



## Midlands Brownfields for Butterflies and Moths Project Jane Ellis- Butterfly Conservation

### Introduction

The Midlands brownfield project is a two year project which focuses on key brownfield sites for rare butterflies and moths in eleven landscape areas across the Midlands. Butterfly Conservation chose to focus on brownfield species as they have become lost from many of their traditional habitats in the wider countryside. An English Nature Report <sup>1</sup> revealed that Brownfield sites support 194 invertebrate species of conservation importance of which 50 are red data book species. Brownfields are the last havens for some species and these sites are now under extreme pressure from housing and regeneration with recent Government Policy for the reuse of previously developed land including expectation that 60% will be used for housing (in 2005 75% was actually developed for housing).

The key species for the project in the Midlands are all UK Biodiversity Action Plan species Grizzled Skipper (42% decline between 1995-2004), Dingy Skipper (26% decline between 1995-2004) , Chalk Carpet Moth, Four-spotted moth, Grayling and Small Blue.

The key brownfield habitats for these species are:

- Poor soils with low nutrient levels which help to suppress the growth of vigorous grasses and promote the growth of flowering herbs.
- Bare ground, which radiates heat and therefore helps cold-blooded invertebrates to function and speed up the development of eggs to caterpillar.
- Abundant nectar sources and caterpillar foodplants such as Bird's-foot trefoil, Kidney Vetch and Cinquefoils.
- A varied topography – to create shelter and warm and varied microclimates
- Patchy scrub to provide shelter, roosting sites for adults, nectar sources and over-wintering sites for the larvae of some species.

### AIMS

- **The main aims of the project are to Raise Awareness of and safeguard important brownfield sites for rare and declining Lepidoptera focussing on number of key landscape areas**
- **Promote examples of Good practice**

The main areas of work have been advice and training, data gathering, demonstrating and sharing good practice.

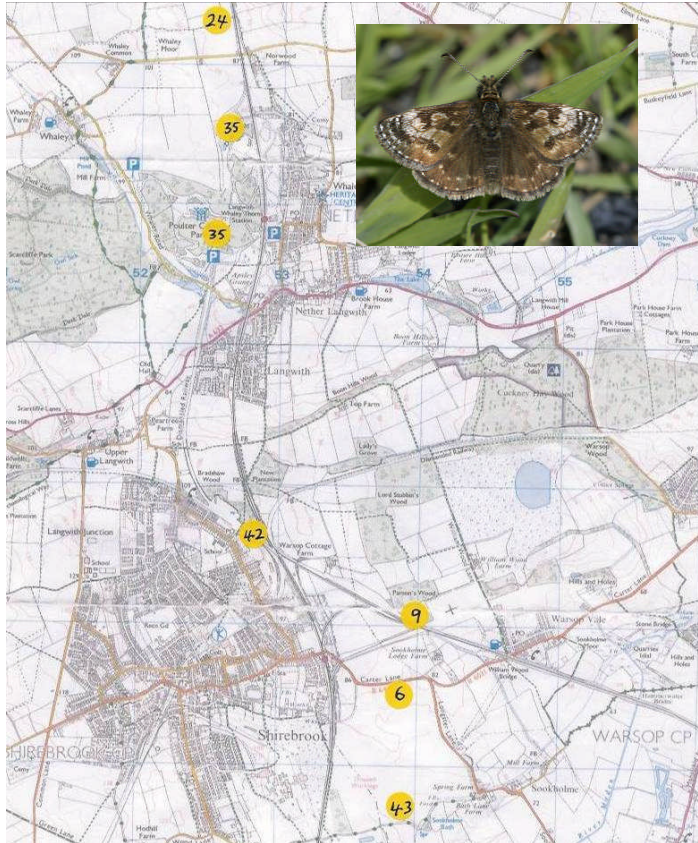
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<sup>1</sup> English Nature Research report No. 651: Review of the Coverage of urban Habitats and species within the UK Biodiversity Action Plan

## Example of work in the key landscape area of the Notts / Derbyshire Coalfields in the Shirebrook / Langwith area for the Dingy Skipper butterfly.

The yellow dots in figure 1 show Dingy Skipper colonies recorded by local volunteers. It is quite noticeable that all the sites are very close to the north-south railway corridor and it is likely that the railway did or still does provide a habitat corridor for this species.

