



REVISED PLAN MARCH 2018

CHALK CARPET *Scotopteryx bipunctaria*

1. INTRODUCTION

The chalk carpet moth inhabits calcareous grassland (overlying chalk and limestone), particularly that which has formed in old limestone quarries and other sites with a history of disturbance. The moth is nocturnal but can be readily disturbed during the daytime and flies short distances before re-settling amongst grasses or on bare ground. Its whitish-grey coloration and medium size (wingspan 32-38 mm) enables it to be easily monitored. Moth recording with mercury vapour lights after dark is another good way of attracting this species.



© David Brown

Chalk carpet sites must contain an abundance of bird's-foot trefoils (*Lotus* spp.), clovers (*Trifolium* spp.) and vetches (*Vicia* spp.) which are the main food-plants of the caterpillar. The caterpillars feed at night and a pupa is formed in a cocoon on the ground. The moth overwinters as a larva and adults fly in July/August.

2.	OBJECTIVES	TARGETS
Associated Action Plans are: 'Open Mosaic Habitats on Previously Developed Land', 'Quarries & Gravel Pits', 'Lowland Calcareous Grassland', 'Roadside Verges', 'Dingy Skipper' and 'Small Blue'		
PLEASE CONSULT THE '<i>GENERIC SPECIES</i>' ACTION PLAN IN CONJUNCTION WITH THIS DOCUMENT FOR OBJECTIVES COMMON TO ALL SPECIES PLANS		
A.	To maintain up-to-date listings of sites and population sizes.	ongoing
B.	To maintain the size and range of known populations of the chalk carpet.	ongoing
C.	To increase the number of confirmed colonies in the sub-region.	2020

3. NATIONAL BAP OBJECTIVES & TARGETS

The chalk carpet is on the current UK Biodiversity Action Plan (BAP) Priority Species list published in 2007 ([Joint Nature Conservation Committee](#)). The targets and objectives for the [Chalk Carpet](#) BAP, updated in 2010, may be seen online.

[Butterfly Conservation](#) also has an action plan, the immediate major objectives of which are:

- To halt the decline of this species in the UK.
- To maintain viable networks of populations throughout its current range.
- To conduct research on the distribution and ecology of the species to enable its effective conservation

4. CURRENT STATUS

The chalk carpet is widespread in Southern England where it is found locally in calcareous habitats. It becomes much more localised in the Midlands and isolated colonies occur in North Wales, Yorkshire and County Durham. Waring (1997) categorised this species as Nationally Notable (estimated to occur in less than 100 10-km squares nationally).

In the West Midlands region it is a high priority moth which has only recently been recorded in Warwickshire and Staffordshire (Joy & Williams, 2008). In Warwickshire the species has always been very local. In the latter part of the 20th century only one site, Bishops Hill, had recent records. Further surveys in the 21st century of former sites rediscovered the moth at Southam (Long Itchington) Quarry and following clearance work at [Nelsons\(Stockton\) Quarry](#) it appeared to have recolonized the site by July 2009; it was also discovered at Bishops Bowl in July 2011. Chalk carpet now occurs at 4 sites, with large colonies at Bishops Hill and Bishops Bowl and smaller at Southam and Nelson's Quarries; at the latter site numbers have gone up following scrub clearance. An individual appeared in a light trap in Warwick in August 2009.

The species appears to have disappeared from Wilmcote Rough and [Ufton Fields](#) (similar to the declines shown by various other insects requiring early successional stages of limestone habitat) and was at Kites Hardwick up to 1990. More monitoring is needed in the first week of July, starting with small blue butterfly sites, such as Ufton Fields and Malpas Quarry, as their habitat needs are the same; night-time traps are more effective than daytime recording.

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 [Sites of Special Scientific Interest](#) (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.

The species is not protected under the Wildlife & Countryside Act but Bishops Hill and Bishops Bowl are designated as a single large Local Wildlife Site (LWS) while Nelsons Quarry is part of a larger SSSI.

4.2 Current Factors Affecting the Species

- **Scrub encroachment and other successional changes** that result in the loss of suitable habitat and food-plants.
- **Increasing fragmentation and isolation of existing colonies.**

- **Loss of suitable habitat** development, unsympathetic landscaping, conversion to intensive agriculture or other damaging land operations.
- **Loss of bare ground at sites** through lack of disturbance and/or management

5. LOCAL ACTION

- Several sites in the Southam area have been recently cleared of scrub. In addition to scrub clearance mechanical disturbance has been initiated to create bare areas in butterfly banks and scrapes. This work has been carried out as part of the [SITA Trust: Bringing Back the Small Blue Project](#)
- Management plans exist for the Parish Council-owned part of Bishops Hill (Yellow Land), the Bishops Bowl WWT reserve which is in HLS, and Southam and Nelson's quarries where [Butterfly Conservation Warwickshire](#) (BCW) manage open areas.
- Monitoring takes place annually by BCW at Bishops Hill and Bishops Bowl and regular monitoring is being established at Southam Quarry and Nelson's Quarry. The first surveys were completed in 2013 at 3 potential sites - Kingston Grange Farm/Gaydon Landfill, Stockton Cutting and Jaguar LandRover.
- 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.
- [Warwickshire Wildlife Trust](#) (2017) will pursue opportunities for support from Highways England to manage roadside verges sympathetically for wildlife; in calcareous areas in the south of the county this will support the chalk carpet moth.

