

**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

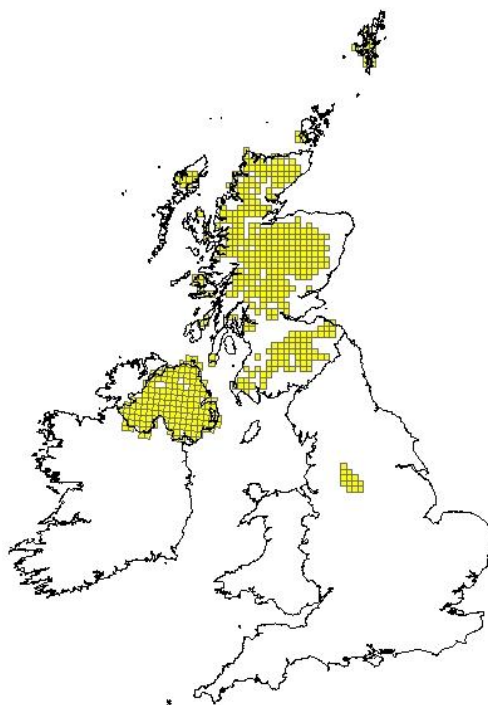
Species:

S1334 - Mountain hare (*Lepus timidus*)

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

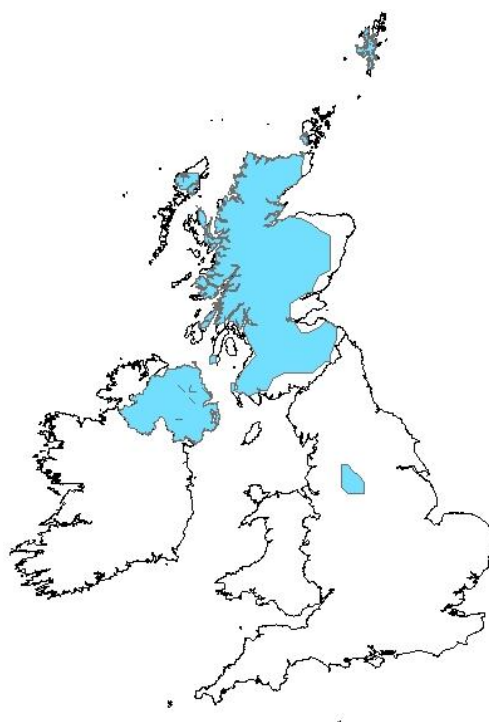
<i>Field name</i>	<i>Brief explanations</i>	
<b>0.2 Species</b>	<b>0.2.1 Species code</b>	<b>S1334</b>
	<b>0.2.2 Species scientific name</b>	<b><i>Lepus timidus</i></b>
	<b>0.2.3 Alternative species scientific name</b> Optional	
	<b>0.2.4 Common name</b> Optional	

<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>2000-2012</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>AEBISCHER, N.J., DAVEY, P.D. &amp; KINGDON, N.G. 2011. National Gamebag Census: Mammal Trends to 2009. Game &amp; Wildlife Conservation Trust, Fordingbridge (<a href="http://www.gwct.org.uk/ngcmammals">http://www.gwct.org.uk/ngcmammals</a>)</b></p> <p><b>AEBISCHER, N.J., DAVEY, P.D. &amp; KINGDON, N.G. 2011. National Gamebag Census: Mammal Trends to 2009. Game &amp; Wildlife Conservation Trust, Fordingbridge (<a href="http://www.gwct.org.uk/ngcmammals">www.gwct.org.uk/ngcmammals</a>).</b></p> <p><b>Anonymous (2000) Biodiversity in Northern Ireland: Species Action Plans - Irish Hare, Chough &amp; Curlew. Environment and Heritage Service NI. pp 6-9, Department of Environment. Belfast. UK. Weblink - <a href="http://www.doeni.gov.uk/niea/allirelandirishharesapnov05.pdf">http://www.doeni.gov.uk/niea/allirelandirishharesapnov05.pdf</a></b></p> <p><b>BATTERSBY, J. (ED) &amp; TRACKING MAMMALS PARTNERSHIP. 2005. UK Mammals: Species Status and Population Trends. Joint Nature Conservation Committee/Tracking Mammals Partnership <a href="http://jncc.defra.gov.uk/page-3311">http://jncc.defra.gov.uk/page-3311</a>.</b></p> <p><b>BATTERSBY, J. (Ed.) &amp; TRACKING MAMMALS PARTNERSHIP. 2005. UK Mammals: Species Status and Population Trends.</b></p>

