






Managing for bespoke species/assemblages within Countryside Stewardship – guidance template

Species/assemblage name	Conservation status
<p>Mistletoe Marble (<i>Celypha woodiana</i>)</p>  <p>Mistletoe Marble (Mark Parsons/Butterfly Conservation)</p>  <p>Mistletoe Marble larval mine (Mark Parsons/Butterfly Conservation)</p>  <p>Early stage mine of Mistletoe Marble (James McGill)</p>	<p>Section 41, Nationally Scarce</p>  <p>Apple tree supporting Mistletoe and Mistletoe Marble (Mark Parsons/Butterfly Conservation)</p>  <p>Hawthorn of grazing level supporting Mistletoe and Mistletoe Marble (Mark Parsons/Butterfly Conservation)</p>
<p>Introduction</p> <p>This species has an annual life cycle. The moth flies at night in July and August. The larva overwinters whilst small within a small crescent-shaped leaf mine in a leaf of mistletoe, feeding up in spring resulting in a larger and pale, inflated blister mine by May. In June the larva leaves the mine to pupate in a loosely spun cocoon under bark or amongst lichen on the host tree. This species frequents orchards and hedgerows, including on grazing levels,</p>	

and other open places where mistletoe grows. The favoured hostplants appear to be apple and then hawthorn, although it has been found on mistletoe growing on rowan, crack willow and pear. There is an apparent preference for thicker, more succulent mistletoe and it also appears to be able to survive on quite isolated clumps of the foodplant.

In England restricted to counties in the west from Somerset north to Worcestershire.

Why a bespoke species/assemblage?

This is one of a suite of scarce insect species associated with mistletoe. Management may be necessary over a longer time period, for example any restoration work in areas of heavy mistletoe growth should avoid wholesale clearance and should be undertaken over a number of years to reduce any potential impact on the moth's survival. In completely neglected orchards with a limited number of healthy trees, planting of new potential host trees will be 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 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.

When and where to apply this guidance

This moth has only been recorded in Somerset, Gloucestershire, Herefordshire, Worcestershire and, formerly, Warwickshire in England.

The aim is to ensure an annual supply of healthy mistletoe bearing trees in orchards, hedgerows and other open spaces. Heavy infestations of mistletoe in orchards can hasten the demise of host trees, however, the wholesale clearance of mistletoe should be avoided. Any restoration work should be undertaken over a number of years and retain good quantities of the larval foodplant. The creation of traditional orchards within appropriate areas where the moth is known to occur could support its conservation in the longer term.

On grazing levels populations could be threatened by inappropriate hedgerow management and scrub clearance along ditches. Any scrub control should aim to retain a plentiful supply of mistletoe bearing trees and bushes.

Developing a Countryside Stewardship agreement

Relevant CS options

BE3	Management of hedgerows
BE4	Management of traditional orchards
BE5	Creation of traditional orchards
SP9	Threatened species supplement

Prescription guidance for BE3

Where Mistletoe is present within hedgerows

The aim of management should be to maintain a good annual supply of mistletoe

P71 (Higher tier) – Allow [hedge X / hedges XXXX] to reach and then maintain a minimum height of [3 m] and a minimum width of [2 m] by year [2]. [Sections that have been gapped up, layed or coppiced during the term of the agreement are excluded].

P73 (Higher tier) – [Cut [hedgerow X / hedgerows XXXX] no more than one year in three between [1 January] and [28 February] or [1 September] and [31 December]. Leave at least two thirds of hedges untrimmed each year.]

P79 (Higher tier) – Do not remove any tree limbs including the lower limbs and /or mature ivy growth [from hedgerow trees [with Mistletoe present]].

Prescription guidance for BE4

Where Mistletoe is present within orchards

P51 – Retain all mature trees and standing deadwood as identified in [MAP REF].

P52 - Plant agreed varieties of trees as detailed in the capital works plan at a density of [x] trees per hectare.

P60 - Only apply pesticides or fungicides as follows [no use of broad spectrum insecticides].

P573 – In years 1 to 5] manage [Mistletoe] scrub by rotational cutting [as infrequently as possible] [as shown on REF] to achieve cover of [presence on at least 5% of major branches]. [Do not cut more than 10% of the Mistletoe scrub in any one year.][Never completely eradicate Mistletoe from the site.]

Where remnant orchards can be expanded or new orchards created, BE5 should be used following the prescriptions outlined for BE4.

Prescription guidance for SP9

Mistletoe can be perceived as a damaging species to productive orchards. This supplement could be used to support the retention of mistletoe in higher densities than may otherwise be acceptable to the farmer.

Monitoring

Abundance monitoring of larval mines is the best approach although this requires specialist knowledge. Where the species is known to occur, abundance monitoring of mistletoe can be carried out. Extant sites should be monitored at least once every three years.

Further information

A factsheet is available at: <http://butterfly-conservation.org/files/mistletoe-marble-factsheet-psf.pdf>

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

McGill, J. 2010. *Celypha woodiana* (Barrett) (Lep.: Tortricidae) – an update. *Entomologist's Record and Journal of Variation*, **122**: 49-52. & Sterling, P. & Parsons, M. 2012. *Field guide to the Micro Moths of Great Britain and Ireland*. British Wildlife Publishing, Gillingham.

Authorship/version control

Mark Parsons (Butterfly Conservation), Katie Cruickshanks (BC) & Tony Davis (BC), April 2015 2nd draft