

6. Butterflies, Moths and Other Insects



This sheet shows the importance of burial grounds for butterflies and other, less visible invertebrates and gives guidelines on how to manage for them.

Burial grounds and churchyards offer a haven to butterflies, moths and a host of other insects such as shield bugs, beetles, ladybirds and grasshoppers. Butterflies and moths lay their eggs on many different plants and trees which then provide food for growing caterpillars.

LOOK OUT FOR...

Holly blue – a classic butterfly of burial grounds as its main food plants are holly and ivy. The holly blue has two broods and eggs are laid on unopened flowers. The first brood feeds on developing berries or young leaves of holly. The second brood is laid on ivy and feeds upon its developing berries in the autumn. Holly blue is unique among British butterflies for having alternating food plants for caterpillars.

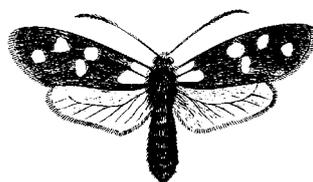
Purple hairstreak may be seen in the tops of oaks and white-letter hairstreak in elm trees (or within hedgerows containing elm) where they lay their eggs.

The orange tip hibernates and emerges early. It can be seen flying in April and May, laying its eggs on the flower stalks of several plants including garlic mustard and cuckoo flower. The male, with its orange-tipped wings, is particularly visible patrolling above the plants for a mate. These butterflies have an unpleasant taste however, so after eating one orange tip the bright orange colour warns predators against doing it again! Allowing flowers to grow and set seed before cutting benefits the orange tip and many other insects.



Orange Tip

Some butterflies need long or tussocky grassland including the speckled wood which lays its eggs on shaded long grass, whilst the wall may be seen basking on a gravestone prior to laying eggs on grass tussocks. Large and small skippers and meadow browns can be abundant in long, flowery grassland.



Six-spot Burnet Moth

Shrubs and hedges are good for butterflies

including gatekeepers and ringlets. The bright yellow brimstone will lay eggs on buckthorn or alder buckthorn bushes.

Nettles are important for butterflies, providing food for comma, painted lady, peacock, red admiral, small tortoiseshell, the beautiful golden Y moth, burnished brass moth, green carpet moth and spectacle moth.



Comma

As well as food for caterpillars, many butterflies and moths drink nectar from flowers which they in turn pollinate. Plants such as lavender, buddleia, ice plant, valerian and Michaelmas daisy are all attractive to butterflies. It is however the native plants and wildflowers that are such a feature of burial grounds which support a wide range of butterflies, moths and other insects.

Butterflies can be identified quite easily and, if surveyed, the results of the survey will give you a general picture as to how suitable your burial ground is for other, less easy to identify invertebrates. This is known as a 'scientific indicator'. **Butterfly Conservation** have devised a churchyard survey with a recording and identifying sheet. Please also share your records on the Burial Ground portal within the **National Biodiversity Network Atlas**. You can do this via our website (see sheet B10 Surveying and recording plants and animals).

Warm, sunny burial grounds will always have more butterflies and other insects because invertebrates need to seek the warmth of the sun.

HOW TO HELP BUTTERFLIES AND OTHER INSECTS

Choose native trees or shrubs of local provenance (this means that the seed was collected locally) when planting new trees or a hedge. Trees which are native to Britain tend to have many different insects living on them. Oak, birch, willow and hawthorn all support a great many; oak trees have about 350 different species of insect associated with them.



Oak

Have a variety of different lengths of grass including some tussocky grass which is not cut every year (see sheet A2, Caring for Grassland). Many butterflies, moths and other insects lay eggs on grass stems, within grass

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tussocks or on other plants found in long grass such as black knapweed.

Some wild flowers which are good for insects

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| Buttercup | Knapweed | Primrose |
| Clover | Cuckoo flower | Violet |
| Bugle | Garlic mustard | Dandelion |
| Cowslip | Hawkweed | Bluebell |
| Bird's-foot trefoil | Ox-eye daisy | Wild thyme |
| Lady's bedstraw | | |

Whilst too many thistles or nettles can become a problem, having a few clumps can be beneficial. Most species will only use vigorously growing nettles (often in compost heaps) that are sheltered from the wind and in full sun (see sheet A8, Helping Wildlife).

