Nottinghamshire Botanical Recording Group 2019 Newsletter

Introduction

Twenty years on and the Atlas 2020 field work is finished following a year of intensive fieldwork throughout 2019. This newsletter will provide a summary of the Atlas 2020 project along with other activities in 2019. This newsletter also includes planned activities for 2020 and beyond, which I hope will be of interest.

Atlas Recording During 2019

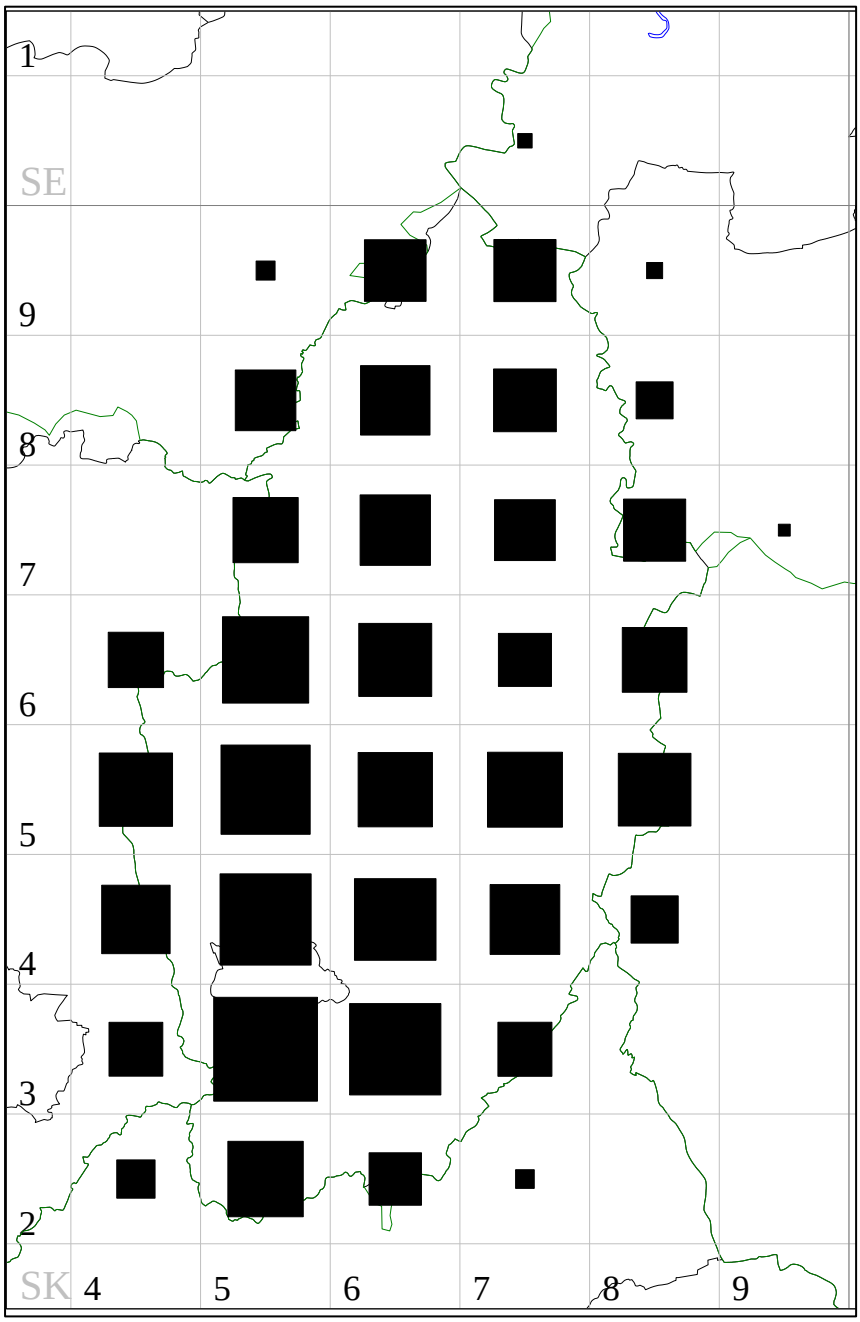
Two excel worksheets that I have compiled over 2019 contain a total of 64, 865 records. One of the worksheets contains recorders compiled by the BSBI recorders, the other is a compilation of the records supplied by the Nottinghamshire Biological & Geological Records Centre (NBGRC). The NBGRC records are a mix of records supplied from external sources such as IRecord and systematic surveys of Local Wildlife Sites in the county. NBGRC and BSBI records are exchanged annually through a formal agreement, so the BSBI is making a contribution to national and county conservation efforts.