	<p><b>Joint Nature Conservation Committee/Tracking Mammals Partnership.</b></p> <p><b>DAVIS, S.E., NEWSON, S.E. &amp; NOBLE, D.G. 2007.</b> The production of population trends for UK mammals using BBS mammal data: 1995-2005 update. BTO Research Report No. 462.</p> <p><b>DAVIS, S.E., NEWSON, S.E., &amp; NOBLE, D.G. 2007.</b> The production of population trends for UK mammals using BBS mammal data: 1995-2005 update. BTO Research Report No. 462 <a href="http://jncc.defra.gov.uk/page-4309">http://jncc.defra.gov.uk/page-4309</a>.</p> <p><b>Dingerkus, S.K. &amp; Montgomery, W.I. (2002)</b> A review of the status and decline in abundance of the Irish hare (<i>Lepus timidus hibernicus</i>) in Northern Ireland. <i>Mammal Review</i>, 32, 1-11.</p> <p><b>Dingerkus, S.K. (1997)</b> The distribution and ecology of the Irish hare <i>L. t. hibernicus</i> in Northern Ireland. Unpublished PhD Thesis. The Queen's University of Belfast, Belfast, UK.</p> <p><b>ENVIRONMENTAL HERITAGE SERVICE. 2005.</b> Wildlife: Irish Hare. EHS, Northern Ireland <a href="http://www.ehsni.gov.uk/wild005.pdf">www.ehsni.gov.uk/wild005.pdf</a></p> <p><b>Hall-Aspland, S., Sweeney, O., Tosh, D., Preston, P., Montgomery, W.I. &amp; McDonald, R.A. (2006)</b> Northern Ireland Irish hare survey 2006. Report prepared by Quercus for the Environment and Heritage Service (DOE, N.I.). UK. Weblink - <a href="http://jncc.defra.gov.uk/pdf/TMP_Northern%20Ireland%20Irish%20hare%20survey%202006.pdf">http://jncc.defra.gov.uk/pdf/TMP_Northern%20Ireland%20Irish%20hare%20survey%202006.pdf</a></p> <p><b>Hamill, R. (2001)</b> A study of the genetic structure and phylogeography of <i>Lepus timidus</i> L. subspecies in Europe using microsatellite DNA and mtDNA. Unpublished PhD thesis, University College Dublin. Ireland.</p> <p><b>HARRIS, S., MORRIS, P., WRAY, S. &amp; YALDEN, D. (1995)</b> A Review of British Mammals: population estimates and conservation status of British mammals other than cetaceans. Joint Nature Conservation Committee, Peterborough <a href="http://jncc.defra.gov.uk/page-2759">http://jncc.defra.gov.uk/page-2759</a>.</p> <p><b>HARRIS, S., MORRIS, P., WRAY, S. &amp; YALDEN, D. 1995.</b> A Review of British Mammals. Joint Nature Conservation Committee.</p> <p><b>HARRISON, A., NEWY, S., GILBERT, L., HAYDON, D.T. &amp; THIRGOOD, S. 2010.</b> Culling wildlife hosts to control disease: mountain hares, red grouse and louping ill virus. <i>Journal of Applied Ecology</i>, 47: 926 -930.</p> <p><b>HARRISON, A., NEWY, S., GILBERT, L., HAYDON, D.T. &amp; THIRGOOD, S. 2010.</b> Culling wildlife hosts to control disease: mountain hares, red grouse and louping ill virus. <i>Journal of Applied Ecology</i> 47: 926-930 <a href="http://onlinelibrary.wiley.com/doi/10.1111/j.1365-2664.2010.01834.x/abstract">http://onlinelibrary.wiley.com/doi/10.1111/j.1365-2664.2010.01834.x/abstract</a></p> <p><b>IAISON, G.R., HULBERT, I.A.R., HEWSON, R &amp; DINGERKUS, K. 2008.</b> Mountain Hare. Pages 220-228 In HARRIS, S &amp; YALDEN, D.W. <i>Mammals of the British Isles: Handbook</i>, 4th edition. The Mammal Society, Southampton. 799pp.</p> <p><b>IAISON, G.R., HULBERT, I.A.R., HEWSON, R. &amp; DINGERKUS, K. 2008.</b> Mountain Hare. Pages 220-228 In HARRIS, S. &amp; YALDEN, D.W. <i>Mammals of the British Isles: Handbook</i> 4th edition. The Mammal Society, Southampton. 799pp.</p> <p><b>KINRADE, V., EWALD, J., SMITH, A., NEWY, S., IASON, G., THIRGOOD, S. &amp; RAYNOR, R. 2008.</b> The distribution of</p>
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	<p><b>Mountain Hare (<i>Lepus timidus</i>) in Scotland (2006/07). Scottish Natural Heritage Commissioned Report No.278</b>  <a href="http://www.snh.org.uk/pdfs/publications/commissioned_reports/Report%2520No278.pdf">www.snh.org.uk/pdfs/publications/commissioned_reports/Report%2520No278.pdf</a></p> <p><b>MALLON, D., WHEELER, P., WHITELEY, D. &amp; YALDEN, D.W. 2003. Mountain Hares in the Peak District. British Wildlife Dec 2003.</b></p> <p><b>MALLON, D.P. 2001. The Mountain Hare in the Peak District. Derbyshire Wildlife Trust, Belper.</b></p> <p><b>MALLON, D.P. 2001. The Mountain Hare in the Peak District. Derbyshire Wildlife Trust, Belper.</b></p> <p><b>MALLON, D.P., WHEELER, P., WHITELEY, D. &amp; YALDEN, D.W. 2003. Mountain Hares in the Peak District. British Wildlife, December 2003.