Most butterflies and other insects are very picky about where they lay their eggs. Not only do they need the right caterpillar food plant, but when in grassland, this may need to be managed suitably as well. Cutting grassland at the right time is critical to the well-being of the butterflies and the wildflowers. Cut too early and the majority of eggs and caterpillars will be removed and will then die. Cut too late and the wildflowers will suffer as vigorous, rank grasses will start to dominate. Therefore, to benefit butterflies, consider leaving some areas uncut until mid August or later. Please remember that this is a bit late for the flowers, so vary the location of this 'late cut' area each year.

If you have flower beds then consider nectar-rich plants with strong scent and a long flowering time. Herbs such as lavender, thyme or sage perhaps? Poppies and daisies attract insects whilst stocks, evening primrose and tobacco flower are particularly good for moths. Native plants can look fantastic in decorative planting; bellflowers: cowslips, foxgloves, dog



Bugle



Primrose



Thyme

daisies, heathers to name a few. These plants will have evolved over time with British insects as pollinators.

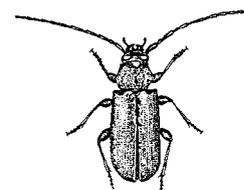
Ivy flowers can be quite literally buzzing with insect life. If ivy is not flowering then try teasing the top young shoots away from their support so that they are hanging free; this can encourage the ivy to change to the flowering stage of growth.

Make a bee hotel (see sheet A8 Creating a Wildflower Meadow and Helping Wildlife). This will be used by many different insects as well as solitary bees.

Try to identify some of the more well-known insects such as bumblebees and butterflies (see sheet B10, Surveying for Plants and Animals).

Grasshoppers

A combination of short, longer and tussocky grass makes a burial site a haven for grasshoppers and crickets. Some burial grounds can have more than 3 grasshoppers per square foot! These in turn are prey for spiders and birds. Whilst grasshoppers are known for their ability to jump, you may want to walk through long grass before cutting it, encouraging them out of the way of mowers.



Longhorn Beetle

Useful contacts

Butterfly Conservation, www.butterfly-conservation.org

Buglife, www.buglife.org.uk

Useful reading

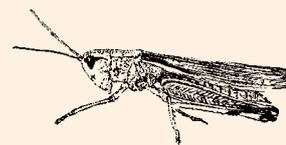
Butterflies of Britain – Field Studies Council fold-out chart

British Grasshoppers and Allied Insects - Field Studies Council fold-out chart

Caterpillars of Butterflies of Britain and Ireland - Field Studies Council fold-out chart

Guide to Ladybirds of the British Isles - Field Studies Council fold-out chart

The Butterflies of Britain and Ireland – Jeremy Thomas and Richard Lewington, British Wildlife Publishing Ltd



Cricket

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| Species | Soil Type | Required Vegetation Height | Food Plants | Comment | Likelihood of Occurring |
|--------------------|-----------|---------------------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------|
| Small Skipper | All | Tall Grasses | Various grasses, especially Yorkshire fog | Needs patches of tall grass to be left uncut each year. Rotate left areas to prevent them becoming too rank | All the best burial grounds for butterflies in England and Wales should contain small colonies |
| Essex Skipper | All | Tall Grasses | Various grasses, especially cocksfoot & creeping soft grass | Needs patches of tall grass to be left uncut each year. Rotate these uncut areas to prevent them becoming too rank | All the best burial grounds for butterflies in eastern England and the midlands should contain small colonies |
| Large Skipper | All | Tall Grasses | Various grasses, especially cocksfoot & false-brome with purple moor grass on acidic soils | Needs patches of tall grass to be left uncut each year. Rotate these uncut areas to prevent them becoming too rank | All the best burial grounds for butterflies in England and Wales should contain small colonies especially those that have damp areas and hedges |
| Dingy Skipper | All | Needs bushy growths of bird's-foot trefoil surrounded by bare ground. Grass height 2-10cms, preferably 2-5cms | Bird's-foot trefoil usually, plus horseshoe vetch on downland | Needs some areas of sunny un-mown grassland containing seed heads of knapweed for roosting | Only burial grounds surrounded by a dingy skipper colony such as chalk grasslands or which are very large in area could contain this species |
| Brimstone | All | Only uses buckthorn, either alder or purging buckthorn, depending on soil type | Needs buckthorn which is in a sunny position or in a south facing hedge | Buckthorn should be kept at 2m height and pruned annually. Adult butterflies will often hibernate in ivy growing on wall or trees | All burial grounds south of Scotland should expect to see this species. Abundance relies on the abundance of buckthorn |
| Large White | All | Any large brassicae species including those grown in gardens | Needs large brassicae plants, will breed on nasturtium | Numbers often rely on migrations coming from continental Europe | All burial grounds should see this species. Often uses burial grounds as source for nectar |
| Small White | All | Any large brassicae species including those grown in gardens. Also oilseed rape | Will be more common if burial ground is near oilseed rape fields or urban allotments | Numbers often rely on migrations coming from continental Europe | All burial grounds should see this species. Often uses burial grounds as a source for nectar |
| Green-veined White | All | Feeds on garlic mustard, lady's smock and bittercress, growing in damp areas often in hedgerows | Many food plants are biennial so new plants will be required annually. Ground disturbance through routine maintenance can provide this | Will be the most common white in burial grounds | All burial grounds should contain this as a breeding species |

