

Species Action Plan

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Common name: Small pearl-bordered fritillary

Scientific name: *Boloria selene*

Conservation status: UK BAP status: Priority Species

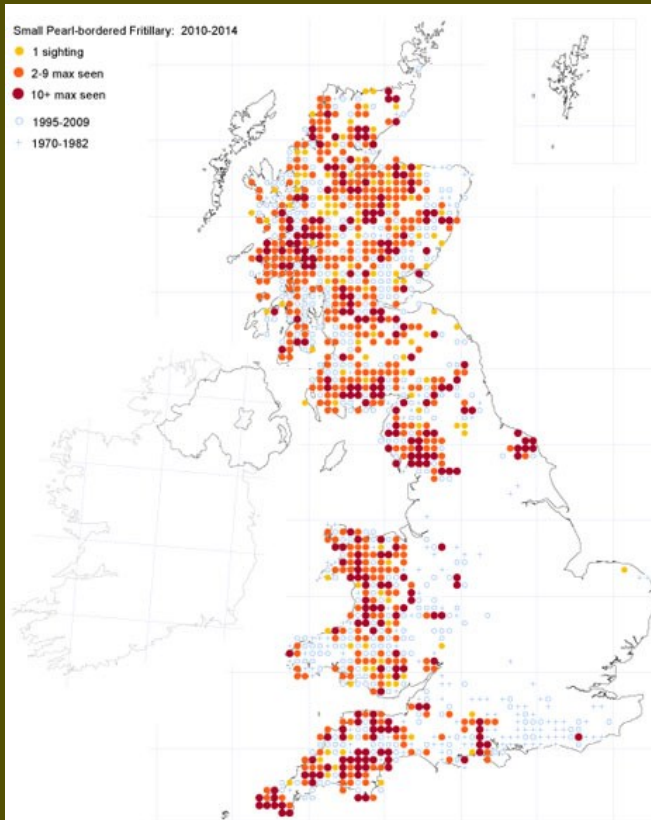
Habitat: Primarily associated with damp grassland, wet flushes and moorland, but also found in woodland glades, clearings and woodland edges, grassland with bracken and/or patches of scrub and open wood pasture.

Food: The most commonly used foodplants for caterpillars are common dog-violet (*Viola riviniana*) and marsh violet (*V. palustris*). Adults will nectar on a range of species, including thistles, brambles and ragged robin.

Ecology:

In the UK this species is predominantly found in the west of England and throughout Wales and Scotland.

It is undergoing a rapid decline in England. Reasons for this vary, but include loss of suitable breeding habitat and associated larval food plants, and a slow dispersal rate.



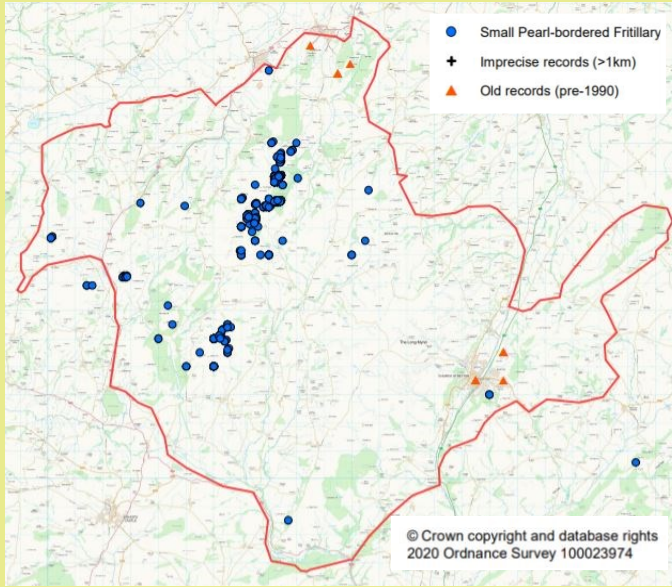
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SPBF in the Stepping Stones Project area



The main threat to SPBF in the area is changing land management practices. In particular, drainage of wet flushes and boggy habitats have resulted in the loss of suitable breeding habitat (marsh violet is the main larval foodplant).

