) by the country are included at the end. These provide an audit trail of relevant supporting information.
- 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; (iii) the field was not relevant to this species (section 12 Natura 2000 coverage for Annex II species) and/or (iv) the field was only relevant at UK-level (sections 9 Future prospects and 10 Conclusions).
- For technical reasons, the country-level future trends for Range, Population and Habitat for the species are only available in a separate spreadsheet that contains all the country-level supporting information.
- The country-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 (Wales information only)
1.2 Species code	1083
1.3 Species scientific name	Lucanus cervus
1.4 Alternative species scientific name	
1.5 Common name (in national language)	Stag beetle

### 2. Maps

2.1 Sensitive species	No
2.2 Year or period	2001-2017
2.3 Distribution map	Yes
2.4 Distribution map Method used	Based mainly on extrapolation from a limited amount of data
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?	<table> <tr> <td>a) regulations regarding access to property</td><td>No</td></tr> <tr> <td>b) temporary or local prohibition of the taking of specimens in the wild and exploitation</td><td>No</td></tr> <tr> <td>c) regulation of the periods and/or methods of taking specimens</td><td>No</td></tr> <tr> <td>d) application of hunting and fishing rules which take account of the conservation of such populations</td><td>No</td></tr> <tr> <td>e) establishment of a system of licences for taking specimens or of quotas</td><td>No</td></tr> <tr> <td>f) regulation of the purchase, sale, offering for sale, keeping for sale or transport for sale of specimens</td><td>No</td></tr> <tr> <td>g) breeding in captivity of animal species as well as artificial propagation of plant species</td><td>No</td></tr> <tr> <td>h) other measures</td><td>No</td></tr> </table>	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
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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

Anon. 2002. Welsh invasion starts in Cardiff. *Urbio*(1): 4.  
 Clark, J.T. 1966. The distribution of *Lucanus cervus* (L.) (Col., Lucanidae) in Britain. *Entomologist's Monthly Magazine*102: 199-204.  
 Donisthorpe, H. 1941. The distribution of *Lucanus cervus* L. (Col., Lucanidae) in Britain. *Entomologist's Monthly Magazine*77: 198-199.  
 Fowles, A.P. 2013. European Community Directive on the Conservation of Natural Habitats and of Wild Fauna and Flora (92/43/EEC) Supporting documentation for the 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: S1083 - Stag Beetle (*Lucanus cervus*).  
 Hall, D.G. 1969. *Lucanus cervus* (L.) (Col., Lucanidae) in Britain. *Entomologist's Monthly Magazine*105: 183-184.  
 Lane, S.A. & Mann, D.J. 2016. A review of the status of the beetles of Great Britain: the stag beetles, dor beetles, dung beetles, chafers and their allies - Lucanidae, Geotrupidae, Trogidae and Scarabaeidae. *Species Status* No.31. Natural England, Peterborough.  
 Smith, M. 2003. National stag beetle survey 2002. People's Trust for Endangered Species.  
 Tomlin, J.R.L.B. 1915. The Coleoptera of Glamorgan. *Transactions of the Cardiff Naturalists' Society*47: 13-33.  
 Whitehead, P.F. 2013. NRW surveys of saproxylic invertebrate fauna at 1) Pwl-Mawr and 2) Livox Wood SSSI Graig Wood SSSI and Troy Park Wood Penallt Monmouthshire July-August 2013. Unpublished draft report for Natural Resources Wales.

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## 5. Range

5.1 Surface area (km <sup>2</sup> )	
5.2 Short-term trend Period	
5.3 Short-term trend Direction	Stable (0)
5.4 Short-term trend Magnitude	a) Minimum b) Maximum
5.5 Short-term trend Method used	
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 <sup>2</sup> ) b) Operator c) Unknown d) Method
5.11 Change and reason for change in surface area of range	Improved knowledge/more accurate data The change is mainly due to: Improved knowledge/more accurate data
5.12 Additional information	

## 6. Population

6.1 Year or period	2001-2017
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 3
6.3 Type of estimate	Best estimate
6.4 Additional population size (using population unit other than reporting unit)	a) Unit b) Minimum c) Maximum d) Best single value
6.5 Type of estimate	
6.6 Population size Method used	Based mainly on extrapolation from a limited amount of data
6.7 Short-term trend Period	2001-2017
6.8 Short-term trend Direction	Unknown (x)
6.9 Short-term trend Magnitude	a) Minimum b) Maximum c) Confidence interval
6.10 Short-term trend Method used	Insufficient or no data available