Validation of the records uploaded to the BSBI database has continued through 2019 and whilst I cannot guarantee that the dataset for Nottinghamshire is entirely free of errors, the more important records are validated. The people responsible for checking the national dataset will, in due course, be in contact with queries, which I hope will be routine and easy to review and revise. I may, however, need to contact some of you to obtain additional information.

As planned, recording in 2019 was targeted at tetrads in SK52, SK53, SK62 to SK64, SK75 to SK79 and SK85 to SK88. Tetrad recording has also included parts of the Vice County that are now in Lincolnshire or Leicestershire. After another year of recording the requirements for the Atlas 2020 have been fully met and as stated towards the end of 2018, coverage is now getting to a level that is sufficient to prepare a county flora and two to three more years of gap-filling will achieve full coverage. To provide an indication of species density per hectad, see Figure 1 on the next page

Alongside the checking, collation and uploading of records, I have been reviewing the coverage of each tetrad. The review has focussed on two elements. The first element is checks of pre-2000 records and post-2000 records, particularly those species which are less common, to detect losses and gains in each tetrad. The second element is identification of common species that are likely to be present, but have not been recorded in the tetrad. In some cases, common species such as aquatics and arable weeds are genuinely missing owing to habitat loss or land management, but often species are unrecorded because surveys have not coincided with the season when a plant is present. Four species that instantly come to mind are lesser celandine *Ficaria verna*, hairy bittercress *Cardamine hirsuta*, spear-leaved orache *Atriplex prostrata* and common orache *Atriplex patula*, which are much more common than the tetrad distribution maps indicate. Although tedious, the remaining years of surveying for a county flora will be targeting those tetrads where common species are under-recorded. Lists of common species can be provided if you want to help.

Figure 1: Species Density per Hectad



On a final note; a massive thank you to all of the people who have contributed to the Atlas Recording Project over the previous 20 years. Over half-a a million Nottinghamshire records have been uploaded to the BSBI database, which is a fabulous effort and as good a coverage as any other county in the UK.

Rare Plants Recorded in 2019

Another year of recording has provided a list of first and second records, some of which are of significant conservation interest. I have included a record from 2018, which was missed by me

(apologies to Neil Pinder). For the most part the records below have been verified and are to the best of my knowledge first or second records (reference to the 2013 VC56 checklist and my database), but if I need to be corrected please let me know.

First and second records in 2019 include:

Bistorta affinis (D Don) Greene, Mark Woods, 1st record, 6 October 2019, SK564579, Lindhurst Track, neophyte. Planted and spreading along grass verges.

Buplerum rotundifolium L., Neil Pinder, 1st modern record since 1963, 10 June 2018, SK61263084 Keyworth, archaeophyte, escape from planted material.

Buplerum rotundifolium L., Mark Woods, 2nd modern record since 1963, 29 June 2019, SK73417085 Tuxford Arable Field, archaeophyte, 10 plants close to margin of wheat field.

Clarkia unguiculata Lindl., Gareth Hirons, 2nd record, 7 April 2019, SK550415 Bobbers Mill, neophyte, in full flower by a wall near Legends Gym.

Cyrtomium fortune J. Sm. Rob Johnson, 1st record, 17 Jul 2019, SK634456 Lambley Lane Stream, neophyte. Mature plant growing by cleared watercourse between Lambley Lane and gardens. Presumed to be originally planted.

Cyclamen coum Mill. John Osborne, 2nd record, 12 October 2019, SK648467, The Green, Lowdham Grange Estate, neophyte.

