



"Wonderful to be part of something so important and significant."
(Lizzie Rundle, University Careers Advisor)

"Feeling happy after doing this workshop." (Subash, University Chaplain)

Welcome to our extended edition of the Love Lincs Plants (LLP) project update report. Learn more about what has been achieved so far, upcoming events and opportunities to get involved in this exciting three year National Lottery Heritage Fund project (2017-2020). **Please note that project delivery is subject to the development of the Covid-19 virus. All events have been cancelled until the end of May 2020.** Thank you National Lottery players! [#ThanksToYou.](#)

#ThanksToYou

The project was delighted to celebrate the 25th Anniversary of the National Lottery in November with our partners at the University of Lincoln. This coincided with the annual #ThanksToYou Lottery campaign and was an opportunity to showcase the project to all students, lecturers and general campus staff. Volunteers had an opportunity to mount contemporary specimens and make a plant themed card to take home while learning more about the valuable work of the National Lottery Heritage Fund.

BSc Ecology & Conservation students at the Sir Joseph Banks Centre.

First year students from the 2019 BSc Ecology and Conservation programme from the University of Lincoln were introduced to the Contemporary Herbarium room at the Sir Joseph Banks Centre in February. Following on from a plant identification and collection session at the university campus in October 2019 (bottom left), students gained the opportunity to learn how to mount specimens that they had previously collected while also learning more about the freezing, digitisation and archiving process. This herbarium workshop was an opportunity for Professor Libby John, President of the Sir Joseph Banks Society (top left) to develop further connections with the project and to strengthen ties with the university and Society in order to build a solid legacy for the project beyond 2020. Further collection and mounting sessions are planned for the 2020/21 academic year.



"I had the opportunity to continue with the specimen mounting I collected, getting to see the journey it goes on." (Eden, Beverley/Lincoln)

"First time mounting a specimen. Yay!" (Emma, Lincoln)



Public events & training

After a busy summer collecting plants and running public events we have turned our attention to refining the contemporary herbarium room process as well as introducing new volunteers of all ages to the skill of mounting herbarium specimens. Young botanists from the 18-35 programme (left) were trained in this traditional archiving skill as well as trying their hand at operating our digital scanner. Together with one-to-one drop in sessions for retired volunteers (middle left), a total of twenty one volunteers are now active at the Sir Joseph Banks Centre herbarium. Partners have also been engaging with the wider public, giving talks to the West Wolds U3A Gardening Group in Market Rasen, Horncastle Rotary Club as well as engaging with 135 attendees at the annual LWT Conservation Forum at Woodhall Spa Airfield in November. This was an opportunity to present the 2019 project update article to new and existing volunteers. Project staff were out in the community in early March at Diamond Park, Lincoln (middle right). Local volunteers and their families had an opportunity to make bug hotels from plant materials; learning about Teasel seed heads and pine cones as well as taking part in the sowing of a native wildflower border to encourage local wildlife. To coincide with the release of a new film of Frances Hodgson Burnett's *The Secret Garden* in partnership with The Wildlife Trusts (TWT) the project will be encouraging the general public to go wild in their secret garden, local park or nature reserve in spring and also during the national 30 Days Wild campaign in June.



"Very absorbing. Once you start mounting plants it takes all your concentration and you can't think of anything else—very mindful and stress relieving." (Gwyneth Owen)

"It was a great day and I've learnt a new skill. Thanks LWT, I'll be back again :)" (Sarah Hunter, 18-35 group)

Botanical artists at work

Over the course of the autumn we have been working with the Sir Joseph Banks artists in residence at the centre. The aim being to express the connection between Banks and his work with renowned botanical artist Daniel Solander but also to link Banks' historical collections in Lincolnshire to his ancestral home today. In October, the group visited St. Lawrence's Church on Bank's ancestral estate at Revesby; collecting specimens and DNA samples (top) while also producing several illustrations of Holly *Ilex aquifolium* (bottom left); thus creating a connection to Banks' Holly specimen collected from the submerged Lincolnshire forest in 1796. In addition to this the group have produced several illustrations of the Critically Endangered and Lincolnshire rarity, Tall Thrift, *Armeria maritima* subsp. *elongata* also collected by Banks. These works will be displayed in Lincolnshire Herbarium room to compliment interpretation panels currently under development.