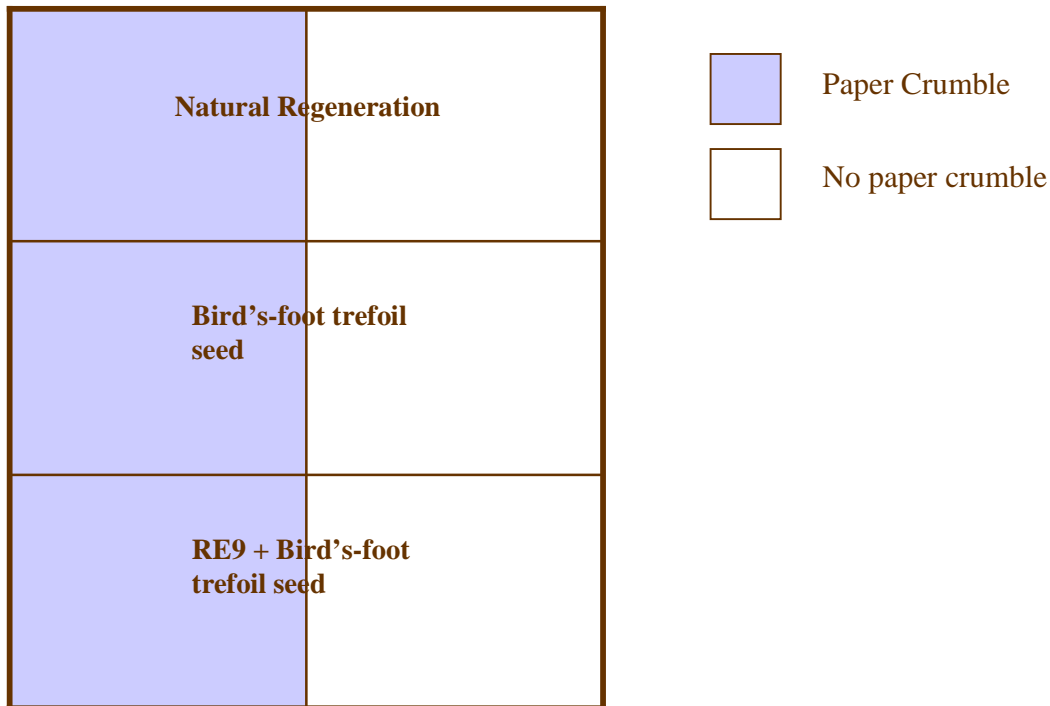
### Site 9 – Warsop Vale



This site was visited with a local recorder early on in the project. But by this time the site was already undergoing dramatic “restoration” and only a tiny fragment of what was an ideal and extensive breeding area for Dingy Skipper remained. Nottinghamshire County Council were restoring a large area of the site to limestone grassland to meet local LBAP targets. BC tried to salvage the situation for Dingy Skipper by working with the County Council, their ecologist and restoration engineer to incorporate some features for the butterfly within the work. This included seeding south-facing banks on the site with Bird’s-foot-trefoil.

A series of habitat plots were established to determine what types of soil preparation and seeding would best benefit the species (see Diagram1) The results of the trials showed that the use of paper crumble (an inert waste material from recycled newspapers) seemed to inhibit some grass growth, that natural regeneration of Bird’s- foot Trefoil on the site was as effective as was seeding, that sewage cake was not necessary to give good germination and growth of the RE 9 and bird’s-foot trefoil seed. This case study demonstrates that much time and effort can be saved during restoration by ensuring that the existing ecology of site and surroundings has been carefully considered, that local ecologists are consulted at an early stage and that allowing time to undertake trial restoration works (if the techniques have not been tested before) is important.

Daigram 1 – Trial seeding plots for creating Dingy Skipper habitat at Warsop Vale , Nottinghamshire



