

Arable Plant Survey, Rougham Estate 2019-2021 – a summary

Rougham Estate Trust's arable flora sampling survey on Rougham Estate 2019-2021 has revealed where rare arable flora is holding on in today's modern farming regime. Over 150 wild plants are characteristic of the arable environment and together make up the most threatened group of flora in Britain, unable to compete with crops, herbicides and fertiliser. These plants, often considered insignificant at field margins, are important in their own right as well as being a source of food for insects and declining farmland birds.

Over 100 annual arable plant species were recorded on Rougham Estate in field corner and field margin refuges, providing reservoirs for buried, dormant seeds that can thrive again if and when conditions are favourable. Eight of the 100+ species recorded are classified as Red Data Book Vulnerable (VU), Near Threatened (NT) or Nationally Scarce and were found in very small numbers including Stinking Chamomile, Dwarf Spurge and Sharp-leaved Fluellen. A few historically recorded species such as Corn Mint, Prickly Poppy and Corn Spurrey were 'missing'.

Historically, some arable plants were considered common, problematic and even today a few species can cause serious localised problems. Now, however, previously common species such as the Common Poppy are easily controlled by herbicides in a cropped field. And chemical fertilisers and herbicides enable crops to out-compete these less competitive and smaller arable plants or 'weeds'.

All sites with relatively common arable plants were seen to provide valuable pollen, nectar and cover for a range of crop pollinating insects (hoverflies, bumblebees, flies, moths) and small seeds for declining farmland birds such as yellowhammer, skylark and linnet.

The importance of spring-sown sugar beet in a crop rotation for declining arable flora (and declining farmland birds) cannot be under-estimated. Broad-leaved arable plants can thrive and set seed in this late harvested crop. Spring-sown wild bird cover and pollen and nectar mixes – both Countryside Stewardship options - also allow spring- and autumn-germinating plants to establish, flower and set seed late in the year.

The survey highlights the value of rough disturbed areas, scruffy and weedy arable corners, missed patches or margins, spring-sown wild bird cover, late stubbles and late-harvested sugar beet for rare and



Once so frequent, the Common Poppy is now a rare sight in a commercially managed crop but holds on in scruffy field corners and field margins with other declining arable flora at Rougham in spring sown crops such as sugar beet where they provide seeds for declining farmland birds. © Juliet Hawkins

declining arable flora. A few plants classified as Red Data Book Vulnerable (VU), Near Threatened (NT) or Nationally Scarce were found in very small numbers and include species outlined below.



An 'in-field' strip at Rougham of arable flora with mayweeds and groundsel providing seed for goldfinches, linnets and skylarks, and bees feeding on pollen on the tall weld plants. © Juliet Hawkins

Rougham Estate is keen to look at management options such as cultivated margins and wild bird cover, under yet to be announced agri-environment schemes that will encourage rare and declining arable flora to thrive. In the meantime, records of rare and declining arable flora seen by walkers on the public and permissive footpaths would be welcomed – they can be sent to Suffolk Biological Information Service <https://www.suffolkbis.org.uk/groups/about> or uploaded using an excellent iRecord mobile app. The species below and overleaf are ones to especially look out for.

Juliet Hawkins
Farm conservation adviser



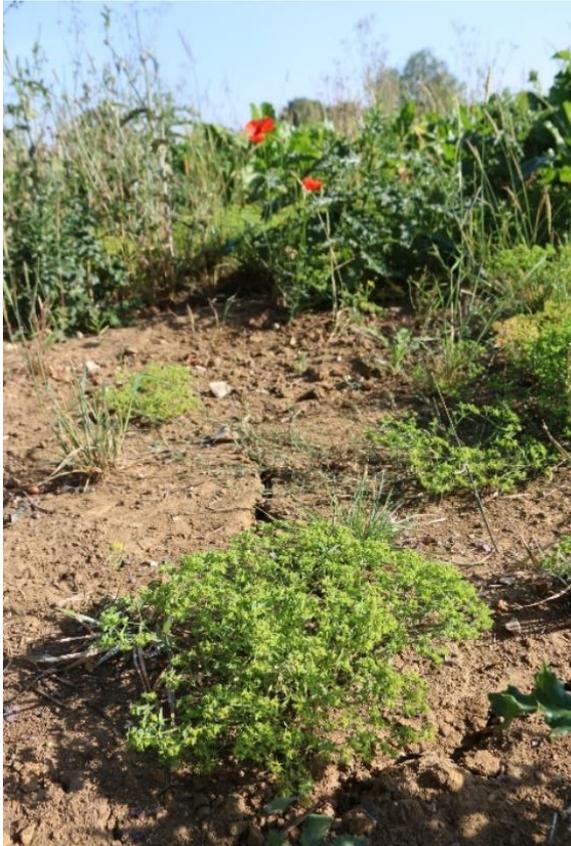
*Left: Stinking Chamomile *Anthemis cotula* (easily mistaken for other mayweeds) was found on the edge of rabbit/pigeon-damaged oil seed rape crops. This annual of arable fields and waste ground has declined with the reduction of winter stubbles (it flowers late in the year so is dependent on late stubbles and break crops) and the development of more effective herbicides. Regarded as a major problem only 30 years ago, it is now classified as Vulnerable.*



Left: The very small and Nationally Scarce Sharp-leaved Fluellen Kickxia elatine, with tiny snapdragon type flowers and distinctive leaves is easily missed but it can be seen in late stubbles and the edges of sugar beet fields. Photo: Harry Rose CC BY 2.0



Above The Nationally Scarce Many-seeded Goosefoot Chenopodium polyspermum might be confused with its common relation, Fat Hen, but it often with red tips to its leaves and was found on sugar beet crop edges. It has a huge number of seeds (hence its name) and provides excellent food for birds. © Juliet Hawkins



Threatened annual that is holding on in bare patches of arable land at field corners, often in spring-sown field beans or sugar beet crops.



Right: Field Madder Sherardia arvensis is a tiny Nationally Scarce annual that can be seen along the field edges next to the public footpath near Chevins Wood. © Juliet Hawkins



*Above LtoR: The Nationally Scarce Field Pepperwort *Lepidium campestre* is easily confused with the much more common Shepherd's Purse.*

*The seeds of Common Stork's-Bill *Erodium cicutarium* and Bugloss *Anchusa arvensis* were both found on the lightest Rougham arable field corners. Both species are more frequent in the Sandlings and the Breckland. © Juliet Hawkins*