Young Botanists: *In their words.*

To date the project has trained over 200 young botanists in plant identification, collection or plant mounting with twenty one core 18-35 year old botanists attending several sessions. In this report we would like to bring you their thoughts on the project so far.

Sally Bavin, Lincoln.

"I have lived in Lincolnshire all my life, and knew I wanted to pursue a career in wildlife conservation. I completed a BSc in Zoology at the University of Hull, and when I graduated I thought I was ready to set out into my career at the age of 22. However, I soon discovered it is not enough to have a good degree. Paid, permanent, full time, entry level jobs in conservation are rare and competition is high. Reading the requirements of interesting job adverts made it clear I needed to improve my practical field skills. The Lincolnshire Wildlife Trust's Love Lincs Plants project came along at the perfect time for me. I couldn't believe my eyes, it was just what I had been looking for – a structured training course delivered by experts in the subject, which would all be held locally in Lincolnshire, and it would be totally free! So far, I have attended several of the fantastic training days covering the flora of various different habitats, broadening my botanical knowledge enormously. For me, the highlight to date was the woodland weekend. A Friday-Sunday residential field course focusing on ancient woodland flora taught by renowned woodland guru Keith Kirby. Keith delivered fascinating talks about the UK's woodlands, past and present, and took us out to study the flora of the beautiful hilltop woodland at Claxby in all its spring splendor. Not only have the training events taught me a lot about plants, they were also a rare opportunity to meet and spend time with other people around my own age who share my interest in the natural world."



"Shortly after completing a MSc in Biodiversity Conservation in 2019, I was successful in securing a full time permanent position as Assistant Conservation Evidence Officer within the Woodland Trust. There is no doubt that the plant ID skills I gained through taking part in the Love Lincs Plants botany course played a significant role in helping me to secure me the job, as one of my new responsibilities will be leading training days on tree and woodland flora ID! I am extremely grateful to all those involved in making the LoveLincsPlants 18-35s botany training course happen, and intend to continue my involvement with the course into its final year in 2020. I encourage any young people reading to give it a go – there is still plenty you can learn in one year! Who knows where it may take you?"



Nathan Clark, North Hykeham.

Q. Have you always had an interest in plants and the natural environment?

"Funnily enough, it was the exact opposite. When I was younger, you would have to bribe me to get outside. My interest in the environment only really took off in the past couple of years. It is fascinating that plants are so diverse and complex, yet they tend to fall completely beneath the notice of people."

Even in dense, built up areas, you can find that plants thrive between the cracks of the pavement and along walkways. For example, I had always seen this 'weed' when I walked my dog, it had a very distinctive head and a pleasing light-green colour. It was only earlier this year that I discovered it was called pineapple weed and about its amazing smell when crushed! It was exciting to find something so novel, yet so common that grew close to home."

What has been your most memorable moment with the Love Lincs Plants project?

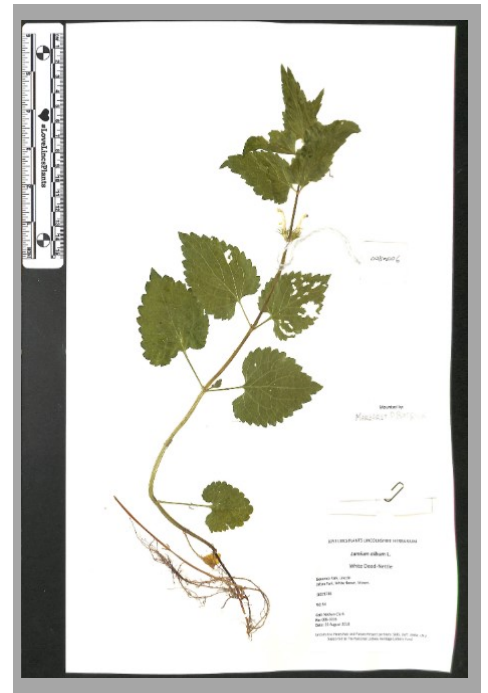
"My most memorable moment has to be on the first course I took, the heathland flora course, as we drove up this little track at Kirkby Moor. On one side was a beautiful collection of different growth stages of heather in bloom. On the other side it at first seemed more barren. This side used to be dominated by bracken but once the bracken was removed it revealed the true extent of the special acid grassland flora including wavy-hair-grass, heath speedwell and heath bedstraw. It was fascinating to see such a difference on either side of the track."