</b></p> <p><b>NEWAY, S., DAHL, F., WILLEBRAND, T. &amp; THIRGOOD, S.J. 2007. Unstable dynamics and population regulation in mountain hares: a review. Biological Reviews, 82, 527-549.</b></p> <p><b>NEWAY, S., DAHL, F., WILLEBRAND, T., &amp; THIRGOOD, S.J. 2007. Unstable dynamics and population regulation in mountain hares: a review. Biological Reviews, 82, 527-549.</b></p> <p><b>NEWAY, S., WILLEBRAND, T., HAYDON, D.T., DAHL, F., AEBISCHER, N.J., SMITH, A.A., &amp; THIRGOOD, S.J. 2007. Do mountain hare populations cycle? Oikos, 116, 1547-1557.</b></p> <p><b>NEWAY, S., WILLEBRAND, T., HAYDON, D.T., DAHL, F., AEBISCHER, N.J., SMITH, A.A. &amp; THIRGOOD, S.J. 2007. Do mountain hare populations cycle? Oikos, 116, 1547-1557.</b></p> <p><b>NORTON, L.R.; MURPHY, J.; REYNOLDS, B.; MARKS, S.; MACKAY, E.C. 2009 Countryside Survey: Scotland Results from 2007. NERC/Centre for Ecology &amp; Hydrology, The Scottish Government, Scottish Natural Heritage, 83pp. (CEH Project Number: C03259)</b>  <a href="http://www.countrysidesurvey.org.uk/outputs/scotland-results-2007">www.countrysidesurvey.org.uk/outputs/scotland-results-2007</a>.</p> <p><b>Paxton, C.G.M. &amp; Borchers, D.R. (2010) Estimates of Northern Irish Hare Abundance 2002-2010. Unpublished report. Research Unit for Wildlife Population Assessment (RUWPA), Centre for Research into Ecological and Environmental Modelling (CREEM), University of St. Andrews.</b></p> <p><b>Paxton, C.G.M., Marques, T.A. &amp; Borchers, D.R. (2007) Report on Estimation of Irish Hare Density from the 2007 Survey with Revised Estimates for the 2006 Survey. Unpublished report. Research Unit for Wildlife Population Assessment (RUWPA), Centre for Research into Ecological and Environmental Modelling (CREEM), University of St. Andrews.</b></p> <p><b>PRESTON, J., PRODÖHL, P., PORTIG, A. &amp; MONTGOMERY, I. 2003. The Northern Ireland Irish Hare Survey 2002. Queen's University, Belfast</b></p> <p><b>Preston, S.J., Prodöhl, P., Portig, A. &amp; Montgomery, W.I. (2006). The Northern Ireland Irish Hare <i>Lepus timidus hibernicus</i> Survey 2002. Environment and Heritage Service Research and Development Series. No. 06/21.</b></p> <p><b>Reid, N. &amp; Montgomery, W.I. (2010) Retrospective analysis of the Northern Ireland Irish hare Survey data from 2002-2010. Report prepared by the Natural Heritage Research Partnership, Quercus, Queen's University Belfast for the Northern Ireland Environment Agency. Northern Ireland Environment Agency</b></p>
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	<p>Research and Development Series No. 11/16. weblink to report - <a href="http://www.doeni.gov.uk/niea/nhrp_project_report_retrospective_analysis_of_the_northern_ireland_2010.pdf">http://www.doeni.gov.uk/niea/nhrp_project_report_retrospective_analysis_of_the_northern_ireland_2010.pdf</a></p> <p>Reid, N. (2006) Conservation ecology of the Irish hare <i>Lepus timidus hibernicus</i>. Unpublished PhD Thesis. The Queen's University of Belfast, Belfast, UK.</p> <p>Reid, N., Dingerkus, K., Montgomery, W.I., Marnell, F., Jeffrey, R., Lynn, D., Kingston, N. &amp; McDonald, R.A. (2007a) Status of hares in Ireland: Hare Survey of Ireland 2006/07. In Marnell, F. and Kingston, N. (eds) <i>Irish Wildlife Manuals</i>, No. 30. National Parks and Wildlife Service, Department of Environment, Heritage and Local Government, Dublin, Ireland. ISSN 1393 6670.</p> <p>Reid, N., Harrison, A.T. &amp; Robb, G.N. (2008) Northern Ireland Irish hare survey 2009. Report prepared by the Natural Heritage Research Partnership, Quercus for the Northern Ireland Environment Agency. Northern Ireland Environment Agency Research and Development Series No. 09/04.</p> <p>Reid, N., Harrison, A.T. &amp; Robb, G.N. (2011) Northern Ireland Irish hare survey 2010. Report prepared by the Natural Heritage Research Partnership, Quercus, Queen's University Belfast for the Northern Ireland Environment Agency. Northern Ireland Environment Agency Research and Development Series No. 11/10. weblink - <a href="http://www.doeni.gov.uk/niea/ni_irish_hare_survey_2010.pdf">http://www.doeni.gov.uk/niea/ni_irish_hare_survey_2010.pdf</a></p> <p>Reid, N., Ruddock, M., Barratt, I., Robb, G.N. &amp; Montgomery, W.I. (2008) Northern Ireland Irish hare survey 2008. Report prepared by Quercus for the Environment and Heritage Service (DOE, N.I.). UK. Weblink - <a href="http://www.qub.ac.uk/sites/Quercus/Filestore/Filetoupload,133856,en.pdf">http://www.qub.ac.uk/sites/Quercus/Filestore/Filetoupload,133856,en.pdf</a></p> <p>Reid, N., Sweeney, O., Wilson, C., Preston, S.J., &amp; Montgomery, W.I. (2007b) Northern Ireland Irish hare survey 2007. Report prepared by Quercus for the Environment and Heritage Service (DOE, N.I.). UK.