



Dingy skipper © Dave O'Brien



Brownfield butterflies

Dingy skipper (*Erynnis tages*)

Grayling (*Hipparchia semele*)

Species Action Plan

2009-2013

Plan Lead Organisation	Butterfly Conservation
Plan Coordinator	Dave O'Brien
Action Group	Urban
Associated Plans	Brownfields
Latest version	Draft 22 September 2009

Description

Brownfield habitats (previously developed land such as post industrial sites, disused railways, quarries, spoil heaps and similar disturbed sites) are one of the most rapidly changing and most threatened habitats in the UK. These habitats, which are characterised by a low nutrient substrate, thin or contaminated soils, with areas of bare and uneven ground and a warm microclimate. They can provide an abundance of nectar rich wildflowers and food plants that support a range of invertebrates including threatened butterflies, such as grizzled skipper, dingy skipper, small blue and grayling.

This plan focuses on the dingy skipper and grayling which are associated with brownfield habitats in the Tees Valley. Both are UK BAP priority species.

The dingy skipper is a small, inconspicuous butterfly. Its grey-brown wings have mottled brown markings with two rows of small white spots. At night and on dull days they roost on flower heads or grasses with their wings folded backwards so that they resemble a moth. The requirements of dingy skipper are highly specific. The species occurs in grassland with an open sward, containing patches of bare ground on which it likes to bask. Within this the larval food plant, bird's-foot trefoil often grows abundantly. Both the location and the growth form of the food plant are important. The adult butterflies typically live in small discrete colonies of less than 50 individuals. It is a sedentary species and is unlikely to colonise new areas of habitat unless suitable areas are close to existing populations. Although it is a highly specialised insect its requirements are met by a range of open, sunny habitats, including calcareous grassland, woodland clearings and rides, sand dunes and brownfield sites.

The grayling is a large butterfly with a looping and gliding flight, during which the paler bands on the upper wings are visible. Its cryptic colouring makes it difficult to see when at rest on bare ground, tree trunks, or stones. The wings are kept closed when not in flight, and the fore wings are usually tucked behind the hind wings, concealing the eyespots and making the butterfly highly cryptically coloured. Its larvae feed mainly on sheep's-fescue, red fescue and bristle bent. Coarser grasses such as tufted hair-grass

and Marram are occasionally used. Many colonies are coastal, on dunes, saltmarsh, under cliffs, and cliff tops. Its main habitats are found in areas containing open sward on dry heathland, calcareous grassland, old quarries, earthworks and derelict industrial sites such as old spoil heaps. Like the dingy Skipper, this species is fond of basking on bare ground.

Data from the UK butterfly monitoring scheme shows a rapid decline in the national population of both butterfly species since 1976. A national survey by Butterfly Conservation, undertaken during 1995-1999 revealed that the dingy skipper had disappeared from almost 40% of the 10km squares from which it was recorded during the period 1970-82. It is certain that further colony extinctions have occurred in many 10km squares where it still maintains a presence. Grayling populations have declined by 55% since 1979, although this decline has slowed to 39% in the last 10 years. Climate change and warmer summer temperatures would be expected to improve conditions for these butterfly species although lack of suitable habitat and habitat fragmentation has been proposed as the main reason for their decline.

Current factors causing loss and decline

- ◆ Loss of habitat through development and redevelopment of brownfield sites.
- ◆ Deterioration of suitable sites through lack of site management. This leads to natural succession to scrub and tall vegetation, shading out food plants and reducing bare ground.
- ◆ Fragmentation of suitable sites leading to isolation of existing colonies and local extinctions.

