

Small scabious mining bee

(*Andrena marginata*)



Small scabious mining bee (*Andrena marginata*) female © Steven Falk



Habitat at Castlemartin Range, Pembrokeshire © Steven Falk

The name of the Small scabious mining bee (*Andrena marginata*) is derived from its dependence on pollen from scabious flowers, particularly Small scabious (*Scabiosa columbaria*). It is known to forage on a wide range of other plants for nectar, including brambles, knapweeds, thistles, Meadowsweet (*Filipendula ulmaria*) and willowherbs.

Males are black or dark brown and have the lower face whitish with two small black spots. Like the Large scabious mining bee (*Andrena hattorfiana*), females come in both a dark and red-banded form. This species is classified as Notable a (Na) in the last published status review of bees, wasps and ants in Great Britain (Falk, 1991).

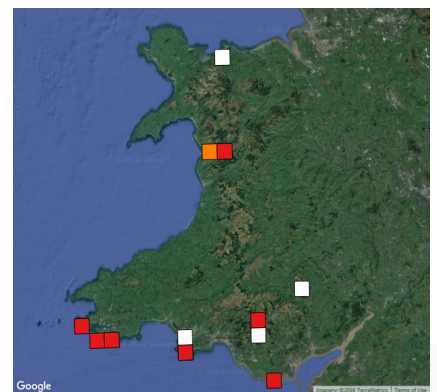
Life cycle

The Small scabious mining bee flies between mid-July and late September. In the UK, it may exist as two discrete populations that do not inter-breed. One flies in mid to late July, is associated with calcareous soils and forages on Small and/or Field scabious (*Knautia arvensis*) for pollen. The other flies in late August, is associated with acidic soils and forages on Devil's-bit scabious (*Succisa pratensis*) for pollen. Genetic studies are being undertaken to investigate this. Nesting occurs in light, sparsely vegetated ground or short turf. Aggregations of several hundred nests have been noted at strong colonies.

Distribution map

In Wales, the Small scabious mining bee has a widespread but patchy distribution with localised populations found along the South Wales coast, particularly the Castlemartin and Gower Peninsulas, and inland populations in the Cynon Valley near Penywaun, and Tir Stent, Cadair Idris.

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(Red squares show distribution between 1990 and 2017; orange squares between 1950 and 1989; white squares between 1800 and 1949. The most recent (top most) dates overlay the earlier dates (lower ones). The information used here was sourced through the NBN Atlas and Local Environmental Records Centres Wales from the following sources: Bees, Wasps and Ants Recording Society (BWARS), Natural Resources Wales (NRW), North Wales Environmental Information Service (Cofnod), South East Wales Biodiversity Records Centre (SEWBReC), and West Wales Biodiversity Information Centre (WWBIC). NBN Atlas occurrence download at <http://nbnatlas.org>. Accessed 01 March 2018.)

Habitat

In Wales, it is typically found in scabious-rich habitats such as unimproved grasslands (both acidic and calcareous - e.g. at Penywaun, Rhondda Cynon Taf) and cliff-top grassland (e.g. Horton Cliffs, Gower; Linney Head, Pembrokeshire; and Skomer Island, Pembrokeshire).

Reasons for decline

It has likely declined due to habitat loss through agricultural intensification, development, commercial forestry and cliff stabilisation. Changes in traditional land use have probably led to the loss of this species on some sites, either through overgrazing, the use of fertilisers, or the effects of succession.

Habitat management

- Maintain an open sward with an abundance of scabious flowers over as many fields and land packages as possible;
- Create and maintain short-cropped or sparsely vegetated areas in sunny conditions for nesting (such as south facing slopes and banks);
- Create new scabious-rich areas through arable reversion and seeding and planting of scabious;
- Avoid any grazing or cutting in scabious-rich areas between April and October. Also avoid grazing an entire site simultaneously so as to leave flowering areas for foraging females;
- Management should be irregular and on rotation to maintain areas of short turf and exposed sand within nesting sites, and taller swards with flowering scabious in suitable foraging areas; and
- Avoid the use of agricultural chemicals in the vicinity of foraging sites.



Small scabious mining bee habitat near Broadhaven, Pembrokeshire
© Steven Falk.

Further information

This sheet can be accessed on the web at www.buglife.org.uk

This bee is included in Buglife Cymru's Wales Threatened Bees report which can be downloaded from www.buglife.org.uk/wales-threatened-bee-report

Bees, Wasps and Ants Recording Society www.bwars.com. Species account for *Andrena marginata*.

Falk, S. J. (1991) A review of the scarce and threatened bees, wasps and ants of Great Britain. Research and Survey in Nature Conservation No. 35. Peterborough: Nature Conservancy Council.

Flickr: Steven Falk <https://www.flickr.com/photos/63075200@N07/sets/72157636941159814/>. Species account for *Andrena marginata*.