



Wood White

Leptidea sinapis

Species Action Plan

1. Introduction

The dramatic population decline of the wood white butterfly within the UK in the last 100 years makes it a high conservation priority.

2. Current Status

2.1 Ecology and habitat requirements

The wood white is the smallest of the White family of butterflies. It is renowned as the most delicate of the British butterflies and this has given it the evocative nickname of “Lady of the Woods”. It is usually encountered in sheltered situations such as woodland rides and clearings and scrub edges. The wood white can also breed on coastal undercliffs, disused railway lines and around rough overgrown field edges. In Worcestershire the known breeding sites are all in woodland.

In Britain the wood white traditionally bred in ancient deciduous woodland that had a long history of coppicing. The number of wood white colonies rapidly declined in size and number as traditional coppicing ceased at most woodland sites. 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 the conifer plantations grew rapidly and disused railway lines soon scrubbed up causing a further round of extinctions. The butterfly favours breeding in wide, flower-rich, sunny but sheltered open rides and glades or recent coppice areas that are lightly shaded by the surrounding trees. Colonies tend to be concentrated in rides running between young crops or young coppice plots. Areas of recent clear-fell are also important whilst the habitat remains open.

The growth structure of the known larval food plants is the critical factor in the butterfly’s survival. These include meadow vetchling (*Lathyrus pratensis*), tufted vetch (*Vicia cracca*), bitter vetch (*Lathyrus linifolius*), common bird's-foot-trefoil (*Lotus corniculatus*) and greater bird's-foot-trefoil (*L. pedunculatus*). For any of these foodplants to be used they must grow through and protrude above the surrounding vegetation and in less than 50% shade conditions.

2.2 Population and distribution

The wood white butterfly is confined to the southern half of the UK with a very localised distribution. It has declined substantially during the 20th century due mainly to the decline in traditional woodland management. By the late 1900’s the butterfly was extinct in several UK counties, including several where it had once been abundant. In 2008 there were approximately 50 colonies left in England. The butterfly’s strongholds are currently in three main regions: Herefordshire and South Shropshire; Northamptonshire; and Devon.

National Status

The national distribution trend for the species from 1976 to 2014 shows a change in occurrence of -89% and change in abundance of -88%. Data from 2005 to 2014 shows a continuing decline in occurrence and abundance, albeit less steep, by -25% and -18% respectively (Fox *et al.*, 2015).

Regional Status

The species is listed as High Priority in Butterfly Conservation's West Midlands Regional Action Plan. The species continues to have a national stronghold in the region even though it is still undergoing decline in some areas. It was recorded in 56 regional tetrads between 1995 and 2003. It is usually associated with woodland habitats where it breeds in open rides and clearings. It has declined severely due to the decline of traditional woodland management. Where conservation work has been undertaken (widening of rides, coppicing, establishing mowing rotations etc), it has responded positively (Joy, unpub.).