</p> <p>Reid, N., Sweeney, O., Wilson, C., Preston, S.J., Montgomery, W.I. &amp; McDonald, R.A. (2007c) Developments in hare survey methodology - as applied to the NI Irish hare survey 2007. Report prepared by Quercus for the Environment and Heritage Service (DOE, N.I.).UK.</p> <p>TAPPER, S. 1987. Cycles in game-bag records of hares and rabbits in Britain. <i>Symposia of the Zoological Society of London</i> 58:79-98.</p> <p>TAPPER, S. 1987. Cycles in game-bag records of hares and rabbits in Britain. <i>Symposia of the Zoological Society of London</i>, 58:79-98.</p> <p>TAPPER, S. 1996. Distribution and level of take of native mountain hares <i>Lepus timidus</i>. JNCC unpublished report, Peterborough.</p> <p>TAPPER, S. 1996. Distribution and level of take of native mountain hares <i>Lepus timidus</i>. Joint Nature Conservation Committee unpublished report, Peterborough.</p> <p>THULIN C.G. 2003. The distribution of mountain hares <i>Lepus timidus</i> in Europe: a challenge from brown hares <i>L. europaeus</i>?</p>
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	<p><b>Mammal Rev.33:29-42</b>  <a href="http://onlinelibrary.wiley.com/doi/10.1046/j.1365-2907.2003.00008.x/abstract">http://onlinelibrary.wiley.com/doi/10.1046/j.1365-2907.2003.00008.x/abstract</a>.  <b>THULIN, C.G. 2003. The distribution of mountain hares <i>Lepus timidus</i> in Europe: a challenge from brown hares <i>L. Eurpaeus</i>? Mammal Rev. 33:29-42.</b>  <b>Tosh, D., Brown, S., Preston, J., Montgomery, W.I., Reid, N., Marques, T.A., Borchers, D.L., Buckland, S.T. &amp; McDonald, R.A. (2005) Northern Ireland Irish hare survey 2005. Report prepared by Quercus for the Environment and Heritage Service (DOE, N.I.). UK.</b>  <b>TOSH, D., MARQUES, A.T., BROWN, S., PRESTON, J., REID, N., MONTGOMERY, I., BORCHERS, D. L., BUCKLAND, S. T., &amp; MCDONALD, R. 2005. Northern Ireland Irish Hare Survey 2005. Environment &amp; Heritage Service, Northern Ireland/Queen's University, Belfast.</b>  <b>Tosh, D., Towers, R., Preston, J., Portig, A., McDonald, R.A. &amp; Montgomery, W.I. (2004) Northern Ireland Irish hare survey 2004. Report prepared by Quercus for the Environment and Heritage Service (DOE, N.I.). UK.</b>  <b>YALDEN, D.W. 1984 The status of the mountain hare, <i>Lepus timidus</i>, in the Peak District. Naturalist, 109: 55-59.</b>  <b>YALDEN, D.W. 1984. The status of the mountain hare, <i>Lepus timidus</i> in the Peak District. Naturalist, 109:55-59</b>  <b>UK distribution map data sources</b></p> <p><b>Mallon (2001) Mountain hare Peak District data</b>  <b>NBN Gateway Greater Manchester Ecology Unit GA000500</b>  <b>Extracted 21/08/2012 Hare distributions for Greater Manchester</b>  <b>NBN Gateway Highland Biological Recording Group GA000497</b>  <b>Extracted 21/08/2012 HBRG Vertebrates (not Badger) Dataset</b>  <b>NBN Gateway National Trust GA001105 Extracted 21/08/2012</b>  <b>Extract of National Trust species database covering Article 17 species</b>  <b>NBN Gateway Scottish Natural Heritage GA001147 Extracted</b>  <b>21/08/2012 Compilation of records of 12 Article 17 terrestrial mammal species in Scotland</b>  <b>NBN Gateway Sheffield Biological Records Centre GA000878</b>  <b>Extracted 21/08/2012 Sheffield Biological Records Centre-Non-sensitive Records from all taxonomic groups.</b></p> <p>UK Distribution Map data sources</p> <p>Mallon (2001) Mountain hare Peak District data  NBN Gateway Greater Manchester Ecology Unit GA000500 Extracted 21/08/2012 Hare distributions for Greater Manchester  NBN Gateway Highland Biological Recording Group GA000497 Extracted 21/08/2012 HBRG Vertebrates (not Badger) Dataset  NBN Gateway National Trust GA001105 Extracted 21/08/2012 Extract of National Trust species database covering Article 17 species  NBN Gateway Scottish Natural Heritage GA001147 Extracted 21/08/2012 Compilation of records of 12 Article 17 terrestrial mammal species in Scotland</p>
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	NBN Gateway Sheffield Biological Records Centre GA000878 Extracted 21/08/2012 Sheffield Biological Records Centre- Non-sensitive Records from all taxonomic groups.

