CELYPHA WOODIANA (BARRETT) (LEP.: TORTRICIDAE) – AN UPDATE

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Abstract

A survey for *Celypha woodiana*, coordinated by Butterfly Conservation, was undertaken during 2009, finding the species at new sites and providing additional insights into the ecology of the species as well as identifying some potential threats.

Keywords: *Cleypha woodiana*, Tortricidae.

Introduction

Parsons & McGill (2009) detailed the history, life cycle and habitat preferences of *Celypha woodiana* (Barrett), a UK Biodiversity Action Plan Priority moth species also known as the 'Mistletoe Marble'; the paper also included a map showing the species distribution in England and Wales. To summarise, this species is associated with Mistletoe *Viscum album* being predominantly found in orchards, but also occurs on grazing levels with a very few records from other habitats. It has a restricted distribution and is known from Somerset, Gloucestershire, Herefordshire, Worcestershire, Warwickshire and possibly Monmouthshire. Parsons & McGill (*op. cit.*) identified records for 14 10km squares from 2000 onwards and another 15 10km squares prior to that date.

During 2009, with contributory funding from the National Trust's *Conserving and Restoring Traditional Orchards in England* project, Butterfly Conservation co-ordinated a survey for this species. JM undertook much of the survey effort, concentrating on searching for the larval mine between February and May, with assistance from others, including MP.

Results

The main survey visited 34 sites covering the counties of Somerset (17 sites), Gloucestershire (seven sites), Herefordshire (seven sites), Monmouthshire (two sites) and Worcestershire (one site). Although these were mainly orchards, additional effort in June and July resulted in a few further sites in Somerset being surveyed, with vacated mines recorded as late as 31 July. Also a few other sites were reported by other individuals. Over the course of the season, evidence of the moth was found at 22 sites covering twelve 10-km squares (Table 1).

Discussion

Eighteen new sites for the species were found, although many of the sites surveyed did not support, or seem to support the moth. Also, disappointingly, at

Table 1. Results of the survey for *Celypha woodiana* in 2009.

County	**No. of sites* where *C. woodiana* was found**	**10km National Grid squares where *C. woodiana* was found**
Somerset	15	6
Gloucestershire	3	2
Herefordshire	3	3
Worcestershire	1	1
Total	**22**	**12**

* Definition of a site in this context may include a number of apparently isolated sub-sites on grazing levels where mines have been found.

least three former sites were surveyed with negative results. Of the twelve 10-km squares where the moth was recorded in 2009, six were new for the period from 2000 onwards (covering Ordnance Survey grid squares ST43, ST46, ST53, SO53, SO71 and SO84) with four of these being appearing to be a new 10-km square for the species. As a consequence of this survey and additional targeted effort, this moth is now known from 21 10-km squares in the period from 2000 onwards (including an additional record found since the publication of Parsons & McGill, 2003), of which 19 are based on larval or mine records and so are *breeding* records. However, there is anecdotal evidence to suggest that it is now less easily found at sites than during the 1980s (D. J. L Agassiz and M. Harper, pers. comm.)

Through visiting so many sites, the survey provided additional insights into the species' ecology. Of the sites found to support the moth in 2009, the majority were orchards, or orchard-like (such as a garden with an apple tree), although seven were grazing levels. This latter habitat is very clearly more important for the species, at least in Somerset, than was previously considered to be the case. Mines were typically only found at low density, although on four occasions ten or more mines (or vacated mines) were found. Interestingly, isolated hawthorn (*Crataegus monogyna*) on grazing levels with small amounts of Mistletoe often supported the greatest densities of mines.

A few mines on small Mistletoe leaves were spun to adjacent leaves where the larva fed, having exhausted its initial food supply. One adult was reared from such a situation to confirm the identification as *C. woodiana*. However, without the observation of a larva, or the trace of the characteristic crescent-shaped early mine and entrance hole, it is not safe to record this species. These feeding signs could

easily be confused with spinnings made by other more polyphagous tortricids. Species reared from Mistletoe include *Ditula angustiorana* and *Epiphyas postvittana*.

