

Love Lincs Plants

Evaluation Report

HG-15-03574



Mounted by:
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LOVE LINC PLANTS LINCOLNSHIRE HERBARIUM

Filipendula ulmaria (L.) Maxim.



“The Love
Lincs Plants
project
has been
a fabulous
experience; a
living history
has been
created”

Head Teacher

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The Lincolnshire Wildlife Trust and project partners would like to thank all of the photographers that have generously provided images for this document. This includes City of Lincoln Council, Les Binns, Lincolnshire Naturalists' Union, Mansions of the Future and the Natural History Museum.



Executive summary

Every plant tells a story...

‘There is no value in this dusty old collection of plants.’ Words expressed by a soon-to-be partner of the ‘Lincolnshire plants: past and future’ project, upon first being approached to consider the prospect of forming a project. From this early conjecture to where the project is at present, from the transformation of stakeholder perspectives to the revelations as to why such a collection of plants is so incredibly valuable and relevant in today’s contemporary world, has been nothing short of a remarkable and monumental journey.

Upon visiting Lincolnshire, Dr Mark Spencer, then Senior Curator of the British and Irish collection at the Natural History Museum enthusiastically extolled the scientific significance of the Lincolnshire Naturalists’ Union (LNU) Historic Collection. Mark’s foresight and passion at this introductory meeting of partners, gathered to pilot the potential of the project, became one of the defining moments in the formation of the project. From this moment a vision was realised, ‘his passion was contagious.’

The LNU Historic Collection, a mere 11,024 specimens, is quite simply a collection of botanical gems, ‘a treasure chest’, which, once opened up and newly appreciated, truly fired the imagination, inspiring an ambitious plan that led to the shaping of the present-day project. This initial seed of an idea has now grown considerably and has achieved a profound and far-reaching impact, re-titled ‘Love Lincs Plants’ (LLP), this venture has established a deeply relevant and important legacy for heritage, people, communities, natural sciences and future learnings of the natural world.

Love Lincs Plants commenced in September 2017, a three year project due for completion in October 2020, however, due to the Covid pandemic the project end date was rescheduled and extended to December 2021. LLP would have never come to fruition without the financial support from National Lottery Heritage Fund (NLHF) in the form of an award of £499,000. 71% of the total project costs of £703,253. Match funding was sourced from partner contributions and in-kind support.

As part of this funding package, a five-year legacy fund of £30,000 was also granted by NLHF, scheduled to commence in January 2022. A Legacy Action Plan and memorandum of understanding (MOU) has been agreed by all partners.

The LLP project commenced in September 2017, celebrated with the symbolic hand delivery of the historic collection to the Natural History Museum (NHM) in London, an event attended by project partners and volunteers. This donation into the trusted hands of the NHM launched the beginning of a four-year journey and importantly forged a culture of inspiration and bonded the partnership, a collective collaboration of strength that would see the project through.

Inviting partners and volunteers alike, to visit the NHM herbarium collection and to first-hand witness specimens from the Sir Joseph Banks collection, sparked both profound and emotional response from all; a realisation that not only was their historic collection at last ‘homed’, but that their very own future contemporary LLP specimens will also soon be joining the museum to be archived and presented ‘amongst the Greats’.

The digitising, conserving and re-curation of the Lincolnshire historical herbaria of 11,024 specimens was successfully achieved and is now permanently sited at the NHM. The curation of two new contemporary Lincolnshire herbaria for both the NHM and Sir Joseph Banks Society (SJBS) Centre are continuing to be steadily acquired and produced to a ‘gold standard’ quality, which will be ongoing as part of the project Legacy Action Plan (LAP).

Gone are the, thought to be of no value, displaced boxes of historic specimens housed in dark, forgotten and inaccessible storerooms; gone also is the identifiable gap in Lincolnshire plant specimens in the British and Irish Herbarium at the NHM.

Audiences, locally, nationally and internationally now have access to all three collections, both online with searchable data portals, and physically in person, at both the NHM and SJBS. The recorded data is scientifically robust, and importantly available for future scientific and environmental analysis to help inform research pertaining to climate change today and into the future.

Whilst the project experienced unforeseen challenges and delays due to the Covid pandemic, in autumn 2021 the project completion was celebrated with the spectacular illumination of 30 Inspirational Plants illustrated by local artists in outdoor spaces across Lincolnshire.

Lincolnshire Wildlife Trust (LWT) working together with LLP partners have, with great effort, established a new wave of passionate Young Botanists, each individual trained in order to continue the legacy of the project, channelling their new skills and knowledge to embrace opportunities that the project has presented to them. These new young botanists have achieved beyond their own personal expectations, gaining confidence through their learning to champion the wonder and value of plant life, and the wider environment, not only to their peers, but also to harder to reach audiences and communities. By fostering a collective strength of younger people, through facilitating a programme of residential and peer to peer networking, the project has not only instilled the skills and memories for future generations but will go towards actively protecting and conserving Lincolnshire’s plants and natural heritage locally and nationally in the future.

Identified core project activities also included developing

“I had this amazing foundation to stand on, created by Woodruff Peacock, Joan Gibbons and Sir Joseph Banks. Without this foundation some elements of this project just would not have happened”

Head of Conservation
Lincolnshire Wildlife Trust



“I have a few specimens at home and really think that when mounted and displayed are a work of art. What a great project idea and a wonderful way for the next generation to learn about botany”

Chris Packham

Volunteers across the project partnership have gained expert specialist training and botanical identification skills, and were provided with bespoke professional equipment to enable them to continue fulfilling a new Collection Strategy for Lincolnshire, led by the Lincolnshire Naturalist Union (LNU) and the NHM.

New collection systems and processes have been mapped out by the project team, with the training and involvement of volunteers to ensure ‘gold standard’ specimens have been collected and mounted to the highest quality throughout the project, reinforcing that these standards will be maintained throughout the legacy period.

New connections have been established between the necessity for both recording nature and the shifting face of the environment, and collecting quality specimens, with new pioneering techniques to collect DNA samples, in the field, piloted. The project has created unique volunteering opportunities, attracting new audiences, with volunteers taking part in multiple opportunities across the partnership, many of them dedicated to following the journey of the specimens, from collection to curation.

