

BUTTERFLY CONSERVATION UPPER THAMES BRANCH

Chalk Hill Blue Report 2019

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Over recent years the Chalk Hill Blue (*Polyommatus coridon*) doesn't seem to have experienced the same 'booms and busts' as some of our other 'Blue' species. At times Common Blue (*P. icarus*) and Brown Argus (*Aricia agestis*) and the more closely related Adonis Blue (*P. bellargus*) have become very abundant both at sites shared with Chalk Hill Blue and elsewhere. Equally, these other species have suffered some very low numbers at times. Perhaps the fact that the Chalk Hill Blue is single brooded (whilst the others are multi-brooded) explains its more stable population size; with less impact from several weeks of good, or dreadful, weather that might cover nearly all the development phase of these other more rapidly maturing species, but which is a mere fraction of the Chalk Hill's annual cycle.

However, despite an apparently stable abundance in Chalk Hill numbers at the better sites, there does seem to be a gradual reduction in population size at most. Unfortunately the UTB does not collect sufficiently robust data to prove this, and the remark is based on subjective experience including several remarks from a range of observers in 2019. Nationally, over the last ten years (2010 to 2019) there has been a 59% reduction in abundance (data UKBMS). Locally, Radnage's Yoesden Bank, Lardon Chase and Ivinghoe Beacon are among sites notable for fairly regular large colony sizes. These days many other sites often fail to achieve daily double figures even at times of peak emergence. Some have been like that for years, for instance, Aston Clinton Ragpits and Holtspur Bottom. Other sites were once blessed with larger colonies but now regularly have a maximum daily tally of just three or four butterflies (for instance Whiteleaf Cross and Bacombe Hill). A few (perhaps under-visited) sites returned accounts of none seen in 2019, where there had been small numbers in 2018.

Though most sites do experience fluctuations in the quantity of the butterfly's sole foodplant Horseshoe Vetch (*Hippocrepis comosa*) for no apparent reason, this gradual fall in numbers is more likely attributable to continuous slow deterioration in habitat quality. Horseshoe Vetch is a perennial plant that can be damaged by invertebrates eating the roots and vertebrates grazing the stems and leaves. Once an area of the vetch suffers noticeable amounts of damage it takes several years for recovery and for new plants to germinate. More worryingly, the abundance of the vetch is definitely reduced by the growth of taller vegetation surrounding it and casting deep shade. So hillsides where grazing is abandoned do not keep large quantities of Horseshoe Vetch once scrub starts to appear. For this reason the UTB works, often in partnership with others, to clear encroaching scrub from flower rich hillsides in the Chilterns. Unfortunately the speed at which the scrub grows is faster than the volunteers can keep up with it and so the prospects for any immediate resurgence in Chalk Hill Blue numbers away from the sites where this effort is concentrated are poor.

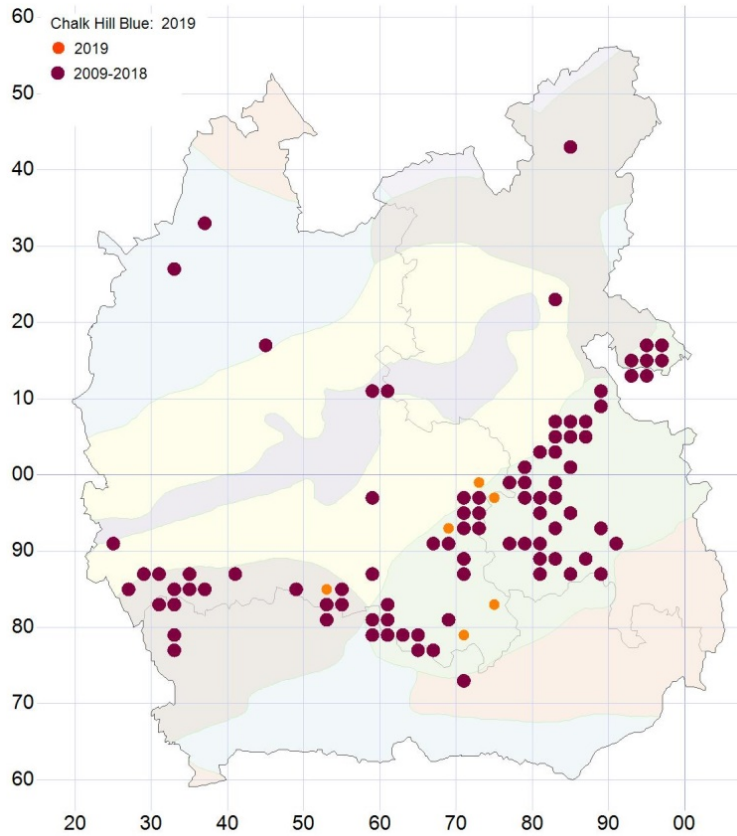
If, as suggested, the overall numbers flying within our three counties has dropped, then the reduction in the number of sites, where once there were small numbers or singletons seen occasionally, makes sense. The Chalk Hill Blue is a species that regularly spreads from colonies with dense populations to attempt to find new sites. If abundance is falling, fewer butterflies will venture away from the colonies' cores and fewer will be seen in the surrounding countryside. This could explain many of 34 tetrads (largely located between known colonies) returning records in the 2009-2014 recording period but without records since. Many of the 34 tetrads were probably hosting transient males ranging away from home. However, one now noticeably blank area is north-west Oxfordshire, which appears to have had an undetected colony that has now vanished.

