

Adult butterfly flight times - high ♦ and low ♦ chance of sighting

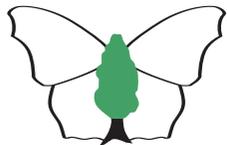
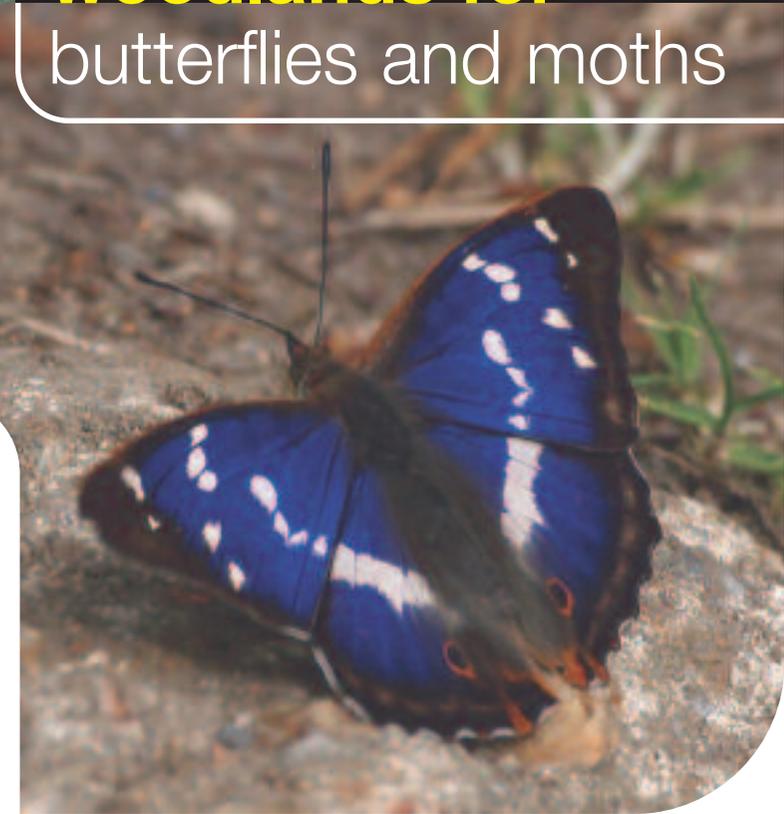
	March	April	May	June	July	Aug	Sept	Oct
Brimstone	♦	♦	♦	♦				
Brown Hairstreak					♦	♦	♦	♦
Common Blue			♦	♦	♦	♦	♦	♦
Dingy Skipper			♦	♦	♦	♦		
Gatekeeper					♦	♦	♦	
Grizzled Skipper		♦	♦	♦	♦			
Large Skipper			♦	♦	♦	♦		
Orange Tip		♦	♦	♦	♦			
Purple Emperor				♦	♦	♦		
Purple Hairstreak					♦	♦	♦	
Ringlet				♦	♦	♦		
Small Copper		♦	♦	♦	♦	♦	♦	
Small Skipper				♦	♦	♦		
White Admiral				♦	♦	♦		
White-letter Hairstreak				♦	♦	♦		

Woods are great places to visit and are home to many species of butterfly and moth, some of which are woodland specialists, whilst others, both scarce and common, can thrive in warm and sunny flower-rich rides and glades. Butterflies and moths are good indicators of biodiversity, and generate great interest and enjoyment for visitors. Some simple management ideas can help create wonderful habitats in any wood, not only for butterflies and moths, but for many other creatures and plants as well.