An area identified to be a cause of concern was the absence of botanical learning within the UK curriculum for all key stages of education from primary KS1 right through to higher education. In order to address this, the project worked closely with the Lincolnshire educational sector, and created a carefully produced suite of resources, guides and teaching aids, enabling teachers to successfully introduce plant science into the classroom at all levels. An unplanned output for LWT has been the review of engagement with schools based on the success and impact of approaches gained during LLP schools activities. More outreach programmes are planned for the future. Also inspired by LLP, the University of Lincoln has now embedded botanical modules within its Ecology and Conservation undergraduate degree, committing to sustaining guest lectures from LLP experts and to coordinate LLP student residentials.

An enriched public programme of events and activity, from lectures to demonstrations, tours to light shows, have connected audiences to the wonder of their local botanical and environmental heritage, gaining a strong sense of local identity and community spirit. Bringing creativity into the project and public events programme has been distinctive and clearly broadened roots to engagement, this has increased the diversity of audiences for partners and for heritage.

Creativity has been an important aspect of the LLP process, this was naturally introduced due to the creative skills and interests of the appointed project team, each having relished the opportunity to express their creative ideas in their work programmes. Interestingly, collection curators and museum teams also recognise their skills as ‘artistic’, reflecting that many who wish to see collections are not always scientists, indeed many are ‘creatives’.

Whilst the project did not focus on engaging culturally diverse groups, based on the demographic of Lincolnshire, there was a priority given to engaging younger botanists 18 – 35 years as well as harder to reach communities and those facing greater barriers to educational and creative opportunities.

a seed bank, botanic gardens and mobile resources, which recognised that the specimens within the historic herbarium told us a story of local loss and extinction of plant species within Lincolnshire. This area of work saw another stream to engage communities and tell the story of Lincolnshire’s flora, while directly reducing the potential for future loss of plant species.

A series of pop-up banners and materials were developed for taking along to shows, such as Gravity Fields in Grantham and the Lincolnshire County Show. New kit was secured to support trialling new interactive activities based on plants, such as micro-photography, that aimed to inspire people to engage in plant collection events, develop botanical skills and volunteer in herbarium activities. These proved to be ‘flowers to bees’, and so such interactive activities will continue to be built into future LWT events. Habitat demonstration areas were developed at LWT’s headquarters in Horncastle, which showcase a variety of plant species from across the county. A second such site was taken forward as an extra output at Whisby Education Centre too. A seed collection room was established in the grounds at Horncastle that in the legacy period will see a new way to engage the public in volunteering involving plants. The seed banking activities saw a new and unexpected relationship form with the Royal Botanic Gardens Kew, Wakehurst Team, that manage the Millennium Seed Bank. This has resulted in delivering seed collection training by Kew staff in 2021 to LWT staff and 18-35 trainee botanists, and seeds being collected for the national seed bank as part of the Endangered Flora Project. LWT are working with Kew in the early days of establishing a national seed bank network as an outcome of these activities, so the learning from LLP will be transferred across the whole Wildlife Trust family and further.

What truly blossomed through this work stream, which was not foreseen, was the relationship between the University of Lincoln and LWT, which saw LWT collected seed being propagated by the University through experimenting at their Riseholme Campus. In 2019, a volunteering group were trained by LWT and University staff to help manage the plant propagation, once the right growing material was identified by the University that was peat free. Covid-19 has meant these activities were put on hold, but the two partners are agreeing a long-term plan for plant propagation as part of the legacy to LLP.

This area of work will be one that could springboard into many communities in Lincolnshire, as these plants are being and will continue to be utilised in nature’s recovery. This will either be through specific projects that deliver nature-based solutions, such as natural flood risk management, or through LWT’s Naturehoods programme where the staff help communities co-design highways through villages and towns for wildlife.

These activities will help address the biodiversity and climate change crises.

One very distinctive learning outcome of the project has

been to establish a greater understanding of rural isolation and the challenges with engaging young people. Partners are keen to continue to advance innovative approaches to engagement with harder to reach demographics into and beyond the legacy period, introducing new communication tools and mentorship for new volunteers.

The project’s communication has played an important role in reaching new audiences. Online communications via social media platforms have sustained and grown a strong profile for the project locally and nationally, which will continue beyond the project time-line. Due to Covid, audience engagement shifted from in-person lectures to online streamed events, which attracted greater diversity and opportunities for engagement. It is also important to recognise that the new digital portals for each herbarium collection are attracting world-wide interest, and in themselves acting as a communications tool. The visual capture of each specimen is available online, and these, together with a comprehensive suite of downloadable learning resources, films and lectures, offer a digital resource for PR purposes which have been utilised extremely successfully.

Despite individual organisational changes across the partnership the project partnership has remained resilient, adaptive and sustainable. Faced with staff absences, extreme weather events and the Covid pandemic, each partner has remained steadfast and supportive, throughout all adversities they continued to embrace the project, working hard to collectively problem solve and innovate, retaining the progress and momentum of activity where possible, supporting each other and their volunteers to achieve the project outcomes.

Retention of volunteers will be crucial throughout the project legacy, it is clear that without volunteer contribution throughout LLP the project ‘would have collapsed’. The level of volunteer contribution for LLP is commendable, and the richness of new opportunities clearly ‘exciting and rewarding’ for all involved. It is important to note that not all of the partners are paid staff, and that both LNU and SJBS are 100% volunteer led organisations. Therefore, providing existing and new volunteers with continued opportunities to learn new skills will ensure a policy of succession and contribute to the sustainability of the project outcomes.

The partners will continue to work together and have each signed a MOU, defining their commitment to a five-year Legacy Action Plan commencing in Jan 2022. The project partners are:

Lincolnshire Wildlife Trust
Sir Joseph Banks Society
Lincolnshire Naturalists’ Union
University of Lincoln
National History Museum (London)

The hope for this partnership is to embed long term relationships beyond 2026. The project has clearly fostered new, strong and highly valued relationships, with all partners expressing a willingness to continue working together beyond the legacy period with already new ambitious offshoot projects beginning to bloom.