A Conversation with Nathan....continued.

"The Love Lincs Plants project has opened my eyes to a career in field ecology and environmental consulting and inspired me to apply for the BSc Natural Sciences degree course at Cambridge University. I am pleased to say that I gained my place and am enjoying my first semester. The project has been really useful because it put me in contact with so many dedicated people and in 2019 I spent a couple of mornings with the Lincolnshire Naturalists' Union at their field meetings and have been volunteering and collecting specimens with the Trustees and LWT project staff at Liquorice Park in Lincoln." (Right: Nathan's White Dead-nettle specimen from Liquorice Park).

Do you have any top tips for budding botanists? *"My advice would be to find other people that are also interested. This can be difficult in some areas, but you'd be surprised at how many great opportunities go overlooked. Not only will you find experienced people that can help you avoid the pitfalls and help you when you get stuck, but it will motivate you to get outside and start identifying."*

UPDATE: 18-35 Training in 2020: To continue the development of our young botanists we are running a flora bio-blitz at Boultham Park on the 6th June in the heart of Lincoln as well as a residential coastal flora session (17-19th July) and a Heathland Flora ID session (7-9th August). Trainees will continue to have access to ongoing training at the Sir Joseph Banks Centre herbarium.



South Lincs Flora Group (SLFG) field meetings in 2020

A total of ten South Lincs Flora Group meetings have now been scheduled for the 2020 season and commenced with a visit to Stamford Cemetery with the local parish council in late January to collect some of our early flowering species. This included first collections of Snowdrop, Winter Aconite (left), flowering Hazel and Annual mercury. Following completion of recording for the BSBI 2020 Atlas, the group will now be focussing on collating a rare plants register as well as a list of sites of botanical interest for Vice County 53 in South Lincolnshire. As ever, this dedicated group of expert and beginner botanists will aim to collect specimens for the contemporary herbarium during the final collection season. Thank you Sarah Lambert and the SLFG volunteers for your continued support!

Botanical garden under development

Volunteers continue to work on the development of the Banovallum House botanical garden, contributing 61 volunteer days to the project so far. Over the autumn and winter volunteers have helped with our second pond clearance; helping to remove invasive Reedmace and creating valuable open water habitat for emergent flora (top right). The project team have also met with a local builder to draw up plans for two raised botanical beds to display our characteristic Lincolnshire heathland and limestone flora (right– planning stage). These will be constructed with reclaimed brick and capped with Yorkshire stone to compliment the existing walled garden and fitted with interpretation panels. In time, these display beds will provide a valuable educational resource within an urban setting.

Other off-season work that has been completed over the period has included clearance of brash within the woodland plot; making way for native ground flora plants in Autumn 2020 as well as pruning of our traditional laid hedges to promote thicker regrowth for the benefit of local wildlife.



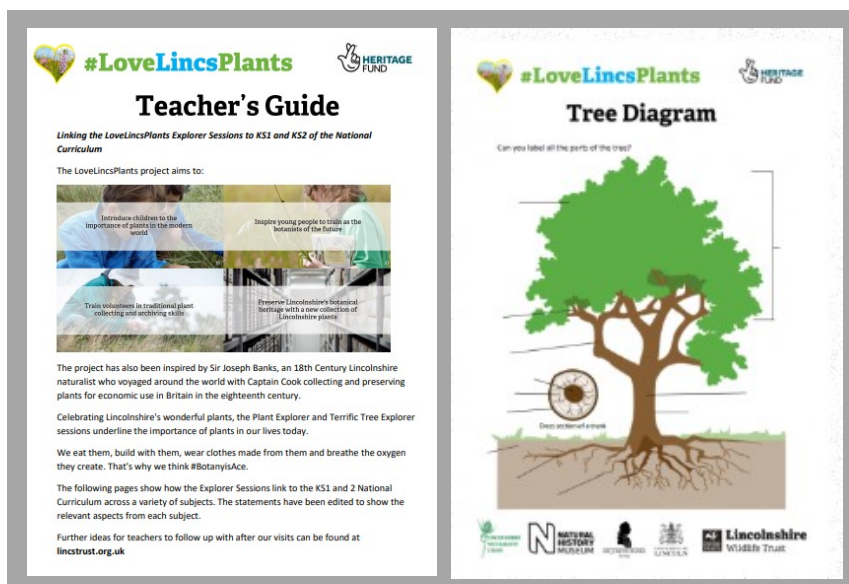
Schools, Wildlife Watch and education engagement

