Species Action Plan

Stepping Stones Project

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Last updated: January 2024

Devil's-bit Scabious

Common name: Devil's-bit Scabious

Scientific name: *Succisa pratensis*

Conservation status: Not protected. Local. Declining.

Habitat: Devil's-bit scabious is found in a variety of damp or moist habitats, including meadows and marshes, damp pastures, marshy hollows within fields, wet flushes, valley mires and areas of grassy moorland. It frequently occurs on peaty or clay soils with impeded drainage and a high water table, but also occurs on soils ranging from strongly calcareous to mildly acidic. It does not tolerate heavy shading, preferring full sun or partial shade, but is tolerant of livestock grazing. Devil's-bit scabious is a good indicator of unimproved grassland and can often be found amongst herb-rich grassland communities with low soil nitrogen levels. It is not limited by altitude, being found in areas of suitable habitat high up on the Long Mynd, Stiperstones and Clee Hills.

Identification: Devil's-bit scabious has flattened, rounded flower heads that range in colour from mauve to dark purplish-blue. It differs from small scabious and field scabious in that its leaves are undivided, only lightly hairy, and are long and oval. On field scabious, all leaves are roughly hairy and while basal leaves tend also to be oval, they are toothed along the edges, whilst leaves occurring on the flower stem are deeply lobed.

County distribution: Locally frequent, especially in the uplands of Shropshire, Devil's-bit scabious is rare or absent from arable areas in the north-east of the county.

Population trends: Declining, both nationally and across the county. Declines are driven by the loss of unimproved grassland, nitrogen enrichment, and critically, the drainage of damp meadows, marginal pastures and wetter areas within fields.

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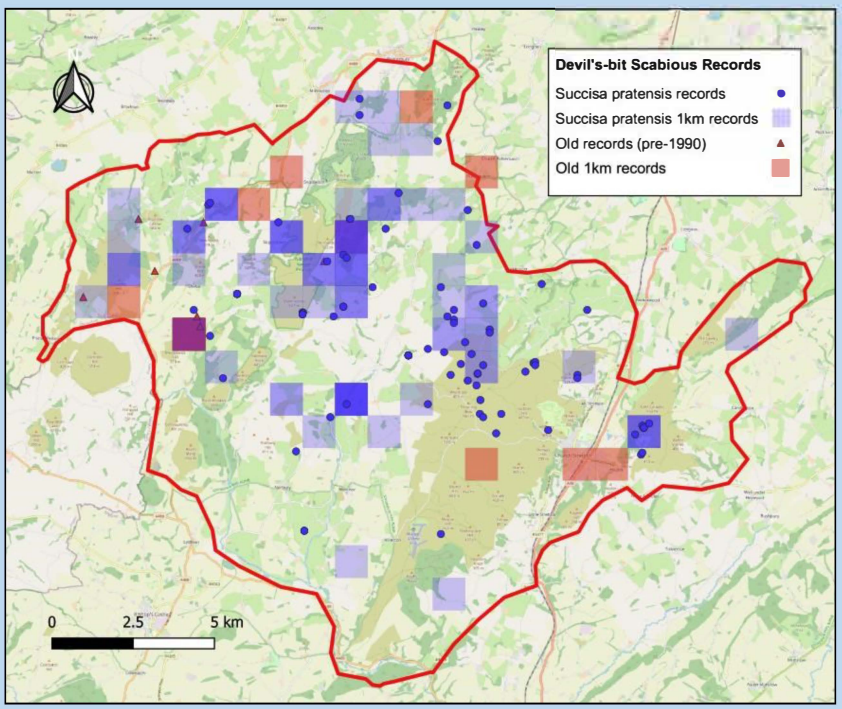
Devil's-bit Scabious in the Stepping Stones Project Area