Introduction

The National Lottery Heritage Fund (NLHF) awarded a grant to Lincolnshire Wildlife Trust on behalf of the Lincolnshire Plants: Past and Future partnership. This funding supported an extensive displaced uncatalogued historic herbarium collection of 11,024 specimens (collected over a period from the Hanoverian to the late 20th Century) to be acquired, re-curated and housed permanently within the collections of The Natural History Museum (NHM).

Lincolnshire Plants: Past and Future, was also granted funding to create two new contemporary herbaria, one for the NHM and one to be sited in Lincolnshire at the SJBS in Horncastle. These new duplicate contemporary collections were to importantly establish a continuity of Lincolnshire plant specimens for societal, historical and scientific interest. However, it's important to note that a principal intention for all partners was to ensure Lincolnshire was not 'at a loss' due to the relocation of their historic collection, but to establish a strong sense of progress, through the curation of new herbaria and the delivery of a pioneering new local programme of learning, training, engagement and public events.

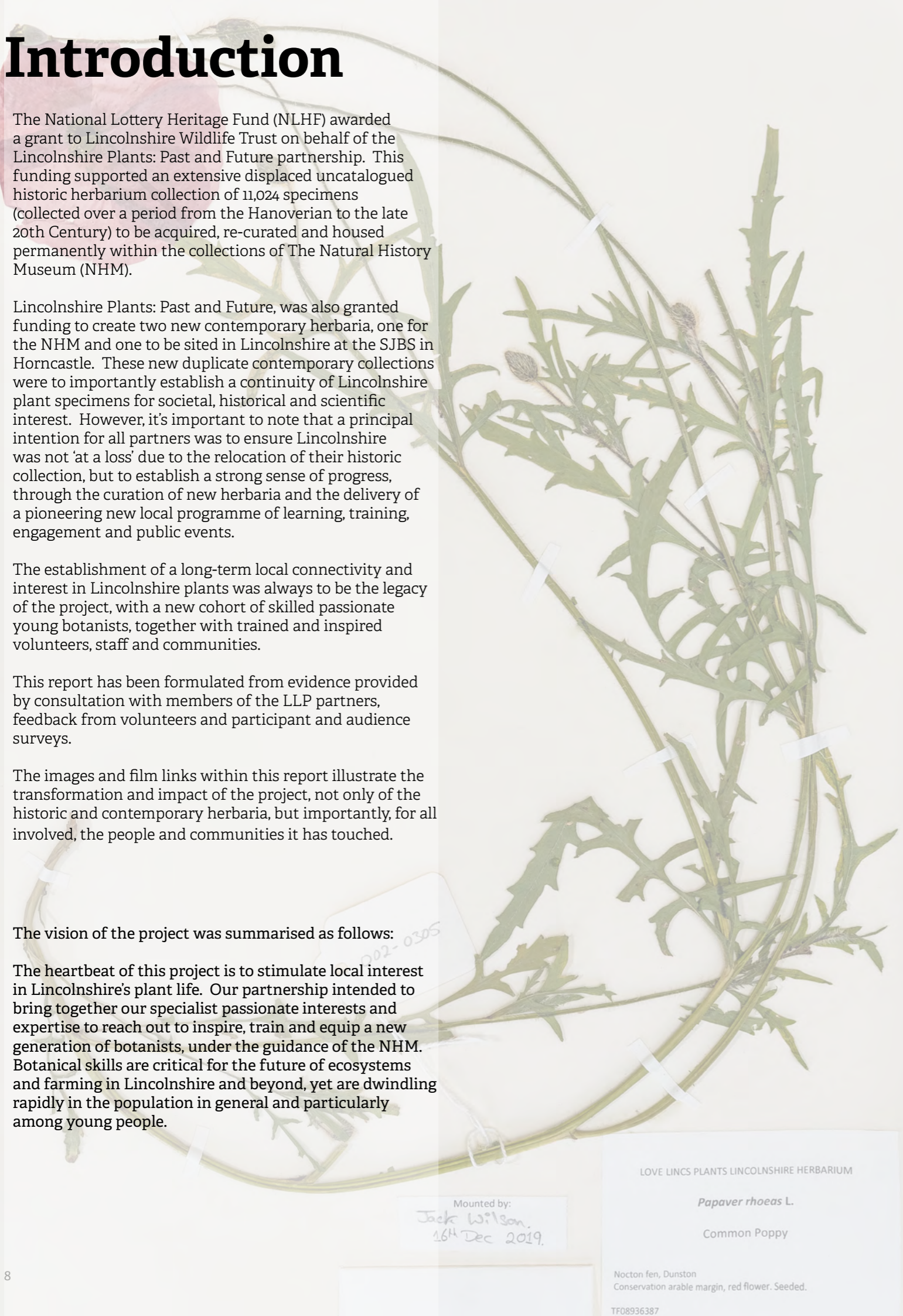
The establishment of a long-term local connectivity and interest in Lincolnshire plants was always to be the legacy of the project, with a new cohort of skilled passionate young botanists, together with trained and inspired volunteers, staff and communities.

This report has been formulated from evidence provided by consultation with members of the LLP partners, feedback from volunteers and participant and audience surveys.

The images and film links within this report illustrate the transformation and impact of the project, not only of the historic and contemporary herbaria, but importantly, for all involved, the people and communities it has touched.

The vision of the project was summarised as follows:

The heartbeat of this project is to stimulate local interest in Lincolnshire's plant life. Our partnership intended to bring together our specialist passionate interests and expertise to reach out to inspire, train and equip a new generation of botanists, under the guidance of the NHM. Botanical skills are critical for the future of ecosystems and farming in Lincolnshire and beyond, yet are dwindling rapidly in the population in general and particularly among young people.



“Today was a brilliant opportunity to promote and explore the intersection between art and nature and the possibilities that arise when working together.”