Echium pininana Webb & Berthel., Rob Johnson, 2nd record, 2 July 2019, SK526649 Little Matlock, neophyte, Single well-established plant growing in an abandoned trough in grassland by road. Presumed to be originally planted.

Euphorbia dulcis L., Jerry Clough, 1st record, 6 May 2019, SK547391. University of Nottingham, Jubilee Campus, neophyte.

Gastridium ventricosum (Gouan) Schinz & Thell., Gareth Hirons, 1st record, 4 August 2019, SK771894, Saundby, native. Waste ground near farm. Given the distance from other records, which are all in the south of Britain, further confirmation is required (checks in 2020). The grass used to be an arable weed but had largely vanished from such habitats by 1930.

Lolium x boucheanum Kunth, Rob Johnson, 1st record, 17 July 2019, SK624441, Lambley Field, neophyte. Many plants along field edge in arable crop.

Nicotiana Sylvestris Speg. & Comes, Rob Johnson, 2nd record, 29 August 2019, SK794545, Great North Road, Newark-on-Trent, neophyte. Plants on disturbed verge following roadworks.

Polycarpon tetraphyllum L., Gareth Hirons, 1st record, 27 May 2019, SK530367, Beeston Bus Station, casual. Small quantity in cracks in pavement in demolished station (see photograph from Gareth); could be present because of imported beach material, which is established annually.

Potamogeton trichoides Cham & Schltdl., Gareth Hirons, 2nd record since 1990, 8 September 2019, SK723885, Chesterfield Canal, Clayworth, native. Small quantity close to bank.

Potentilla indica (Jacks.) Wolf, Rob Johnson, 2nd record, 18 June 2019, SK665668, Wellow Colliery Tip, neophyte. Large patch under shade along footpath at southern side of a former colliery tip.

Ruta graveolens L., Sian Matthews, 1st record, 21 September 2019, SK640351, Cotgrave, neophyte. Young plant on pavement at foot of street sign, no parent visible, but young plants in nearby garden.

Sambucus ebulus L., Jane Carruthers, 2nd record, 3 September 2019, SK722304, Hose Lane, Kinoulton, archaeophyte. The extensive (long known) patch on a roadside verge in Leicestershire has spread over the boundary into Nottinghamshire.

Setaria italica (L.) P. Beauv., Gareth Hirons, 2nd record, 8 September 2019, SK732838, Clarborough Roadside Verge, neophyte. Present next to the kerb.

Sisymbrium irio L., Mark Woods, 1st record, 9 March 2019, SK793538, Newark-on-Trent Lock, neophyte. Wall base on wharf.

Sisymbrium irio L., Mark Woods, 2nd record, 17 March 2019, SK795541, Newark-on-Trent Wharf, neophyte. Single plant in flower.

There are also first or second records of *Brassica carinata*, *Chenopodium capitatum*, *Sagina maritima*, *Trifolium alexandrium* and *Avena sterilis*, which are awaiting more accurate grid references.

Rare Plant Register

Assuming that the time can be found this year, a third edition of the register will be written. The records spreadsheet is up-to-date, but obviously there is a need to revise the maps and text for the next edition.

Photographs

There are 410 excellent photographs on the Flikr web-site, which provide a reasonable representation of the county, but Ken Balkow (administrator) has identified the north of the county and the Newark and Southwell areas as lacking in floral photographs. Please contribute, because these photographs will hopefully provide the illustrations for a county flora.

Historical Information

Graeme Coles and Sian Matthews have continued to check first records for the county. Some of the information provided in the Howitt's 1963 Flora has been confirmed to be erroneous and detailed research has identified contrary evidence. The results of this work will be published in full with the publication of a county flora, but additional historical research has also been carried out by Graeme Coles. Those of you who are familiar with Graeme's 'Story of South Yorkshire Botany' will be interested to know that a similar work for Nottinghamshire is in progress. What I have read to date is fascinating.