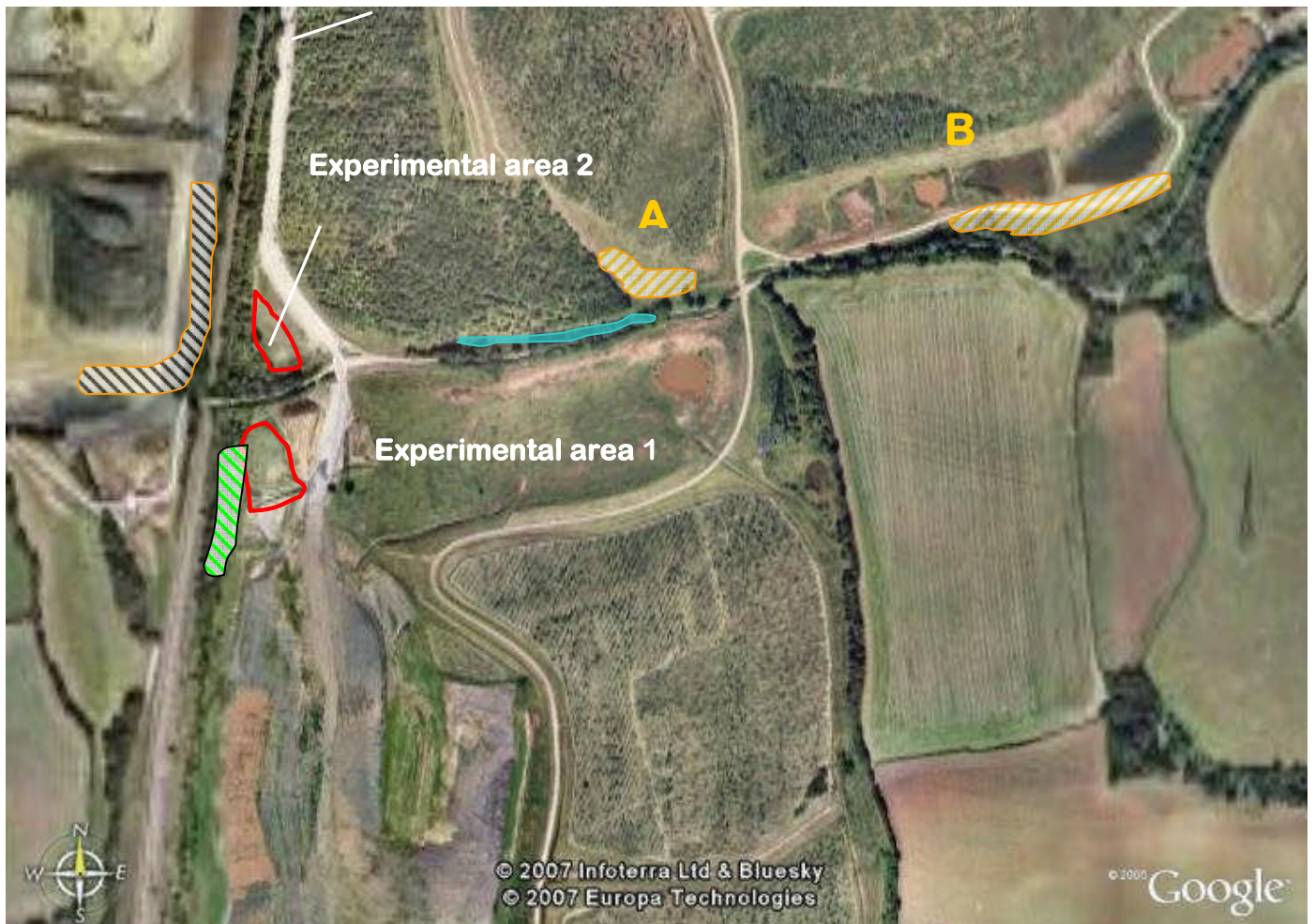
**Site 35 – Poulter Country Park**

Poulter Country Park is a restored colliery tip now managed as a Country Park. The best area of the site for Dingy Skipper was recently found to be at the northern end of the site on disused railway track beds, which had escaped restoration. The brownfield project advised Derbyshire County on the clearance of scrub and top-soil on south-facing embankments of the old line and on other areas where the ballast was still visible but increasingly overgrown. The site is being monitored for changes in the Dingy Skipper populations.

**Site 43 – Crossing boundaries with the Dingy Skipper at Shirebrook**

The project has been working closely with the Forestry Commission, BTCV, Nottinghamshire County Council and Network Rail at Shirebrook Country Park (a restored colliery site) to extend and reconnect breeding habitat for Dingy Skipper. Under guidance from BC the Forestry Commission have carried out conifer removal to extend the breeding habitat of one habitat patch and are currently working with a Mental Health Team to create a corridor through the plantation (blue area) to the east to connect the site up with other suitable habitat and the north-south rail corridor. With the support of Network Rail scrub clearance work was undertaken in early 2008 on a stretch of disused railway sidings between the country park and the active north-south railway line (orange hatched area). The banks of railway corridors can provide good habitat for the Dingy Skipper and it is hoped that the rail-corridor will help to link the Dingy Skipper colonies northwards with other sites at Shirebrook, Warsop and Poulter Country Park.

Shirebrook Country Park.



Existing Dingy Skipper colony



New mounds



Tree clearance to create habitat corridor



Scrub clearance to expose railway sidings