



REVISED PLAN MARCH 2018

SMALL BLUE *Cupido minimus*

1. INTRODUCTION

The small blue is the smallest of the resident British butterflies and can be easily overlooked, partly through its size and dusky colouring, but partly because it is usually confined to small patches of sheltered grassland that support its sole foodplant, kidney vetch (*Anthyllis vulneraria*). The ideal habitats typically contain a mosaic of short and tall vegetation and patches of light immature scrub.



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Males set up territories in sheltered positions, perching on tall grass or scrub. Once mated, the females disperse to lay eggs but both sexes may be found from late afternoon onwards in communal roosts, facing head down in long grass. The butterfly tends to live in small colonies. Kidney vetch can disappear due to drought, excessive wet conditions over and under grazing as a consequence populations of the small blue fluctuate greatly. The species has declined in both range and abundance across the whole of the UK.

1.	OBJECTIVES	TARGETS
Associated Action Plans are: ' <i>Open Mosaic Habitats on Previously Developed Land</i> ', ' <i>Lowland Calcareous Grassland</i> ', ' <i>Lowland Neutral Grassland</i> ', ' <i>Quarries & Gravel Pits</i> ', ' <i>Roadside Verges</i> ', ' <i>Dingy Skipper</i> ' and ' <i>Chalk Carpet</i> '		
PLEASE CONSULT THE '<i>GENERIC SPECIES</i>' ACTION PLAN IN CONJUNCTION WITH THIS DOCUMENT FOR OBJECTIVES COMMON TO ALL SPECIES PLANS		
A.	Continue to monitor all known sites annually by transect or timed count methodology.	ongoing
B.	Maintain population size and range.	ongoing
C.	Increase population size and range.	2020

2. NATIONAL BAP OBJECTIVES & TARGETS

The small blue is listed in the Species of Conservation Concern in Biodiversity: The UK Steering Group Report (DOE, 1995). It is on the current UK Biodiversity Action Plan (BAP) Priority Species list published in 2007([Joint Nature Conservation Committee](#)) due to severe decline in its distribution. The targets and objectives for the [Small Blue](#) BAP updated in 2010, may be seen online.

[Butterfly Conservation](#) has produced a National Species Action Plan (Bourn & Warren, 2000) and had classed the species as "medium priority" for conservation action. This is now 'high' due to its BAP status. The [West Midlands Regional Action Plan](#) (Joy & Williams

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2008) also classifies it as a high priority regionally. The immediate major objectives of the Butterfly Conservation Action Plan are to:

- *Halt decline.*
- *Maintain viable networks of populations throughout its current range.*
- *Conduct research on the ecology and distribution of the species to enable its effective conservation.*
- *Long term objective to restore its 1950 range.*

4. CURRENT STATUS

The small blue is rare but relatively widely distributed in calcicolous and coastal habitats throughout England, Scotland, Wales and at a single site in Northern Ireland. It has declined severely in many areas since 1950, most noticeably in central and eastern counties of England, north Wales and southern Scotland where the species is now almost absent. It has become more restricted in its remaining southern strongholds. The current rate of loss of colonies in central southern England was estimated at 7% per decade (during the 1980's), although the species is still relatively widespread in this area. The distribution trend at 1995 - 2004 had changed by -38% compared to 1970 - 82 (Fox et al. 2006); by 2009, however, it showed only a 4% decrease in distribution and an encouraging 31% increase in population over the last 10 years (Butterfly Conservation, 2011).