For the proposed county flora there is still work to do including scrutiny of historical documents held by the NBGRC and examination of the Herbarium specimens held at Wollaton Hall. Some of this work was intended for 2019, but the demands of fieldwork took precedence.

Taxonomic Research

Recently I was contacted by Kevin Widdowson with regards to some personal taxonomic research he has been carrying out. Having reviewed the work I was delighted to provide an opportunity for people to get acquainted with the study and in response Kevin has provided the following text and links to his work. For those who struggle with the identification of species in the Asteraceae family I would recommend that you read the text and follow the links to a very helpful crib.

"*This year I have continued my work with the Lincolnshire Wildlife Trust on the LoveLincsPlants project. The main thrust is to collect, press and mount specimens from around Lincolnshire to include in the British and Irish Herbarium at the Natural History Museum. One of my roles is to work with ecology and conservation undergraduates at the University of Lincoln, to improve their field identification skills.*

Personally, I have had a productive summer season focusing on the dandelion-a-like members of the Asteraceae family. I have long thought that involucres held the key to rapid identification of many of these species (excluding Heiracium and Taraxacum) So I began collecting images of the capitula in profile. Inevitably it will lead to the inclusion of other Asteracea species. You can find these by following the link to access my involucre folder on google drive.

Compilation of selected Asteraceae involucres

https://drive.google.com/open?id=1BDLDuHOW2OXMgFHm4z9iVc5feJ0kBrTJ

Whilst collecting these images I began to notice that you could separate the species of the recently split Senecio and Jacobaea genera by the shapes of their involucres. Using the accounts in Stace 4 and Sell & Murrell vol. 4, I started investigating other potential morphological differences between the genera. In doing so I have found some interesting avenues to pursue, namely involucre size and shape, pyhyllary to ligule ratio and achene characters. I have given a google drive link to my precis study document. If you would like to read it you will need to download it to open it with the correct formatting.

https://drive.google.com/file/d/1RG8KoSCQoIYhpnS4CDr4lSDuphR6EuOm/view?usp=sharing

I presented this study at the BSBI AEM in November with a call out to botanists to help me collect the data I need to support my assertions. I even gave Clive Stace a copy who was very encouraging of me pursuing this even if came to nothing.

My links with the BSBI have been formalised by being invited to be a member of the Training and Education committee. I was offered this position due to the identification cribs I produce and my presence within the vibrant online botanical community. Post Atlas the BSBI will be attempting to be more outward facing and, dare I quote Clive Stace from his AEM talk, "Move beyond dots on maps". (There was an audible ripple around the auditorium when he said this)."

For Nottinghamshire I am afraid that there will be a short continuation of 'dots on maps' for vascular plants because of the proposed 'County Flora'. I also intend to start helping Margaret Crittenden (County Recorder) with bryophyte surveys, but that is a personal choice!

BSBI Field Meeting 2020

For those of you who are BSBI members, please note that a field meeting has been arranged for Nottinghamshire in 2020. If the 2020 meeting is well attended and successful, I hope for further meetings in the future.

The 2020 meeting is at Toton Sidings and because of his knowledge of the site, Dave Wood will lead the meeting. If you are interested check the BSBI web-site or literature for further details. Toton Sidings is probably the best brownfield site in Nottinghamshire and there is a wide range of other habitats associated with the Sidings. Some of Nottinghamshire's rare plants are also present on the site and July is the ideal time of year to search for them.

Conservation Work

In support of 'moving beyond maps' there is much conservation work to be done in the county and my involvement is largely based on the NWT Species Re-introduction Forum, which has continued during 2019, although there has been limited work that is plant related. The Forestry Commission is monitoring creeping willow *Salix repens* transplants and are ready to take on the next stage of increasing bilberry populations *Vaccinium myrtilis* at selected sites in the county. The creeping willow that was re-introduced to Stapleford Wood and Budby are surviving and monitoring has commenced.

If anybody is interested in contributing to species re-introduction work by growing rare plants or monitoring, please let me know. There are plenty of ways of helping.

Happy New Year to you all,

Mark Woods (Joint BSBI recorder for Nottinghamshire)

30/12/2019