

Western wood-vase hoverfly

Myolepta potens



The Western wood-vase hoverfly is a medium-sized, black and orange hoverfly, closely resembling *Myolepta dubia* with tergite three dark. It is one of our rarest and most threatened invertebrates and has been assessed as Critically Endangered in Britain and is a NERC Act Section 41 Priority Species in England.

Distribution

This species was recorded as new to Britain in 1947 following its discovery at two sites in the Somerset Levels, namely Loxley Wood and Edington village. Three specimens were also taken on the Blaise Castle estate, Bristol in 1945 and 1949 and larvae were found on the nearby Ashton Court estate. Many dipterists have searched for this species at the Bristol and Somerset sites but no records were made after 1961. The status of the Bristol and Somerset sites is unclear although

some are likely to have changed radically and the composition of the trees may also have changed. A survey in 2002 was able to establish the continued presence of Western wood-vase hoverfly in Britain at Moccas Park after a gap of 41 years.



Distribution of the Western wood-vase hoverfly in the United Kingdom
Black: post -1990 Yellow: pre-1990

Moccas Park is now the only British site known to support an extant breeding population although low numbers have been recorded in the Forest of Dean (2015) and there is an unconfirmed recent record from Somerset.

A review of the genus in the West Palaearctic region published in 2004 mentioned that this species appears to be a rare and predominantly European species, with a range from southern Britain and France, through Germany and eastern Europe, to the Balkan Peninsula and Turkey.

Habitat

This species is associated with ancient parkland, wood pasture and woodland sites where numbers of mature/old broad-leaved species remain. At Moccas Park larvae develop in rainwater-filled rot holes of mature Horse chestnut. It has also been associated with Beech, poplar and oak in Europe.



© Andy Godfrey

Veteran Horse chestnuts at Moccas Park

Life Cycle

Larvae feed on decaying leaves and other debris accumulating in rot holes in mature trees. Adults fly from May to July. Adult diet is unknown but they are likely to visit flowers for nectar and pollen.



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Rot hole in mature Horse chestnut at Moccas Park

Reasons for Decline

This species has always been very rare. There is no evidence of a decline although it may have been lost at its original Somerset and Bristol sites due to tree loss, habitat or land-use change, etc. At Moccas Park, the greatest threat may be the fact that the hoverfly utilises over-mature trees that are likely to be near the end of their lives. These trees are often diseased and/or physically damaged which may also foreshorten their lives. The Horse chestnuts are found on the slopes above the flat area of the Park. The top-heaviness of some trees here and the frequently flushed ground means that the soils can get saturated at times of heavy rainfall, and this results in trees regularly toppling over and being lost. There appear to be no young Horse chestnuts to replace these trees.



© Paul Rutter
Moccas Park National Nature Reserve, Herefordshire

Habitat Management for Moccas Park

- Plant young Horse chestnuts as a priority to ensure habitat continuity.
- Over-mature and mature Horse chestnuts may require tree surgery (to remove heavy limbs) or wooden supports to support heavy limbs on sloped hillsides to extend the life of the trees.
- Removal of nearby non-native conifers which cast shade and compete for resources may help.
- Retain dead or diseased standing trees, leaving fallen dead wood *in situ*.
- Ensuring there are nectar sources such as Hawthorn and umbellifers for adult hoverflies.

Survey Methods

The adults are elusive and have not been observed alive in the field at Moccas Park. Records have come from the use of emergence traps placed over rot holes, by rearing larvae found in rot holes, or by small water traps placed in these. Other methods such as sweep netting, use of Malaise traps and the use of vane traps have not resulted in this species being recorded. The best method may be to target over-mature Horse chestnuts with wet wood-mould in cavities and examine these for larvae. This is likely to require

the use of a ladder and may have health & safety implications.



© Andy Godfrey
Emergence trap over rot holes

The Back from the Brink Ancients of the Future project is led by Buglife in partnership with Plantlife and the Bat Conservation Trust.

