

GRASSLAND RESTORATION FOR LEPIDOPTERA

CEMEX

Southam Quarry, Warwickshire, UK



OBJECTIVE Creation of grassland to support species of Lepidoptera.

CONTEXT Southam Quarry is located close to Rugby Cement Plant where it supplies shale, used in the manufacturing process, back to the works. A decade ago plans were made to move alkaline waste from the cement plant and deposit it in cells constructed at Southam Quarry. This was needed to comply with waste regulations. The waste was placed in cells which were then capped with clay. The area was then restored to a mixture of tree, scrub, lime rich grassland and wetland (marshy areas and ponds). Cemex became involved, along with other several partners, in the small blue project run by the wildlife charity Butterfly Conservation. This project was designed to help the small blue butterfly, the UK's smallest butterfly species and one that had seen its population decrease rapidly. The aim of the project was to create appropriate habitats for the butterfly but also develop wildlife corridors that would allow isolated colonies to connect to reverse decreasing population trends. In total over 4 hectares of grassland for Lepidoptera (Butterfly and Moth) species was created at Southam. The pictures below show the waste replacement and restoration work.



Placing waste in engineered cells



Placing soil to create grassland and mounds



The mound shown here is designed to attract mining bee species

SOLUTIONS

Working closely with the local branch of Butterfly Conservation Cemex ensured the newly created grassland was seeded to create a habitat ideal for the small blue butterfly. To this end a special wildflower mix was sown. The seed mix was of local provenance with seeds of kidney vetch added. Kidney vetch, a wildflower found on chalk grassland, is an essential component in the small blue's lifecycle. Other species of plant, scrub and tree were also planted to help attract other Lepidoptera species. The habitats also attract other invertebrates. Once seeded the grassland was regularly checked and carefully managed to ensure a good habitat developed. Work is continuing to improve the habitat but 10 years from the initial work the grassland is supporting a small blue colony along with many other species of Lepidoptera.



Kidney Vetch

RESULT

Recent surveys by Butterfly Conservation have identified 120 Lepidoptera species on site at Southam, which has now become a regionally important site for these species. A large colony of small blue butterflies is resident and the project to help reverse their decline can point to this project as a success. Two other rare butterflies are also present on site the Dingy and Grizzled Skippers. Butterfly conservation have also identified moth species including the red data book "threatened" species *Pammene suspectana* and the nationally scarce Dark Smudge. Other moths spotted on site include Dingy Footman, Garden Pebble, Marbled Beauty, Small Phoenix, Woodworm Pug and Chalk Carpet Moth. The project highlights the benefits of working with interested stakeholders to create specialist habitats designed to protect rare species.



Dark Smudge Moth



Pammene suspectana



Small Blue Butterfly

Links

<https://www.cemex.co.uk/su-southam-quarry.aspx>

<https://butterfly-conservation.org/news-and-blog/rare-moth-species-is-a-first-for-warwickshire>

PARTNER

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