



DRAFT REVISED PLAN 2014

WOOD WHITE

Leptidea sinapsis

1. INTRODUCTION

The wood white is the smallest butterfly in the *White* family of butterflies. It is renowned for having one of the most delicate flights of any British butterfly and this has given it the evocative nick-name of “Lady of the Woods”. In Britain the wood white traditionally bred in ancient deciduous woodland with a long history of coppicing. The number of wood white colonies rapidly declined in size and number as coppicing ceased at most woodland sites during the mid-1900s.



© Jim Asher
Butterfly Conservation

In the second half of the twentieth century there was a brief renaissance in the butterfly's fortunes as it moved to colonise a wider range of habitats including young conifer plantations planted on clear felled ancient woodland sites and disused railway lines following closure. Unfortunately by the 1980's the conifer plantations and the disused railway lines had grown up causing another round of extinctions leaving approximately 70 colonies. There was another brief renaissance as more woods returned to active conservation management and the number of colonies increased to approximately 90. Then during a disastrous a series of poor summers between 2005-07 populations and colony numbers crashed and there maybe as few as 50 colonies now left in England and Wales. The butterfly will only breed in sunny open rides or recent coppiced areas, especially in wetter areas or where there are ditches that encourage its larval foodplants. Recent monitoring has shown us that the species can only survive long term when there is a continuity of active management.

The growth structure of the butterfly's five known larval food-plants is the critical factor in the butterfly's survival. The main larval food-plants of the wood white are meadow vetchling (*Lathyrus pratensis*), tufted vetch (*Vicia cracca*), common bird's-foot-trefoil (*Lotus corniculatus*), greater bird's-foot-trefoil (*L. pedunculatus*) and bitter Vetch (*Lathyrus montanus*). Most food-plants used are growing through the surrounding vegetation.

2.	OBJECTIVES	TARGETS
Associated Action Plans are: ' <i>Woodland</i> '		
PLEASE CONSULT THE '<i>GENERIC SPECIES</i>' ACTION PLAN IN CONJUNCTION WITH THIS DOCUMENT FOR OBJECTIVES COMMON TO ALL SPECIES PLANS		
A.	Continue monitoring at all known sites in the sub-region.	ongoing
B.	Increase population size and range.	2020

3. NATIONAL BAP OBJECTIVES & TARGETS

The wood white is listed in the Species of Conservation Concern in Biodiversity: The UK Steering Group Report (DOE, 1995) and 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 [Wood White](#) BAP, updated in 2010, may be seen online.

[Butterfly Conservation](#) has produced a National Wood White BAP (Bourn & Warren, 2000) and has classified the species as “high priority” for conservation action. The species is also included as High Priority within Butterfly Conservation’s Regional Action Plan for the West Midlands (Joy & Williams 2008).

The immediate major objectives of the Butterfly Conservation Action Plan are:

- *Halt rapid decline in England and Wales*
- *Maintain viable networks of populations throughout its current range*

A long-term objective of the Plan is:

- *Restore its 1950 range.*

4. CURRENT STATUS

The butterfly has declined significantly in England and Wales. The Irish population has recently been shown to be a different species, *L. reali* which has expanded rather than declined within its range. The range of *L. sinapsis* declined by 36% in the number of colonies and by 62% in range between 1957 and 1982 (Warren et al. 2000). Between 1995-99 and 2005-09 the wood white continued to decline, by a further 23% in range and by 49% in population abundance (Butterfly Conservation, 2011). Historically declines have been mainly due to the widespread cessation of traditional coppice management in woodland. This leads to food-plants becoming shaded out by trees and scrub. Scrub encroachment through lack of management has been a major factor behind the loss of colonies at non-woodland sites such as railway lines.

The [Millennium Atlas Survey](#) 1995-1999 (Asher et al. 2001) found only 1 site, in Wolford Wood, for wood white in Warwickshire. Following a number of years with intermittent single sightings in [Ryton Wood](#), a designated [Sites of Special Scientific Interest](#) (SSSI), the butterfly has also been recorded on the transect in 7 of the last 8 years (2001-9) where in 1986 the butterfly was observed for the first time since 1950. In 2004 a total of 70 individuals were recorded. Unfortunately following a series of poor summers during 2005-2007 numbers crashed at both woods. The Wolford colony may now be extinct as surveys have not recorded the species there since 2007. The population at Ryton Wood has returned to a small one with only 14 recorded in 2011. During the same time active management was reduced at Wolford Wood but increased at Ryton; this increase in management may have saved the species. During this century breeding has been confirmed in Warwickshire at both woods following egg searches and observations of female butterflies.