Rachel Long,
Manisons of the Future

What we wanted to happen

The aims of the project

1.1 The need for the project

- 1.1.1 The LNU Historic Collection of over 11,000 specimens was in urgent need of saving and conserving. Acquired by the LNU from the Lincoln City and County Museum, after becoming displaced some 18 years ago, the collection has since been stored in multiple temporary places. At the start of LLP, the collection was housed at the University of Lincoln's Riseholme Campus, where it was kept temporarily in a secure and inaccessible storage room closed to the public. The deterioration of the collection was inevitable if not conserved.

- 1.1.2 The availability to successfully re-curate, conserve and store the LNU collection in Lincolnshire was limited. The sheer scale of the collection was daunting. LNU exhausted all possible local solutions, leaving the opportunity for NHM to acquire the collection, an opportunity not to be missed.

- 1.1.3 The historic collection documents nearly 200 years of environmental change in Lincolnshire, and with an increasing need to understand these environmental changes it was important to secure and retrieve these specimens for the benefit of future scientific research.

- 1.1.4 Lincolnshire plant-life is poorly represented in regional and national collections, and an effort was required to fill this gap and enhance the understanding of plant diversity for the county, particularly regarding the creation of contemporary collections.

- 1.1.5 Expertise, skills and knowledge in botany is critical for the future of the environment in Lincolnshire and beyond. However, these are qualities that are rapidly disappearing, particularly where future generations are concerned, with a growing fear of 'not seeing where the next botanists are going to come from'. Lincolnshire has a wealth of botanical experts and their knowledge needed to be shared and transferred to future custodians of the natural world before it is lost.

- 1.1.6 Pilot herbarium collecting events, public talks and activities identified a strong local community enthusiasm and value to the project, covering a wide range of age groups and interests. These activities demonstrated that the project would provide a positive route towards engaging diverse communities and improving well-being, a valuable outcome for Greater Lincolnshire populations.

- 1.1.7 It was also understood from an initial scan of the historic herbarium specimens, that some species of plants had been lost to Lincolnshire. In a time where the biodiversity crisis is real, the project also incorporated the need to develop tools to address this

issue including habitat demonstration areas, and seed banking of local provenance, native plants. Acting to ensure the genetic diversity for Lincolnshire's flora, making it more resilient to future change.

1.2 What we planned to do and hoped to achieve

The project consisted of 3 main elements (outputs):

- Conservation of the historic Lincolnshire herbarium (Woodruffe-Peacock Collection)
- Creation of 2 contemporary herbaria
- Training the next generation of botanists

To achieve all of these outcomes, a substantial volunteer, learning and public engagement programme was mapped.

- 1.2.1 The conserving of the historic Lincolnshire collection would involve:

- Transferring of the historic Lincolnshire herbarium to the NHM in London
- Re-curating, re-mounting and permanently storing the historic herbarium in controlled conditions in the British and Irish Herbarium, permanently maintained at NHM
- Digitally recording and imaging of the full historic collection, along with Sir Joseph Banks' plant collection of the British Isles in NHM

- Making available a full collection and images, for a global audience, via the NHM's online portal.

- 1.2.2 Training the next generation of botanists would involve:

- Establishing a core group of between 15 and 30 skilled and trained young botanists
- Providing training to a minimum of 100 volunteers in introductory field botany techniques, ID skills, specimen collection and preparation
- Training a new group of volunteers, providing skills for local people in mounting dried plant specimens to museum standards
- The creation of a new dedicated volunteer space (Herbarium Room) at SJBS, to successfully curate collections
- The enriching of course modules and activity for the new BSc in Ecology and Conservation at the University of Lincoln
- Inspiring the development of future plant-based research with post graduates at the University of Lincoln



"We will strive to maintain this contemporary collection, keeping it up to date, as **it is very valuable to the museum**. It is useful to duplicate onsite too, we are obliged to leave a duplicate set locally, not just to take a collection"

Dr Fred Rumsey
National History Museum

“I now go out with the Lincolnshire Naturalists’ Union and South Lincs flora group. They are so patient and I have learnt a lot during the project.”

Volunteer

- Producing a series of short films with University students, identifying a range of common plants, for sharing on social media platforms, enabling students to transfer their knowledge to new audiences
- Training of Wildlife Watch Leaders (LWT volunteers) in collecting, drying and mounting specimens to museum standards and for Wildlife Watch Leaders to share their new skills with Wildlife Watch families across Lincolnshire (parents with their children aged 8 – 11yrs), with young Wildlife Watch children involved in the creation of specimens for the contemporary herbarium collections at NHM and SJBS

- Engaging 150 Wildlife Watch children in ‘Lincolnshire Explorers’ days
- Providing training to volunteers and project staff in digital photography and film, equipping them with skills to record participant activities in events and create high quality images of plants for contemporary herbarium interpretation
- Hosting a one-day Conservation Forum led by Lincolnshire Wildlife Trust, with 6 lectures focusing on ‘Plants Matter’ and discussing plant science development with 150 people attending

1.2.3 Educating young people to understand plants and living things would involve:

- Delivering 90 school assemblies across Lincolnshire
- Increasing ‘plant knowledge’ for 9000 primary aged children
- Delivering ‘plant led activities’ for 30 schools (3000 primary aged pupils) at LWT’s 3 education centres (Whisby, Far Ings and Gibraltar Point/Willow Tree Fen)
- Delivering 30 Explorer Days, following the footsteps of Sir Joseph Banks and other plant explorers, at 30 schools across Lincolnshire, engaging 900 children in collecting, drying and mounting a selection of plants from their school grounds
- Developing new GCSE and A level courses offered at LWT’s education centres (Whisby, Far Ings and Gibraltar Point/Willow Tree Fen) meeting the requirements of the Geography and Biology syllabus, engaging 250 secondary school age pupils
- Producing a suite of engaging and interactive primary and secondary school educational resources, available online to download by teachers and learning professionals
- Creating a botanical demonstration garden, showcasing rare and characteristic plants of Lincolnshire at Banovallum House, complimenting the Sir Joseph Banks garden in Horncastle and made accessible for visitors to study, draw and photograph plants, with 3 new interpretive panels installed

