

Small scabious mining bee

(*Andrena marginata*)



Left: Female *Andrena marginata*; Right: Grantown-on-Spey 'Mossy, Spey Valley (typical habitat)

The Small scabious-mining bee's name is derived from its dependence on pollen from flowers of Devil's-bit scabious. It is known to forage for nectar on a range of other wildflowers including Creeping thistle and knapweed. Males are black or dark brown with a white face. Female abdomen colour varies: some appear black or dark brown (similar to males), others have orange and black bands, while some females are predominantly orange (rare in Scotland). This species is on the Scottish Biodiversity List and is classified as Red Data Book Notable A. It is a species for priority action in the Cairngorms Nature Action Plan.

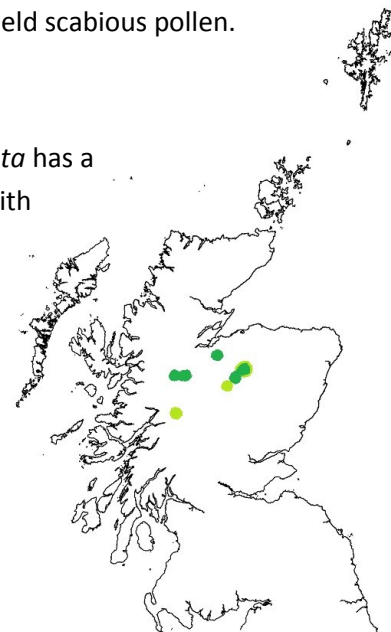
Life cycle

Andrena marginata flies between mid July to late September. It nests on thinly vegetated exposed soils and sun-warmed banks. In Scotland, it is known to collect pollen from Devil's-bit scabious (*Succisa pratensis*) to provision it's nests. On these sites, the mining bee peaks slightly later in the year (late August to early September) to coincide with the later flowering of this plant. In England, Southern

distributed colonies of *A. marginata* mainly fly in late July and will use Small and Field scabious pollen.

Distribution map

In Scotland *Andrena marginata* has a very restricted distribution with localised populations found in Glen Moriston, the Spey, Valley around Aviemore and near Daviot, south-east of Inverness. Most other records are from southern England, (with a single record from County Durham) and a few from southern Ireland.



Dark green post-1980, light green pre-1980

Habitat

In Scotland, the Small scabious-mining bee can be found in acidic grasslands, heaths, moors and woodland, where significant amounts of Devil's-bit scabious flowers are present.

Reasons for decline

The reasons for the decline in this species is most



Left: Granish Moor, Spey Valley (typical habitat); Right: Male *Andrena marginata*

likely due to habitat loss, fragmentation and deterioration due to over-grazing, inappropriately timed grass cutting, and scrub encroachment. Loss of suitable habitat to development is another threat.

Habitat management

Measures to help conserve the Small scabious-mining bee in Scotland include:

- Maintain an open sward with an abundance of Devil's-bit Scabious 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.

- Avoid the use of agricultural chemicals in the vicinity of foraging sites.

Survey methodology

- Surveys of known and potential nesting and foraging sites (particularly sites with development plans in place) should be carried out in August to confirm presence of the species.
- Sweep netting should target areas of flowering Devil's-bit scabious for adults.
- Identification of solitary bees requires specialist confirmation and it is recommended that a sufficiently experienced ecologist carries out this survey.

References:

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

Bowman, J. & Macdonald, M. *Andrena marginata* in Scotland. (2013) at <http://www.hbrg.org.uk/FoHW/SolBees/texts/AmargScotland.pdf> and <http://www.hbrg.org.uk/FoHW/SolBees/SolBees.html>

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Horsley, C., Whitehouse, A and Falk, S. (2013) South west bees project - A report on the status of threatened bees in the region with recommendations for conservation action.

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

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