During late summer 2019, The Love Lincs Plants team at Lincolnshire Wildlife Trust put together a second plant themed Explorer session to engage with children over the autumn-winter period. Treading in the footsteps of famous Lincolnshire Plant Explorers such as Banks and Peacock, children have been learning how important trees are to our environment and the role of seeds in their life cycle. Since October, a further 349 Primary School children were actively engaged in two hour 'Terrific Trees' Explorer sessions taking this total to 1,513 children. To compliment this session, LWT education centre staff have continued to inspire children with their 'Importance of Plants' assemblies, reaching out to 16 schools and a total of 2,221 children since October.

Wildlife Watch Leaders and children have been busy over the winter with their group herbarium folders. It was particularly pleasing to see children being taught how to mount specimens from Watch Leader and Sir Joseph Banks (SJB) Herbarium volunteer, Glynis Dunthorne (bottom left): A perfect example of skills being transferred to the next generation. In November, 24 children from Far Ings Watch Group have likewise been inspired by 18-35 trainee and SJB volunteer, Amy Primavera, adding botanical artwork and folklore facts and photographs to their folder (top). We're looking forward to displaying these in the final project exhibition. Well done to the LWT education team and Watch Leaders for nurturing the next generation of Lincolnshire botanists!

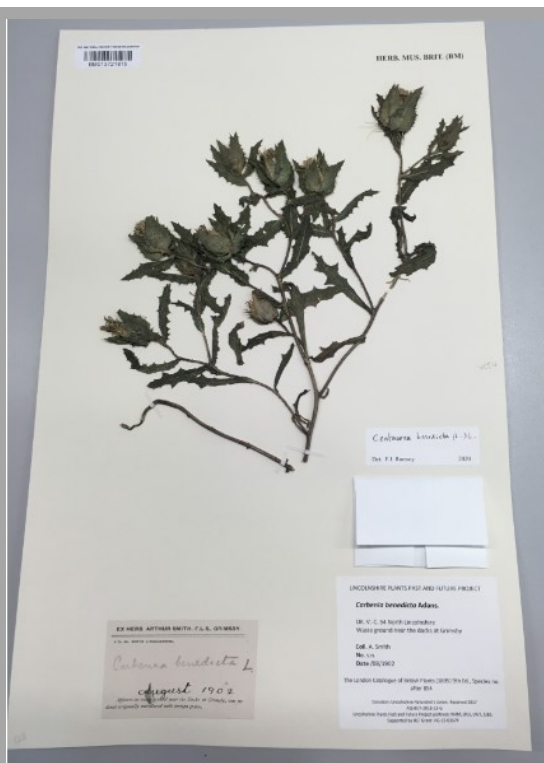


"The children were engaged and interested due to the exciting and entertaining delivery of the assembly. Lots of content pitched at the right level. The children enjoyed looking at the plants and seeds that were brought in, so more of those would be good when you see us again." (Assembly feedback from St. James' School, Grimsby)



Online education resources now available

As part of the legacy of #LoveLincsPlants we are developing a series of online resources for Key Stage 1 and 2. These worksheets and exercises include flower anatomy, tree parts, word search games as well as tips on how to grow trees from seed as well as a plant recording sheet for the school's local patch. This is underpinned with a 'Teacher's Guide' explaining how to link the project to other aspects of the curriculum and includes a 'Further Ideas' info sheet to help teachers link the project to local history, music and art. Click [here](#) to find out more.