By 2011 there were 5 sites for the wood white in the [Princethorpe Woodlands](#) landscape area of Brandon, Ryton, Wappenbury / Old Nunn, Bubbenhall and Weston / Waverley woods.

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 wood white is listed on Schedule 5 of the Wildlife & Countryside Act, which only protects the species from sale; it is fully protected under the [Wildlife \(Northern Ireland\) Order \(1985\)](#).

4.2 Current Factors Affecting the Species

- **Lack of and continuity of traditional coppice management** – coppice plots connected by rides allow light into woodlands, encourage the growth of suitable foodplants and assist movement of the butterfly from one potential breeding site to another. In large woodland complexes, this butterfly survives well along ride systems alone and also has quite good powers of dispersal along them, enabling it to colonise new areas.
- **Isolation of existing suitable woods, combined with the wood white's limited colonising ability.**
- **Continuing decline in the market for coppice products**
- **Even aged nature of many potential woodland sites**, leading to high shade levels >50%.
- **Lack of woodland management** - insufficient continuity of coppicing programmes or cleared areas situated suitably close to each other and/or connected by wide sunny rides.
- **Inappropriate woodland ride edges management** - too frequent mowing of tall herb edge leading to an absence of appropriate foodplants growing with the right growth structure. Piecemeal mowing of ride rides appears to be the most effective. This management reduces invasive scrub such as bramble but maintain tall herb rich areas.
- **Inappropriate or insufficient ditch management** - insufficient or too frequent clearance of ditches to encourage germination of larval food-plants.

WILDLIFE

Warwickshire, Coventry and Solihull Local Biodiversity Action Plan

- **Scrub encroachment and other successional changes** – rendering non-woodland sites such as railway lines unsuitable.

5. LOCAL ACTION

- Management by the landowner at Wolford Wood has reduced recently and breeding habitat as a consequence has reduced. The reduced breeding area has coincided with a number of poor breeding summers. The butterfly may now be extinct. The herb-rich rides are regularly mown but the ditch and bank edges are cut less frequently than in the late 1990's.
- Ryton Wood, a [Warwickshire Wildlife Trust](#) reserve, is in active management, securing the long term management of the wood white colony there. There are 3 main coppice regimes, 1 scrub coppice regime and 13 other ride side coppice regimes. The rides are mown in a piecemeal fashion annually and the cuttings are removed.
- [Ryton Country Park](#), now in [Higher Level Stewardship](#), is encouraging the adjacent wood white population by planting meadow vetchling (*Lathyrus pratensis*) in the Ryton Pools area (pers.comm. Craig Earl, 2013)
- In 2009, the Biffa award-funded Princethorpe Woods Habitat Restoration Project, run by [Warwickshire Butterfly Conservation](#), resulted in active management being carried out at 11 sites in the greater Princethorpe area. In total 112 ride side scallops 2 ½ hectare coppice plots and butterfly banks will be created for the benefit of a number of species including the Wood White.
- In 2005, 2009 and 2010 habitat assessment surveys were undertaken on past and potential sites for wood white, to determine management action required to encourage recolonisation (Slater, 2005, 2010).
- Surveys at Wolford Wood have not recorded wood white since 2007.
- In 2012 a training day for landowners and managers of potential wood white sites on the ecology and management requirements of the species was held by Butterfly Conservation.
- 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.