1.2.4 Inspiring Lincolnshire about plants would involve:

- Creating a ‘30 Inspiring Plants’ handling collection of mounted specimens to travel around the county, inspiring interest in Lincolnshire plants and the project. Each plant interpreted with a story illustrating different themes from historical and natural uses to scientific and rural craft traditions
- Producing and distributing a printed pamphlet of the 30 Inspiring Plants collection
- Producing 8 pop-up banners illustrating the storyline of the 30 Inspiring Plants, travelling around the county at events, promoting and increasing awareness of the project
- Producing 3 mobile interpretation displays, for display at a variety of locations when project teams deliver talks and events
- Identifying 10 sites as ‘good examples’ of spectacular botanical displays across the county
- Developing local ‘pop-up’ botanical gardens on local nature reserves, as locations for special guided days, with a botanist present
- Programming outreach talks and events across Lincolnshire communities, particularly those unable to access LWT education centres, engaging 2,500 people in the project
- Programming 10 ‘Great Minds’ high-profile lectures at the University of Lincoln, themed around the importance of plants, reaching 1,500 adults and student 16yrs +
- Creating a ‘Plants are Ace’ public exhibition celebrating all aspects of the project at the end of the project, linked to the anniversary of Sir Joseph Banks’ death in 2020

1.2.5 Involving people with plants would involve:

- Creating new project web pages, via the LWT website, plat-forming the project established within the first year of the project and continually updated
- Creating a project social media campaign for FaceBook, Twitter and Instagram
- Creating a ‘Lincolnshire’s 30 wild flowers in 30 days’ campaign, accompanying the Wildlife Trust’s ‘30 days wild’ campaign, on social media platforms
- Engaging the wider public in creating a collection of outstanding photographs of Lincolnshire plants on Instagram or Flickr

1.2.6 Engaging a wide range of people and local communities would involve:

- Creating a new contemporary herbarium of Lincolnshire plants to be acquired and curated at both NHM London and SJBS Horncastle
- Fulfilling the aims of a new Lincolnshire Collection Strategy (reviewing annually) and a timetable of collecting days with leader, volunteers and species selected
- Collecting a minimum of 4,500 new specimens over the 3-year period
- Submitting species records to the Greater Lincolnshire Partnership and the Botanical Society of the British Isles
- Mounting and curating a minimum of 1,500 new specimens for the Lincolnshire collection at SJBS Horncastle
- Recruiting and training 2 Volunteer Curators to manage, maintain and continue to develop the contemporary collection at SJBS
- Digitally imaging and uploading all contemporary specimens to websites by NHM and SJBS, enabling global accessibility to the collections
- Illustration of a number of collection specimens in Lincolnshire by a group of up to 4 botanical artists and for these artists to continue to illustrate Lincolnshire plants in the longer term
- Developing a new herbarium gallery, at the SJB Centre, with a set of interpretive panels produced and museum display cabinets installed, engaging visitors in the project and raising awareness of the importance of both the historic and contemporary collections
- Establishing a secure, medium-term seed bank unit at Banovallum House supporting endangered and rare species in the county and creating a database of seeds collected





"I've loved the plant mounting session, it's inspirational and infectious. A big wow, thank you!"

volunteer

1.3 Methodology of evaluation

1.3.1 The function of the evaluation was three-fold. Firstly to test the successful delivery of the project in terms of the herbarium collections, both the historic and contemporary. Secondly to test the successful engagement of volunteers, groups and communities. Thirdly to use as a tool to assist in ensuring the sustainability of the partnership within the 5-year legacy period and beyond.

An evaluation framework and strategy for the project was not established for delivery of the project and therefore baseline data is difficult to ascertain, and due to the variables in methods/tools adopted, comparative analysis is limited. A tender process was ran in 2019 to contract expertise to develop the framework but no interest was received. Contractors were contacted at the time as a follow-up, and the response was consistent; this was due to a lack of capacity in the sector. A second tender process in 2020 during the Covid pandemic did result in tenders being submitted and a contractor being appointed.

An external evaluation framework was drawn up during the last 6 months of the project delivery (during the time of UK pandemic lock down) and therefore a combination of evaluation methods/tools have been used for this evaluation, dependent on retrospective data and findings provided by the project team and information gathered during the final stages of project delivery.

Evaluation methods/tools produced and collated by the project team:

- 18 – 35yrs fact finding baseline questionnaire
- Google forms online questionnaire
- Positive and Improvements post-it note qualitative feedback
- Paper feedback form
- Paper feedback form with unique questions designed around an activity
- Thought bubble qualitative comment form
- School teacher qualitative comment form
- Reflective films by young botanists in the final year of the project
- Attendance figures for all activity (quantitative)
- Activity plan outputs and actual outputs
- Evaluation methods/tools by the external evaluator: 1-2-1 qualitative consultations with partners and project staff (13 consultations)
- Qualitative forum group session with recipients of the project (volunteers, schools, young botanists) (1 session)
- Legacy Action Planning with partners (2 sessions)
- Online questionnaire staff and partners, impact and effect (32 completed)
- Online questionnaire for volunteers, impact and effect (102 completed)
- Online audience surveys (101 completed)

1.3.2 Volunteers. Pilot activities were undertaken in advance of the project and during the initial phases of delivery to inform plans and the project offer for existing and future volunteers. Volunteers from the beginning of the project were asked to regularly share their qualitative feedback to activities, training or events they were involved in as part of the project using the range of methods/tools set out by the project team. This feedback informed the planning of future activity. However, no demographic baseline data was gathered based on GDPR advice at the time.

It is important to note that the project did not define a difference between participant and volunteer and therefore the following assumptions need to be made:

Young botanists are referred to as volunteers in this report, however their involvement was participatory and activity for them led throughout, and; adults attending workshops or 'volunteer work party' days are referred to as volunteers in this report, however their involvement was participatory as activity was led throughout.

Due to the pandemic, only a small number of volunteers were able to attend an invitation to take part in an online forum session, which was also attended alongside a small group of participants and recipients of the project. Volunteers were additionally invited to complete an online questionnaire.