Now that a streamlined process has been developed by the Assistant Project Officer, Debra Turner, work is continuing rapidly on processing the historic collections received from the LNU. Of the 80 boxes of unmounted herbarium material, principally the collections made by Rev. Woodruffe-Peacock which had been sorted to the London Catalogue 8th Edition (1891) taxonomy, 40 boxes (50%) have now been completely processed, i.e. taxonomically checked, databased, mounted and imaged. The majority of the sorting, laying out, mounting and all of the databasing and imaging is undertaken by Debra, with assistance for mounting provided by two volunteers, Kathy Evans, a native of Lincolnshire (left, bottom) and Larissa Welton who has recently joined during the project. One major milestone, which was celebrated by tweets and a blog, was the completion of the 5,000th specimen, Blessed thistle (left), rather appropriately an uncommon alien which had not been recorded as present in Lincolnshire

in Gibbons' (1975) flora. Approximately 80% of the E. Joan Gibbons collection has been completed, including all the very time-consuming and awkwardly presented specimens. Together we have now completed (i.e. databased and imaged) 5,323 sheets, with at least a hundred more waiting for final photography. A greater number have been taxonomically checked, databased and laid-out for mounting (5,796, i.e. c. 62%) and await completion and imaging.

Contemporary Collection

A total of 417 dried contemporary herbarium specimens collected by partner organisations and volunteers for the Lincs Plants project have been received at NHM since the start of the project at NHM in March 2018. In addition, 200 silica dried DNA tissue samples have been received to date. All specimens collected for NHM so far have been delivered in two batches: Batch one consisted of 79 specimens collected in 2017/18, and have now been fully processed (databased and barcoded, mounted, labelled, imaged and incorporated into the British herbarium). Batch two, received at NHM in December consists of 388 herbarium specimens and 200 associated silica-dried DNA samples, collected in the 2018/2019 season. This batch is in the process of being databased and barcoded, and specimen mounting has started with the help of our new volunteer, Jane Garner (right) with project officer Kath Castillo and will continue once the Museum re-opens. In addition, the NHM staff collection trip in August 2019 recorded, collected and pressed 71 herbarium specimens representing algae, ferns and flowering plants, from four sites across Lincolnshire. Of these, 27 were duplicates for the SJBS herbarium and 44 for the NHM herbarium. In addition, Kath Castillo collected 40 DNA fresh tissue samples associated with the NHM specimens (40 samples collected in vials and stored in Liquid N₂, and 17 silica-dried samples). Processing of this batch, including processing of the DNA samples, is almost complete, with completed herbarium sheets in the process of being photographed.



NHM Volunteer, Jane Garner (left) mounting contemporary Lincolnshire specimens under the guidance of Kath Castillo at NHM

The NHM team look forward to delivering training with the project team (page 10) and receiving more specimens in 2020. To view the NHM historic and contemporary collection stored within the British and Irish Herbarium at the museum click here: [NHM data portal](#).

Kathy Evans, Lincolnshire native and NHM plant mounter volunteer for #LoveLincsPlants says: "I love working with the plants that once grew in Lincs, for example this 1957 specimen; these are plants I might have seen growing as a child!"

News from partners.

This Winter/Spring period has seen the Love Lincs Plants herbarium specimens increase considerably and, as these specimens flow through our volunteers (bottom right) and staff are developing their skills in herbarium management commensurately. To that end the Society has also become a member of NatSCA whose mission is to promote and support natural science collections, the institutions that house them and the people that work with them, in order to improve collections care, understanding, accessibility and enjoyment for all. The ability to access this professional network and their training will be invaluable to the society as it transitions itself and staff from a membership/history group into a Natural History/Science and collections management organisation.

We attended our first training event on Monday March 2nd entitled - Natural Science Collections: 'The Basics', held at the Museum of Zoology in Cambridge. The Society also paid for volunteers Roksana Drobinoga and Sabeth Hagenkotter to attend. They are currently undergraduates at Lincoln University studying Conservation and Cultural Heritage. This was an invaluable day for the Society as it upskills staff and volunteers in their future curation role within the project. The event was attended by approximately forty people many of whom worked within major Natural Science establishments such as RHS Wisley, NHM, Cambridge University Herbarium, and the Fitzwilliam Museum. It was a fantastic day to both learn more but also to highlight our work on Love Lincs Plants, and it was encouraging to know that many delegates had actually heard of the project via our social media output.