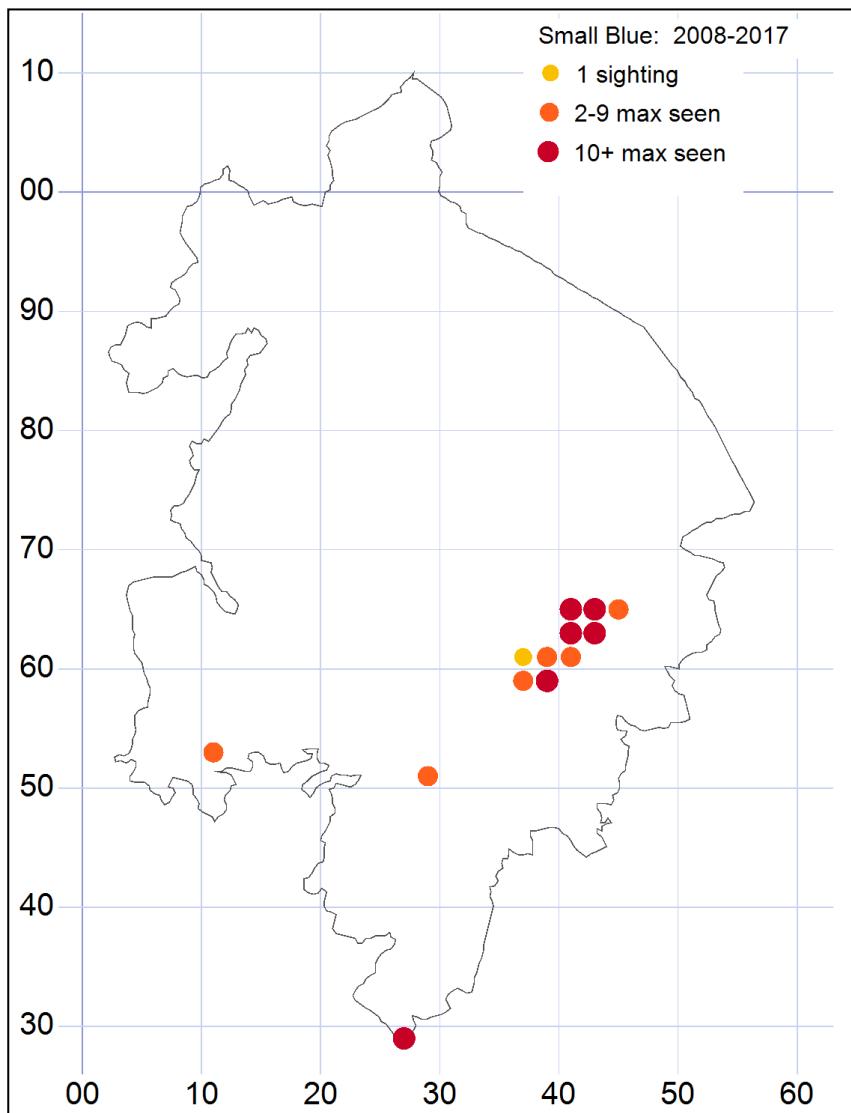
The [Millennium Atlas Survey 1995-1999](#) found 4 sites for small blue in Warwickshire, spread over 3 tetrads. The species has been lost from 9 sites in Warwickshire since 1970 and by 2004 the number of colonies had fallen to just 3, all under threat. In 2008 only 21 adult butterflies were recorded in the timed count carried out by Butterfly Conservation Warwickshire (BCW).

From 2009, the SITA Trust funded project, [Bringing Back the Small Blue'](#), aimed to restore 18 sites and by 2012, management work had been undertaken on 32 sites in the Southam area where there were 3 large colonies, 1 medium sized colony and 2 small colonies. The 9 sites included a sighting at Rugby Cement Works with key sites at Ufton Fields (now extinct), Stockton Cutting with [Site of Special Scientific Interest](#) (SSSI) status, Bishops Hill, a designated [Local Wildlife Site](#) (LWS) and Southam bypass.

In 2014 there were 10 breeding sites. By 2015 the range had increased to 14 sites plus 3 likely sites where eggs or singles have been seen in suitable habitat. By this time [Butterfly Conservation Warwickshire](#) (BCW) was working with [CEMEX](#) at quarry and landfill sites.

In 2016 there were 16 breeding sites and the total number of adults seen was 161, a 666% increase in 8 years. By 2017 the number of colonies, i.e. where eggs or adults were seen, had risen to 23, with seven of the breeding sites designated as LWS:

- Bishops Hill and Bishops Bowl
- Cross Hands Quarry
- Fosse Dene Meadows
- Harbury and Bishops Itchington Quarry.
- Long Itchington Quarry
- Southam Bypass Cutting north).

**Distribution map for the last 10 years**

(Butterfly Conservation Warwickshire: some of the 2 km sq. dots contain multiple colonies)

4.1 Legal and Policy Status

A wide range of species and habitats are protected under international and domestic laws, including the [Wild Birds Directive](#) (1979), the [Wildlife and Countryside Act](#) (1981), the [Conservation Regulations](#)(1994) and [EC Habitats Directive](#) (1992). Protection of sites is afforded nationally through SSSI designation, [Special Areas of Conservation](#) (SAC) and [Local Nature Reserve](#) (LNR) statutory status. Other sites are offered recognition of their value through Local Wildlife Site status (LWS), Local Character Areas and identified Landscape Scale Areas. The [National Planning Policy Framework](#) (2012) chapter/section 11 states conditions with regard to any development negatively affecting biodiversity, including protected sites, ancient woodland and other irreplaceable habitats (paragraph 118). The Wildlife & Countryside Act and schedule 2 of the [Conservation of Habitats & Species Regulations](#) (2010) make it an offence to intentionally kill, injure, take, possess, sell, buy or transport a range of species.

