

Species and Habitat Action Plan Assessment Form

Field 1: Action Plan details

Species/Habitat Action Plan	Large Blue
Lead Partner/Agency	Butterfly Conservation/English Nature
Steering Group/Other organisations	Butterfly Conservation, English Nature, National Trust, Somerset Wildlife Trust, Institute of Terrestrial Ecology, Gloucestershire Wildlife Trust, Farming and Rural Conservation Agency
Work programme in existence?	Yes

Field 2: Objectives and targets overview

Number and text	UK	E	NI	S	W	Comments
4.1 Consolidate the five re-established populations in England, aiming to achieve colonies containing 400 to 5,000 adults in each.		✓				
4.2 Re-establish populations at a further 5 former sites in southern England by 2005.		✓				

Field 3: Proposed actions overview

Number and text	UK	E	NI	S	W	Action significant?	Action complete or ongoing?
5.1.1 Ensure the requirements of this species are taken into account when preparing management prescriptions in ESAs and other agri-environment schemes.		✓				X	Ongoing, via general ESA reviews but this species is mainly restricted to nature reserves and dependent on conservation management at present.
5.2.1 Encourage the favourable management of relevant SSSIs.		✓				✓	Ongoing
5.2.2 Seek to secure positive management of appropriate areas adjacent to existing colonies to ensure a suitable sward and scrub-free habitat, planting wild thyme from a local source if necessary.		✓				✓	Ongoing
5.3.1 Re-establish a further five populations as suitable sites by 2005.		✓				✓	Ongoing
5.3.2 Arrange low-key wardening to prevent illegal collecting or accidental disturbance, and to help with monitoring.		✓				✓	Ongoing
5.4.1 Produce an advisory leaflet on how to manage land for this species, and circulate it to landowners and managers in suitable areas adjacent to target sites.		✓				X	General leaflet not started. Reports giving management advice specific to individual sites ongoing
5.4.2 Ensure the relevant societies and organisations are aware of the legal and ecological implications of collecting this species.		✓				X	Ongoing
5.5.1 Compile a priority list of potentially suitable sites for re-establishment.		✓				✓	Yes
5.5.2 Encourage regular monitoring of extant sites and seek to identify further threats to the species.		✓				✓	Ongoing
5.5.3 Pass information gathered during survey and monitoring of this species to JNCC or BRC so that it can be incorporated in national databases.		✓				X	Ongoing

5.5.4 Provide information annually to the World Conservation Monitoring Centre on the UK status of the species to contribute to maintenance of an up-to-date global red lists.	✓					✓	Action dropped
5.6.1 Maintain confidentiality about site locations.		✓				X	Ongoing

Field 4: Assessment of status

	Not appropriate	Recovered	Signs of recovery	No change	Declining	Lost	Insufficient information
UK							
England			✓				
Northern Ireland							
Scotland							
Wales							

The Large Blue currently occurs on 7 sites, an increase of two since 1995. A further 115 sites have been assessed for suitability and a short list of potential sites drawn up. The first target has been achieved, despite two poor years for the species, indicating that the huge effort to manage sites appropriately is being rewarded. Short to medium term plans should see the achievement of the second target, with a further 7 sites suitable or close to being suitable for the re-establishment of the Large Blue in the next 5 years.

Field 5: Summary statement

The main actions taken to re-establish the Large Blue butterfly *Maculinea arion* in Britain between 1995 - 1999 are described. The action programme was expanded in 1996-98 as a result of sponsorship by ICI, which supplemented the annual grant from English Nature. The Species Recovery Programme for this butterfly was championed by Butterfly Conservation, which fund-raised and organised publicity. The main project was led by Jeremy Thomas and David Simcox (Institute of Terrestrial Ecology, Furzebrook) but its implementation also depended much on the work of 59 professionals or volunteers from 9 organisations which collaborated on this project

Attempts have now been made to re-establish the Large Blue on seven sites in four former regions, including two new introductions made in 1996 and 1999. The butterfly also colonised an adjoining area to one site in Somerset, probably representing a separate colony. Populations were recorded on seven of these sites (including the latter) in 1999.