<b>2.3 Range</b>					
<b>2.3.1 Surface area Range</b>	<b>75132.62</b> 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 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 Period</b>	<b>1995-2012</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 Trend direction</b>	<b>stable</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 Magnitude</b> Optional	<table border="1"> <tr> <td><b>a) Minimum</b></td> <td></td> </tr> <tr> <td><b>b) Maximum</b></td> <td></td> </tr> </table>	<b>a) Minimum</b>		<b>b) Maximum</b>	
<b>a) Minimum</b>					
<b>b) Maximum</b>					
<b>2.3.6 Long-term trend Period</b> Optional					
<b>2.3.7 Long-term trend Trend direction</b> Optional					
<b>2.3.8 Long-term trend Magnitude</b> Optional	<table border="1"> <tr> <td><b>a) Minimum</b></td> <td></td> </tr> <tr> <td><b>b) Maximum</b></td> <td></td> </tr> </table>	<b>a) Minimum</b>		<b>b) Maximum</b>	
<b>a) Minimum</b>					
<b>b) Maximum</b>					
<b>2.3.9 Favourable reference</b>	<table border="1"> <tr> <td><b>a) Value in km<sup>2</sup></b></td> <td><b>73058</b></td> </tr> </table>	<b>a) Value in km<sup>2</sup></b>	<b>73058</b>		
<b>a) Value in km<sup>2</sup></b>	<b>73058</b>				