In Britain the small blue is listed on Schedule 5 of the Wildlife & Countryside Act which only protects the species from sale but is fully protected under the [Wildlife \(Northern Ireland\) Order \(1985\)](#).

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- **Lack of management to control natural succession** of grassland to scrub or to prevent grassland becoming rank and to maintain populations of the foodplant kidney vetch.
- **Increasing fragmentation and isolation of existing colonies** which prevents the butterfly from re-colonising that have been restored to a suitable state.
- **Inappropriate grassland management** through over grazing not allowing the kidney vetch flowers to form or inappropriate grazing or mowing that removes kidney vetch flowers or their seed heads.
- **Difficulties in maintaining networks of suitably managed habitats** under different ownerships.
- **Agricultural intensification** which destroys herb rich grasslands containing kidney vetch

5. LOCAL ACTION

- From 2008-2011 there was a major three- year SITA Trust- funded Small Blue restoration project to remove scrub and create habitat at a minimum of 18 sites. The aim of this project was to create or restore a number of suitable habitats within a landscape to allow natural colonisations as areas become suitable. BCW is already working towards long term sustainable benefits of this project work.
- In 2013 the Ecology Team at the Warwickshire County Council, led by David Lowe, Principal Ecologist, was awarded the 'Marsh Promotion of Lepidoptera' Award in recognition of its exceptional contribution to the conservation and promotion of butterflies and moths in the county.
- Since 2008, BCW has undertaken work to increase the population size and range of the small blue, including the removal of invasive scrub, the creation of butterfly banks and scrapes and the seeding and planting of kidney vetch:
 - in 2015 habitat changes at 2 sites had reduced the amount of flowering kidney vetch needed for the small blue to lay eggs. VEOLIA funding paid for further seed to provide sufficient for recolonization the next year; BCW established kidney vetch at a 5 further sites.
 - in 2017 BCW exceeded its target of raising the number of permanent colonies from 6 to 10, raised to 20 in 2015, by recording 23 colonies.
 - By 2017 BCW had exceeded its target of increasing the number of sites suitable for colonisation from 6 to 20 by achieving a minimum of 38 sites.
 - By 2017 BCW had worked with CEMEX to create topographic features for small blue at 10 quarry and landfill sites: Southam Quarry Old Site and Griffin Farm (both are likely to be new sites soon), Southam Quarry Extension, Nelsons Quarry Stockton, Malpass Quarry, New Bilton Quarry, Parkfield Road, Marsh Farm, Berkswell Quarry and Ufton Landfill.
 - over the next few years BCW aims to create habitat (permanent or temporary) on farm land at 51 sites.

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- Sustrans: in 2017, carried out scrub clearance and planting of food plants (at Manor Farm on the road to Draycote and at Long Itchington disused railway canal cutting). Also assisted BCW and the Cawston Greenway Group with management of the Greenway.

6. PROPOSED LOCAL ACTIONS

ACTION	Lead	Partner	By	
PLEASE CONSULT THE '<i>GENERIC SPECIES</i>' ACTION PLAN IN CONJUNCTION WITH THIS DOCUMENT FOR ACTIONS COMMON TO ALL SPECIES PLANS				
Policy, Legislation & Protection				
PL1. Continue to designate all known small blue sites that qualify as LWSs at the earliest instance.	LWSP	WWT HBA	BC LAs	ongoing
Site / Species Safeguard & Management				
Targets increased in view of progress 2011- 2017				
SM1. Manage all known small blue colonies appropriately.	BC	SDC WWT	LOs	ongoing
SM2. Increase the number of permanent colonies from 23 to 30 .	BC	WWT SDC	NE LOs	2025
SM3. Increase the number of sites suitable for colonisation from 38 to 50 by protecting and managing a further 10 sites that have been assessed as having the potential.	BC	WWT SDC	NE LOs	2025
Advisory				
A1. Disseminate information to landowners and other agencies to introduce management for small blue.	BC	WWT SDC	ongoing	
Research & Monitoring				
RM1. Undertake timed counts annually on all known sites on the same day to assess habitat condition and adult butterfly abundance.	BC	WWT	2020	
RM2. Produce annual comparative site reports outlining threats and trends.	BC	WWT	2020	
RM3. Survey all former locations to assess opportunities for recolonisation.	BC	WWT	2020	