Recent records are concentrated in the west of the project area, largely on the east/southeast side of the Stiperstones and Norbury Hill. The majority of records were from upland sites, with the mean altitude of a record being 372m. This might reflect the loss of suitable habitats in the lowlands where drainage and agricultural improvement have been more common.

Fen, marsh and swamp habitat was the most common habitat used, with a high percentage of records also occurring in broadleaved and mixed woodland, and unimproved grasslands. These habitat preferences likely reflect the availability of the larval food plants (violets, especially marsh violet), nectar sources and suitable habitat structure.

Conservation for SPBF

Research has demonstrated that landscape-scale conservation can be applied successfully to benefit SPBF. For example, by 2000 in County Durham SPBF was reduced to four small colonies in a rolling upland, mainly pastoral landscape. From 2002, a programme of management was instigated to secure existing SPBF populations and connect up these sites by restoring habitat patches. This work tripled the amount of suitable breeding habitat in this landscape, and despite a 59% national UK decline between 1976-2010, the small pearl-bordered fritillary population in the project area increased. All of the restored and created patches of breeding habitat have been re-colonised and some of these patches now support larger populations than the original habitat patches.

Conservation actions include:

- Management of vegetation to create optimal breeding conditions, e.g. scrub control, bracken management, cutting rank vegetation, control of grazing by fencing and changing stocking levels.
- Creation of potential breeding habitat by planting the larval foodplants - marsh violet *Viola palustris* and common dog-violet *Viola riviniana*.

Predicted habitat suitability for SPBF

Analysis of the habitat preferences of SPBF in the project area shows that rush pasture is the main habitat with areas of broadleaved woodland, unimproved grassland and scrub also used.

The habitat preferences reflect the availability of the larval food plants (Violets, especially Marsh Violet), nectar sources and suitable habitat structure. Habitat quality and management are also major factors, e.g. how intensively the grasslands are managed, whether the woodlands are coppiced, whether the fens are grazed or cut.

Using the results of this analysis it is possible to produce a map (see next page) showing predicted habitat suitability for SPBF (areas of greatest predicted suitability shown by the dark green 1kmx1km squares). Rush pasture habitats are also shown as this is the most common habitat type for SPBF occurrences in the project area and where suitable host plants may occur.

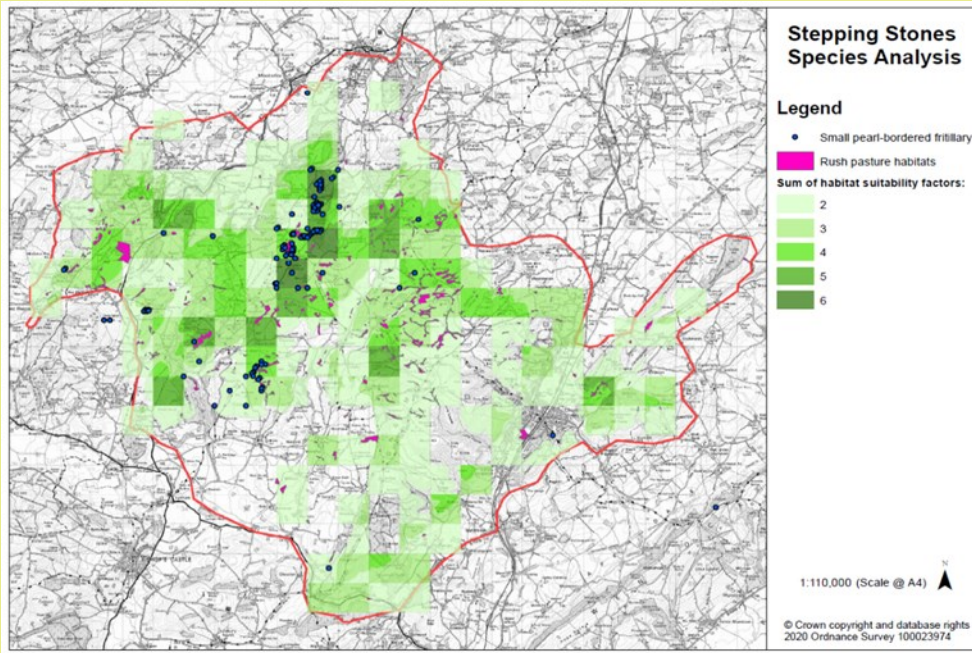
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Predicted habitat suitability for SPBF (cont.)



