

BIODIVERSITY ON THE BABRAHAM ESTATE

The Babraham Research Campus. Known to be a world leading place for early-stage discovery, bioscience and innovation, which nurtures and grows the life science industry. This core research campus occupies around 100 acres of the overall site.

In addition to the fantastic and life-saving work carried out by core research function, the campus also includes circa 350 acres of land attached to the campus and managed by our Ecology and Land Management (ELM) team. Not readily visible from the road for passersby, we invite you to discover a little more about this hidden gem of publicly accessible land that is managed for conservation and biodiversity.



Aerial view of the Babraham Research Campus & Estate Lands (Red line, estate boundary)



The team behind the conservation and grounds maintenance works on the Babraham Estate (Matt [the author] on the far left)

As I write this article, I realise that this is the twentieth year I have been working on the Babraham Estate! Time has flown by, and the site has certainly changed a lot since I first began.

Going back even further, by quite some considerable years, the site has been occupied in various forms since the Iron age, with an Iron age hill fort and church/burial site present on the Estate. There are also signs and much evidence of Roman settlement and activity on the Estate well into the 4th century. The land and manors passed through various hands, through the Anglo-Saxon, Norman and medieval eras. Many historical features are visible from aerial mapping of the Estate.

In 1576, the first of the Babraham Halls was built. The second in 1768, and then the third, current hall was built in the mid 1830's.

In 1948, the Estate was sold by the Adeane family to what was then the Agricultural Research Council. Since then the site has been through various manifestations to now arrive at its present form!

Back to more recent history! Since starting working on the Estate in 2005, I have been involved in many various projects to increase the biodiversity and nature conservation value of the Estate, coming from a background in land conservation and sustainable woodland management myself. It has been fantastic to be able to see the long term effects of works I began twenty years ago, and I hope to continue for many years more.

The River Granta



The River Granta chalk stream runs through the Estate, and is a priority habitat and landscape feature, both locally and regionally.

The ELM team carry out channel improvement works, river health monitoring and flood attenuation works to protect the downstream settlements of Sawston and Great Shelford against flood risk, in partnership with the Environment Agency and The Wild Trout Trust.



Hinged willow to provide cover for fish and birds, as well as deflect river channel flow

Key species to look out for:

Brown Trout

Water Vole

Otter

Water Crowfoot

Kingfisher

Woodlands – Old & New

There are a mixture of different aged section of woodland across the Estate, the majority of which is managed on a twenty year coppice with standards rotation system – a coppice coup of around one hectare is worked each winter. This sustainable woodland practice creates high value ground level flora, as well as favourable habitats for nesting birds and small mammals in the dense coppice re-growth.

In addition to this, the team also carry out tree safety and surgery works across the estate – the two practices generate a sustainable source of firewood and other woodland products which are available for sale locally.

Last winter, the ELM team also planted 10,575 new sapling trees, within existing compartments to enhance and diversity the species mix, in an area of new woodland creation and to replace ash trees affected by the ash dieback disease *Hymenoscyphus fraxineus*.

Unfortunately, this disease is having a profound effect on the ash trees across the Estate – frequent visitors will see our project of removing dead/dying trees and replanting with a more diverse species mix increase in the coming winter, focussed on the are known as Ash Grove.

Tree species planted on the Estate, suitable for the current climate and local conditions:

Field Maple

Alder

Silver Birch

Downy Birch

Sweet Chestnut

Hazel

Oak

Small Leafed Lime

Willow

Whitebeam

Rowan

Hornbeam

Wild Service Tree

Our biggest challenge at present is the very dry conditions experienced through April, May and June – we are fortunate that many of the main campus buildings have rainfall capture tanks installed, giving us access to water. Frequent visitors to the site will probably have seen

the team hard at work watering newly established trees – which is a vital effort during a saplings first year of being planted to develop a strong root structure and deep tap root.



Coppiced hazel regrowth under willow coppards (a lower level pollard cut), from last years coppice compartment.

Key species to look out for:

Nightingale

Tree Creeper

Chiffchaff

Butterflies and moths

Bluebells

Wood anemone

Hedgerows

Historically taken out to increase agricultural productivity, the ELM team are steadily replanting and restoring hedgerows across the Estate. These hedges act as vital links for small mammal transport across the estate, feed sources for wild birds and as a barrier against soil erosion.

Last winter the team planted 3,500 new hedging whips, with a mix of species including blackthorn, hawthorn, dog rose, crab apple, hazel and plum. Watch out for the next seasons planting this coming winter.



A three year old hedgerow, establishing well.

Grassland and Meadows.

The grassland and meadows on the estate vary enormously, largely due to the complex geology of the glacial deposits and river valley form which it is located within. This includes calcareous grassland, floodplain, wet grassland, wildflower meadow & neutral grassland.

The wildflower and neutral grassland areas are managed by cut and remove management annually after seed drop, with an early cut carried out to control invasive species.

These cutting either go as hay feedstock for a local grazier or are made into a silage mulch for incorporating into our own compost/mulch for use on the gardens & estate. The cut and remove process decreases nutrient levels in the soil – to hinder grass dominant species and allow wildflower species to thrive.



Cutting and baling of wildflower meadows

Key Species to look out for:

Ox Eye Daisy

Birds Foot Trefoil

Skylark

Meadow Pipit

Field Vole

Kestrel

Red Kites

Hares

There are many public routes and permissive paths through the Estate, open for all to enjoy. We do request that dogs are kept on leads please, to protect the ground nesting birds and mammals on the estate lands. For further information, and a link to the local footpath map, please contact: conservation@babraham.co.uk