

Orchids in the City of Cambridge

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Over six years ago I sent Louise Marsh some information on White Helleborine (*Cephalanthera damasonium*), which had established itself alongside a recreation ground in the suburbs of southern Cambridge, which she put on the [BSBI Blogpost](#) (June 2015).



White Helleborine growing in Nightingale Avenue [photo © Monica Frisch]

Last year, I was contacted by Michael Krichbaum, a German botanist on the board of the *Journal of European Orchids* (*Journal Europäischer Orchideen*; *J. Eur. Orch.*). He had come across the blog item and asked if these data had been published anywhere. Or if there are any published data on suburban orchids in Great Britain and Ireland? This request coincided with the NatHistCam project which was collecting data on the flora and fauna of Cambridge city.

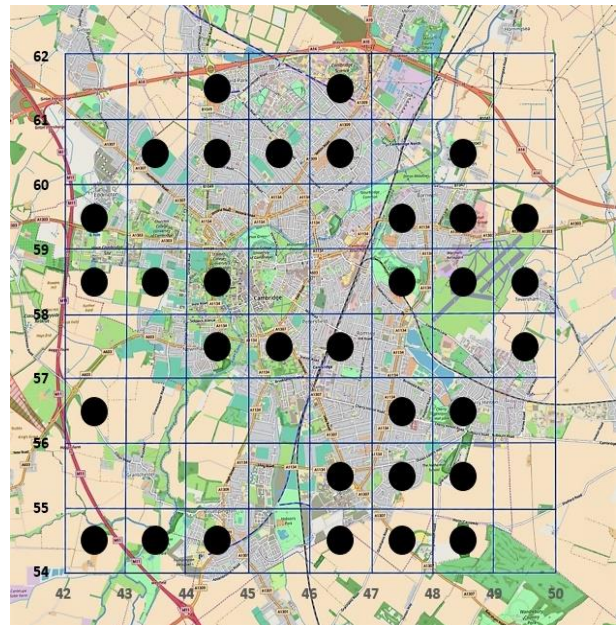
After some corresponding, I agreed to write an article about orchids in Cambridge, which has now been published in *Journal Europäischer Orchideen* 53 (1): 2021.

The **NatHistCam project** (<http://www.nathistcam.org.uk/>) studied an area of 64 sq km which covered most of the city of Cambridge. Data were collected on the basis of 1 km x 1 km monads but for plants it was felt sufficient to record presence or absence within the date class 2010-2019. So some of the data are not very recent and no attempt was made to collect data on abundance.

A book, *The Nature of Cambridge*, reporting the results of the project will be published by Nature Bureau in 2022.

The main findings were that nine species of orchid were recorded in the NatHistCam area, and that the number of species per tetrad was greater than in Cambridgeshire as a whole.

The most frequently found species: **Bee Orchid *Ophrys apifera***, was found in just over half the monads. The distribution map suggests that *Ophrys apifera* is recorded more frequently in built-up areas than in the more rural monads but this may not be significant and may simply reflect that it is widely distributed within the study area. Alan Leslie (2000) notes that it is a common orchid in the south of the county and a ready coloniser of new sites.



Distribution of Bee Orchid in Cambridge [above]
Bee Orchid growing in Longworth Avenue [left]
[photo © Bob Jarman]

The next most frequently found species was **Common Spotted Orchid *Dactylorhiza fuchsii***, which was recorded from ten monads. The Marsh Orchids *D. incarnata* and *D. praetermissa* are also found in suitable habitat in a few monads, and the hybrid between them, *D. xwintonii*, has been recorded in two locations.

White Helleborine *Cephalanthera damasonium* [right; photo © Monica Frisch] has been known from the Beechwoods on the southern edge of the city since 1903 and has been recorded from several locations in three monads.



The two rarest species were Broad-leaved Helleborine and Green-flowered Helleborine. Both were only found in one monad.

Broad-leaved Helleborine *Epipactis helleborine* was found on a NatHistCam visit to a site which is not easily accessible. It was notable as the species had not been recorded in Cambridge in the twentieth century.

Green-flowered Helleborine *Epipactis phyllanthes* [right] has been known from Robinson Crusoe Island in the centre of Cambridge since 1896 but records are intermittent and I have not seen it there since 2016 when the plants were small and hard to find. [Photo: © Monica Frisch]



Pyramidal Orchid *Anacamptis pyramidalis* has been recorded in six monads.

Twayblade *Neottia ovata* is found in only three monads possibly reflecting limited amounts of suitable habitat in the study area. While Twayblade grows in meadows, pastures and grasslands elsewhere in the county, it is often associated with woodland habitats or with scrub, as at Barnwell Local Nature Reserve.

One monad contains the Barnwell East Local Nature Reserve where five species of orchid have been recorded. Another monad, to the west of the city, has four species including the hybrid between *Dactylorhiza incarnata* and *D. praetermissia*.

The figure of nine species compares with twenty species for the whole county of Cambridgeshire, though twelve of those are found in only five or fewer tetrads. An analysis of species density indicates that the NatHistCam area has more species of orchid per tetrad than others. This possibly reflects the diversity of habitat within the study area, compared with the largely agricultural county.

| | Species/tetrad |
|--|----------------|
| Low-lying fenland (below 5m altitude) | 0.28 |
| Cambridgeshire including tetrads only partly in the county | 0.76 |
| Non-Fenland tetrads (above 5m altitude) | 1.39 |
| NatHistCam area | 2.75 |

Thanks to Mark Hill for the analysis of species density.

Reference: Leslie, A. C. (2019): *Flora of Cambridgeshire*. Royal Horticultural Society, London.