

## **Borders Grassland Restoration**

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Contact details: c/o Scottish Natural Heritage, 12 Hope Terrace, Edinburgh EH9 2AS.

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This map shows the survey sites in the Borders Region of Scotland.

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The majority of the grasslands are in an area roughly 30 x 30km - this oblique aerial photograph shows the typical terrain. Greywacke sandstones, shales and igneous outcrops form characteristic corrugations with unimproved grassland on the hills and arable or improved grassland in-between. There are Iron and Bronze Age Forts in the area which probably has a history of continuous grazing since those times.

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Hillocks tend to have more acid grassland on the North side, with calcareous on upper slopes of the south-facing sides and neutral on the lower slopes. The flatter ground is typically 'improved'.

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The vegetation is a mixture of hay meadows, lowland calcareous and lowland acid grassland with a bit of upland calcareous grassland. The area is the least Atlantic part of Scotland and so is drier than most parts, allowing development of CG7 NVC community (characteristic of East Anglia).

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Large populations of Maiden Pink *Dianthus deltoides* thrive in the tight, short swards.

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Maiden Pink.

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Clockwise from top left: Maiden Pink; Common Rock-rose (*Helianthemum nummularium*), which is the food plant of the Northern Brown Argus butterfly *Aricia artaxerxes*; ; biting stonecrop *Sedum acre*.

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Where there are red-ant hills, there is often a patch of base-loving plants on the top.

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Scrub encroachment is typically of gorse *Ulex europaeus* on south-facing slopes. Dunging by cattle of the ridges and hill-tops leads to leaching of dung and causes nutrient enrichment.

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The Waverley Line closed in 1963.

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Following scrub removal in the railway cutting, good grassland regeneration was achieved within 2 growing seasons. This success is attributed to the survival of a rich seedbank in the unimproved soils.

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Restoration by removal of gorse scrub may be less successful and removal or scraping of topsoil may be required.

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This reservoir is operated by Scottish Water. The area was improved grassland which became rank. Hay was harvested from the more species-rich areas and the seed from it was spread onto the improved areas; all areas were also cropped for hay.

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Slot-seeding equipment has been available from a local farmer.

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The Rural Stewardship Scheme (agri-environment scheme) can only consider projects which maintain or create grasslands; restoration is not covered.

The Natural Care scheme is intended to be objective-led, with grasslands monitored by farmers.

Habitat networks aim to enhance the ecological connectivity of sites to benefit species such as the small blue butterfly *Cupido minimus*, whose food plant is kidney vetch *Anthyllis vulneraria*.

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Enhanced ecological connectivity could benefit species such as the small blue butterfly *Cupido minimus*, whose food plant is kidney vetch *Anthyllis vulneraria*.

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