1.3.3 Partner and project staff. All partners and project staff participated in 1-2-1 consultations (apart from 1 member of the project team who was on furlough at the time of consultation), two legacy action planning sessions and invited to complete a questionnaire. These were all completed at the later stages of the project by the external evaluator.

1.3.4 Schools and community groups. Representatives from schools and community groups were given the opportunity to attend a forum session to discuss their experiences retrospectively. Due to the pandemic, a reduced face to face contact between the project team and recipients of the project, meant there were limited opportunities to re-engage. Qualitative comments forms were completed by schools who took part in assemblies and 'Explorer Days' at the time of activity and 1 school Head Teacher took part in the forum session. Online questionnaires were provided as an additional route to gathering retrospective data.

1.3.5 Audience surveys. A total of 101 audience surveys were gathered nearing the end of the project delivery. These were distributed electronically and no sampling method was undertaken due to the limited data available at earlier stages of the project delivery.

1.3.6 Demographic data. Prior to external evaluation tools, limited demographic data has been captured for the project, as mentioned before this was based on GDPR advice at the time and the systems available. Registration of volunteers and participants of the project was not administered and therefore

demographic analysis and opportunities are weak within this report. The lead partner did not have a system for formal volunteer registration during this project, which in itself has been a lesson learnt. Demographic data can be captured based on post-code locations of school and events. A number of ‘targeted’ activities took place with culturally diverse ethnic minority groups, but due to the staff changes contacts have not been maintained.

- 1.3.8 Observation. Due to the timings of the external evaluation and the pandemic, all observation materials have been collated by project staff, this includes, film and photographic evidence.

What actually happened?

2.1 Management structure of the project and project partners

2.1.1 Project management

A project team, representative of all four partners; The Lincolnshire Naturalists’ Union (LNU), Sir Joseph Banks Society (SJBS), the Lincolnshire Wildlife Trust (LWT) and the Natural History Museum (NHM) was established to develop the NLHF Round 1 submission, it was during this stage a partnership agreement was drawn up. The University of Lincoln joined the partnership during the second phase development, and then all five partners went on to oversee delivery towards round two approval. Both submissions were led by Lincolnshire Wildlife Trust and the then LWT team (during submission stages) consisted of one volunteer Trustee, LWT CEO and Senior Education and Community Officer, who was sub-contracted specifically to focus on progressing the second stage submission.

Regular partnership (referred to as ‘steering group’) meetings took place throughout the delivery of the project, attended by all five partners together with LWT project staff.

2.1.2 Project partners, their roles and responsibilities

Lincolnshire Wildlife Trust (LWT)

LWT is a registered charity with a membership of over 26,000, with a team of 70 paid staff, full and part-time. The organisation is essentially voluntary, with volunteer roles including membership of the Board and Teams, 16 Area Groups, Voluntary Reserve Managers, Wardens, Watch Leaders, and helping with sales, events and administration. Their vision is for Lincolnshire, and neighbouring sea and estuaries, to be rich in wildlife for the benefit of all. They are responsible for the management of 100 nature reserves and their approach is the encouragement of active involvement of its members and volunteers, and the raising of public awareness of conservation issues.

LWT are the lead coordinators of this project. Their leadership responsibilities, distinctive from other LLP partners includes, acting as the link between the partnership and NLHF, submission of biannual reports, financial management, contracting and line management of three project staff (including the Project Co-ordinator) and the co-ordination of partnership ‘steering group’ meetings. As LWT contracted the Project Officer, their involvement is notably far more involved than other partners due to this project model.

LWT were an obvious project lead, due to their size, structure and expertise in managing similar scale projects. Whilst they were not the lead from the offset, this configuration was fitting, as other organisations within the partnership were either too large in scale, too small or volunteer led. As LWT were not party to very early stage visioning and development of the project, their involvement evolved considerably.

LWT responsibilities, led by the Head of Conservation and the Project Officer, included volunteer recruitment, mentorship, co-ordination and training, co-ordination and delivery of practical volunteering and leadership of the Young Botanist programme, the co-ordination and delivery of all formal education and community engagement events and activities, the set-up and co-ordination of contemporary herbarium plans and processes, all project publicity, audience development and all financial management and administration.

The Love Lincs Plants (LLP) project team of three staff were positioned within the Conservation Department at LWT. All contracted project staff were line managed ultimately by the Head of Conservation. Five representatives from LWT were on the project steering group, Head of Conservation, a Trustee and three contracted LLP project staff.

The Lincolnshire Naturalists’ Union (LNU)

Founded in 1893, the LNU has years of experience and knowledge of Lincolnshire wildlife and geology and has conducted over 800 field meetings in the county. With a membership of 140 volunteers, LNU has a large array of specialist expertise with having many professionals amongst its ranks.

The only amateur natural history society covering the whole of Lincolnshire, members study, record, hold field meetings, supply records, publish books, exhibit, discuss and learn. The records they have produced over the century provide an important source of historical heritage in the county.



LNU played a key role in originating the LLP project, having acquired the historic collection and safeguarding it for 40 years until it was handed to the NHM. They made a strong case for the need for the project, and contributed considerably to plans for a new engagement offer, drawing up a Collection Strategy for Greater Lincolnshire and co-ordinating field meetings across the county, ensuring successful collection of specimens for the new contemporary herbaria.

Both the Secretary and the Treasurer of the Union are core members of the partnership and initiated progress from the beginning. They are both steering group members.

Sir Joseph Banks Society (SJBS)

Situated in a recently restored period building in Horncastle, SJBS is a voluntary organisation which aims to stimulate interest in the life and achievements of Sir Joseph Banks (1743 - 1820). They deliver public events, exhibitions, talks and engagement programmes. They are a membership organisation and rely on volunteers to support their collection and engagement work. A new dedicated space for volunteer curating has been established at their centre in Horncastle.

