

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



Tormentil mining bee (*Andrena tarsata*)

**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

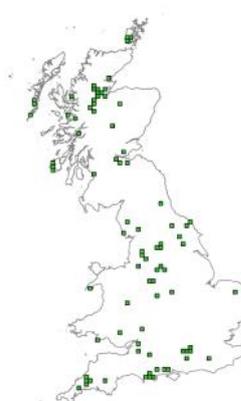
Both species fly between June and August. Female Tormentil mining bees dig a nest burrow in south-facing bare or sparsely-vegetated ground, usually in a low bank. They collect Tormentil pollen to stock the nest for their larvae. Though Tormentil mining bees may form nesting aggregations, each nest is 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.



Tormentil nomad bee (*Nomada roberjeotiana*)

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



Tormentil mining bee

(Post-2000 records - the information used here was sourced through the NBN Gateway. Contains OS data © Crown Copyright 2016)



Tormentil nomad bee

## Habitat

The bees require a variety of acid habitats with an abundance of Tormentil (as well as marsh cinquefoil and shrubby cinquefoil) and sunlit, sheltered areas where they can keep warm 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. Woodland rides 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 within 250m of nest sites.

## Reasons for decline

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

## Habitat management

- **Avoid cutting or heavy grazing** from March to September to maximise the abundance of flowering Tormentil (June to August )
- **Avoid applying fertilisers or pesticides** to Tormentil -rich acid grassland, and remove arisings that result from any cutting
- **Keep known or potential nesting areas** free of encroaching scrub or coarse grasses
- **Manage Heathland** to provide a varied Heather structure where Tormentil can grow in grassy clearings. 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 above, but down to 3 cm height 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.

## Countryside Stewardship

- LH1 Management of lowland heathland
- LH2 Restoration of forestry and woodland to lowland heathland
- OT6 Organic land management—enclosed rough grazing
- GS13/GS14 Management/creation of grassland for target features
- GS 16 rush infestation control supplement
- GS17 Lenient Grazing supplement
- WD2 Woodland improvement
- WD7 Management of successional areas and scrub

## References

This sheet can be accessed on the web at [www.buglife.org.uk](http://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](http://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](http://www.bwars.com)