As well as developing databases and our website which now has a huge amount of LLP content, we have also been busy with more mundane tasks. Our volunteers have been busy decorating the herbarium room in anticipation of new interpretation material which will present the project in a graphic and content rich way for our future visitors.

Since October we have promoted the project to curators from The Collection museum in Lincoln (top) as well as engaging with University students and lecturers on campus as part of British Science Week in March. Listen to our conservation with university based Siren Radio [here](#) from this event.

We have also been busy with arrangements for our House of Lords event scheduled to take place in November, this event will feature Love Lincs Plants and how it connects Sir Joseph Banks' botanic legacy to our work today and into the future. Invitations have been sent out and we are delighted that one of the first to accept was Venkatraman Ramakrishnan the current president of the Royal Society.

Sir Joseph Banks Society

by Paul Scott (SJBS Trustee)



Project Stats

**213 18-35
YEAR OLDS
TRAINED IN
PLANT ID,
COLLECTION
& MOUNTING**

**>9,000
PRIMARY
SCHOOL
CHILDREN
ENGAGED IN
PLANTS**

**5,323
HISTORIC
LINCOLNSHIRE
SPECIMENS
DATA
LOGGED**

**97 PUBLIC
PLANT-
THEMED
EVENTS
DELIVERED
TO DATE**

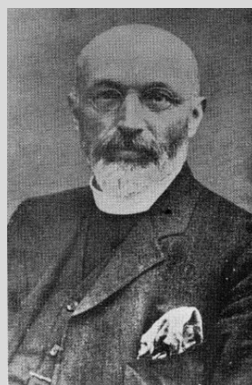
News from partners.

Lincolnshire Naturalists' Union (LNU)

by **Chris Manning**

The LNU published our annual journal, Transactions, over the winter which is increasingly expanding its coverage of the county's flora. Seven field meetings have been organised for 2020. These include special Love Lincs Plants Events: Nettleton Top in June where our host is Rachel Gibbons, niece of the late Joan Gibbons who wrote the Flora of Lincolnshire; in August, Cadney and Howsham: In the footsteps of Rev A. Woodruff-Peacock with a six mile collecting event by courtesy of the local landowners, across a landscape that he may no longer recognise, the NHM will be joining us for this event to help document the changes. We are also looking forward to visiting Revesby Estate (4/5th July) with the Natural History Museum who will be demonstrating the collecting and mounting of aquatic plants. This is part of the 2020 bicentenary Banks' commemorations.

We are delighted that the Natural History Museums Dr Fred Rumsey, Senior Curator in Charge, Historical Collection has agreed to be our President probably in 2022/23. The executive committee welcome two younger members, North East Lincolnshire Council's Ecology Officer Rachel Graham and Luke Hartley who works as an ecological consultant. How much is attributed to Love Lincs Plants is difficult to quantify but our twitter followers have increased in two years from 280 to 707! To join in with LNU collection events go to our [website](#).



2020 LNU Field meetings with the NHM project team: Walking in the footsteps of LNU founding father, Rev. Woodruffe-Peacock (bottom left) at Cadney parish (top) on the 22nd August and aquatic plant collection training at Revesby Estate on 4-5th July (bottom right).

Media update

Top Tweet earned 6,144 impressions

Working with Gwyneth, a former surgeon and Emma, a former science teacher this morning. Producing fantastic herbarium specimens for our contemporary collection. [#InternationalDayOfWomenInScience](#)
pic.twitter.com/9oqXJXgUTs



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The project continues to raise the profile of botany, herbaria, and the National Lottery Heritage Fund through social media, local radio and publications. Trustee Paul Scott from the Sir Joseph Banks Society had an opportunity to engage with a new radio audience at the University of Lincoln during British Science Week in March (see pg. 7 for more). Lincolnshire Wildlife Trust's Lapwings magazine has featured articles on the project and young botanists in both the winter and spring editions, engaging with 28,000 members in the county and beyond.

The project is now followed by over 700 individuals and organisations across the world, on Twitter, and has created over 240,000 Twitter impressions over the period. This included our Top Tweet (left) on International Day of Women in Science on 11th February (left); celebrating the work of our two former science professionals, Gwyneth and Emma at the new herbarium.