SJBS is a voluntary organisation and currently has three collections, including a collection of botanical watercolours and the new LLP contemporary herbarium. They have ambition to continue to grow their collections, recognising new opportunities to engage audiences, communities and visitors. During the pandemic, their building had to close which impacted on their organisation resulting in an organisational re-structure. Therefore, during the life of the project, SJBS appointed a new volunteer management committee and has since progressed successfully into a formal status of ‘working towards becoming an accredited museum’ with Arts Council England.

A Trustee of SJBS was part of the original early visioning and development phase of the project. Then a new Trustee was appointed by SJBS at the start of the project to the Steering Group alongside the Treasurer. Part way through the delivery phase representation reverted back to the original Trustee and Treasurer. This reflected organisational change with SJBS.

During the project SJBS signed up a new volunteer mid-point in the project who subsequently joined the steering group as a result of their level of input and involvement in the project, particularly in areas of technical data management and systems. Their role has been significant in producing digital records and creating an online portal of data for the contemporary collection.

SJBS provided the space at their public facing centre in Horncastle to create a museum standard herbarium room, a space for volunteers to process and curate plant specimens. This tailored facility includes cabinets to store and maintain the contemporary collection. SJBS also provide important space to administer Lincolnshire specimens to be acquired by NHM. With a centre open to the public, SJBS are instrumental in the engagement and interpretation of the contemporary collection specimens for the benefit of public audiences, which will have its greatest impact in the future, after fully opening post lock down challenges. SJBS take on a leadership role in the legacy period of the project, continuing to recruit volunteers, acquire specimens, data record and mount the contemporary collection.

Natural History Museum (NHM)

The NHM is one of the world’s foremost resources for natural science, with significant collections (over 70 million specimens) and leaders in ground-breaking research programmes. Founded in 1753, its mission is to conserve and develop its collections, and use them to promote the discovery, understanding, responsible use and enjoyment of the natural world.

Part of HLF funded Darwin Centre; the Angela Marmont Centre for UK Biodiversity (AMC) serves as a focus for collaboration on UK natural history activity. With a mission to “promote the appreciation and study of UK biodiversity and to nurture, inspire and develop existing and future naturalists.” The museum forms a hub for interaction between the UK’s professional and voluntary biological recording communities.

The NHM is an exempt charity and non-departmental public body sponsored by DCMS, employing 822 people and 400 volunteers, however due to the pandemic, these figures have reduced slightly and volunteer engagement temporarily suspended. A vacancy at the museum of their Volunteer Manager impacted on the capacity of the team at NHM to engage their volunteers from the beginning and for a large proportion of the project delivery period.

The Head Curator of the British and Irish Herbarium, within the Life Sciences (Algae, Fungi and Plants) department of the NHM was a lead member of the partnership and project steering group. NHM was party to very early conversations with LNU and SJBS confirming arrangements to acquire the historic collection and positively shaping the development of a Lincolnshire Collection Strategy and wider engagement plans. A change of staff occurred within the early stages of project delivery, and whilst this may have impacted on the project, the change had no negative implications as the project was clearly embedded within the museums programme.

2014

May 14
Preliminary visit to NHM hosted by Dr Mark Spencer SJBS: Paul Scott, Jean Burton and Janice Locke-Wheaton
LWT: Adrian Royston, Paul Learoyd, Lilianna Witkowska, Mark Schofield
LNU: Chris Manning, John Flynn, Nick Tribe

July 14
Herbarium project pilot days at Whisby Education Centre (led by Mark Spencer NHM)

November 14
Dr Mark Spencer from NHM gives a Great Lives lecture at University of Lincoln

2015

June 15
First partner collaboration, LNU, NHM and LWT attended the annual Lincolnshire Show

2016

January 16
First stage application submitted to National Heritage Lottery Fund

May 16
Start of Phase 2 development

2017

February 17
Second stage application submitted to National Heritage Lottery Fund

September 17
The project starts

Project Officer is successfully appointed (Aidan Neary)

October 17
Course development meeting with LLP partners and Dr Carl Soulsbury of University of Lincoln for their new BSc (Hons) Ecology and Conservation course

November 17
Launch of the learning journey of LLP. The first training given to all project staff and partners, led by Dr Fred Rumsey of NHM

December 17
Finalisation and validation of the new BSc (Hons) Ecology and Conservation degree at UoL
Job opportunities for the project team advertised

2018

January 18
Education and Community Officers at LWT successfully appointed (Sue Fysh and Kevin Widdowson)

February 18
'Beast from the East' hits Lincolnshire Coast impacting on LWT capacity due to significant storm damage

March 18
Project Officer and Technical Assistant at NHM successfully appointed (Kath Castillo and Debra Turner)

August 18
The first 10 Inspirational Plants folders collated and designed.

Public call out for future Inspirational Plants stories to the wider public launched

September 18
Professor Libby John of University of Lincoln is appointed as the new President of the Sir Joseph Bank Society

October 18
Launch of the new BSc (Hons) Ecology and Conservation degree at UoL with a total of 14 students enrolled

Opening of the new Herbarium Room at SJBS and launch of new LLP volunteer opportunities at the centre

2019

February 19
Bio-secure propagation and seed collection starts in partnership with UoL (Riseholme Campus)

Trevor Olsson is appointed as a Trustee at SJBS and joins the project steering group

March 19
The first LLP Great Lives lecture by artist Carry Akroyd was held at UoL

September 19
Over 1000 plants collected and pressed for the contemporary herbaria

2020

January 20
SJBS becomes a member of NatSCA

March 20
Lockdown restrictions announced by UK government, all LLP public engagement and volunteering activity stopped

October 20
The first 'no cost' project extension agreed with National Heritage Lottery Fund and starts

December 20
'Lincspirational Plants' art competition launched

2021

January 21
Launch of new joint membership for UoL students between SJBS and LNU

March 21
UK lockdown restrictions eased and schools re-open

Over 8,500 plants propagated and 700 tall thrift plants planted

May 21
Final Great Lives lecture by Dr Knapp of NHM, is held online reaching with an audience of 260

SJBS opens its new 'Natural Science and Heritage Centre' with over 2000 visitors in the opening weekend