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# woodlands for butterflies and moths



## Butterfly Conservation

Saving butterflies, moths and their habitats



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To help save butterflies and moths join Butterfly Conservation online at [www.butterfly-conservation.org](http://www.butterfly-conservation.org)

For details of butterfly and moth events and sightings in and around Hertfordshire, and to find out how you can participate in local butterfly surveys, visit our local branch website at [www.hertsmiddx-butterflies.org.uk](http://www.hertsmiddx-butterflies.org.uk)

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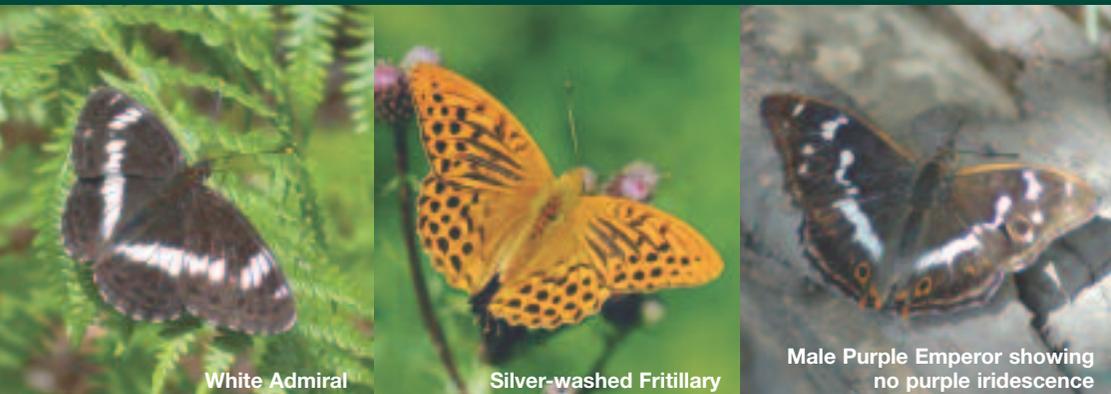
Photographs by Helen Bantock, Glen Barnes, Lee Browne, Clive Burrows, Andrew Middleton, John Murray, Colin W Plant, Paul Pugh, Nick Sampford, Sandra Standbridge, Mick Velasco, Ken Willmott and Andrew Wood.

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**What could you see in Hertfordshire ?**  
Butterfly Conservation needs your help in recording and conserving our woodland butterflies, moths and their habitats

## Did you know...

### Hertfordshire has the highest percentage cover of broad-leaved and mixed woodland in the Anglia Region



White Admiral

Silver-washed Fritillary

Male Purple Emperor showing no purple iridescence

**Butterflies used to thrive in the dynamic, varied habitats of woodland coppice. As coppicing has declined and woods have become shadier, many species of butterfly have been lost from our region, including the Wood White and five beautiful woodland fritillaries.**

Many of the 1500 moth species recorded in Hertfordshire are woodland species or rely on trees for part of their life cycle. A daytime search can reveal well disguised larvae sitting on the leaves and twigs of woodland trees and plants. In spring, the sound of rain falling on a dry sunny day indicates that the newly opened leaves above are being consumed by thousands of voracious larvae of the Winter Moth, Green Oak Tortrix and other species, and their droppings, called frass, can be heard as it falls to the ground. Attending a light trapping event in a woodland is a great way to enjoy moths, and over 100 species may be seen on a good night.

Breeding woodland birds rely on an abundance of caterpillars to feed their young. Songbirds such as willow warbler, chiffchaff, garden warbler and nightingale can benefit from younger growth in woods, where low herbaceous vegetation is followed by scrub and broad-leaved trees.

Many insects use a variety of woodland habitats during their lives. Bees and hoverflies love nectar and pollen that flower-rich rides provide, and many of the flowering plants that thrive in woodland clearings have declined or gone from the wider countryside. Even bare areas can create special warm places for basking, nesting and scavenging.

Reptiles such as common lizards, slow worms and grass snakes can all benefit from the creation of broad, sunny rides and glades, as can small mammals. These sheltered areas are also used by many other creatures, such as dragonflies and bats, to hunt their insect prey. The common dormouse needs a high diversity of trees and shrubs in its habitat to provide a continuous supply of food and dense areas of cover for nesting.

The **White Admiral** *Limenitis camilla* is a spectacular woodland butterfly of high summer, with a distinctive gliding flight and white-banded black wings similar to the Purple Emperor but smaller and more rounded. The female lays her eggs on honeysuckle in partially shaded broadleaved and conifer woods. These habitats have increased as coppicing has declined, and the butterfly is now moderately well-distributed through the region. The White Admiral enjoys sunlit rides and clearings, where it pays frequent visits to bramble flowers and takes moisture and salts from the ground. Aim for sunny, nectar-rich rides, and retain as much partially shaded, climbing and trailing honeysuckle as possible during thinning and felling work.