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| Orange Tip | All | Prefers medium height grassland less than 40cms tall, with fine rather than coarse grasses or the base of hedgerows | Feeds on garlic mustard, lady's smock, rocket and garden honesty | Populations can be reduced by over-vigorous mowing before August, in the bottom of hedgerows especially. Caterpillars are killed while on the food plant | Burial grounds with good populations of lady's smock will have good populations of orange tip butterflies. All burial grounds in England and Wales plus many in Scotland can expect to have breeding orange tips |
| Green Hairstreak | All | Not common, but found in a range of habitats | On heathland; bilberry and gorse. On other sites; dyers greenweed and bird's-foot trefoil | Males are most likely to use burial grounds to perch on shrubs looking for females in nearby grasslands or moorland | Only likely found in burial grounds within moorland, downland or on the tors of Devon & Cornwall |
| Brown Hairstreak | All | A butterfly of the wider countryside found in hedgerows and scrub as it depends on young, suckering blackthorn | Blackthorn, generally less than 1m in height | Benefits from 4 year rotation of any blackthorn scrub or rotational hedge laying | Rare and elusive butterfly only found in west Wales, Devon, Dorset, West Sussex, Oxfordshire, Worcestershire and a few other places. Burial grounds can be very important in the conservation of this species |
| Purple Hairstreak | All | Tall oak trees, especially when in lines | Oak is the only caterpillar food plant | More common in wooded areas. This butterfly pupates just under the surface of the soil, so digging around the base of oak trees is detrimental | An elusive species; the best time to confirm its presence is to view the tops of oak trees with binoculars between 6.30pm-7.30pm in July or early August. Behavioural flights at this time are very distinctive. Purple hairstreak is more common than you might expect and under-recorded. |
| White-letter Hairstreak | All | Tall elms | Wytch elm or common elm | Wytch elms tend to be more resistant to Dutch elm disease. Where possible, ensure that elms grow in sunny locations by removing surrounding, shading trees | A rare and secretive species but any burial ground with large elms should expect to have a colony of this species. Look on flowering bramble for nectaring butterflies as white letter hairstreak is easily overlooked. Planting disease resistant elm greatly helps this species. |
| Small Copper | All | Vegetation should be between 1-10cms ideally | Sorrel | Sorel growing in sunny, low growing vegetation | Every burial ground with good quality grassland should have breeding small coppers. This butterfly is often seen in ones or twos |

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| Small Blue | Limey (calcareous) | Vegetation height below 6cms | Kidney vetch is a short-lived perennial and it's abundance can vary from year to year depending on the weather, soil structure and management | Small blue only uses the flower head and so inappropriate grazing or mowing can remove all flower heads and wipe a colony out completely in one year. Do not mow or graze when kidney vetch is in flower or before mid-August | Increasingly rare butterfly with a very patchy distribution over the UK. Colonies can be established in quite small areas such as 5 x 20 metres. Burial grounds can play an important part in the conservation of this species |
| Brown Argus | All | On chalk grasslands with vegetation length 1-5cms or on other sites with vegetation length 5- 15cms | On chalk grasslands; rockrose. On other sites mainly cut-leaved cranes-bill and also doves-foot cranes-bill and common storks-bill | Mowing before mid-August is very detrimental to this species so leave some areas of cranes-bill or storks-bill uncut, rotating the area annually | Only found south of Lincolnshire to the Bristol Channel. Any burial ground with cut-leaved cranesbill should contain a small colony of this species. This butterfly is seen in ones or twos |
| Common Blue | All | Vegetation height between 4-10cms | Major food plants are: bird's-foot trefoil, black medick, rest harrow, red clover | Some tall vegetation is needed for roosting so a rotational mow is good. Cut 70% of the grassland, rotating the un-cut 30% annually to prevent it becoming too rank. | All best burial grounds for butterflies should contain colonies of this species |
| Chalkhill Blue | Limey (calcareous) | Vegetation height up to 6cms, rarely higher | Horseshoe vetch growing within bare ground | Do not cut before October and leave 5cms high from March onwards | To have chalkhill blue a burial ground needs to be on downland with very thin soils, and adjacent to an existing colony |
| Holly Blue | All | N/A | Prime food plants and holly in spring and ivy in autumn | Cutting back all the ivy in one go thus removing the seed heads is detrimental | This is the quintessential church yard butterfly. Every burial ground with holly and ivy will contain colonies of this butterfly. Holly blue numbers vary greatly in abundance from year to year |
| Red Admiral | All | Vegetation height less than 1m | Common nettle. Uses nettles in enriched soils such as by compost heaps or in field ditches | A frequent migrant from Europe, this butterfly is commonly seen August-October | More common in the south but every burial ground is likely to contain red admirals in most years |
| Painted Lady | All | Vegetation height less than 1m | Mainly thistle species growing in sunny locations. Can be increased acceptably by encouraging the less invasive marsh thistle | A frequent migrant from Europe this butterfly is commonly seen July-September. Every few years they appear in large numbers | More common in the south but every burial ground is likely to contain painted ladies in most years; although they are usually less common than Red Admiral |

