

GREENHAM AND CROOKHAM COMMON SILVER STUDDED BLUE REINTRODUCTION PROJECT

Background:

The Silver-Studded Blue butterfly *Plebejus argus* occurs on lowland heath, calcareous grassland and at a single peat-land site in Wales. It is regarded as a characteristic butterfly of lowland heath as the majority of the population occurs on this habitat. It has undergone a large range decline over the last century estimated at about 80%. This is mainly due to loss of heathland and inappropriate habitat management. In Great Britain the Silver-Studded Blue is classified as *Nationally Scarce* and it is also a UK Biodiversity Action Plan priority species. It is now wide-spread only on the heaths of Dorset and Hampshire.

UK Biodiversity Action plan objectives and targets:

The UK Biodiversity Action Plan (UKBAP) states: ‘Maintain populations at all known sites. Restore populations to former sites occupied post-1970 by 2010, using reintroductions if necessary’.

There are a number of projects across the Country that are actively contributing to the aims of the UKBAP and are either working to restore and maintain suitable habitat where there are existing populations or re-introducing the species to former haunts (e.g. Norfolk, Suffolk, Surrey, Shropshire, Dorset etc).

Heathland habitat requirements and association with ants:

A warm microclimate i.e. pioneer heathland with a high proportion of sparsely vegetated bare ground, where bell heather is dominant or where a range of young heathland plants exist e.g. common heather (ling), bell heather, cross leaved heath and gorses. A varied heather age structure is required for nectar, shelter and larval food.

The presence of ants of the genus *Lasius* is crucial as the ants tend the larvae, pupae and adult stages of the butterfly which provide sugars and amino acids that are secreted through the skin in the form of a sweet liquid. In return the ants provide protection from predators.

The Greenham Common project:

A project looking into the feasibility of re-introducing the Silver Studded Blue onto the Common, with advice and support from Butterfly Conservation (BC) and Natural England (NE), is underway.

The objective of the project is to establish a viable population of Silver Studded Blues and to sustain this population, with appropriate management, by maintaining a continuous supply of suitable habitat so that when one area becomes unsuitable the colony only has to relocate a short distance in order to persist. It is hoped that the size of the colony may develop to such an extent that, in time, Greenham Common may itself become a donor site for further local re-introductions, (e.g. Snelsmore Common/Bucklebury Common?). In this way the project will be contributing to the national objectives as set out in the National Species Action Plan.

Local precedent:

It has been established that the species was present on or near the site just after the Second World War and probably until the 1970's.

Potential release sites:

Several areas have been identified on the Common as potentially suitable release sites. These include Brackenhurst Heath (compartment 1), Sandleford Heath (compartment 2), Aldernbridge Heath (compartment 3) and the NE and SW heathland lozenges (compartments 12 and 9 respectively). These areas will require varying degrees of management before being considered entirely suitable.

Habitat management:

Appropriate management techniques necessary to create and maintain the pioneer habitat described above, including mowing, top soil stripping, scrub control and grazing regimes have been identified and incorporated into the Greenham and Crookham Common management plan.

Donor sites:

Silchester Common, in North Hampshire, which is about 10Km east of Greenham Common has been identified as a potential Donor site. A further two Donor sites, possibly in the North Surrey area, are being sought.

Surveys:

A provisional survey of ants carried out in August 2008 on Sandleford Heath, revealed a good density of *Lasius niger* nests. Further ant surveys will be conducted on the other potential release sites during 2009 to establish if the correct ant species is present in sufficient numbers to support the Silver Studded Blue.

All the potential release areas are to be mapped during 2009 in order to show the extent of suitable habitat and are likely to indicate bare ground, heath, grassland and scrub cover.

More detailed vegetation surveys looking at the height structure of these sites, together with quadrats sampling the plant species present are also planned for 2009.

Formal proposal submission:

During autumn 2009 the suitability of the sites will be assessed in light of the surveys and management methods altered/implemented accordingly. A detailed proposal will then be prepared and submitted to NE and BC (possibly at the end of 2009 or early 2010). Subject to approval and successful inspection of release sites the first butterflies could be translocated in June/July 2010 or possibly 2011.

Translocation of butterflies;

It is intended that batches of Silver Studded Blue butterflies be released on the Common over several consecutive years. This is to improve the chances of the species becoming established over the first few vulnerable seasons. At this stage it is not certain how many will be involved but it is likely to be in the region of up to about 30 per batch, most of which will be recently emerged females. Males emerge before females so that mating occurs almost immediately after the females emerge. This means that recently emerged females will be most likely to contain the highest numbers of eggs.

Adrian E D Hickman, Greenham Common Silver Studded Blue project coordinator. May 2009