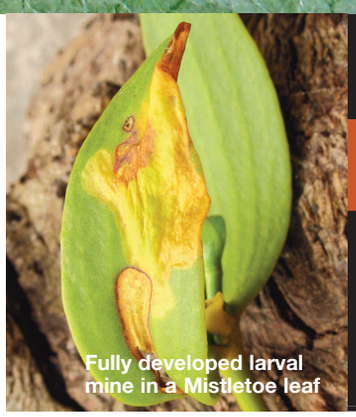
Butterfly Conservation

factsheet



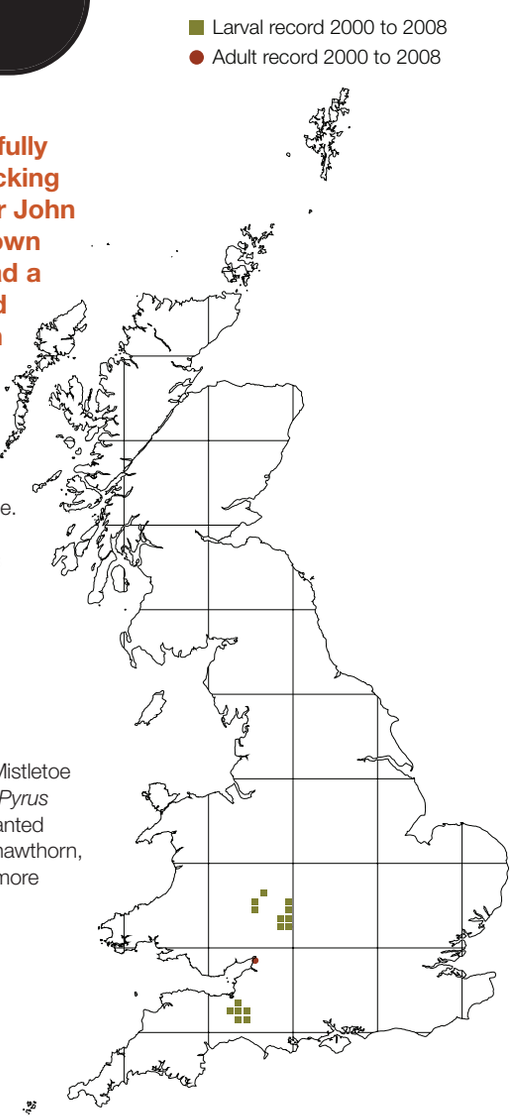
Fully developed larval mine in a Mistletoe leaf

Mistletoe Marble

Celypha woodiana

Conservation status

Priority Species in UK Biodiversity Action Plan.



The English name for this micro-moth comes from its larval foodplant, Mistletoe *Viscum album*. Its wings are also beautifully marbled with a mixture of white, fawn and cobalt blue, mimicking a bird dropping. The species name was given in honour of Dr John Henry Wood who found the first examples, previously unknown to science, in Herefordshire in 1878. The moth has always had a restricted distribution in Britain, occurring in counties around the Severn valley, Welsh borders and southwards. It has been reported from Somerset, Gloucestershire, Herefordshire, Worcestershire, Warwickshire and Monmouthshire.

Life cycle

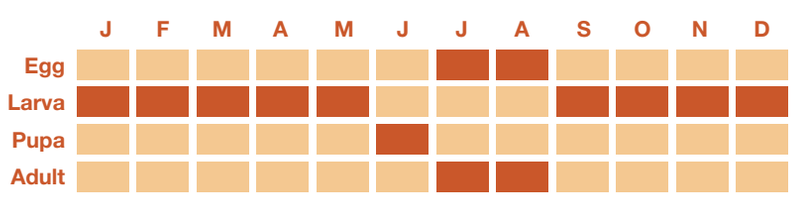
The species is single-brooded. Eggs are laid on Mistletoe in July and August. Upon hatching the larva burrows into a leaf, overwintering in a small, crescent-shaped mine. In early spring it resumes feeding and the mine is extended into a narrow gallery. The striking deep green larva continues to hollow out the leaf and by May this forms a conspicuous, inflated pale blister. The larva exits the mine to pupate in June, in a loosely spun cocoon under bark or lichen growing on the branches of the host tree.

Foodplants

The larva feeds in a characteristic mine on a leaf of Mistletoe *Viscum album*.

Habitat

The Mistletoe Marble occurs in orchards, hedgerows and in open situations where Mistletoe grows. Hosts for the plant with confirmed larval records are apple *Malus* spp., Pear *Pyrus communis*, hawthorn *Crataegus* spp. and Crack Willow *Salix fragilis*, as well as a planted Rowan *Sorbus aucuparia*. Apple is the preferred host with records associated with hawthorn, the next most frequent, being half as numerous. The moth seems to prefer thicker, more succulent Mistletoe and is able to survive on quite isolated clumps of the foodplant.



Habitat management for the Mistletoe Marble

The overall aim is to ensure the continued presence from year to year of healthy Mistletoe bearing trees in orchards, hedgerows and other open situations.

- The number of traditional orchards, the preferred habitat of the Mistletoe Marble, has declined dramatically in recent years. Orchard conservation is therefore vital to protect known and potential sites for this species.
- Major infestations of Mistletoe in neglected orchards can accelerate the demise of the host trees. However, as larvae of the Mistletoe Marble depend on the leaves for most of the year, wholesale clearance of Mistletoe should be avoided. Restoration work, spread over the longest period possible, should include retention of quantities of the foodplant.
- This moth is widely distributed within its known range and can disperse to exploit relatively isolated patches of suitable habitat. The creation of traditional orchards in appropriate areas could therefore support its conservation in the longer term. Traditional orchards are also recognised as a UK Biodiversity Action Plan Priority habitat and orchard creation would benefit a range of other invertebrates and nesting birds.
- Populations of the Mistletoe Marble on grazing levels could potentially be affected by scrub clearance along ditches. Colonies in hedgerows are also at risk from inappropriate management. Host trees known to support the moth should be left standing along with a plentiful supply of other Mistletoe bearing trees and shrubs.

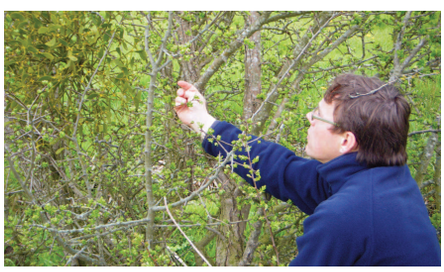
Other invertebrates of Mistletoe

Mistletoe supports a specialised community of other invertebrates. In Britain a further five species are solely associated with the plant. These are mostly under-recorded, due to the difficulty of sampling clumps of Mistletoe high up in trees.

The weevil *Ixapion variegatum* was first recorded as a British species from a Herefordshire orchard in 2000. The other four species are 'true bugs' belonging to the Order Hemiptera: the Jumping Plant Louse *Psylla visci*, the predatory *Anthocoris visci*, the capsid bug *Pinalitus visciola*, and *Hypseloecus visci*, only recently discovered in 2003 in Somerset.

How to survey/monitor for the Mistletoe Marble

The best method is to search for larval mines in May, although these can be located at any time from autumn onwards and sometimes after the larva has left the mine in June. Binoculars are very helpful in examining clumps of Mistletoe out of easy reach. Patience is important as mines can occur at very low density. The adult moth can also be found on the trunks of apple trees, and is occasionally attracted to light.



above **Searching for larval mines**
below left **Typical orchard habitat**
below top **Early larval mine from below**
below bottom **Early larval mine from above**

Butterfly Conservation

Saving butterflies, moths and their habitats

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