6. PROPOSED LOCAL ACTIONS

ACTION	Lead	Partners	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. Designate all new chalk carpet sites that qualify as LWSs at the earliest instance.	LWSP	WCC WWT BC HBA LAs	ongoing
Site / Species Safeguard & Management			
SM1. Continue to work with landowners to ensure that the sites with colonies have management plans which fulfil the habitat requirements of the chalk carpet.	BC	SDC WWT LOs QOs	ongoing

SM2. Manage suitable areas of calcareous grassland and former post industrial sites to connect existing colonies, in order to extend the range and population size.	BC	WWT LOs	SDC	ongoing
SM3. Create new areas of suitable habitat including soil scrapes to increase the number of sites by a further 4, e.g. on motorway and trunk road embankments. Potential areas are Stockton Cutting and Southam Quarry extensions, Jaguar LandRover and Southam Bypass North, M40 South.	BC	WWT LOs HEng	SDC HAuth	2020
Advisory				
A1. Continue to circulate information to landowners of existing and potential sites and other interested parties on beneficial management for chalk carpet.	BC	WWT	SDC	ongoing
Research & Monitoring				
RM1. Continue to survey former and potential locations where the chalk carpet could occur.	BC	WWT		2020
RM2. Continue monitoring at Bishops Hill and Bishops Bowl and establish monitoring at the 2 other sites to determine any change in status of the chalk carpet.	BC	WWT		ongoing

Abbreviations: BC – Butterfly Conservation, HAg – Highways Agency, HAuth – Highways Authority, HBA – Habitat Biodiversity Audit partnership, LOs – Landowners, LWSP – Local Wildlife Sites Project, QOs – Quarry owners, SDC – Stratford District Council, WCC – Warwickshire County 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

Skinner B. (1984). Colour Identification Guide to Moths of the British Isles. Viking.

Brown, D. & Smith, R.(1987). The Lepidoptera of Warwickshire Parts I & II Warwickshire Museum Service.

Porter. J.(1997). Colour Identification Guide to Caterpillars of the British Isles. Viking.

Waring, P. (1997). Annotated List of Macro Moths recorded in the British Isles.

Brown, D.C.G. (2006) "The Larger Moths of Warwickshire". Atropos.

Joy, J. & Williams, M. (2008). Butterfly Conservation Regional Action Plan for the West Midlands. Butterfly Conservation Report SO8-19. Butterfly Conservation, Wareham.

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*'.

Butterfly Conservation(2010) [The Provisional Atlas of the UK's Larger Moths](#) is based on the first 11 million moth records collated by the National Moth Recording Scheme and represents a landmark in moth recording.

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

Butterfly Conservation (2012) [Landscape-scale conservation for butterflies and moths](#): Lessons from the UK.

Butterfly Conservation (2013) [The State of Britain's Moths](#) shows that Britain's moths are in decline, with a 40% decrease in total abundance in southern Britain.

Townsend, M. et al. (2014) Concise Guide to the Moths of Great Britain & Ireland.

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.

Waring, P., Townsend, M. & Lewington, R. (2017) [Field Guide to the Moths of Great Britain & Ireland](#)

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.

Butterfly Conservation: [Chalk Carpet](#) information

Butterfly Conservation - [Creating Scrapes for Butterflies and Moths](#) - management factsheet for advice on habitat creation and maintenance that can benefit several species of butterfly and moth in one location.

[Buglife](#) - the Invertebrate Conservation Trust

MineralsUK - the British Geological Survey's [Centre for Sustainable Mineral Development](#). This website has a wealth of information on mineral resources,

mineral planning, policy and legislation, sustainable development, statistics and exploration.

[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.

[Moths Count](#) aims to encourage interest in moths throughout the UK and to run the [National Moth Recording Scheme](#) to improve knowledge and conservation of the 900+ species of larger moths.

10. CONTACT

Mike Slater: Butterfly Conservation Warwickshire Branch Conservation Officer.
Tel: 01788 335881, Email: michael.slater50@ntlworld.com

David C.G Brown. Tel: 01789 840295. Mobile: 07977 379330