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| Small Tortoiseshell | All | Vegetation height less than 50cms | Common nettle, but usually only nettles in large patches with very enriched soils. Common in farmland | Can be seen all year round from March/April when hibernating males emerge through to hatching in June and flying till August/September | All burial grounds are likely to contain small tortoiseshells |
| Peacock | All | Vegetation height less than 50cms | Common nettle but usually only usually only nettles in large patches with very enriched soils. Tends to breed near woods | Can be seen all year round from March/April when hibernating adults emerge through to hatching in June and flying till August/September | All burial grounds are likely to contain peacocks |
| Comma | All | Vegetation height less than 50cms | Common nettle in small clumps plus wild hop and elm | Can be seen all year round from March/April when hibernating adults emerge through to hatching in July and flying till September/October | All burial grounds are likely to contain commas, especially those south of Scotland |
| Silver-washed Fritillary | All | Vegetation height low, about 2cms | Violets; mainly dog violet growing in bare ground in dappled shade areas | This is mainly a woodland species but can be seen in wooded lanes in south west England | Found in south west England and occasionally southern England where burial grounds are near wooded areas. Silver-washed fritillaries may use burial ground as nectar sources |
| Speckled Wood | All | Vegetation height less than 50cms | Various grasses; cocksfoot, couch, Yorkshire fog and false brome | This is a butterfly of shady woodlands. Most burial grounds provide patches of ideal habitat | All burial grounds with trees and shrubs will have breeding speckled woods |
| Wall | All | Vegetation height less than 20cms | Various grasses especially cocksfoot, false brome, wavy hair grass when growing in small isolated clumps | An increasingly rare butterfly in England, south of Yorkshire | Only burial grounds on the south coast of England are likely to see this species. Those with a sunny aspect and few shrubs can provide breeding habitat |
| Marbled White | Limey (calcareous) | Vegetation height less than 20cms | Various grasses, especially creeping red fescue, growing in a loose sward with lots of bare ground | A butterfly of southern England and the midlands, usually on limey soils. Cutting grasslands before mid-August is likely to wipe out any marbled whites | Any burial ground with limey soils in southern England could contain marbled whites |
| Gatekeeper | All | Vegetation height less than 30cms | Various grasses, generally growing near hedgerows, including fescues, bents and meadow grasses | More abundant in southern England | Any sunny burial ground south of Yorkshire and Lancashire should contain gatekeepers |

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| Meadow Brown | All | Vegetation height less than 30cms, but egg laying usually on turf 1-6cms | Various grasses, particularly meadow grass | Meadow browns can lay eggs at any time between May to September so will benefit from cutting grass at different times of the year | All sunny burial grounds should contain meadow browns |
| Ringlet | Neutral Damp | Vegetation height 15-30cm | Various grasses especially tufted hairgrass, couch, and meadow grass | June/July likes damper grasslands | All burial grounds which are open and not too shady in southern Scotland, England and Wales should contain ringlets |
| Small Heath | All | Vegetation height 2-5 cms | Various grasses especially low growing fescues | Increasingly rare butterfly which is slow to colonise new sites so if it is lost from a site it is unlikely to re-colonise | Potentially all burial grounds with short turf areas in sunny positions. In reality however you are very fortunate if you have this species |