Poor weather for the Large Blue and its host ant had caused most, but not all, populations to fall in size in 1996-97. However, four populations (in Devon and Somerset) recovered considerably in 1998 and 1999 and a fifth (in Somerset) remained stable, though low in numbers. Survival of the new introduction was also promising in its first year. In contrast, both introductions made to the Cotswolds in the early 1990s appear to have failed, despite exemplary management and the creation of apparently suitable habitat.

Several site managers have now gained considerable experience of management for the Large Blue, and habitat of excellent quality was created or maintained on all the target sites, despite severe practical problems being encountered on some. There has been considerable progress on sites to which the Large Blue has yet to be introduced.

A survey was made in 1997-98 of 115 former or potential sites for this species. In general, sites with acid soils are more scrubbed over and contain fewer host ants than in previous surveys in the 1970s and '80s, but ant populations are considerably higher again on calcareous soils, following the return of rabbits.

Field 6: Signing off

Contact details	Lead Partner	Contact Point
Name	Dr Nigel Bourn/Dr David Sheppard	David Stone
Organisation	Butterfly Conservation /English Nature	English Nature
Assessment date (dd/mm/yy)	30/9/99	30/9/99

Table A: Action Plan objectives and targets

Objective/target	4.1 Consolidate the five re-established populations in England, aiming to achieve colonies containing 400 to 5,000 adults in each.				
Country	Not appropriate	Target achieved	Some progress	No progress	Insufficient information
<i>UK</i>					
<i>England</i>		✓			
<i>Northern Ireland</i>					
<i>Scotland</i>					
<i>Wales</i>					
<p>Devon, the 2 sites continue to have small populations, habitat conditions and management are now appropriate to the maintenance of the large blue. Action to further increase the area of habitat has started.</p> <p>Somerset, 4 sites, 2 of which together constitute the second largest known population in northern Europe, with further habitat restoration work ongoing. The remaining sites are well managed for the Large Blue but habitat conditions are such that the site is likely to support a small population of the Large Blue.</p> <p>Gloucestershire, the Large Blue has been introduced into 2 sites, the most northern climatic range of the species, despite ideal management and habitat conditions between 1996 and 1999 these were unsuccessful. A further attempt at a more sheltered, warmer third site was made in 1999. While too early to assess the success of this re-introduction early indications are promising.</p>					

Objective/target	4.2 Re-establish populations at a further five former sites in southern England by 2005.				
Country	Not appropriate	Target achieved	Some progress	No progress	Insufficient information
<i>UK</i>					
<i>England</i>			✓		
<i>Northern Ireland</i>					
<i>Scotland</i>					
<i>Wales</i>					
<p>Between 1995-1999 the Large Blue has been successfully established at a further two sites, one through natural colonisation of a nearby suitable site and one other site in Somerset.</p> <p>Site restoration continues at two further sites in Somerset, one in Cornwall and 3 in Gloucestershire such that, barring unforeseen circumstances, the Steering Group is confident that this target will be met by 2005.</p>					

Table B: Proposed actions

Published action/organisation(s) responsible	5.2.1 Encourage the favourable management of relevant SSSIs.	
	ACTION EN	
Work plan/organisation(s) responsible	Continue to ensure appropriate management on all sites.	
Action/workplan undertaken?	Yes	
Description of work taken and organisation responsible	All sites that have had populations introduced are designated SSSI and are in conservation ownership (National Trust, Wildlife Trusts). Management includes grazing, scrub control, and thyme planting in order to restore conditions suitable for the Large Blue.	
Output and timescale	Continue to meet objective 4.1, contribute to meeting objective 4.2 with significant management ongoing on a minimum of 7 potential sites.	<i>Action by</i> EN, NT, SWT, GWT, ITE, BC.
Constraints to action	The exacting requirements of the Large Blue ensure that constant vigilance and site warding is required. Resources necessary for this are considerable and increase as more populations are established.	
Action complete or ongoing?	Ongoing	

