

Tormentil mining bee (*Andrena tarsata*) and Tormentil nomad bee (*Nomada roberjeotiana*)



Tormentil mining bee (*Andrena tarsata*)



Tormentil nomad bee (*Nomada roberjeotiana*)

The Tormentil mining bee is a small, black solitary bee. It is nationally scarce and has declined so much that it is listed as a Section 41 Conservation Priority Species in England, a Section 42 Conservation Priority Species in Wales, and a Scottish Biodiversity List Species.

The Tormentil nomad bee is a nest parasite of the Tormentil mining bee, distinguished by a black and orange thorax with cream patches on the flanks. It is listed as Nationally Rare (RDB3).

Both bees rely on Tormentil (*Potentilla erecta*) as a pollen source so high densities of this plant are crucial to their survival.

Life cycle

Both species fly between June and August. Female Tormentil mining bees dig a nest burrow in south-facing bare or sparsely-vegetated ground, usually in a low bank. They collect Tormentil pollen to stock the nest for their larvae. Though Tormentil mining bees may form nesting aggregations, each nest is independent. Tormentil nomad bees lay their eggs in Tormentil mining bee nests where the larvae hatch and eat the host's food stores. The adults also mainly feed on Tormentil.

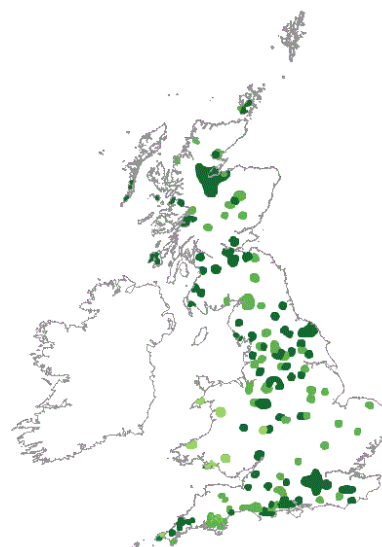
Distribution maps

The Tormentil mining bee is widespread across England, Wales and Scotland, with strongholds in Yorkshire and the South West (Cornwall, Devon and Dorset). However, the species has been lost from half of its former sites since 1970 so its distribution is fragmented and localised.

The Tormentil nomad bee was formerly widespread in England, West Wales and into Southern Scotland. The only recent records are from two sites in Cornwall and one in Yorkshire, though it may be undetected elsewhere.

Habitat

A variety of acid habitats with an abundance of Tormentil (as well as marsh cinquefoil and shrubby cinquefoil where available) and sunlit, sheltered areas where they can keep warm and active such as heaths, moors, acid grasslands, rush pastures and glades or rides in native or plantation conifer forests. They also colonise disturbed areas such as cleared woodland plots and abandoned quarries.



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Dark green=recent records (after 1980)

Light green=historic records (before 1980)

Woodland rides, scrub and roadside verges may provide habitat corridors between sites.

Preferred nest sites are sunlit, south-facing bare earth banks. Other bare or sparsely vegetated areas such as paths and tracks may also be used. The Tormentil mining bee needs dense stands of Tormentil flowers up to 250m from nest sites.

Reasons for decline

The loss, fragmentation and deterioration of Tormentil-rich habitats through agricultural improvement, loss of heathland, overgrazing and undergrazing. Tormentil has been lost in moorland areas to heavy summer grazing. Forestry operations can also cause local extinctions by churning up rides.

Habitat management

- Maximise the abundance of flowering tormentil between June and August by avoiding cutting or heavy grazing from March to September
- In tormentil-rich acid grassland, avoid applying fertilisers or pesticides and remove arisings that result from any cutting
- Known or potential nesting areas should be kept free of encroaching vegetation such as coarse grasses or scrub
- On Heathland, keep a varied Heather structure so that Tormentil can grow in grassy clearings and maintain Tormentil-rich verges and firebreaks along tracks
- Controlled burning (swaling) of heathlands with heavy scrub or Purple moor grass may benefit Tormentil growth. If this is applied, burn plots in a rotation of 3 years or more.
- In woodlands, promote Tormentil growth along broad ride margins and cleared plots.
- Manage acid grassland road verges, firebreaks and formal areas as 'bee lawns'. Cut as recommended above but down to 2 inches to create short lawns rich in Tormentil
- Encourage and maintain the formation of Tormentil-rich heathland and acid grassland in disused quarries and other brownfield sites.



Tormentil mining bee foraging and nesting habitat.

References

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

Both of these bee species are covered by Buglife's South West Bees Project www.buglife.org.uk/south-west-bees-project

Further information on all UK bee species is provided by the Bees, Wasps and Ants Recording Society www.bwars.com

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