

**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:

S1078 - Jersey Tiger Moth (*Callimorpha quadripunctaria*)

IMPORTANT NOTE – PLEASE READ

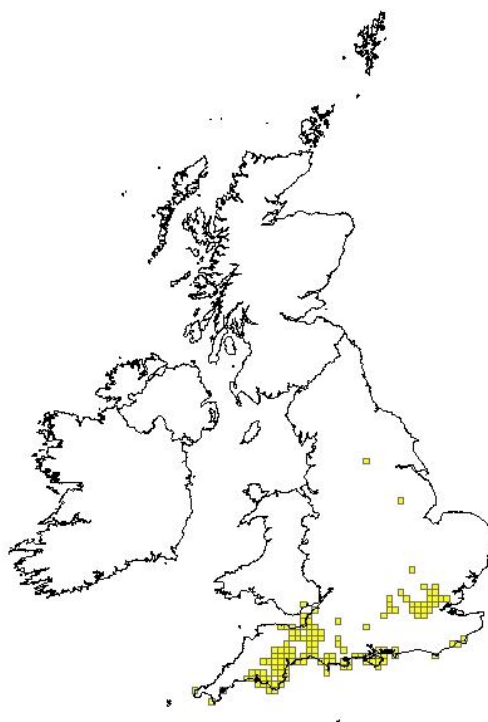
- The country-level reporting information contained in this document is a contribution to the Article 17 UK report for the habitat/species concerned.
- It has been provided by **Natural England** and refers only to the state of the habitat/species in **England** - it does not constitute an assessment for the whole of the UK.
- The Article 17 UK Approach document provides details on how this information has been used and, combined with information supplied by other Statutory Nature Conservation Bodies
- The format of the document is closely aligned to that set out by the European Commission for Member State reporting – as a result, some of the fields are not applicable at a country-level and have deliberately been left blank – in addition, the content of most fields is constrained by the EC reporting categories.

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>	
0.2 Species	0.2.1 Species code	S1078
	0.2.2 Species scientific name	<i>Callimorpha quadripunctaria</i>
	0.2.3 Alternative species scientific name Optional	Euplagia quadripunctaria
	0.2.4 Common name Optional	Jersey Tiger Moth

1.1 Maps

1.1.1 Distribution map		Sensitive	False
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1.1.2 Method used - map	Complete survey/Complete survey or a statistically robust estimate
1.1.3 Year or period	2007-2012
1.1.4 Additional distribution map	False
1.1.5 Range map	

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2.1 Biogeographical region & marine regions	ATL
2.2 Published sources	" http://data.nbn.org.uk/ "

2.3 Range	
2.3.1 Surface area Range	Data has come from Butterfly Conservation's National Moth Recording Scheme via the NBN Gateway. See map for the current range, which (as already noted) has been expanding notably in the time period under review (and in the years previously).
2.3.2 Method used Surface area of Range	Complete survey/ Complete survey or a statistically robust estimate
2.3.3 Short-term trend Period	2001-2012
2.3.4 Short term trend Trend direction	increase
2.3.5 Short-term trend Magnitude	a) Minimum 58
	58% increase in range (based on increase in No 10 km squares over period).
	b) Maximum 200
	200% max increase in range – estimate based on increase in records from within each 10 km square and as No records were increasing from 2000 to 2006. It was recorded from 53 10km squares in the period 1876-2000; then from 79 10 km squares in the period 2000-2006 and from 137 10 km squares in the period 2007-12.
2.3.6 Long-term trend Period	1988-2012
2.3.7 Long-term trend Trend direction	increase
2.3.8 Long-term trend Magnitude Optional	a) Minimum 200
	It was recorded from 42 10 km squares in the period 1989-2000 and at least 137 10 km squares in the period 2001-2012. 200% - based on being recorded from 42 10 km squares in the period 1989-2000 and at least 137 10 km squares in the period 2001-2012.

	b) Maximum	300
	Difficult to give a maximum figure, but assuming an increase in records from within many of the 10 km squares perhaps 300%.	
2.3.9 Favourable reference range	a) Value in km²	
	As it uses a wide variety of semi-natural and urban habitats (including rough ground and gardens, as well as hedgerows, vegetated shingle beaches and clifftops, and the larvae feed on a wide variety of common herbaceous plants, it has the potential to become very widespread and I would say it has already achieved its Favourable Reference Range	
	b) Operator for FRR	
	c) FRR is unknown (indicated by "true")	False
	d) Method used to set FRR	No Favourable Reference Range has been set yet. The current (2012) range map could be used as the FRR, or the No of occupied 10 km squares (currently 137).
2.3.10 Reason for change Is the difference between the reported value in 2.3.1 and the previous reporting round mainly due to...	a) Genuine change?	False
	b) Improved knowledge/more accurate data?	False
	c) Use of different method (e.g. "Range tool")?	False

2.4 Population		
2.4.1 Population size estimation (using individuals or agreed exceptions where possible)	a) Unit	
	b) Minimum	
	c) Maximum	