Next steps	Continue to establish populations to allow the plan objectives to be met, continue to seek funding to allow the full implementation of the plan.	
Output and timescale		<i>Action by</i> EN, NT, SWT, GWT, ITE, BC

Published action/organisation(s) responsible	5.2.2 Seek to secure positive management of appropriate areas adjacent to existing colonies to ensure a suitable sward and scrub-free habitat, planting wild thyme from a local source if necessary. ACTION EN	
Work plan/organisation(s) responsible	To continue to expand the site areas in Somerset and Devon as restoration continues.	
Action/workplan undertaken?	Yes	
Description of work taken and organisation responsible	Major initiative in Somerset by the Wildlife Trust, National Trust and others. National Trust sites in Devon continue to be expanded by appropriate management.	
Output and timescale	Contribute to meeting objective 4.1 by making sites and populations larger and hence more secure.	<i>Action by</i> ITE, NT, SWT, GWT.
Constraints to action	Cost of management and monitoring.	
Action complete or ongoing?	Ongoing	
Next steps	Continue to restore areas near present sites were potential for re-introduction is high.	
Output and timescale		<i>Action by</i> ITE, NT, SWT, GWT.

Published action/organisation(s) responsible	5.3.1 Re-establish a further five populations as suitable sites by 2005. ACTION EN	
Work plan/organisation(s) responsible	To introduce Large Blues as sites become suitable, provided management is secure and the donor populations sufficiently strong to allow some removal of stock. ITE to lead.	
Action/workplan undertaken?	Yes	
Description of work taken and organisation responsible	Large Blues introduced to one site in 1996 and a further site in 1999 by a partnership led by ITE and including English Nature, the National Trust, The Wildlife Trusts and Butterfly Conservation	
Output and timescale	Continue to manage target sites and restore Large Blue populations when sites become suitable.	<i>Action by</i> ITE, EN, NT, WTs, BC
Constraints to action	Biological – the traditional stronghold for the species on acid grasslands in Devon and Cornwall have tended to become scrubby or have been improved for agriculture. Costs of restoration are therefore high, however the remaining grassland vegetation has improved since the last survey in the 1970s and 1980s. Strongholds on the limestone grasslands have tended to become less scrubby and with the increase in rabbits are slightly easier to restore. Sites with suitable conditions, ownership, management etc. are very limited without a very large increase in financial resources.	
Action complete or ongoing?	Ongoing	
Next steps	Continue to manage sites to provide conditions necessary for the introduction of the Large Blue.	

Output and timescale	Sites suitable for the Large Blue. Timescales are medium to long term with 5 to 10 years being typical, some sites will take considerably longer to become suitable.	<i>Action by</i> ITE, EN, NT, WTs, BC
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Published action/organisation(s) responsible	5.3.2 Arrange low-key wardening to prevent illegal collecting or accidental disturbance, and to help with monitoring. ACTION EN	
Work plan/organisation(s) responsible	To liase at the Spring Steering Group meeting and ensure wardening is possible each year.	
Action/workplan undertaken?	Yes	
Description of work taken and organisation responsible	Devon sites have been wardened by volunteers. Somerset sites wardened by paid employees of Somerset Wildlife Trust funded by Butterfly Conservation/ICI and ITE. Volunteers also involved. One of these sites was selected to allow organised visits; 4 visiting days organised on another site, and a footpath crosses a third. With the large demand, and high visitor numbers wardening was essential in managing access to the sites.	
Output and timescale	6 weeks per summer, monitoring and control of visitor pressure.	<i>Action by</i> ITE, EN, NT, WTs, BC
Constraints to action	Resources for wardening are limited. The demand for field visits is increasing and exceeds the capacity of the limited number of sites available. Short flight period and likely poor weather ensures that some disappointment is inevitable for the foreseeable future.	
Action complete or ongoing?	Ongoing	
Next steps	Secure future funding for wardening. Develop larger network of sites open for the general public.	
Output and timescale	As above	<i>Action by</i> ITE, EN, NT, WTs, BC