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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
- b) Operator
- c) Unknown
- d) Method

6.16 Change and reason for change in population size

Improved knowledge/more accurate data  
The change is mainly due to: Improved knowledge/more accurate data

6.17 Additional information

## 7. Habitat for the species

7.1 Sufficiency of area and quality of occupied habitat

- a) Are area and quality of occupied habitat sufficient (to maintain the species at FCS)? Unknown
- b) Is there a sufficiently large area of occupied AND unoccupied habitat of suitable quality (to maintain the species at FCS)? Unknown

7.2 Sufficiency of area and quality of occupied habitat Method used

Insufficient or no data available

7.3 Short-term trend Period

2001-2017

7.4 Short-term trend Direction

Unknown (x)

7.5 Short-term trend Method used

Insufficient or no data available

7.6 Long-term trend Period

7.7 Long-term trend Direction

7.8 Long-term trend Method used

7.9 Additional information

## 8. Main pressures and threats

8.1 Characterisation of pressures/threats

Pressure	Ranking
No pressures (Xxp)	
Threat	Ranking
No threats (Xxt)	

8.2 Sources of information

8.3 Additional information

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## 9. Conservation measures

### 9.1 Status of measures

a) Are measures needed? No

b) Indicate the status of measures

### 9.2 Main purpose of the measures taken

### 9.3 Location of the measures taken

### 9.4 Response to the measures

### 9.5 List of main conservation measures

### 9.6 Additional information

## 10. Future prospects

### 10.1 Future prospects of parameters

- a) Range
- b) Population
- c) Habitat of the species

### 10.2 Additional information

## 11. Conclusions

### 11.1. Range

### 11.2. Population

### 11.3. Habitat for the species

### 11.4. Future prospects

### 11.5 Overall assessment of Conservation Status

### 11.6 Overall trend in Conservation Status

### 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

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

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

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

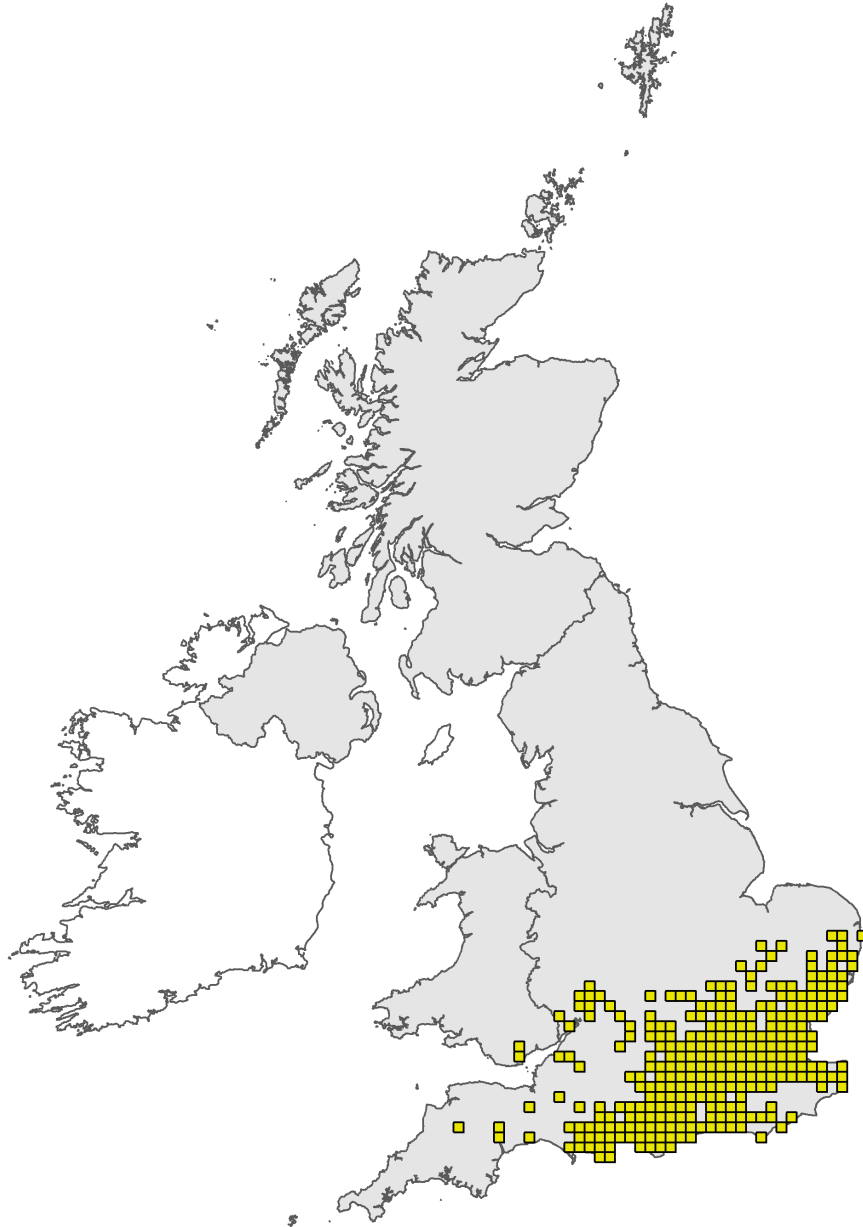


Figure 1: UK distribution map for S1083 - Stag beetle (*Lucanus cervus*). Coastline boundary derived from the Oil and Gas Authority's OGA and Lloyd's Register SNS Regional Geological Maps (Open Source). Open Government Licence v3 (OGL). Contains data © 2017 Oil and Gas Authority.

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 S1083 - Stag beetle (*Lucanus cervus*). 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 20km. For further details see the 2019 Article 17 UK Approach document.

# Explanatory Notes

**Species name: *Lucanus cervus* (1083) Region code: ATL**

Field label	Note
5.3 Short term trend; Direction	Given the limited distribution of the species in Wales and their continued presence in a small area we consider the short-term range to be stable (see 6.2).