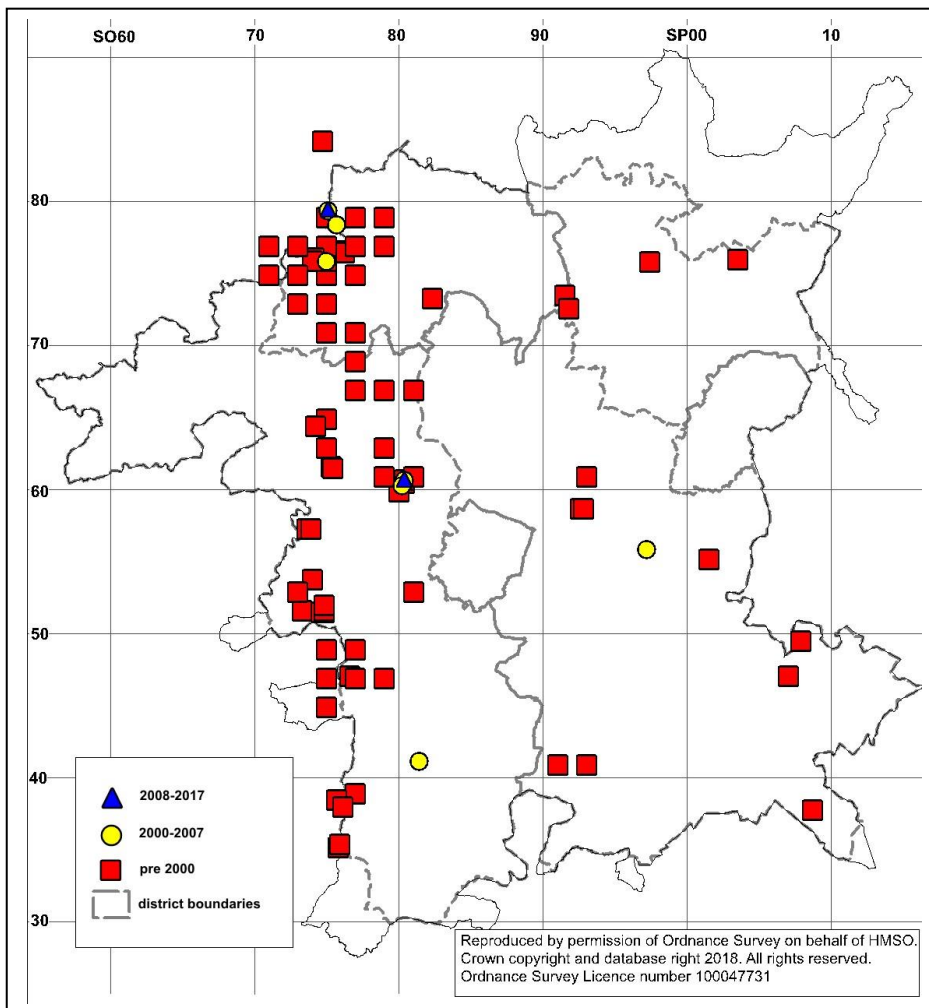


Figure 1. Records of wood white in Worcestershire. Data supplied and map prepared by Worcestershire Biological Records Centre.

Worcestershire Status

The wood white was recorded in 9 tetrads between 1995 and 2002. Most colonies were small and in the west of the county. Formerly, a colony also occurred at Little Goosehill Wood, part of the Forest of Feckenham, but this had died out by the late 1980's. A small colony still exists in the Shropshire part of the Wyre Forest with occasional records in Worcestershire from time to time (Joy, 2002). By 2018 confirmed breeding populations of wood white were known only from Monkwood (following two phases of reintroductions) and one privately owned site where the population size is unknown (figure 1).

2.3 Legislation

The butterfly is listed in schedule 5 of the Wildlife and Countryside Act 1981 (as amended) and Section 41 of the Natural Environment and Rural Communities (NERC) Act 2006.

2.4 Summary of important sites

The Wyre Forest

All records of the wood white are from the Dowles Brook corridor and Postensplain areas of the Wyre Forest. There are 21 records for the Dowles Brook corridor, but unfortunately none since 1992, so it appears to have disappeared from this area. At Postensplain, it was recorded regularly with 13 records since 2002, particularly along the stream. The largest recent count was 20 in 2005. A small population persists in this area and annual work parties are held to try to maintain the colony. There is one record from Areley Wood in 1994 (Grundy, 2006).

Monkwood

Despite targeted management the wood white was lost from this site in 2008. Following habitat suitability assessments in 2014 and 2015 adult wood white butterflies were reintroduced in 2016 and again in 2017 as part of the HLF-funded Butterfly Conservation project 'Making a Stand for the Wood White'. Two butterfly survey transects have been established covering all of Monkwood and part of Monkwood Green. During 2018 adult wood white butterflies were seen in good numbers, with females egg-laying in Little Monkwood as well as in the main wood.

