

SHORT COMMUNICATIONS

RESULTS OF THE WINTER 1991-2 SURVEY FOR EGGS OF THE BROWN HAIRSTREAK BUTTERFLY

Thomas and Lewington (1989) indicated that the Brown Hairstreak *Thecla betulae* is a nationally-scarce species whose strongholds are in North Devon, South Wales and the West Weald. The imagines, which are rarely seen, assemble on deciduous trees in late July and early August when pairing takes place. The eggs are laid at a low density over a wide area on Blackthorn *Prunus spinosa* L. and related species and hatch in the following April. They are laid in ones and twos, but because they are white, they are relatively easy to find and offer the best guide to the distribution of the species. Over the period 1978-91 there were fifteen site records of *T. betulae* in Somerset. These suggested that it occurred in a band extending along the north edge of the Blackdowns and the western edge of Sedgemoor to the southern end of the Polden Hills.

During the winter of 1991-2, members of the Somerset Butterfly Group carried out egg searches, starting from known sites, examining uncut Blackthorn along roadsides and field hedges, woodland edges and other areas. In order to maximise the information on distribution, once eggs had been found in any kilometre square of the national grid, surveyors moved to the adjacent square. Fig. 1 shows a map of the county marked both with the kilometre squares in which eggs were found and also where squares were searched unsuccessfully. It is suggested that, in areas where they were found in most of the kilometre squares searched, eggs may also have been present in some squares where we failed to find them.

Eggs were easiest to find close to or within one or two kilometres of areas of deciduous woodland. They were also found on or close to disused or private railway lines, nature reserves, commons and rough grassland where Blackthorn remained uncut throughout the winter. Because eggs were nearly always laid at a low density they were often harder to find where Blackthorn was common. However, there were one or two areas on the Blackdown and Polden Hills where eggs were present at a higher density. Eggs were not found in windy, exposed or sunless situations, or above 250 m. By the end of the survey, many of the eggs found on roadside and field hedges had been destroyed by hedge-trimming.

Hedgerows offer both attractive nectar sources and laying sites for *T. betulae*. Thomas (1989) maintained that colonies need several kilometres of bushy hedgerows or woodland edges containing Blackthorn and that at least one-third of these must remain uncut in any one year. In some parts of the country *T. betulae* has become extinct due to the destruction or severe trimming of the hedges. There is evidence that this is a problem in some parts of Somerset. An advisory leaflet produced by the British Butterfly Conservation Society recommends the trimming of hedges on a

Brown Hairstreak Butterfly

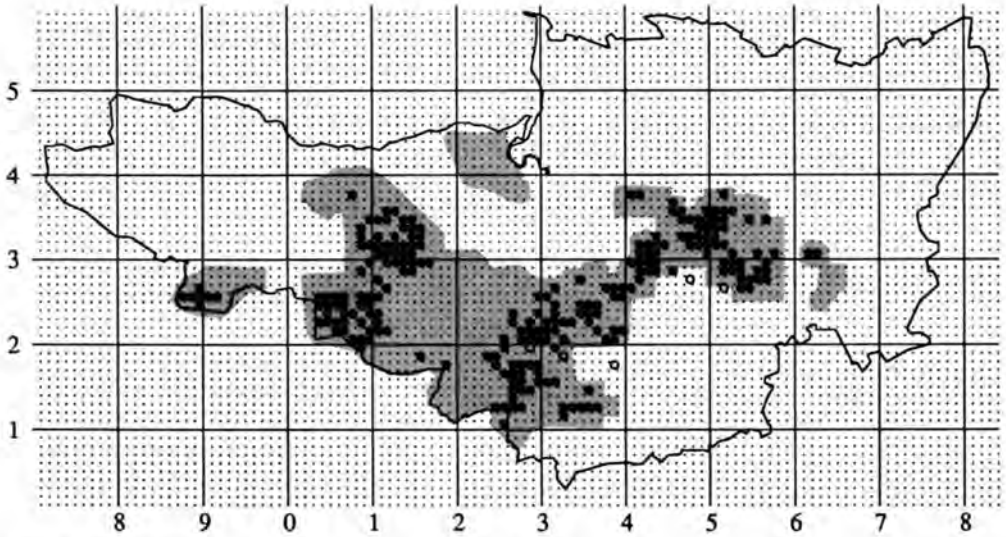


Fig. 1 County map showing kilometre squares in which eggs of the Brown Hairstreak were found. Records from the present survey are shown in black and previous records as open circles. Areas searched unsuccessfully are shaded grey.

rotation to ensure that an adequate amount of Blackthorn remains intact each year. Farmers who were contacted during the survey were not unsympathetic to this idea but were concerned that it might cost more in the longer term. A controlled trial on a sympathetic farmer's land would be of benefit. On its reserve at West Sedgemoor, the Royal Society for the Protection of Birds is now cutting the hedges of the dry meadows and the drove bordering the moor on a rotation. The Somerset Farming and Wildlife Advisory Group personally encourages farmers to cut hedges only once every two or three years.

Our results (Fig. 1) have already established that Somerset is also a stronghold of *T. betulae*. The survey will continue in November 1992 and will, we hope, reveal an even wider distribution for this butterfly in the county.

ACKNOWLEDGEMENT

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REFERENCE

Thomas, J., and Lewington, R., 1989. *The Butterflies of Britain and Ireland*.

TONY LIEBERT and ROGER SUTTON