5.11 Change and reason for change in surface area of range	Since the last reporting round, the Stag Beetle has been recorded from two adjacent localities near Penallt in the Wye Valley (SO5210 in 2012 and 2013). Fowles (2013) stated that 'all known records are from an area of less than 4 sq km on the outskirts of Cardiff and this hasn't changed since the first record here in the mid 1990s'. The recent records from Penallt are from a small area of no more than 1 sq km
6.2 Population size	There have been three occupied 1x1km grids since 1998 (SO5210; ST1579; probably ST1580) in three 10km squares. Fowles (2013) reports that Published records are all from a single 10km square, ST17 (although a single adult was seen nearby in the adjacent 10km square in 2006). The sighting of an adult some 400metres into ST18 suggests that breeding may be more extensive, though this needs to be confirmed'.
6.16 Change and reason for change in population size	Since the last reporting round, the Stag Beetle has been recorded from two adjacent localities near Penallt in the Wye Valley (SO5210 in 2012 and 2013).
7.1 Sufficiency of area and quality of occupied habitat	There has been no attempt to estimate the abundance or quality of breeding habitat. The beetle is apparently confined to an area less than 4 sq km but potentially could occur throughout Cardiff, or South Wales, or southern Britain. Hence it is not appropriate to speculate on trends or potential' (Fowles, 2013).
8.1 Characterisation of pressures/ threats	Fowles (2013) reported that 'It seems unlikely that the abundance of mature park and garden trees in this area will change in the foreseeable future and it's impossible to speculate on the abundance of subterranean decaying tree roots in the suburban environment'. More recent records from Penallt in the Wye Valley are from a well-wooded landscape with mature trees in the near vicinity, and it is unlikely that subterranean decaying tree roots are at a premium
9.1 Status of measures	No. However, Fowles (2013) notes that 'awareness raising amongst garden owners of the significance of stag beetles is probably the most significant measure to implement and Cardiff County Council have included this in their Species Action Plan.
10.1 Future prospects of parameters	The Stag Beetle is on the very edge of its UK range in south-east Wales and populations have been very small or apparently absent over the last 100 years. Habitat availability is unlikely to be a limiting factor as there should be sufficient submerged decaying tree roots within the south-east Wales landscape. Either Stag Beetle will remain rare in Wales or it may respond positively to climate change and warmer summers, particularly if there is a marked range change in southern England.
12.1 Population size inside the pSCIs, SCIs and SACs network	There are no populations of Stag Beetle inside the SAC network in Wales