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RM4. Establish habitat monitoring at all current sites and all sites that have held colonies in the last 10 years to determine any change of suitability for small blue.	BC	WWT	2020
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Abbreviations: BC – Butterfly Conservation, LOs – Landowners, LWSP – Local Wildlife Sites Project, NE – Natural England, SDC – Stratford District Council, WWT – Warwickshire Wildlife Trust.

7. PROGRESS WITH ACTIONS

From 2015–2020 there will be a rolling programme of reporting on progress, of 10 action plans per year with an annual summary of results. Progress with this plan up to 2017 can be seen at www.warwickshirewildlifetrust.org.uk/LBAP.

8. BIBLIOGRAPHY

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Warmington, K. & Vickery, M. (2003). Warwickshire's Butterflies: their Habitats and Where to Find Them.

Fox, R., Asher, J., Brereton., Roy & Warren, M. (2006) 'The State of Butterflies in Britain and Ireland' examines trends across several decades back to monitoring baselines in the 1970s.

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Miller-Klein, J. (2010) [Gardening for Butterflies, Bees and Other Beneficial Insects](#) – a 'How To' guide.

Lawton, J.H. (2010) [Making Space for Nature](#): a review of England's wildlife sites and ecological network. Report to Defra, advocating a landscape-scale approach guided by four key principles, summarised as '*more, bigger, better and joined*'.

Defra (2011) [Biodiversity 2020](#): A strategy for England's wildlife and ecosystem services.

Slater, M. & Warmington, K. (2012) The butterfly landscape areas of Warwickshire. Butterfly Conservation (Warwickshire Branch).

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Thomas, J. & Lewington, R. (2014) The Butterflies of Britain & Ireland [The Butterflies of Britain & Ireland.](#)

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Marren, P. (2015) [Rainbow Dust: Three Centuries of Delight in British Butterflies](#) - explores the ways in which butterflies delight and inspire us all, naturalists and non-naturalists alike.

Oates, M. (2015) [In Pursuit of Butterflies: A Fifty-year Affair](#) - based on fifty years of detailed diaries.

Butterfly Conservation (2015) [The State of Britain's Butterflies](#) - an assessment based on recording and monitoring schemes and making recommendations for conservation.

RSPB (2016) [State of Nature](#) – a stocktake of all our native wildlife by over 50 wildlife organisations.

Natural England (2016) The [Conservation Strategy for the 21st Century](#) sets out how NE will help deliver DEFRA's ambitions for the environment to reverse biodiversity loss, sustain distinctive landscapes and enhance engagement with nature.

Measures, D. (2016) [Kaleidoscope. The secret lives of Britain's butterflies.](#) An illustrated guide to watching butterflies.

9. FURTHER INFORMATION

Habitat Biodiversity Audit (HBA) for Warwickshire, Coventry & Solihull – mapping data set and associated information. Phase 1 ([JNCC](#)) 1996-2002 and Phase 2 (Local Wildlife Sites) ongoing.

Kirby, P. (1992). [Habitat management for Invertebrates](#): a Practical Handbook. RSPB.

RSPB (2007). [Farm Wildlife Handbook](#) available online tel. 01234 263616

Butterfly Conservation - [Butterfly Banks](#), [Scallops](#), [Scrapes](#), [Seeding and Plug Planting](#) - management factsheets for advice on habitat creation and maintenance that can benefit several species of butterfly and moth in one location.

[Buglife](#) - the Invertebrate Conservation Trust.

[Nature After Minerals](#) is a resource for everyone with an interest in quarry restoration & minerals planning for biodiversity.

[Warwickshire CC Mineral Strategy](#) - the minerals development framework consists of a number of documents.

[Big Butterfly Count](#) 2017 - more than 60,400 participants undertaking 62,547 counts revealed the lowest average number of individuals of the 20 target species (including

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2 day-flying moths) since the project began in 2010. However, the red admiral had its best ever result with abundance 75% higher than the previous summer.

10. CONTACT

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