



Butterfly Conservation



White Admiral

Limenitis camilla

Conservation status

Priority Species in the UK Biodiversity Action Plan.

The White Admiral is a spectacular woodland butterfly, with white-banded black wings and a distinctive delicate flight: short periods of wing beats, followed by long glides. Adults are often found nectaring on Bramble flowers in sunny rides and clearings. It is a fairly shade-tolerant butterfly, flying in dappled sunlight to lay eggs on Honeysuckle. The White Admiral occurs widely in southern Britain and has spread rapidly since the 1920s, after an earlier contraction. It continued to spread in the 1980s and 1990s but within its range populations have declined in size since the mid 1990s.

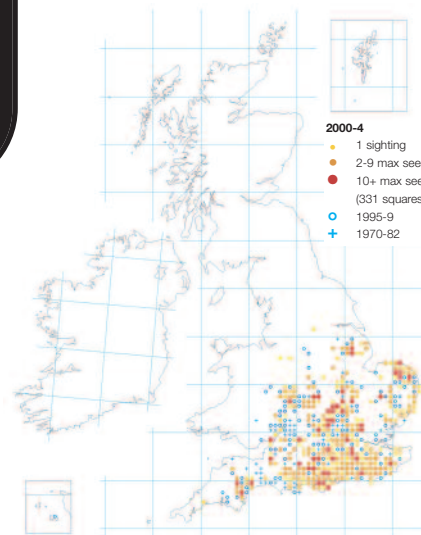
Life cycle

White Admirals are single-brooded with adults flying from mid-June through to mid-August, with peak numbers in early July. There is a partial second brood in September/October in some years. The eggs are laid singly on the upper leaf edges of Honeysuckle, usually strands dangling down from trees or shrubs in partial shade, within a few metres of the ride edge and mostly at 1–2m above ground level. A recent study, at two sites close to the northern limit of its range, has shown that it can also use low-growing plants in more sunny positions at ride edges, although these are subject to rabbit and deer grazing resulting in a lower larval survival rate. Eggs are also thought to be laid above 2m where Honeysuckle is partially shaded. There is some evidence that more mature, often yellow-green leaves, are selected in preference to younger, lush green growths. The newly emerged larvae feed from the tips of the leaves, retreating to the uneaten central vein, which seems to provide camouflage. In late summer, the partially developed larvae use silk to construct leaf-shelters (hibernacula) secured to plant stems in which they spend the winter months. This strategy may reduce attack by predators. The larvae emerge again in spring, feeding on the new growth of Honeysuckle to complete their development. The pupae, formed hanging from stems or from a leaf midrib, are coloured green and deep red, matching the coloration of the foodplant. They have bright silver patches which give them a wet appearance.

Foodplants

The sole foodplant is Honeysuckle *Lonicera periclymenum*, usually in dappled, shady positions within a few metres of the ride or glade edge.

	J	F	M	A	M	J	J	A	S	O	N	D
Egg												
Caterpillar												
Pupa												
Adult												



Colony structure

White Admirals form discrete colonies within suitable blocks of woodland habitat and typically occur at low densities, with rarely more than two or three seen at a time. In woodlands with several kilometres of suitable ride edge, then up to 50 adults may be encountered. Within the main part of their range, many colonies have become isolated. The mobility of adults has not been studied in detail, but the spread of the butterfly during the twentieth century indicates that it can colonize over distances of many kilometres. Between the 1920s and 1930s, the distribution extended by distances up to 100km, implying an average spread of up to 10km per year. This mobility is also indicated by sightings some kilometres from known colonies.

Habitat

The butterfly occurs in deciduous, mixed deciduous/coniferous and coniferous woodland which are often neglected or mature. Short-rotation coppice is not used. Both thicket stage and mature conifers can support suitable Honeysuckle growths, but these can be absent from some broadleaved woodlands, notably Ash (*Fraxinus excelsior*) and Beech (*Fagus sylvaticus*). Shady woodland and ride edges, where there are sunny glades with large patches of Bramble are used.

Habitat management for the White Admiral

Aim to produce dappled shaded conditions in woodlands supporting spindly, trailing growths of Honeysuckle within a few metres of flower-rich, open, sunny rides and glades.

High Forest and Coppicing

Retain mature woodland or over-mature coppice blocks. Dense over-mature woodland with few sunny rides and glades is unsuitable. Control of deer to reduce browsing of Honeysuckle may be beneficial in some woodlands.

Conifer Plantations

Retain abundant Honeysuckle along semi-shaded ride margins. Such habitat can be enhanced by encouraging a belt of broadleaved trees where Honeysuckle can flourish in the ride edges. Thinning conifer plantations can create dappled shade suitable for breeding, providing Honeysuckle is not removed to support wood production.

Ride Management

Rotational cutting of clearings and rides is most beneficial as it adds variety to vegetation structure. The length of rotation will depend on the individual site but can be anything from 3-12 years. Cutting in autumn and winter months is preferable with ride sides managed alternately. Rides which are one and a half times as wide as the height of the bordering trees and of east-west orientation are the sunniest. A range of vegetation structures should be encouraged with a shorter flower-rich central zone, a zone of taller herbs and grasses and a scrub margin adjacent to the mature trees. Scallop and box junctions can also be created to provide more open habitat, encouraging bramble. Scallop also increase the length of ride edge habitat. Management should be planned in sections to avoid disrupting large areas at any time.

below right top Honeysuckle is the sole larval foodplant but only strands dangling down from trees or shrubs in partial shade provide ideal breeding habitat

below right bottom Lusher Honeysuckle plants growing in open sunny situations are not utilized for breeding

below left Flower-rich, open, sunny rides and glades provide suitable nectaring habitat for the adult White Admiral



Butterfly Conservation

Saving butterflies, moths and their habitats

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