The impressive **Silver-washed Fritillary** *Argynnis paphia* is a large butterfly, and can sometimes be seen in high summer visiting flowers in open woodland rides and clearings which the male patrols in search of females. The female lays her eggs on tree-trunks and moss near to violets growing in dappled shade, on which the caterpillars feed come spring and where they bask in sunlit patches. It was the last widespread woodland fritillary to be lost from the region and still re-appears annually in small numbers. Aim for flower-rich rides and glades, and well-thinned woods and the Silver-washed Fritillary may be able to re-colonise.

The **Purple Emperor** *Apatura iris* is one of the largest and most attractive of our butterflies. The male's iridescent purple sheen, its odd habit of taking salts from droppings and bare, often damp, ground (and carrion historically), and the species' elusive nature in feeding on aphid honeydew and sap runs high up in oaks, rather than visiting flowers, all generate great intrigue. This High Priority species inhabits well-wooded districts in the south and west of Hertfordshire, and may be present elsewhere in the region as its exact status is uncertain. Colonies consist of low numbers spanning large areas of woodland typically with several hundred sallows, the larval foodplant. Most colonies have been found by searching for territorial males around groups of large oaks and ashes at high places in woods.

The brown female lays her eggs on willow leaves, and sometimes crack willow, in July and August. The larvae feed on the willow leaves before hibernating on the twigs, then in spring feeding resumes until pupation in June, with the flight period peaking in July.

Hertfordshire's colonies tend to be associated with younger, unweeded, broadleaf and conifer areas where sallows abound, however sallows are light-demanding shrubs and trees, and tend to decline as areas mature beyond 30 years. Woodland practices are also changing, with few new young areas, and unfortunately, the lower light levels of high canopy systems and under-managed woods tend to be inadequate for sallows.

To provide habitat for future decades, newly cleared areas open to sunlight can be colonised by sallows, the light seeds of which float through the woods in May. Existing sallows should be managed sympathetically, retaining good numbers during thinning operations, and by rides and glades. Sallows regenerate well after coppicing or pollarding, given full sun, and provide valuable breeding habitat after just a few years. Given room, sallows can develop into long-lived, sturdy trees.

The Purple Emperor should be easy to manage for, given its ability to use sallows throughout woods and spinneys, as well as along hedgerows and roads. Aim to maintain and increase willow numbers and age diversity in woodlands and the wider landscape.

**Places to visit** **Broxbourne Wood Nature Reserve** Grid Reference (GR) TL326073 (OS Landranger 166), part of the Broxbourne Woods National Nature Reserve SSSI, **Balls Wood Nature Reserve** GR TL345105 (OSL 166), **Northaw Great Wood Country Park** SSSI GR TL282042 (OSL 166), **Bricket Wood Common** SSSI GR TL130010 (OSL 166), **Tring Park** part-SSSI GR SP930105 (OSL 165) and **Ruislip Woods** (Middx) NNR SSSI GR TQ089890 (OSL 176) are all excellent places to see a great variety of butterflies and moths, though we would value your sightings from woods across Hertfordshire and Middlesex.

#### Further information

Woodland rides and glades: their management for wildlife (Joint Nature Conservation Committee 1993) The Millennium Atlas of Butterflies in Britain and Ireland<sup>1</sup>, Woodland Butterflies booklet, Butterfly Monitoring in UK Woodlands and potential use as a Biodiversity Indicator to Inform Sustainable Forestry<sup>2</sup> (Butterfly Conservation; <sup>1</sup>2001; <sup>2</sup>2004). Habitat Management for Invertebrates: A practical handbook (RSPB 2001). Forest Research, Forestry Commission [www.forestresearch.gov.uk](http://www.forestresearch.gov.uk) Butterfly Conservation [www.butterfly-conservation.org](http://www.butterfly-conservation.org)

What you can do for woodland butterflies ~ record butterflies for Butterfly Conservation ~ encourage others to enjoy our woodland butterflies and moths ~ search for Purple Emperors in 'new' sallow-rich woods



## Our woodland specialists

Many of our commoner butterflies will be encouraged into woodlands that have warm and sunny flower-rich tracks and glades. Other species (not shown) may also be seen in woods from time to time, such as Essex, Grizzled and Dingy Skippers, Brown Argus, Common Blue, Painted Lady, Marbled White and Small Heath.