The 2009 survey also provided further insights into potential management issues as well as individual site threats. Absence of the moth from potentially suitable sites can, perhaps, be explained by extensive Mistletoe cropping in the past, although this may not be so obvious if it did not happen recently as the Mistletoe will have recovered. Over-zealous and extensive clearance of Mistletoe should be avoided, with at least some stands of Mistletoe retained year on year. Completely neglected orchards with a limited number of healthy trees were observed to support the fewest mines or none at all, despite significant quantities of Mistletoe. In these situations planting of new potential host trees is needed to ensure the long term continuity of available habitat, before the existing tree stock becomes completely senescent.

If the moth is known to only exist at low density in an orchard, restoration work can also potentially be a threat. In these situations, if reducing the quantity of Mistletoe, it is probably better to retain fewer clumps of mistletoe on many trees, rather than have a small number of hosts which are heavily overloaded. Priority should be given to keeping the largest healthy clumps, particularly where partly exposed on the edge of the tree canopy. Individual trees supporting the moth and their nearest neighbours may also need to be identified and protected from any management.

To compound these threats the loss of orchards at the landscape scale makes it harder for the moth to recolonise sites following local extinction. Consequently, encouragement should be given to establishing new orchards, particularly in areas where the moth occurs, thereby expanding potential habitat.

As an example of a site specific issue encountered over the course of the survey, a car park was due to be developed at one site with the key trees potentially removed. The car park has gone ahead but, as a result of advice from Butterfly Conservation and National Trust staff, the trees have been retained and protected with additional planting secured to try to ensure a continuity of habitat for the future.

Conclusions

This survey demonstrates the ample possibility of locating new sites for *Celypha woodiana* and we would encourage further survey effort. The most efficient method is to search for larval mines, which are most obvious in May. Readers are reminded of the photographs in Parsons & McGill (2009) showing overwintering and later stage mines. A factsheet has also been produced by Butterfly Conservation, and this can be downloaded from the BC website at *www.butterfly-conservation.org*. If you are successful in locating *Celypha woodiana* we would, of course, be pleased to hear from you.

Acknowledgements

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References

Parsons, M.S. & McGill, J. 2009. Surveying for *Celypha woodiana* (Barrett) (Lep.: Tortricidae). *Entomologist's Record & Journal of Variation*, **121**: 59-62.

Devon Carpet *Lampropteryx otregiata* (Metcalfe) and Tree-lichen Beauty *Cryphia algae* (Fabr.): Two new macro moth species in Huntingdonshire (VC 31)

During 2008 Philip Horsnail moved into Huntingdonshire and started to operate a light trap near the village of Holme. Phil recently made contact with me via the web site of the Huntingdonsire Moth and Butterfly Group (*www.hmbg.org*) and sent me a copy of his moth records for 2008 and 2009. These included some interesting species that are scarce in the county such as Red-necked Footman *Atolmis rubricollis* (L.) and Ear Moth *Amphipoea oculea* (L.). However, both of these species are found regularly on Holme Fen, which is only one mile from where Phil operates his trap. Also in his list for 2008 was a record of Devon Carpet *Lampropteryx otregiata* (Metcalfe) which he caught on 4 June, a moth that has increased its range during the past few years. Phil retained the moth and took it to several people for confirmation, including Peter Sharpe who caught one in Northamptonshire on 29 August 2005 (John Ward pers. comm.).

On 23 August 2009 David Griffiths trapped a Tree-lichen Beauty *Cryphia algae* (Fabr.) in his garden trap in Earith. This is the first county record of this species. The moth is now in the County collection. — Barry Dickerson, 27 Andrew Road, Eynesbury, St Neots, Cambridgeshire PE19 2QE (Email: barry@eynesbury27.freeserve.co.uk).