Conservation Status

Dingy skipper and grayling are UK BAP priority species

The Species in the Tees Valley

An extensive survey of historical and potential dingy skipper sites in North East England was conducted by Butterfly Conservation in 2005. This survey forms the basis of our knowledge relating to this species in the Tees Valley, both in terms of distribution and factors affecting its local colonisation and extinction pattern. This survey highlighted key sites for dingy skipper at the Tees Marshalling Yard and on land owned by Conoco-Phillips at Graythorp, with small colonies at 6 other sites in Stockton, Hartlepool and Middlesbrough. These include the Haswell to Hart Walkway, Gravel Hole and Stillington pond. Unsuitable habitat condition due to natural succession and habitat loss due to development of brownfield sites are given as the main causes of colony extinction and reduction in population size.

The transitional nature of brownfield sites and their potential for economic development mean that methods should be sought to incorporate habitat for brownfield butterflies into landscaping plans (similar to the way habitat for farmland birds is incorporated into agricultural land management) rather than seeking to prevent re-use of urban land.

The survey did not include many brownfield sites in industrial ownership. Information supplied by INCA in 2009, indicates that other strongholds are the Tees estuary seawall at Greenabella Marsh and isolated records from other industrial sites north of the Tees.

Current Activity in the Tees Valley

Both the dingy skipper and grayling are believed to be under-recorded in the Tees Valley. One reason for this is their occurrence on brownfield sites which are generally not available to public access. This is being remedied by monitoring carried out by INCA as part of industrial Site BAPs.

At Maze Park the Tees Valley Wildlife Trust has undertaken small-scale creation of suitable habitat to improve habitats for both the dingy skipper and grayling through youth volunteering and community awareness projects. Similar work has also been carried out on the Teesdale way near South Bank.

Further Information

Asher, J., Warren, M.S., Fox, R., Harding, P.T., Jeffcoate, G., & Jeffcoate, S. (2001). The Millennium Atlas of Butterflies in Great Britain and Ireland Oxford University Press, Oxford.

Wainwright, D (2005). Conserving the dingy skipper *Erynnis tages* butterfly in North East England. Butterfly Conservation Report No. 505-34.

Websites

Butterfly Conservation www.butterfly-conservation.org

North East England Branch of Butterfly Conservation www.northeast-butterflies.org.uk

Yorkshire Branch of Butterfly Conservation www.yorkshirebutterflies.org.uk

Vision Statement

To have a network of sites that provide suitable habitat conditions to support viable populations of the dingy skipper and grayling.

Targets

BB.T1 Maintain the current range of the dingy skipper and grayling in the Tees Valley.

BB.T2 Increase the population size of a selection of known colonies of the dingy skipper and grayling in the Tees Valley.

Goal: Increase the population size of five colonies through habitat creation.

BB.T3 Seek innovative ways to incorporate dingy skipper and grayling habitat into brownfield redevelopment.

Actions

Code	Action	Organisational lead	Action contact	Partners	End date
BB.A1	Collate and maintain a database of sightings, surveys and monitoring. Share data with the Regional Records Centre and the Tees Valley Biodiversity Partnership.	Tees Valley Wildlife Trust	Sue Antrobus	Butterfly Conservation (North East Branch and Yorkshire Branch) INCA	Dec 2010 and annual update
BB.A2	Carry out surveys and habitat creation projects at Maze Park, Gravel Hole, BP CATS and Lucite as part a brownfield invertebrate project.	Buglife	Sarah Henshall	INCA, Tees Valley Wildlife Trust	2011
BB.A3	Provide training in brownfield butterfly surveying to volunteers and countryside professionals.	Butterfly Conservation	David Wainwright	Tees Valley Wildlife Trust	2010
BB.A4	Improvement of habitat for brownfield butterflies at Greenabella Marsh.	INCA	Robert Woods	Huntsman Pigments, Tees Valley Wildlife Trust, Butterfly Conservation	2010
BB.A5	Research, trial and promote landscaping schemes for brownfield butterflies and use as examples with businesses, planners/ Local authority economic development sections.	<i>For discussion at steering group meeting, possible SITA bid, exciting project, looking for an organisational lead, help available from biodiversity co-ordinator with grant applications.</i>			