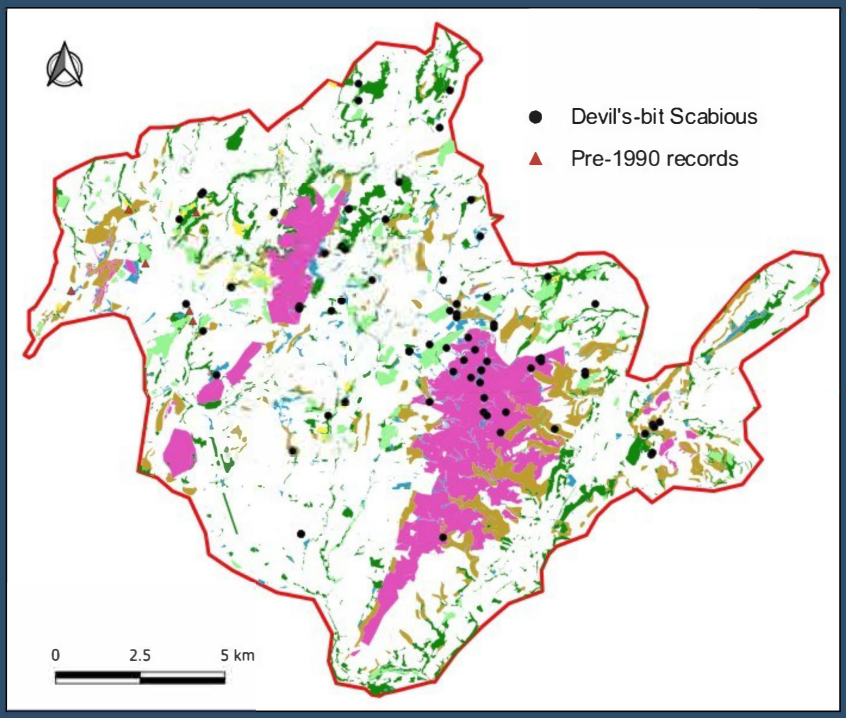


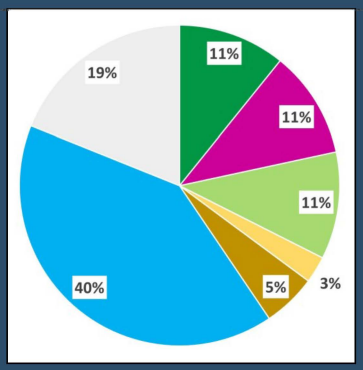
Data held by the National Biodiversity Network (NBN) has been analysed to identify records of Devil's-bit scabious within the Stepping Stones Project Area. These records have been split into 6-figure records (shown as point data) and 4-figure records, shown as the corresponding 1km grid square. Darker squares indicate a higher density of records for that grid square. The data has been further split to show old (pre-1990) records in red and more recent records, from 1990 onwards, in blue. Whilst the majority of records are from 1990 onwards, the older records do show a slight contraction in the range of the species over time.

Habitat Analysis of Existing Records

Using the 6-figure records only, and the habitat mapping completed as part of the Stepping Stones Project, it is possible to get an initial overview of the range of habitats in which Devil's-bit scabious occurs within the Project Area. Analysis using the habitats mapped in GIS shows that the majority of records (40%) are associated with areas mapped as wetland, with a further 11% share attributable to each of semi-improved grassland, heathland (including grassy moorland) and woodland habitats, where the species may occur along woodland rides or in woodland glades. Another 19% of records are associated with areas of unmapped habitat, whilst a small number are found on areas mapped as 'ffridd' (5%) and as 'neutral grassland' (3%), often close to areas of mapped wetland habitat.

Gathering additional information on the status and distribution of Devil's-bit scabious in the Project Area, including habitat surveys of known sites, will help to guide the identification and selection of sites where habitat creation, restoration and enhancement can be undertaken during the life of the project.





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Habitat Management for Devil's-bit Scabious

Surveys of sites containing existing records, together with Opportunity Mapping to identify and rank areas of habitat potentially suitable for (re)-introduction of the species, will be used to focus in on areas where habitat management for Devil's-bit scabious can most effectively be implemented. The species is strongly associated with damp meadows and pastures, so the re-wetting of suitable habitats, together with implementation of appropriate cutting and/or light grazing regimes, will help to create ideal conditions for the species to thrive.

On sites where suitable conditions exist or can be achieved through the above conservation actions, Devil's-bit scabious can be introduced, reintroduced or existing populations expanded, through seeding and plug planting programmes.