WILDLIFE

Warwickshire, Coventry and Solihull Local Biodiversity Action Plan

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. Designate all new wood white sites that qualify as LWSs at the earliest instance.	LWSP	WWT BC	NE RBC	ongoing
Site / Species Safeguard & Management				
SM1. Secure and continue the long-term management of all known wood white colonies to increase population size.	BC	SDC RBC	LOs WDC	2015
SM2. Maintain long-term management of at least 4 sites in the Princethorpe Woodlands complex to allow for meta-populations to form.	BC	NE LOs	WWT FC	ongoing
SM3. Increase the number of colonies from 1 to 2.	BC	NE HSC LOs	FC WWT FoBW WCC	2015
SM4. Introduce positive management on at least 3 potential sites to create the potential for natural colonisation – e.g. Bubbenhall Wood, Brandon Wood and Ryton Pools.	BC	LOs FoBW	WCC HSC	2015
Research & Monitoring				
RM1. Continue monitoring at Ryton Wood.	BC	WWT		ongoing
RM2. Determine the presence or absence of the species at sites within the vicinity of existing colony, i.e. the other woods in the Princethorpe Woodlands complex, to assess opportunities for recolonisation.	BC	WWT		ongoing

Abbreviations: BC – Butterfly Conservation, FC - Forestry Commission, FoBW – Friends of Brandon Wood, HSC – Hanson/Smiths Concrete, LOs – Landowners, LWSP – Local wildlife Sites Project, NE – Natural England, RBC – Rugby Borough Council, SDC – Stratford District Council, WCC – Warwickshire County Council, WDC – Warwick 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. Results will be entered onto the national Biodiversity Action Reporting System BARS. Progress with this plan up to 2008 can be seen at www.warwickshirewildlifetrust.org.uk/LBAP2014.

8. BIBLIOGRAPHY

- Kirby, P. (1992) [Habitat management for Invertebrates](#): RSPB Practical Handbook.
- DoE. (1995) Species of Conservation Concern in Biodiversity. The UK Steering Group Report
- Bourn, N.A.D & Warren, M.S. (2000) [Wood White \(*Leptidea sinapsis*\)](#). Species Action Plan. Butterfly Conservation.
- Lewington, R. (2003) [Pocket Guide to the Butterflies of Great Britain and Ireland](#).
- Warmington, K. & Vickery, M. (2003) [Warwickshire's Butterflies](#) - Their Habitats and Where to Find Them.
- Slater, M (2005) Conservation Report: Wood White, *Leptidea sinapsis*.
- 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.
- Joy, J. & Williams, M. (2008) [Butterfly Conservation Regional Action Plan for the West Midlands](#) Butterfly Conservation Report SO8-19.
- 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.
- Defra (2011) [Biodiversity 2020](#): A strategy for England's wildlife and ecosystem services.
- Butterfly Conservation (2011) [The State of the UK's Butterflies 2011](#), published in collaboration with the Centre for Ecology & Hydrology. For the first time, trends in both distribution and population change have been calculated simultaneously, summarising the findings of over 10 years of intensive survey, monitoring and conservation effort.
- Slater, M. & Warmington, K. (2012) The butterfly landscape areas of Warwickshire. Butterfly Conservation (Warwickshire Branch).
- Butterfly Conservation (2012) [Landscape-scale conservation for butterflies and moths](#): Lessons from the UK.
- RSPB (2013) State of Nature – a stocktake of all our native wildlife by 25 wildlife organisations.
- Thomas, J. & Lewington, R. (2014) The Butterflies of Britain & Ireland [The Butterflies of Britain & Ireland](#).

9. FURTHER INFORMATION

[Butterfly Conservation](#) – the National Wood White Conservation Project now coordinates Wood White research and conservation (Site register and management recommendation in press)

Butterfly Conservation: [Woodland management for butterflies and moths](#): a best practice guide - intended for anyone involved in the management of woodland, it provides guidance on the woodland habitat features needed by butterflies and moths, and how to create, maintain and improve them. ISBN-13:9780956221681

Butterfly Conservation - [Woodland Scallops](#) - Management factsheet on ride side scallops that can help provide habitats for many rare and declining species.

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

Princethorpe Woods Habitat Restoration Project – Project Officer Mike Slater

10. CONTACTS

Mike J. Slater - Butterfly Conservation Warwickshire Branch Conservation Officer.
Email: m Slater@butterfly-conservation.org Tel.01788 335881

Keith Warmington - Butterfly Conservation Warwickshire Branch Recorder.
Email: keith@warmies.co.uk Tel. 01827 715873