## Could you have Brown Hairstreak on your land?

The Brown Hairstreak was once very widespread in England and Wales but has declined severely due to the loss of woodlands and hedgerows and increasingly intensive hedgerow management. Its remaining strongholds are in the western Weald of Surrey and Sussex, mid Devon, west Somerset and south-west Wales, but elsewhere colonies are scattered and uncommon.

Colonies are normally centred on a wood, but egg laying usually extends over several square miles of the surrounding countryside. A complex of woodlands and hedgerows with abundant, suitably managed, blackthorn is therefore required. Most colonies occur on heavy clay soils where blackthorn is a dominant constituent of the hedgerows.

Reducing the amount of annual hedgerow trimming can save time and money. Under Defra's Environmental Stewardship Scheme, administered by the Rural Development Service, there are financial incentives to manage hedges and field margins in a way that is sympathetic to the needs of not only the Brown Hairstreak but also other hedgerow wildlife. Visit **www.defra.gov.uk** for more details.

Butterfly Conservation would like to thank English Nature for their assistance in producing this leaflet.





Saving butterflies, moths and their habitats

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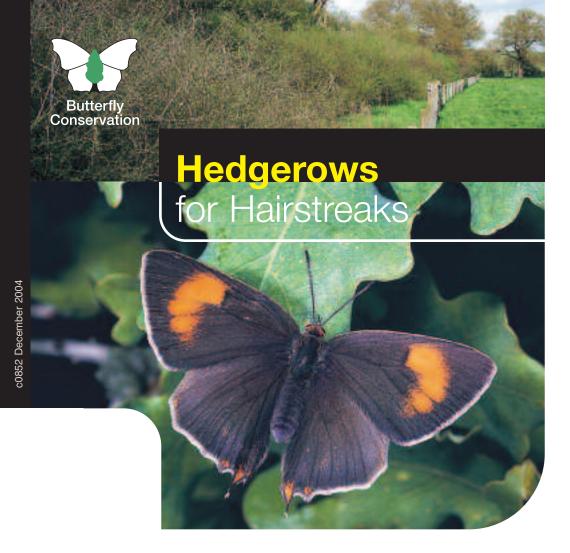
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Registered Office: Manor Yard East Lulworth Wareham Dorset BH20 5QP

Registered in England No. 2206468 - Registered Charity No. 254937

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# Hedgerow and woodland management to conserve the Brown Hairstreak

This rare butterfly depends upon hedgerows and woodland edges for its survival. It breeds on blackthorn and other members of the plum family. Colonies usually occur at low densities over a wide area. Because of its dependence on hedgerows, the butterfly is affected by hedge removal and frequency of cutting. This leaflet gives some simple information on how to help conserve this beautiful, though secretive butterfly.



# The Brown Hairstreak

Adults emerge from late July and may be on the wing into October. They spend much of their lives in the treetops or along woodland edges feeding on honeydew secreted by aphids and secretions produced by ash trees. They are most often seen with their wings closed, revealing golden brown underwings crossed by two thin white lines and have distinctive orange tails. Their upper surfaces are dark brown, though the female has orange patches on the forewings.

The females are more commonly seen as they fly along hedgerows looking for suitable egg laying sites on young blackthorn stems. The eggs remain here throughout the winter and do not hatch until the leaves open during the following May.

The pale green caterpillar feeds on blackthorn leaves until it pupates in early July. The chrysalis is formed close to the ground, amongst leaves, and is sometimes tended by ants.

#### Position of eggs

The butterfly's presence is most easily confirmed by searching blackthorn for eggs during winter. The white, pinhead sized eggs are conspicuous against the dark bark of the young blackthorn twigs. They are usually laid singly, at the base of thorns, on protruding shoots or suckering blackthorn at the hedge bottom. Sunny, sheltered positions are favoured for egg laying.

# Management to conserve the Brown Hairstreak

#### Blackthorn hedges

As the Brown Hairstreak's eggs and caterpillars occur on young blackthorn twigs for much of the year, most hedge trimming will kill or affect them. Annual trimming is particularly harmful and can eradicate populations altogether. This can be avoided, and populations enhanced, by adopting appropriate cutting regimes.

- Trim hedgerows once every 3-5 years, cut no more than a third each year and ensure that the hedges cut in any one year are in different areas. This can be 50% cheaper than annual cutting, as well as ensuring a healthy hedge and producing a more diverse and attractive countryside.
- Rotations over 7 years involving hedge laying or coppicing are also highly suitable. This produces young growth that is highly attractive to egg laying females. (It is advisable to fence early coppice against browsing by stock or deer.)
- Cut hedgerows as late as possible in the winter months, ideally during January and February.
   Late cutting will be least damaging to other wildlife such as birds and mammals.



- As a minimum, hedges should be left uncut every other year. This will also benefit a host of other wildlife, especially birds.
- Avoid chemical spraying up to field edges and, ideally, leave an uncultivated margin. Spraying can damage the eggs and caterpillars, as well as the hedgerow, so leaving wide unsprayed field margins is beneficial to wildlife.
- Look for opportunities to restore and create hedgerows using blackthorn, especially if you can link up existing hedges and woodland edges. Generally, east-west hedges with a sunny, south-facing side are favoured by the Brown Hairstreak.

### Woodland edges and rides

Broad-leaved woods are essential to most Brown Hairstreak colonies and can be managed for their benefit.

Adult showing underside pattern

- Maintain all farm woods and broad-leaved wood edges and retain trees identified as key mating sites and congregation points. Adults tend to congregate around specific groups of trees, particularly in mid August when seeking mates. The same trees, usually prominent ashes, are used for this purpose from year to year. Where these trees can be identified they should be retained whenever woodland management occurs.
- Coppice or fell trees in rotation. Spread any clearing or coppicing work over several years and leave some belts of woodland intact to act as focal points for the colony.
- Manage woodland edges and rides in rotation as for hedges. Woodland edges and wide, sunny rides can also form important areas for egg laying. Any blackthorn should be cut on rotations of 3-5 years, similar to that for hedgerows. Creating new east-west rides within woods can be valuable, especially where they link existing egg laying areas. When creating new woods or rides plant blackthorn along sunny, sheltered edges.