<b>range</b>	The FRV reported in 2007 has been updated by running the data used for reporting in 2007 through the revised UK range mapping tool. 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>The FRV reported in 2007 has been updated by running the data used for reporting in 2007 through the revised UK range mapping tool. 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>
	the FRV reported in 2007 has been updated by running the data used for reporting in 2007 through the revised UK range mapping tool. 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>
	There is negligible difference between the current range and the range reported in 2007. The slight decrease is due to the use of a different range mapping tool.	
	<b>b) Improved knowledge/more accurate data?</b>	<b>False</b>
	There is negligible difference between the current range and the range reported in 2007. The slight decrease is due to the use of a different range mapping tool.	
	<b>c) Use of different method (e.g. "Range tool")?</b>	<b>True</b>
There is negligible difference between the current range and the range reported in 2007. The slight decrease is due to the use of a different 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>number of individuals</b>
	The population unit is the same as reported in 2007.	
	<b>b) Minimum</b>	<b>372600</b>
	For further details see the 2013 Article 17 UK Approach document and relevant country-level reporting information.	

	<b>c) Maximum</b>	<b>543800</b>
	For further details see the 2013 Article 17 UK Approach document and relevant country-level reporting information.	
<b>2.4.2 Population size estimation</b> (using population unit other than individuals) Optional ( <i>if 2.4.1 filled in</i> )	<b>a) Unit</b>	
	<b>b) Minimum</b>	
	<b>c) Maximum</b>	
<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>Large between year fluctuations make data difficult to interpret.</b>
	For further details see the 2013 Article 17 UK Approach document and relevant country-level reporting information.	
<b>2.4.4 Year or period</b>	<b>1995-2010</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 expert opinion with no or minimal sampling</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>	
	UK level analysis of the National Gamebag Census data, and Breeding Birds Survey (Mammals) data show no significant trend. 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>b) Maximum</b>	
	<b>c) Confidence</b>	

