

Orchid Survey of Land at the Triangle adjacent to Stratfield Brake East Woodland

Judith A Webb, BSc, PhD, BEM

Independent Ecological Consultant

For Friends of Stratfield Brake (FoSB)

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Common Spotted Orchids on the south ride of the Triangle

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Summary

Six species of orchid have been recorded - Common Spotted Orchid, Pyramidal Orchid, Early Marsh Orchid, Southern Marsh Orchid, Bee Orchid, Twayblade Orchid and additionally one type of Hybrid Marsh Orchid (Common Spotted x Southern Marsh Orchid) is also present.

The Common Spotted Orchids and Pyramidal orchids are present in their hundreds.

The presence of so many orchids shows that this is a very low nutrient site; orchids can survive only where low nutrient soil favours their essential symbiotic fungi that live in their roots. Flowering of all these orchids is favoured by the current rotation of coppice willow harvesting letting in the light to new sections.

In my opinion, the presence of so many orchids, with all the other species found, this site is definitely of Local Wildlife Site standard.

It would not be possible to find and move all of these orchids. Even if this was attempted, moving the orchids that like the wet southern ride is very unlikely to succeed because they will not like the drier northern end of the site.

Aim

To survey the Triangle for orchids. The Triangle is an area of ex-arable field with thick hedgerows and marginal tree belts. It has been occupied by managed willow coppice with grassy rides for the last 18 years.

Introduction

I am an experienced Independent Freelance Ecologist who has lived in Kidlington since 1984. I have been employed on species survey work in Oxfordshire by Natural England, BBOWT, Oxford City Council, Oxford University, private landowners and Local Wildlife Groups. I am very familiar with the habitats in the general Stratfield Brake area, especially the hedgerows and verges (I have assisted in botanical verge survey of Frieze Way with a local Natural History Society). I and my family helped plant some of the Woodland Trust new woodland areas at Stratfield Brake in the 1990s. My particular expertise is identification of plants, invertebrates and fungi; I have 45 years of experience of the first group and 30 years of experience in identifications of the other groups, being one of the main species recorders for the Fungus Survey of Oxfordshire Group. I am a regular voluntary species recorder in these groups for Thames Valley Environmental Records Centre (TVERC).

Visits

I visited the Triangle on 6, 11 and 25 May and 9 June 2024. These visits were timed to coincide with peak orchid flowering time. Each visit was for around 2 hours. I was rewarded with stunning displays with hundreds of orchids on the site. The recent felling of a lot of the older willow coppice has reduced shading of areas with orchids so there was fantastic flowering along all the rides, especially the southern ride next to Stratfield brake east woodland and around and between the coppice willow blocks.

All photographs within this report are my own and were taken during these visits.

I received permission to enter The Triangle for the purposes of these surveys from the tenant who runs the sustainable willow coppice business.

The Triangle History and Habitats

This report should be read in conjunction with my two March 2024 reports titled “*Biodiversity Surveys of Land at the Triangle adjacent to Stratfield Brake East Woodland*” and “*Stratfield Brake East Woodland, south of The Triangle Survey of Plants, Invertebrates and Fungi*” (<https://www.friendsofstratfieldbrake.org/2024/03/23/biodiversity-reports/>).

These reports provide a detailed history of the site, a description of the habitats, a description of the soil and ground conditions, and the results of my surveys of both the Triangle and the Stratfield Brake East Woodland.

The Conclusion and Discussion section of my biodiversity survey of the Triangle also explains why this site is so rich in biodiversity.

Results of Orchid Survey

In my previous reports I recorded Common Spotted Orchids and Pyramidal Orchids present in summer 2023. The new discoveries this year are: Early Marsh Orchid, Southern Marsh Orchid, Hybrid Marsh Orchids, Bee Orchids and Twayblade Orchid.

- Common Spotted Orchid (*Dactylorhiza fuchsii*) – there are hundreds so they are uncountable, including a pure white one
- Pyramidal Orchid (*Anacamptis pyramidalis*) – these are just starting, but there will be lots, I estimate more than a hundred
- Twayblade Orchid (*Neottia ovata*) - 2 found
- Bee Orchid (*Ophrys apifera*) including a white petalled one - 4 found, but I believe there will be more on the site (these are likely to have come from Kidlington roundabout where they have been for a few years)
- Early Marsh Orchid (*Dactylorhiza incarnata* ssp. *incarnata*) - 1 found – the nearest local site is Oxford Meadows SAC
- Southern Marsh Orchid (*Dactylorhiza praetermissa*) - at least 11, all on the southern ride - nearest local site Weston Fen SSSI
- Hybrid Marsh Orchids (*Dactylorhiza* x *grandis*, Common Spotted x Southern Marsh Orchid) – these are large stunning hybrids (50 – 60cm) - at least 12, on the southern part of site including southern ride (hybrids are always taller and more vigorous). This hybrid is only very occasionally recorded in Oxfordshire (see BSBI maps reference for this species)

No orchids are really common, but Pyramidals seem to be increasing on verges these days. The nearest site for them to the Triangle was the verges of Peartree roundabout, but this population has now been destroyed in the recent road-works there.

