

***Lasioglossum malachurum* (Kirby, 1802) (Hym: Halictidae) recorded at the Shakenhurst Estate for the first time.**

Kevin McGee. Gardeners Cottage, Shakenhurst, Nr Kidderminster, Worcestershire. DY14 9AR
kevinmcgeeandrena@live.co.uk

The establishment of a breeding population of Sharp-collared Furrow Bees *Lasioglossum malachurum* (Kirby, 1802) at the Shakenhurst Estate is reported. On 23.06.2024 while I was walking along a partly- gravelled dirt track across grassland leading into Wissett's Wood, I noticed a series of fresh earth mounds with entrance holes close together, forming long lines along the edge of the track (01). The mounds had clearly been recently created by an aculeate hymenopteran, but I had never seen them here previously despite walking along the track regularly for nine years. I counted approximately thirty and more may have been present but damaged by farm vehicles. The soil here is based on a hard clay containing sand in places which becomes friable when dry.



01. Two of approximately thirty *Lasioglossum malachurum* nest entrance holes at the edge of a farm track leading into Wissett's Wood, Shakenhurst. 23.06.2024. Kevin McGee.

The weather was fine and dry with sunny spells providing ideal conditions for hymenopteran activity, so I stopped and watched for some time until eventually one of the occupants emerged from an entrance hole and immediately flew away. However, I had seen enough to identify it as one of the small, rather nondescript *Lasioglossum* mining bees. I was surprised to observe that another bee soon emerged from the same hole before it too quickly departed. This pattern of multiple bees emerging from a single hole was soon established along the line of all the nest mounds (02).

Photographs of a bee emerging failed to capture enough detail for identification, such was the speed of their departure, so one was collected for microscopic identification by placing a tube at an entrance. It was identified as a female *L. malachurum* and my first record of one here, or anywhere else in Worcestershire. I have previously recorded a large colony along the edge of an arable field regularly used by dog-walkers near Welwyn Garden City in Hertfordshire during a series of commercial surveys in June 2022.

L. malachurum is an unusual mining bee, well-studied for its eusocial behaviour with colonies formed of queens and workers (Falk & Lewington, 2015). Colonies can become very large and are often established along well-trodden paths and tracks, in addition to sparsely vegetated south-facing slopes in a wide variety of habitats, although clay soils are preferred (Falk & Lewington, 2015 & Power, J, 2024).

Despite the bees trying my patience to the limit, I eventually managed to capture a reasonable images of a female *L. malachurum* emerging from a nest entrance on 28.06.2024 (02). It is called the Sharp-collared Furrow Bee since a key diagnostic feature is the

distinctly prominent structures forming the angles at the front corners of the pronotum (behind the head at the front of the thorax). In all other *Lasioglossum* species these corner angles are obtuse and may appear almost rounded, but in *L. malachurum* they are sharp and obviously form ninety-degree right angles.



02. *Lasioglossum malachurum* (female) emerging from nest entrance at the edge of a farm track leading into Wissett's Wood, Shakenhurst, 28.06.2024. The antennae of a second bee following closely behind can just be seen in the image. Kevin McGee.

The population of the Shakenhurst colony was broadly estimated to comprise between 50 to 100 individuals, based on the number of nest entrances and the approximate number of individual bees emerging from each entrance. It will be interesting to observe the status of this colony in 2025. *L. malachurum* was once a scarce species of southern England and remains listed as Notable B on the NBN Atlas website. However, like several aculeates, it has undergone an expansion in range during recent years, meaning its status will probably be reviewed and down-graded. However, there are still few Worcestershire records on the present NBN Atlas distribution map, details of which are in Table 1 below.

22/06/2016. One collected from Dropping Well Farm. Falk, S.
01/07/2011. One collected near Heightington. Trevis, G.
02/07/2011. One from Cherry Orchard, Worcester. Collected by Green, G.H, confirmed by Trevis, G.
01/07/2007. One collected from Norchard Farm. Trevis, G.
24/04.2004. One from Rough Hill Orchard, nr Pershore. Collected by Green, G.H, confirmed by Trevis, G.

Table 1. Records of *Lasioglossum malachurum* in Worcestershire taken from the current NBN Atlas national distribution map.

References

Falk, S. & Lewington, R. 2015. *Field Guide to the Bees of Great Britain and Ireland*. British Wildlife Publishing, Bloomsbury.
NBN Atlas Species search. Available at: <http://www.nbnatlas.org/> [Accessed 20.10.2024]
Power, J. 2024. *The Bees of Sussex*. Pisces Publications, Newbury, Berkshire.

Images

01. Two of approximately thirty *Lasioglossum malachurum* nest entrance holes at the edge of a farm track leading into Wissett's Wood, Shakenhurst. 23.06.2024. Kevin McGee.

02. *Lasioglossum malachurum* (female) emerging from nest entrance at the edge of a farm track leading into Wissett's Wood, Shakenhurst. 28.06.2024. Kevin McGee.