

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.

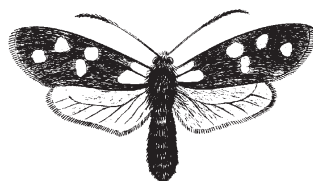
Purple hairstreak may be seen in the tops of oaks and white-letter hairstreak in elm trees (or within hedgerows containing elm) where they lay their eggs.

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.

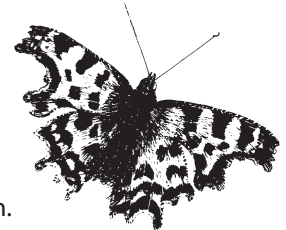


Six-spot Burnet Moth

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, 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 butterfly survey with a recording and identifying sheet, (see sheet B10, Surveying for Plants and Animals for details).

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

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Some wild flowers which are good for insects

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



Bugle

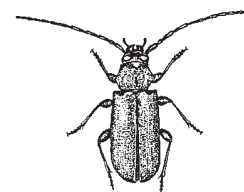


Primrose



Thyme

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.



Longhorn Beetle

Make a bee hotel (see sheet A8, 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.



Cricket

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

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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