2.4.2 Population size estimation (using population unit other than individuals) Optional (<i>if 2.4.1 filled in</i>)	a) Unit	number of map 10x10 km grid cells
	b) Minimum	125
	It makes sense to use No of occupied 10 km squares as the estimate of population size, as well as range (as we have very little data on number of individuals, except that they are increasing rapidly); http://bd.eionet.europa.eu/activities/Natura_2000/Folder_Reference_Portal/list_of_exceptions.pdf This could be set at 125 occupied 10 Km squares - which it has already achieved...	
	c) Maximum	150
	perhaps 150, which it will probably achieve by the next reporting round.	
2.4.3 Additional information on population estimates / conversion Optional	a) Definition of "locality"	
	b) Method to convert data	
	c) Problems encountered to provide population size estimation	We have very little accessible data on number of individuals, and it is now so widespread it is impractical to use No of occupied 1 km squares as the pop unit; we have excellent data on No of occupied 10 km squares so it makes sense to use that as the unit.
2.4.4 Year or period	2007-2012	
2.4.5 Method used Population size	Complete survey/Complete survey or a statistically robust estimate	
2.4.6 Short-term trend Period	2001-2012	
2.4.7 Short-term trend Trend direction	increase	
2.4.8 Short-term trend Magnitude	a) Minimum	
	b) Maximum	
	c) Confidence	

	interval	
2.4.9 Short-term trend Method used	Complete survey/ Complete survey or a statistically robust estimate	
2.4.10 Long-term trend – Period	1989-2012	
	It has (and is still) rapidly increasing its range; the reasons for this are not known for sure but are probably related to climate change.	
2.4.11 Long-term trend Trend direction	increase	
2.4.12 Long-term trend Magnitude Optional	a) Minimum	
	b) Maximum	
	c) Confidence interval	
2.4.13 Long term trend Method used	3	
2.4.14 Favourable reference population	a) Number of individuals/agreed exceptions/other units	
	b) Operator	
	c) FRP is unknown indicated by "true"	False
	d) Method used to set FRP	
2.4.15 Reason for change Is the difference between the	a) Genuine change?	False

value reported at 2.4.1 or 2.4.2 and the previous reporting round mainly due to:		
	b) Improved knowledge/more accurate data?	False
	c) Use of different method (e.g. "Range tool")?	False

2.5 Habitat for the species		
2.5.1 Area estimation	This appears to be a habitat generalist rather than specialist, and occurs in a wide variety of semi-natural and urban habitats (including rough ground and gardens, as well as hedgerows, vegetated shingle beaches and clifftops), and the larvae feed on a wide variety of common herbaceous plants. Therefore it has the potential to become very widespread. The whole of southern England probably now constitutes suitable habitat for this species. We believe that the habitat is certainly available to allow further expansion and continued support	
2.5.2 Year or period		
2.5.3 Method used Habitat for the species	Estimate based on expert opinion with no or minimal sampling	
2.5.4 Quality of the habitat	a) Habitat quality	Good
	b) Assessment method	b) This appears to be a habitat generalist rather than specialist, and occurs in a wide variety of semi-natural and urban habitats (including rough ground and gardens, as well as hedgerows, vegetated shingle beaches and clifftops), and the larvae feed on a wide variety of common herbaceous plants.
2.5.5 Short-term trend Period	2001-2012	
2.5.6 Short-term trend Trend direction	unknown	
2.5.7 Long-term trend Period	1989-2012	
2.5.8 Long-term trend	unknown	

Trend direction		
2.5.9 Area of suitable habitat for the species	a) Value in km²	
	The whole of southern England probably now constitutes suitable habitat for this species. If it continues expanding its range (in response to climate change) then this may include the Midlands as well by the next reporting round.	
	b) Absence of data indicated as '0'	
2.5.10 Reason for change Is the difference between the value reported at 2.5.1 and the previous reporting round mainly due to	a) Genuine change?	False
	b) Improved knowledge/more accurate data?	False
	c) Use of different method (e.g. "Range tool")?	False

2.6 Main pressures		
a) Pressure	b) Ranking	c) Pollution qualifier
	H = high importance M = medium importance L = low importance	
X: No threats or pressures		

Difficult to think of any pressures currently acting on this species. Is possible that climate change is facilitating the expansion in range with warmer microclimate, but this is unproven either way	
2.6.1 Method used – Pressures	based only on expert judgements

2.7 Threats		
a) Threat	b) Ranking	c) Pollution qualifier
	H = high importance M = medium importance L = low importance	
X: No threats or pressures		

Change to the conditions which are allowing its current rapid range expansion. Assuming this is climate change, then a reversal of the current trends in climate change could seriously adversely affect this species – but that seems unlikely.

2.7.1 Method used – Threats expert opinion

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*)

Please refer to the United Kingdom assessment for this species.

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

3.1 Population

3.1.1 Population size

Estimation of population size included in the SAC network

a) Unit

b) Minimum

c) Maximum

3.1.2 Method used

3.1.3 Trend of population size within the network
(short-term trend)

3.2 Conservation measures

Conservation measures taken (i.e. already being implemented) within the reporting period and provided information about their importance, location and evaluation.

3.2.1 Measure	3.2.2 Type					3.2.3 Ranking H = high importance M = medium importance L = low importance	3.2.4 Location where the measure is PRIMARILY applied			3.2.5 Broad evaluation of the measure					
	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