



The Welsh Clearwing (*Synanthedon scoliaeformis*) on Cannock Chase

The Welsh Clearwing is a rare day-flying moth. In England, the only confirmed breeding sites are Cannock Chase and Sherwood Forest. It is also found in Wales, and Scotland where it is scarce and localised.

Larvae feed for at least two years on the inner bark of living birch trees. Dead trees are never used.

How to find and identify

The Welsh Clearwing is a wasp-mimic with largely transparent wings and appears most un-mothlike. The orange tail fan is a very noticeable feature.

On Cannock Chase adult moths emerge around the first week of June with the flight period continuing into the second half of July. Welsh Clearwing males respond readily to pheromone lures and can be attracted throughout the day.

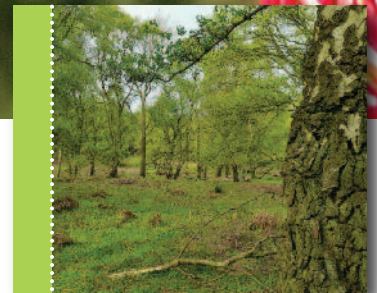
The best way to find evidence of Welsh Clearwing moths in the absence of a pheromone lure is to search for the distinctive round 5mm diameter holes in the bark of Birch trees left by emerging adults. These will usually be found in the lower 2m of the trunk. Holes remain visible for long periods of time and may be searched for throughout the year.

History of the Welsh Clearwing on Cannock Chase

HC Haywood made the first record of the Welsh Clearwing on Cannock Chase in 1913, and the moth was seen again in 1920. There were no further records until 2005 when it was rediscovered by Andrew Graham. Various surveys followed and many records have been provided by amateur lepidopterists.

However, it was not until a two and half year study was completed in 2024 that the true extent of the moth's distribution on Cannock Chase was fully known and recorded (Steve Barnes 'Distribution and Autecology of the Welsh Clearwing (*Synanthedon scoliaeformis*) on Cannock Chase')

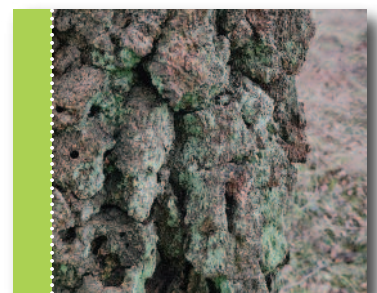
This latest study set out not only to establish the distribution and status of the Welsh Clearwing on Cannock Chase but also re-examined the moth's ecological requirements.



Typical Welsh Clearwing habitat



Ideal host tree

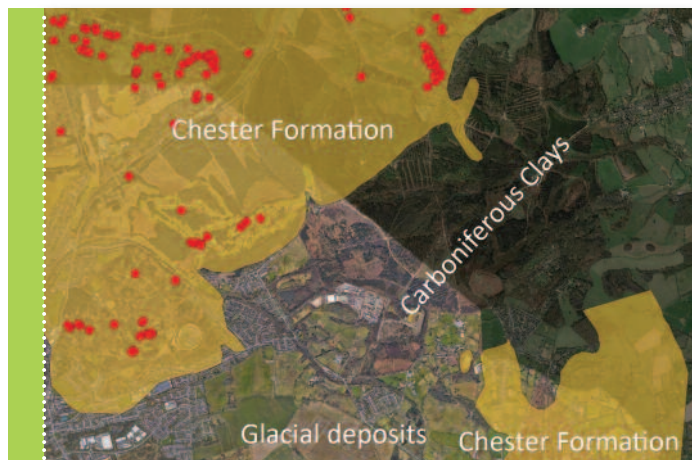


Deeply fissured bark used for ovipositing



Key study findings

- Cannock Chase supports the largest recorded Welsh Clearwing population in Britain, with at least 1500 trees exhibiting evidence of past or present occupation. 10,749 emergence holes were recorded during the survey.
- Silver Birch is the principal food plant on Cannock Chase, the related Downy Birch being rarely used.
- Bark structure was found to be the most important attribute determining selection of a tree for ovipositing. Trees with thick deeply fissured bark are selected which accounts for the lack of records from Downy Birch, which on Cannock Chase rarely exhibits these features.



Distribution of the Welsh Clearwing in relation to geology

- Geology governs the moth's distribution on Cannock Chase, being confined to dry sandy soils (Chester Formation) which gives Silver Birch a competitive edge over less drought tolerant Downy Birch.
- It was once thought that sunlit trunks were required for ovipositing, but the study has shown that on Cannock Chase the moth is indifferent to shading. However, it should be noted that birch trees are light demanding species more likely to thrive in locations receiving good levels of sunlight.
- Trees isolated from neighbours by 20m or more are rarely used, ideally trees should be in groups, avenues or situated within open woodland.
- Most occupied trees are more than 40 years old, but much younger specimens can be used if they have thick deeply fissured bark.
- Whilst the Welsh Clearwing is currently thriving on Cannock Chase, the study highlighted a lack of birch regeneration to replace the current stock of ageing trees. There is a serious age gap developing in many locations leaving Welsh Clearwing populations vulnerable, with potential for significant future declines.

HOW YOU CAN HELP AS A RECORDER AND LANDOWNER

All records of Welsh Clearwing are helpful for monitoring the moth's status and distribution, however, more records from locations surrounding Cannock Chase would be particularly valuable as these can assist with an ongoing study to establish dispersal ranges and investigate factors that influence that dispersal. Please enter records via the iRecord website.

If you should be a landowner or manager, please retain mature Birch where possible and consider retaining or planting young Birch to help fill the age gap that threatens the status of the Welsh Clearwing on Cannock Chase.

You do not have to be a large landowner to help secure the future of this rare moth, even trees in gardens can make a valuable contribution towards conservation efforts.

Butterfly Conservation Tel: 01929 400209

Email: info@butterfly-conservation.org

www.butterfly-conservation.org

Company limited by guarantee,
registered in England (2206468)

Registered office: Manor Yard, East Lulworth,
Wareham, Dorset BH20 5QP.

Charity registered in England & Wales (254937)
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Text: Steve Barnes with contributions from Jenny Joy and Mike Williams
Photos and map: Steve Barnes

Design: Morgan Creative (morgancreative.carbonmade.com)