



## REVISED PLAN NOVEMBER 2021

### WOOD WHITE *Leptidea sinapis*

#### 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 the practice of coppicing ceased at most woodland sites during the mid-1900s.



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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 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: 'Woodland'		
PLEASE CONSULT THE ' <b>GENERIC SPECIES</b> ' 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.	2025

### 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 [UK Biodiversity Action Plan Species](#) list published in 2007 ([Joint Nature Conservation Committee](#)).

[Butterfly Conservation](#) 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 for the wood white are to:

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

A long-term objective of the plan is to: *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; active management had been reduced here. The population at Ryton Wood returned to a small one, with only 14 recorded in 2011, perhaps saved by an increase in management.

By 2011 there were 4 more sites for the wood white in the [Dunsmore Living Landscape](#) area: [Brandon](#), [Wappenbury](#), [Bubbenhall](#) and [Weston & Waverley Woods](#), but in 2019 the species was again on the verge of extinction at Ryton Wood and records were down to vagrants or none at all at the 4 other sites. However, a small colony had become established at [Ryton Wood Meadows](#) and a medium-sized colony at [Ryton Pools](#), counted as one colony. A second small colony existed at [Hay Wood](#), giving a total of 4 breeding sites and two colonies. In 2021 Wood White was still on the verge of extinction at Ryton

Wood, not helped in 2020 when vegetation was removed from the ride which was the best remaining breeding area.

#### 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, [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.
- **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 been reduced and breeding habitat as a consequence has also 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, was in active management until 2014, with 3 main coppice regimes, 1 scrub coppice regime and 13 other ride side coppice regimes; since then management has been greatly reduced with concern that the species is on the verge of extinction.
- 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. 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).
- [Butterfly Conservation Warwickshire:](#)
  - in 2009, the Biffa award-funded Princethorpe Woods Habitat Restoration Project (now the Dunsmore Living Landscape) resulted in active management being carried out at 11 sites in the greater Princethorpe area. In total 112 ride side scallops, 2.5ha coppice plots and butterfly banks were 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).
  - in 2012 a training day was held for landowners and managers of potential wood white sites on the ecology and management requirements of the species.
  - **Hay Wood:** in 2016, a provisional management plan was agreed with the [Forestry Commission](#) (FC), comprising with coppice cycles and the creation of ride side scallops. Ride side edges have been seeded with larval food plants and a small colony has become established, increasing in size annually.
  - **Ryton Wood Meadows:** managed with woodland edge coppice cycles and rotational scrub rotations; the area has been seeded with larval food plants and a small colony has become established.
  - **Ryton Pools (Ryton Pools Country Park):** managed in partnership with Warwickshire County Council with rotational scrub coppice cycles; the area has been heavily seeded with larval food plants including meadow vetchling and a medium size colony has become established, the largest in Warwickshire.
  - **Brandon Wood:** working with [Friends of Brandon Wood](#) to establish larval food plants in the most suitable part of the wood.

## Warwickshire, Coventry and Solihull Local Biodiversity Action Plan

- **Weston & Waverley:** managed by the FC in partnership with BCW, it is now suitable and hopefully will be colonised in the near future.
- monitoring has been established or continues at Brandon Wood, Wappenbury Wood, Weston & Waverley Wood, Bubbenhall Wood, Bubbenhall Meadow, Ryton Pools Country Park, Ryton Wood Meadows, Hay Wood and [Heart of England Forest](#) (all areas).

## 6. PROPOSED LOCAL ACTIONS

ACTION	Lead	Partner	By
<b>PLEASE CONSULT THE '<i>GENERIC SPECIES</i>' ACTION PLAN IN CONJUNCTION WITH THIS DOCUMENT FOR ACTIONS COMMON TO ALL SPECIES PLANS</b>			
<b>Policy, Legislation &amp; Protection</b>			
<b>PL1.</b> Designate all new wood white sites that qualify as LWSs at the earliest instance.	LWSP	WWT HBA BCW LAs	ongoing
<b>Site / Species Safeguard &amp; Management</b>			
<b>SM1.</b> Secure and continue the long-term management of all known wood white colonies to increase population size.	BCW	SDC RBC LOs WDC	ongoing
<b>SM2.</b> Maintain long term management at 3 sites: Ryton Wood Meadows, Ryton Pools Country Park and Weston and Waverley Wood.	BCW	NE LOs WWT FC	ongoing
<b>SM3.</b> Increase the number of colonies from 2 to 4, aiming for Weston Wood (natural colonisation) and Wolford Woods. <b>Target increased in view of progress.</b>	BCW	NE FC WCC FoBW LOs	2025
<b>SM4.</b> Consider introductions to Wolford Wood (a former site) and sites in Heart of England Forest.	BCW	LOs HoEF	2025
<b>Research &amp; Monitoring</b>			
<b>RM1.</b> Continue monitoring at Ryton Wood.	BCW	WWT	ongoing
<b>RM2.</b> Determine the presence or absence of the species at sites within the vicinity of an existing colony, i.e. the other woods in the Dunsmore Living Landscape, to assess opportunities for recolonisation.	BCW	WWT	ongoing

**Abbreviations:** BCW – Butterfly Conservation Warwickshire, FC - Forestry Commission, FoBW – Friends of Brandon Wood, HoEF – Heart of England Forest, 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. Progress with this plan up to 2019 can be seen at <https://www.warwickshirewildlifetrust.org.uk/LBAP>.

## 8. BIBLIOGRAPHY

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

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

Natural England (2016) [Conservation Strategy for the 21<sup>st</sup> 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.

Worldwide Fund for Nature (2018) [The Living Planet Report](#) : aiming higher. Published in collaboration with the Zoological Society of London.

## 9. FURTHER INFORMATION

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

[Butterfly Conservation](#) – has produced a [fact sheet](#) for the wood white; the National Wood White Conservation Project now co-ordinates 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.

[Big Butterfly Count](#) 2019 – almost 1.6m individuals of the 19 target species (17 butterflies and 2 day flying moths) were recorded and, generally, more butterflies were seen than in 2018. The inter-continental migrant [Painted Lady](#) butterfly had an excellent year, making up one quarter of all the records and more than twice as many as the next most abundant species, the [Peacock](#).

## 10. CONTACTS

Mike J. Slater - Butterfly Conservation Warwickshire Branch Conservation Officer.  
Email: [m Slater@butterfly-conservation.org](mailto:m Slater@butterfly-conservation.org)

Keith Warmington - Butterfly Conservation Warwickshire Branch Recorder.  
Email: [keith@warmies.uk](mailto:keith@warmies.uk)