	<b>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>1984-2009</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>stable</b>	
Optional	Long term analysis of UK level data collected through the National Gamebag Cennsus shows no significant trend. 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>	<b>a) Minimum</b>	
Optional		
	<b>b) Maximum</b>	
	<b>c) Confidence interval</b>	
<b>2.4.13 Long term trend Method used</b>	<b>Estimate based on partial data with some extrapolation and/or modelling</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>393700</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</b>

		<b>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>False</b>
	The population reported in 2007 is within the range of the population estimate reported now.	
	<b>b) Improved knowledge/more accurate data?</b>	<b>False</b>
	The population reported in 2007 is within the range of the population estimate reported now.	
	<b>c) Use of different method (e.g. "Range tool")?</b>	<b>False</b>
		The population reported in 2007 is within the range of the population estimate reported now.

<b>2.5 Habitat for the species</b>		
<b>2.5.1 Area estimation</b>	<b>50846</b>	
	For further details see the 2013 Article 17 UK Approach document and relevant country-level reporting information.  It is unknown whether the amount of habitat in the UK is sufficient to support a viable population of the species.	
<b>2.5.2 Year or period</b>	<b>2002-2012</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 expert opinion with no or minimal sampling</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>This is a generalist species, using a mosaic of habitats including heather</b>

		<b>moorland. Data was used from sources including the Countryside Survey.</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>1998-2012</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>	<b>1990-2007</b>	
Optional		
<b>2.5.8 Long-term trend Trend direction</b>	<b>decrease</b>	
Optional		
<b>2.5.9 Area of suitable habitat for the species</b>	<b>a) Value in km<sup>2</sup></b>	<b>50846</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>
	Surface area of habitat was reported as unknown in 2007 so no comparison is possible.	
	<b>b) Improved knowledge/more accurate data?</b>	<b>False</b>
	Surface area of habitat was reported as unknown in 2007 so no comparison is possible.	
	<b>c) Use of different method (e.g. "Range tool")?</b>	<b>False</b>
	Surface area of habitat was reported as unknown in 2007 so no comparison is possible.	

<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	
A02: modification of cultivation practices	H	T
A04: grazing	H	T

B07: Forestry activities not referred to above	H	
B01: forest planting on open ground	M	
F03: Hunting and collection of wild animals (terrestrial)	M	X
A03: mowing / cutting of grassland	L	X
A11: Agriculture activities not referred to above	L	X
E01: Urbanised areas, human habitation	L	T
G05: Other human intrusions and disturbances	L	T
I01: invasive non-native species	L	X
J01: fire and fire suppression	L	T
J03: Other ecosystem modifications	L	X
M02: Changes in biotic conditions	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.

<b>2.7 Threats</b>		
<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	
A02: modification of cultivation practices	H	T
A04: grazing	H	T
B07: Forestry activities not referred to above	H	
B01: forest planting on open ground	M	
F03: Hunting and collection of wild animals (terrestrial)	M	X
A03: mowing / cutting of grassland	L	X
A11: Agriculture activities not	L	X

referred to above		
E01: Urbanised areas, human habitation	L	T
G05: Other human intrusions and disturbances	L	T
I01: invasive non-native species	L	X
J01: fire and fire suppression	L	T
J03: Other ecosystem modifications	L	X
M02: Changes in biotic conditions	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

**Favourable**

Range has been assessed as Favourable because range is greater than FRV and the short term range trend is stable.

##### b) Qualifier

#### 2.9.2 Population

##### a) Conclusion

**Favourable**

Population has been assessed as Favourable because the FRV for population is between the minimum and maximum population estimates. The short term population trend is stable.

##### b) Qualifier

<b>2.9.3 Habitat for the species</b>	<b>a) Conclusion</b>	<b>Favourable</b>
	Habitat quality is moderate and the short term habitat trend is stable. Range and population are both favourable, which suggests that habitat is not a major problem for this species.	
	<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.  While there is some pressure from habitat decline due to management change, and possible risk of population fragmentation, the species is not expected to be significantly impacted in the timescale considered.	
	<b>b) Qualifier</b>	
<b>2.9.5 Overall assessment of Conservation Status</b>	<b>Favourable</b>	
	Overall assessment is Favourable because all parameter assessments are Favourable.	
<b>2.9.6 Overall trend in Conservation Status</b>		

**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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