Offset against the depressing loss of occupied tetrads are six tetrads with records in 2019 that had no record in the previous 10 years. This shows that if we can create (and maintain) suitable conditions (as the good folks at Brush Hill near Princes Risborough and on private land near Ashbury are) we can expect the Chalk Hill Blue to find these areas and create new colonies.

In 2019, the first record was relatively late by modern standards at the NT Ivinghoe Beacon complex on July 11th. The season finished quite early, with a last record on 8th September (also at Ivinghoe Beacon). There was no reoccurrence of the UTB's once only second brood in October as there had been in 2018.

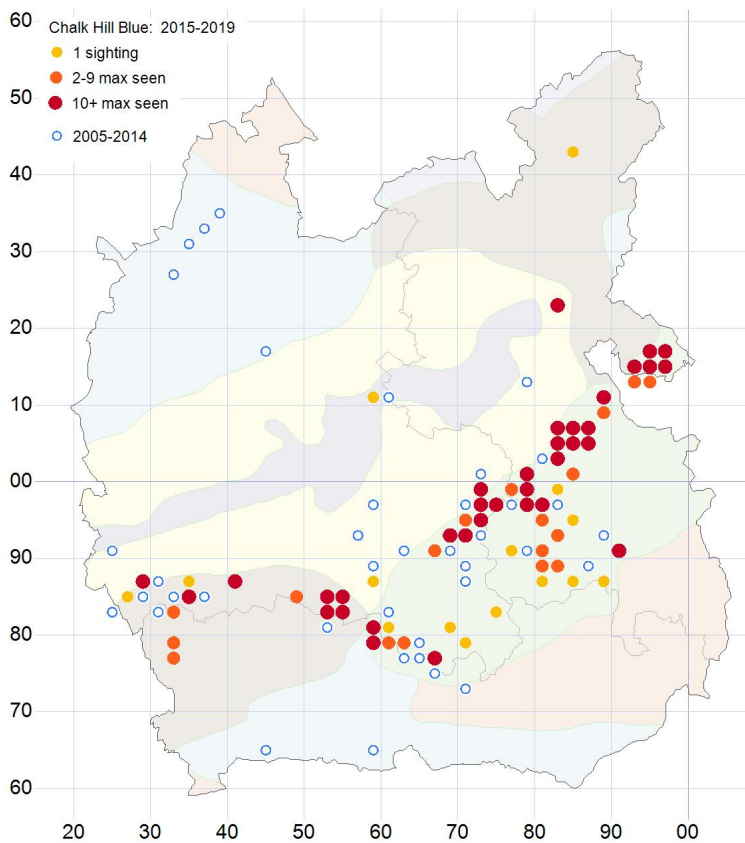
My thanks to the many people who took the time to contact me about sightings of the butterfly and sometimes to express sadness at no sightings in places where they had been seen previously. My thanks too, to those who worked at habitat creation and maintenance through the winter of 2019/20. Unquestionably we know how to safeguard a future for the Chalk Hill Blue but we need the efforts of concerned individuals to achieve a reversal of the current gradual decline. Please get in touch if you could be a part of that effort, perhaps by growing Horseshoe Vetch for planting out (we can supply seed) or with your attendance at some (targeted) work parties.

See below for maps which show the changing distribution and the changing fortunes of the species. Thanks to Peter Ogden for producing these maps, which show of the Chalk Hill presence in the UTB over recent years to 2019.



Gains

Orange dots show those 2019 records in tetrads with no record in 2009-2018. All are between tetrads with previous records and show how some individual butterflies will 'spill out' from occupied sites..



Losses

The colour of the dots in this map represents the numbers seen. Small open blue circles show where species have not been recorded in the period 2015- 2019, but where previously recorded. Note the large expanse of northern Oxfordshire that has no recent record and the retraction to a few core areas in the Chilterns and on the Berkshire Downs.