The most uncommon are the Early Marsh Orchid and the Southern Marsh Orchids. These

are not rare in the county, but extremely 'Local' requiring wet low nutrient sites and thus are conservation-worthy. Changing agricultural practices and the draining of damp pastures have made habitats for these species much rarer.

This is now a six orchid species site with additionally a good population of large spectacular orchid hybrids. I know SSSI sites with far fewer orchid species and numbers than this. The presence of so many orchids shows that this is a very low nutrient site; orchids can survive only where low nutrient soil favours their essential symbiotic fungi that live in their roots.

See the Appendix for photographs.

Discussion and Conclusions

The fact that there are a good number of the Marsh Orchid hybrids means that the parents (Common Spotted and Southern Marsh) have been present on site for some years (maybe as many as 10 years) because the shortest life cycle of a Common Spotted (seed to flower) is 4-5 years and Southern Marsh may be similar. How long it would take the hybrids to flower from seed is not known. Such an abundance of orchids means low nutrient soil to favour the fungi their roots need, and the wetness of the site favours the Early Marsh and Southern Marsh Orchids specifically. Flowering of all these orchids is favoured by the current rotation of willow harvesting letting in the light to new sections every few years, combined with mowing of the access rides annually.

With all the other species found I consider this site is definitely of Local Wildlife Site standard.

If the proposed stadium was to be built the southern area concentration of orchids will go under the stadium SUDS attenuation ponds and car park. The south west corner of the site is the orchid 'hotspot'. In my opinion there is no way that all of these orchids could ever be found and moved. Even if they were, moving the orchids that like the wet southern ride is unlikely to succeed because they will not like the drier northern end of the site.

Acknowledgement

I'm grateful to the tenant who operates the 'Wonderwood' sustainable willow coppice business for site access, sometimes at short notice.

Reference

BSBI maps distribution of Hybrid Marsh Orchid (Common Spotted x Southern Marsh) *Dactylorhiza x grandis*: <https://bsbi.org/maps?taxonid=2cd4p9h.pvb>

Appendix Photographs

Common Spotted Orchid



Common Spotted Orchids *Dactylorhiza fuchsii*, South ride looking east in the Triangle with Stratfield Brake East Woodland on the right. 09.06.2024



Common Spotted Orchid *Dactylorhiza fuchsii*, robust normal version on left and white version on right, Triangle, 09.06.2024

Pyramidal Orchid



First Pyramidal Orchids *Anacamptis pyramidalis*, Triangle. 09.06.2024

Twayblade Orchid

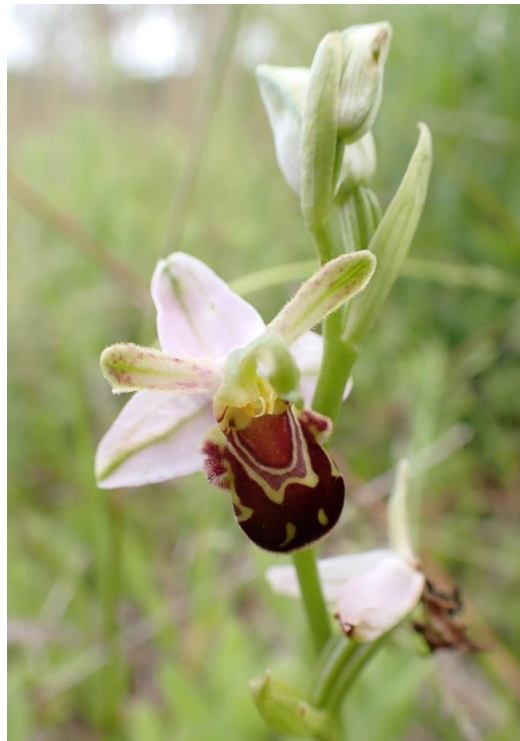


Twayblade Orchid *Neottia ovata*, early stage, Triangle, 06.05.2024

Bee Orchid



Bee Orchid *Ophrys apifera*, normal pink version, Triangle, 09.06.2024



Bee Orchid *Ophrys apifera*, palest version, Triangle, 06.06.2024

Early Marsh Orchid



Early Marsh Orchid *Dactylorhiza incarnata* ssp. *incarnata*, Triangle,
25.05.2024

Southern Marsh Orchid



Southern Marsh Orchid *Dactylorhiza praetermissa*, Triangle, 09.06.2024

Common Spotted x Southern Marsh Orchid hybrids



Hybrid Marsh Orchids *Dactylorhiza x grandis*, Triangle, 09.06.2024



Tallest Hybrid Marsh Orchid *Dactylorhiza x grandis*, Triangle, 09.06.2024 (50 – 60cm tall)