

# Solitary Bees on Heath & Moorland

## What are Mining Bees?

**Mining bees** are solitary bees that create underground nests by burrowing into the soil. Unlike social bees, they do not form large colonies. Instead, female mining bees independently build nests and gather pollen to nourish their young.

Despite their solitary nature, mining bees often nest in clusters, particularly in sunlit, sandy environments. These non-aggressive pollinators play a vital role in ecosystems and are most active during spring and summer.



## Why are they important and special?

**Essential Pollinators:** Mining bees are crucial for pollination of heathland wildflowers and plants, like Tormentil *Potentilla repens*

**Threatened Species:** Some mining bee species, including the nationally rare and declining Tormentil mining bee *Andrena tarsata* (pictured left and above), are facing significant challenges

**Boosting Biodiversity:** By supporting mining bees, land managers can also benefit other species that share their habitat, such as the Heath tiger beetle, contributing to a richer ecosystem

## Where are they found?

Mining bees play a key role in heath and moorland ecosystems, preferring this habitat to nest and forage.

- **Open sandy or bare soil areas for nesting** (often occurring along banks, tracks and eroded patches)
- **Flower-rich edges and grassy clearings for foraging** (especially with plenty of Tormentil)



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## Threats to Mining Bees

1. **Overgrazing** (particularly by sheep) – reduces flowering plants like Tormentil
2. **Scrub Encroachment** (particularly by gorse and young trees) – shades out open, flower-rich ground and nesting area
3. **Lack of bare ground** – vegetation may become too dense without management



## Management to Support Mining Bees

### ❖ Maximise Flowering Tormentil

- Avoid cutting or heavy grazing from mid-May to end of August, as Tormentil flowers are vital for foraging bees

### ❖ Grazing Stock Consideration

- Cattle and ponies are better suited to maintaining varied vegetation structure
- Winter grazing by sheep can also be beneficial but in the summer is often too severe

### ❖ Maintain Varied Vegetation Structure

- Ensure a mosaic of habitats on heathland (areas of heather interspersed with grassy clearings where Tormentil can thrive)
- Use rotational cutting or light grazing to keep flower-rich verges and tracks open (preventing tussocky grass and scrub dominance)

### ❖ Create & Maintain Open Sandy Areas

- Disturb and remove vegetation on sandy banks where needed (bare, sandy soil crucial for nesting)
- Also supports unique heath invertebrates like the **Heath tiger beetle**

### ❖ Control Scrub Growth

- Regularly manage gorse and tree saplings with cutting and grubbing to prevent encroachment
- Utilise rotational management to keep areas open and diverse