**White Admiral** breeds on honeysuckle in more shaded areas (resident)

**Silver-washed Fritillary** breeds on violets in dappled shade (potential colonist)

**Purple Emperor** breeds on sallows and adults feed on aphid honeydew and tree sap (resident)



**Gatekeeper**

**Meadow Brown**

**Speckled Wood** (left) and **Ringlet** (right), along with Meadow Brown and Gatekeeper, breed on various grasses beside rides, and visit flowers for nectar



**Small Tortoiseshell** (left) and **Peacock** (right) breed on ride-side nettles and like Comma and Red Admiral they all visit flowers

**Red Admiral**

**Green-veined White**

**Small White**

**Large White**

**Orange Tip** (left) and other whites can breed along rides. **Brimstone** (right) breeds on buckthorn bushes



**Comma** (left) can be common along rides. The rare and elusive **Brown Hairstreak** (right) lays its eggs on low, young shoots of blackthorn in wooded districts. Never very common, it may be able to recolonise

**Purple Hairstreak** (left) breeds on oak and **White-letter Hairstreak** (right) breeds on elm. They feed on aphid honeydew in the canopy and less often (Purple Hairstreak rarely) descend to nectar at flowers. Green Hairstreak (not shown) breeds on various shrubs

**Large Skipper**

**Small Skipper**

**Small Copper** (left) and **Holly Blue** (right) can colonise rides and glades.

Flowers, herbs and grasses prosper in the first few years... then brambles and a variety of shrubs take over ...after ten years... different trees and shrubs develop including willows and honeysuckle



In spring many small larvae of the **Green Oak Tortrix** (left) and other species descend on silk threads from trees. The large caterpillar of the **Drinker Moth** (right) basks on leaves of various plants in damp woods.



Some simple things woodland managers can do for butterflies - open up new areas by rides and junctions for flowers and shrubs - encourage willow and honeysuckle



Several species can often be disturbed from foliage or low growing plants as you walk through a wood, for instance the orange coloured **Yellow Shell** (left) and the black and white **Silver-ground Carpet** (right).



- ◆ Aim to create open areas wide enough to provide unshaded sunny conditions - for the most sun-demanding species, rides and glades need to be at least as wide, and preferably 1.5 times as wide, as the height of the surrounding trees
- ◆ A ride-side strip 15-20m wide and 50-100m or so in length, and a 20-30m deep clearing by a junction, are ideal (see diagram)
- ◆ A system of three tracksides zones can be very valuable, with a mown strip, low flower-rich margin and a scrub belt adjoining the edge of the trees
- ◆ Avoid managing all areas in the same way at the same time, e.g. cut alternate sections of ride edges in different years
- ◆ The exact dimensions of ride-side and 'box junction' management are not critical, however, the creation of just one or two simple sunny areas will be of great benefit in an otherwise shady wood
- ◆ New areas can have a long lifetime - up to 30 years, and depending on the size of the wood, they can be created at 1-5 year intervals to provide a continuity of different habitats
- ◆ Aim to increase the diversity of habitats - both sunny glades and shady areas with a thicker scrub understorey are valuable



The larvae of **Rosy Footman** (left) feed on lichens on tree trunks. The **Speckled Yellow** (right) visits flowers during the day in May and June. In Hertfordshire it seems to be restricted to woods in the south, its larvae feeding on wood sage.



Caterpillars of the **Great Prominent** (left) are leaf-green and feed on oak leaves. The male **Oak Eggar** (right) is a scarce, large, orange-brown moth which may be seen in fast flight on sunny July days in wooded areas, and can be mistaken for a fritillary.