Love Lincs Plants Tree ID Guide

Photos, text and layout have been compiled towards the production of a new tree identification guide for the project. In total there are 36 common trees covered in the guide. It is split into sections by leaf shape allowing the user to flick through the pages to find a shape that matches their leaf. From there they will only have a few trees to separate between. As well as simple picture matching, the user can compare their leaf with a written list of characters to confirm their identification. The guide, produced by LLP Education and Community officer Kevin Widdowson, is now ready to be sent to print for final design work and print set up. We're looking forward to sharing this excellent resource with our young botanists and Ecology and Conservation undergraduates from the University of Lincoln.

Wildflower legacy

Conservation Officer, Mark Schofield from the Lincolnshire Wildlife Trust has been working in partnership with volunteers and the University of Lincoln since February 2019 to plan and implement a sustainable and bio-secure propagation system for Lincolnshire's wildflowers. Seed has been harvested from nature reserves across the county according to Kew's protocols. Over 8,500 plants of 52 species have been propagated for habitat restoration at several sites within Lincolnshire in addition to the successful propagation and planting of over 700 plants of the nationally rare Tall Thrift in partnership with Natural England to strengthen the existing population and to create a new one on LWT reserves.

Seed collection will continue by LWT staff over the course of 2020 and this seed will begin to form part of a seed bank for Lincolnshire's wildflowers representing a range of habitats; working towards a lasting, living legacy to the National Heritage Lottery Fund project, Love Lincs Plants.



Wildflower trail goes live

In February we launched our 2020 Wildflower Trail to encourage the public to venture out in to the countryside to discover the flora of the county throughout the year. This [downloadable](#) resource highlights twelve diverse sites across the county and includes some of our Inspirational Plants such as the Bowthorpe Oak near Bourne and our county flower, Common Dog-violet at Whisby Nature Park near Lincoln. Every month we will Tweet an image of the 'species of the month' and further information on where to encounter it. This will act like a 'pop-up' wildflower experience as plants come into flower throughout the seasons.



Inspirational Plants

A further seven Inspirational Plant folders were received from Lincoln based printers, Ruddocks in January. Ten embossed folders have now been completed for project promotion and engagement activities with a further twenty specimens in the process chain. Inspirational Plant collectors planned for 2020 include a specimen of cultivated willow from Lincolnshire willow weaver Alison Walling and a limestone grassland species from Rachel Gibbons, third cousin of the author of the counties only Flora, Joan Gibbons at Nettelton Top with the LNU on the 13th June. All 30 Inspirational Plant folders will be digitised and made available to be online for the wider public to tell the story of the role of plants in our lives. Click [here](#) to see Lincolnshire Wildlife Trust volunteer, Les Binns, digitising the first set at the Sir Joseph Banks Centre in early March.



2020 events and training *

**(Subject to Covid-19 developments and UK Gov. advice)*

To celebrate our final collection year for the project and to commemorate the life and work of Sir Joseph Banks (1743-1820) during this bicentenary year we have a bumper calendar of public events and activities for you to get involved with. Further details at <https://www.lincstrust.org.uk/events> and at partner websites.

Partner links can be found [here](#).

- **4th and 5th July: Revesby Estate.** Join the NHM team on this packed weekend of plant collection, herbarium mounting, botanical art and guided tour, all wrapped up with a Sunday BBQ. Booking only.
- **11th July:** Fancy challenging your botany ID skills? Why not attempt the highly regarded Field Identification Skills Certificate (FISC) on 11th July at Castle Bytham. Booking via the [BSBI website](#).
- **22nd August:** Follow in the footsteps of Reverend Woodruffe-Peacock, founding father of the LNU as we join curators from the Natural History Museum to recreate a parish collection walk carried out by this renowned naturalists on this date in 1903. Booking required.
- **25th and 26th September: Gravity Fields Festival.** Join all the project partners as we celebrate the science of botany and herbaria with project partners at this renowned festival of exploration and innovation. More details to be found on the project website and social media in summer.
- **11th-20th September: Lincolnshire Heritage Week.** Project partners will be celebrating our achievements over the last three years with access to the herbarium room and more. Details to follow in the summer.

Want to find out more? For further information about the events, workshops and training sessions mentioned in this report follow us on Twitter [@LoveLincsPlants](#) and on [Facebook](#). Further project information can be found on the project website [here](#).

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