Published action/organisation(s) responsible	5.5.1 Compile a priority list of potentially suitable sites for re-establishment. ACTION EN	
Work plan/organisation(s) responsible	To survey potential sites, assess habitat and determine priority sites for re-introduction.	
Action/workplan undertaken?	Yes	

Description of work taken and organisation responsible	<p>Due to the additional funding from ICI and Butterfly Conservation in 1997 and 1998, it was possible, for the first time since the mid 1980s, to make a full survey and habitat analysis of all former and potential sites for the Large blue, apart from those that were known to have been fundamentally changed by ploughing etc.</p> <p>The 1997 survey concentrated on sites in the south-west; that of 1998 on Somerset and the Cotswolds, with some re-surveying of sites along the Atlantic coast of Devon and Cornwall. Five reports were written, the results of which are currently being collated and analysed by ITE</p> <p>A total of 115 sites was visited, including current and known potential sites. Of these, 50 were on the acid soils of Devon and Cornwall, 40 on the limestones of the Cotswolds, and 23 were on limestone in Somerset. Although grazing had increased on almost every site - due to the return of rabbits, increased farming stock or because they were nature reserves - the results from acid soils in the south-west were as disappointing as had been expected. This is because most are dominated by dense gorse scrub, and patches of grassland were generally few and far between. High densities of <i>M. sabuleti</i> (the host ant of the Large Blue caterpillar) were recorded only on sites that had been deliberately grazed for the large blue. These all had higher densities of <i>M. sabuleti</i> than in the mid 1970s and mid 1980s, when the last two surveys were made. In contrast, most other sites in Devon and Cornwall had fewer host ants than in earlier decades.</p> <p>A very different pattern emerged from the calcareous grasslands of Somerset and the Cotswolds, where sites had not become scrubbed over. Most were receiving considerably more grazing than in the previous two decades. Overall, several sites were identified that appear to have the potential to support the Large blue now or in the near future.</p>	
Output and timescale	Various reports, targeted action.	<i>Action by</i> ITE, BC
Constraints to action	None	
Action complete or ongoing?	Ongoing	
Next steps	Use results to ensure suitable management at sites targeted for introduction.	
Output and timescale		<i>Action by</i> ITE, EN, NT WTs, BC

Published action/organisation(s) responsible	5.5.2 Encourage regular monitoring of extant sites and seek to identify further threats to the species.	
	ACTION EN	
Work plan/organisation(s) responsible	To ensure volunteers or wardens monitor all sites.	
Action/workplan undertaken?	Yes	
Description of work taken and organisation responsible	All sites wardened and populations monitored, most at both the adult and egg stage.	
Output and timescale	Annual report on population levels.	<i>Action by</i> ITE, EN, NT WTs, BC
Constraints to action	Resources	
Action complete or ongoing?	Ongoing	
Next steps	To continue to ensure monitoring on all sites.	

Output and timescale	As above	<i>Action by</i> ITE, EN, NT WTs, BC
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Published action/organisation(s) responsible	5.5.4 Provide information annually to the World Conservation Monitoring Centre on the UK status of the species to contribute to maintenance of an up-to-date global red lists. ACTION JNCC	
Work plan/organisation(s) responsible	N/A	
Action/workplan undertaken?	No	
Description of work taken and organisation responsible	N/A	
Output and timescale	N/A	<i>Action by</i>
Constraints to action	WCMC do not wish to receive raw data sets as they are not established to maintain them.	
Action complete or ongoing?	Not started	
Next steps	Action dropped	
Output and timescale	N/A	<i>Action by</i>