Left: SPBF predicted habitat suitability map and overlaid with existing records of SPBF

Conservation Objectives for SPBF

- Maintain an accurate and up to date record of the distribution of SPBF and inventory of sites supporting SPBF.
- Increase extent of suitable habitat for SPBF at known SPBF sites to conserve and enhance existing populations of SPBF.
- Restore or create suitable habitat for SPBF at other nearby sites to encourage the colonisation of new areas of habitat. This could include enhancing marsh violet populations by plug planting.
- Raise awareness of the status and habitat needs of SPBF among local communities and landowners through events, volunteering days, management advice and practical management support.

Conservation actions for SPBF

- During 2024 establish a local 'Bog Squad' of volunteers to assist landowners carry out essential habitat management and restoration work e.g. blocking drains, dealing with scrub encroachment and cutting rushes prior to grazing.
- During 2031/2024 develop and test a SPBF monitoring method for rush pastures that can be used by local people (Community Wildlife Group volunteers, Shropshire Wildlife Trust volunteers and local insect groups) who can support landowners by feeding back their results.
- During 2024 coordinate a programme of awareness raising events to increase awareness amongst landowners and the wider community about rush pastures for SPBF, e.g. promote the rush pasture factsheet, run a series of identification and habitat management workshops.
- By 2024 to produce an inventory of all existing SPBF sites recording habitat condition and management requirements. By 2025 extend the coverage of this inventory to include locations of rush pasture and/or with habitat suitability scores 4 and 5 located within 3kms of existing SPBF sites.
- By 2025 to undertake a SPBF survey of all rush pasture habitat and all 1kmx1km squares with habitat suitability scores of 5 & 6.
- By 2024 establish a stock of march violets to use for propagation.
- By 2025 initiate a programme of planting out of marsh violets at suitable sites.



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Conservation actions for SPBF (cont.)

- By 2025 assess the status of the Stiperstones and Norbury SPBF populations and identify actions for linking the two populations.
- By 2025 ensure that SPBF is recognised by the new agri-environment schemes as a priority species in the targeting statement for the Shropshire Hills and that purple moor grass and rush pasture is one of the priority habitats that should be maintained, restored and created in this area.
- Every year to undertake habitat management at existing SPBF sites (e.g. by grazing or cutting of rush pasture and scrub).
- Every year to restore or create new SPBF habitat. Selection of sites to be informed by results of SPBF surveys (likely to be within 3km of known SPBF sites at sites with rush pastures or habitat suitability scores of 5 & 6).

Get further help and advice

Locally

[Rush Pasture Management Factsheet](#)

Nationally

[Butterfly Conservation's SPBF factsheet](#)

[Restoring landscapes for SPBF](#)

About Stepping Stones

Stepping Stones is an innovative landscape-scale conservation programme. The aim is to connect wildlife habitats by strengthening or creating 'stepping stones' and corridors of habitat between the Long Mynd and Stiperstones, and beyond. In practice, this means creating and linking areas of heathland, flower-rich grasslands and broadleaved woodland by a network of wildlife-rich hedgerows, road verges, hillsides and streamside wetlands.



Stepping Stones

Creating and linking wildlife-friendly spaces



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