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The main practical activities that form the basis of this Species Action Plan will be:

- **Ongoing management** of existing Devil's-bit scabious sites to conserve and enhance the population within these areas, through appropriate cutting and grazing regimes, low-input farming, and practical habitat management for the species;
- **Expansion of existing habitats** where Devil's-bit scabious occurs, through liaison with landowners and management to increase the area of habitat suitable for the species;
- **Identification of new areas** for habitat expansion, creation and enhancement, and the (re)-introduction of plants, including within damp grassland, woodlands, ffrith, wet flushes, grass moorland and new wetland habitats;
- **Creation** of new scabious-rich grasslands through restoration of wet pastures and new meadow creation, followed up by seeding and planting of scabious within these areas;
- **Management and creation** of suitable woodland edge habitats, rides and glades, followed up by seeding and planting of scabious within these areas;
- **Enhancement** of sites potentially suitable for the species through implementation of practical conservation management. This will include implementing appropriate management of grassland habitats, and work within ffridd habitats to provide new sites for the species through the creation of open areas within the habitat mosaic and control of scrub and bracken.

Conservation Objectives for Devil's-bit Scabious

- Maintain an accurate and up-to-date record of the distribution of Devil's-bit scabious and an inventory of sites supporting the species.
- Manage and increase the extent of habitat suitable for Devil's-bit scabious at sites where the species is currently found, to conserve and enhance existing populations.
- Liaise with landowners, stakeholders and conservation bodies to restore or create suitable habitat for Devil's-bit scabious at sites within the project area, and carry out a programme to introduce or reintroduce the species through seeding and plug planting at these sites.
- Raise awareness of the status and habitat needs of Devil's-bit scabious amongst local communities and landowners through a programme of information dissemination, management advice and practical management support.

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Conservation Actions for Devil's-bit Scabious

- By January 2024, prepare a SAP *Summary Factsheet for Devil's-bit Scabious* for dissemination to farmers, landowners, wildlife groups and other interested parties, which summarises the species and provides advice for the management of habitats to benefit Devil's-bit scabious.
- Commission and complete a survey of all existing Devil's-bit scabious records within the Project Area, to: (i) confirm and update species status at these sites; (ii) identify habitat characteristics; and (iii) evaluate opportunities for management to improve and/or extend habitat for the species.
- Identify additional sites where Devil's-bit scabious occurs and enter these on an updated spreadsheet and project GIS layer. Encourage the recording and submission of new records by organisations, community wildlife groups and individuals throughout the lifetime of the project.
- Carry out Predicted Habitat Suitability mapping on the project GIS to identify and score areas potentially suitable for the species and help guide decisions on where habitat management or creation is likely to be most beneficial.
- Liaise with relevant landowners and ground truth all sites predicted with 'high' habitat suitability to evaluate their potential for habitat management/creation and (re)-introduction of the species.
- Liaise with Butterfly Conservation to determine potential sites for the (re)-introduction of the Marsh Fritillary butterfly within the project area, and identify opportunities for the creation of new wet meadow sites close to the (re)-introduction site(s) to support butterfly metapopulations.
- Conduct a programme of practical habitat management interventions in support of Devil's-bit scabious, aimed at increasing the value of existing habitats, expanding the area of these, and creating new habitats suitable for the species within the Project Area.
- Identify and pursue opportunities with relevant landowners to expand existing or create new wet grassland habitats, particularly along watercourses, within the Project Area.
- Identify and pursue opportunities with relevant landowners to manage existing woodland habitats for Devil's-bit scabious within the Project Area, through the creation and management of edge habitats, rides and glades.
- Assess the success of previous and ongoing management and plug planting of Devil's-bit scabious at Jinlye Meadows through an annual quadrat survey of the site.
- Carry out re-wetting works by altering the drainage regimes on National Trust land at Fir Tree Farm and Barnes Farm and implement appropriate meadow management for Devil's-bit scabious. Introduce to the site(s) by seeding and plug planting and monitor annually to determine success.
- Continue with re-wetting works on Natural England land at the Bog Marsh and Gatten and implement appropriate management for Devil's-bit Scabious to extend populations at Gatten. Introduce Devil's-bit scabious to the Bog Marsh by seeding and plug planting and monitor annually at both sites to determine success.
- Liaise with the Middle Marches Community Land Trust and, in conjunction with Butterfly Conservation, assess the suitability of their site at Cudwell Meadow for restoration of culm grassland and the reintroduction of the Marsh Fritillary butterfly.

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, streamside wetlands and strong riparian corridors.

Stepping Stones
Creating and linking wildlife-friendly spaces

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