



**Birmingham
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Warwickshire
Biological Records Centre

ASSESSMENT OF THE CONTRIBUTION OF ALLOTMENTS TO PLANT BIODIVERSITY IN WARWICKSHIRE

A baseline botanical survey of the spontaneous flora present in allotments within vice county 38. Enabling the assessment of the contribution of allotments to plant biodiversity in the region. Potentially generating new opportunities for future research.

Background

Allotments are generally long-standing areas of land, divided into individual rented plots traditionally used for the growing of vegetables and fruit. Allotments have countryside land-use regulations meaning many sites have remained relatively unchanged in the landscape. Historically they were taken up for economic reasons, for the alleviation of hunger, and served as a form of social welfare. In more modern times allotment sites are still used by communities for a range of growing purposes, predominantly edibles but additionally providing a source of recreation.



With the intensification in commercial agricultural practices flora traditionally associated with arable land has significantly dwindled. Many species are now classed as in decline or rare.

Allotments tend to feature a mosaic of management techniques and associated management intensity due to the variety of plots, overall mirroring that of traditional arable land. Significantly, development for housing in recent years has led to pressures on allotments with sites being destroyed and new sites being created elsewhere; raising the question of what is being lost with the destruction of these historical sites, is there any differentiation in the flora of old and new allotment sites and does time established influence flora change?

Little study has been done in recent years to assess the state of the flora within allotments. Despite the BSBI 2020 Atlas activities in Warwickshire over the last 9 years, allotments were poorly recorded overall (J.Walton). Publications such as the Warwickshire Flora (S.Falk), the study of Birmingham Allotments as part of the Birmingham and Black Country flora in 2005 and M.Poultons Upland allotments article of 1999, provide a solid base from which to develop our understanding of the place of modern allotment flora in the floral biodiversity of vice county 38.

Initial Questions I Hope to Answer

- Is there variation across Warwickshire in the spontaneous flora of allotments and on what does this depend?
- Is there variation between 'weeds' and the types of crops grown?
- Could allotments harbour species now struggling in high-intensity agricultural environments?
- What part are allotments playing in the potential introduction of invasive plant species?



Current Progress

50 allotment sites across Warwickshire were approached to take part. Due to restrictions 15 enabled surveying in the time frame of late August. It is hoped if future research was to occur, a broader geography of sites would be recruited.

For each site a walk over species list along all open access areas such as trackways was taken.

Plots across the allotment sites were selected at random with their crops surveyed in m2 blocks to assess the association of weed species within crops.

Analysis of data from the August 2020 surveys is now in process.

It is clear each site has its own botanical personality, even if geographically close.

A number of species were only found on singular or just a handful of sites. Such species include *Viola arvensis*, *Chenopodium bonus-henricus* and *Anchusa arvensis*.

Casual species noted include *Ecballium elaterium* and *Rubus Phoenicolasius*.

A number of birdseed aliens were recorded including:

Bird Seed Alien	VC38 Records (BSBI database)
<i>Cyperus eragrostis</i> Tall flat sedge	10 records from 2015 onwards
<i>Digitaria sanguinalis</i> Large crab grass	3 records from 2018 onwards
<i>Phalaris canariensis</i> Canary grass	8 records from 2014 onwards
<i>Setaria pumila</i> Yellow bristle grass	27 records 1950 onwards with 2015 showing significant increase in records



In-depth analysis of all data will occur in the coming months.

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References:
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