3. Current Factors Affecting the Species

- **Lack of traditional coppice management.** Coppice plots connected by wide rides allow light into woodlands, encourage the growth of suitable food plants and assist movement of the wood white from one potential breeding site to another. Recent coppice plots connected by wide rides provide good areas of habitat. However, plots that are deer fenced do not appear to support wood white habitat on a long-term basis, especially if re-growth has been vigorous.
- **Isolation of existing suitable woods.** Increasing the permeability of the landscape by creating flower-rich verges, field margins or similar linear habitats and managing them sympathetically may help the wood white to colonise new sites in good years.

- **Continuing decline in the market for coppice products** leading to abandonment of this management practice.
- **Even aged nature of many potential woodland sites**, leading to high shade levels above 50%.
- **Lack of woodland management.** Continuity of coppicing programmes, areas of clear fell and connectivity of habitat via wide sunny rides, glades and scallops will all benefit the wood white.
- **Inappropriate woodland ride edges management.** Too frequent mowing of tall herbs at the edge of rides leads to an absence of appropriate food plants. At current wood white sites ride edges are being cut on a 3 year rotation to maintain verge areas of at least 2m in width.

4. Current Action

4.1 Local protection

Both the Wyre Forest and Monkwood are designated as Sites of Special Scientific Interest (SSSI).

4.2 Site management and programmes of action

- Butterfly Conservation has been working with Forestry Commission at a number of key sites for wood white across the region since at least 2012.
- The Heritage Lottery Fund-supported project 'Making a Stand for the Wood White' is being delivered by Butterfly Conservation (2016-2019). The project covers Worcestershire, Shropshire and Herefordshire and aims to maintain, enhance or create wood white habitat in sites including Monkwood. The project has included: targeted conservation management works, butterfly and habitat monitoring and a wood white reintroduction to Monkwood beginning in 2016 with a reintroduction to a second Worcestershire site in 2018. Stump grinding in glades and along verge edges created large areas of habitat at Monkwood in 2017.
- Butterfly Conservation has worked with local partners on a series of funded projects within the Wyre Forest from 2003 to the present day, including the 3-year SITA Trust-funded project 'Back to Orange' from 2007-2010. One of the main aims of all of this work is to improve and increase habitat for priority lepidoptera species.

4.3 Survey, research and monitoring

- As part of the legacy of the 'Back to Orange' project, the Wyre Forest Butterfly Group was set up in 2010 to encourage more local people to become involved in survey and monitoring work across the forest. Membership of this group has gradually increased to around 40 active volunteers in 2018. A butterfly transect covers the main area in the forest where the wood white is recorded.

- A Natural England Field Unit survey project is being undertaken to identify suitable habitat and target areas for beneficial management to encourage the dispersal of the species throughout the Wyre Forest.
- Two transects plus two egg-monitoring visits are undertaken annually at Monkwood and have now been instigated at the second reintroduction site.

5. Associated plans

Woodland.

6. Conservation Aim

Increase the number of secure breeding colonies of wood white butterflies within Worcestershire from two to five.

7. Conservation Objectives

- Maintain current levels of species monitoring at existing sites
- Carry out regular habitat assessments on reintroduction sites to inform site management works and ensure the wood white continues to thrive
- Continue to work with partners at a landscape scale to undertake site habitat assessments in order to identify further sites suitable for re/introductions and to plan the provision of additional habitat for the wood white
- Where habitat conditions are suitable undertake further carefully planned re/introductions of the wood white

References and further information

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Butterfly Conservation 'Making a stand for the wood white' project leaflet

<https://butterfly-conservation.org/our-work/conservation-projects/england/making-a-stand-for-the-wood-white>

Butterfly Conservation 'The Wood White Priority Species Factsheet'

<https://butterfly-conservation.org/sites/default/files/wood-white.pdf>

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