June 21
Kath Castillo (NHM) contract ends and Dr Fred Rumsey retires

First 'no cost' extension completes and second 'no cost' extension starts

July 21
Specimens taken from Newton's Apple Tree 'Gravity Tree' near Grantham

Sue Fysh and Kev Widdowson (LWT) contracts end

August 21
Completion of demonstration garden and raised beds at Banovallum House

October 21
Finale light show event in Lincoln city attended by 1000's of community audiences

November 21
Launch of online Herbarium Hub

Completion of seed bank site at Banovallum House

December 21
End of project
MOU agreed and signed by partners

November 21
historic specimen recuperated and digitised

Phase 1 project development

Phase 2 project development

Delivery of project until national lockdown restrictions

Delivery of project with 'no cost' extension

The Senior Curator managed two new project staff who were responsible for re-curating and conserving the historic collection and the curating of the contemporary collection. An additional three regular volunteers assisted in the curating and mounting of specimens for both collections when possible. The geographical expanse between partners did not isolate NHM in London from Lincolnshire activity, with collaborative project activity, training and events programmed and co-delivered. The Project Officer at NHM worked closely with The Project Officer in Lincolnshire to set up new processes and systems to successfully acquire specimens for the contemporary collections.

In June 2021 the Senior Curator, Dr Fred Rumsey, of the British and Irish Herbarium retired and Dr Mark Carine became the project lead in the legacy period of the project. It's important to note that an offer of continued advisory support, in his retirement, has been accepted and he has taken up his invitation to be a future President of Lincolnshire Naturalists' Union.

University of Lincoln (UOL)

UOL has a student population 14,105 and aims to provide students the strongest possible foundation for their future career with an excellence in partnerships with employment. Their research-engaged teaching encourages students to maximise their potential and achieve their ambitions.

The UOL was not originally a project partner, however exciting opportunities and collaborations were recognised during the development stage of the project, with particular links made with the School of Life Sciences. In the early stages of the project an Associate Professor and Programme Leader joined the steering group. Important to note, the University indirectly played a pivotal role in safeguarding the historical collection, which was temporarily housed at their Riseholme Campus, prior to the project partnership commencing.

Aligned with the project, UOL successfully launched its new undergraduate degree in Ecology and Conservation, introducing specialist modules on botany and scheduling field trips to local nature reserves. Expertise across the partnership have enabled enrichment opportunities for students and this will continue into the legacy of the project.

UOL also contributed to a wider public engagement programme, and hosted the Great Lives lecture series inspired by the LLP project. These switched successfully from their on-campus lectures to an online platform led by LWT due to the pandemic.

An additional relationship with the School of History and Heritage at UOL was established, whereby SJBS successfully recruited Conservation and Cultural Heritage undergraduates as volunteers at the centres Herbarium Room. Notably Professor Libby John, Pro Vice Chancellor, Head of College of Science at the University of Lincoln was also appointed as the Society President of SJBS during the life of the project.

2.1.3 Appointment of the project team

A total of 5 contracted LLP project staff were appointed:

Project Officer (P/T based at LWT)
Education and Community Officer (.6 based at LWT)
Education and Community Officer (.6 based at LWT)
Project Officer (P/T based at NHM)
Assistant Project Officer (F/T based at NHM)

Contracts were extended to align with lock down restrictions and project staff were temporarily furloughed (please refer to the project time-line). All LWT staff were line managed by the Head of Conservation.

The key leadership role was the LWT Project Officer, with full operational responsibility to co-ordinate and fulfil project outputs, ensuring that work was undertaken correctly across the partnership. After short-listing and interview, a member of existing LWT core staff was appointed. This appointment established an important opportunity for continuity leading on from their previous project activity within the county, enabling the transference of skills, local county-wide knowledge and operational expertise.

Both appointed LWT Education and Community Officers were new to working with any of the project partners. Their recruitment, contrastingly, offered a fresh opportunity and energy to the project, defining new approaches to engagement and bringing in their comparative specialisms and creative skills.

The Project Officer at NHM was experienced and confident, with a background in delivering unique and engaging projects for NHM. Their appointment required little induction, resulting in a successful 'self-sufficiency' when working remotely from the core team in Lincolnshire. The Assistant Project Officer at NHM applied for the opportunity having been an Curatorial Assistant for six months and prior to gaining employment, a volunteer at the museum for five years. They demonstrated a strong skill set of curating, mounting, recording botanical specimens and academic specialisms in plant life sciences. This role was originally titled 'Herbarium Technician' in the bid writing stage, however the title evolved to 'Assistant Project Officer' when advertised.

“It’s a thrill that some of the plants I am collecting are going to be nestled alongside The Greats”

LNU volunteer plant collector



59% Increase in volunteer registrations in *second year

VOLUNTEERING 

338
Individual
active
volunteers



25 unique gateways
to volunteering offer



96% of volunteers rated
their experience as **good** or **excellent**

81% of volunteers
mental health
improved

 6003
volunteer hours
contributed

*third year
pandemic
restrictions
were in place

2.2 Volunteers

2.2.1 The project outputs, from plant collecting to public engagement would not have been accomplished so successfully without the determination, expertise, energy and willingness of volunteers to give their time to the project. Volunteers ensured that the sourcing, collecting, curating and digitising of specimens went smoothly, with high quality standards achieved. A delivery plan was drawn up between project partners, many of whom being volunteers themselves, requiring substantial contribution from volunteers from across the county and also in London.

2.2.3 Volunteers substantially contributed to more hidden but equally impactful outputs including the development of online resources for schools and groups. This small cohort of dedicated volunteers embedded their skills and expertise as qualified teachers and educational professionals.

Volunteers were proactively encouraged to be involved in the development and delivery of the project and whilst this was not formalised, there are clear indicators volunteers were influential and gained a strong sense of ownership of LLP.

2.2.4 Volunteer roles based in Lincolnshire were informally established, with opportunities promoted using welcoming, personal and accessible arrangements, including word of mouth invitations at events, community taster sessions, tours and public demonstrations. Many volunteers engaged across multiple areas of the project, so as to experience and learn specialist skills, whereas others clearly invested their time to a particular niche. The following volunteer duties were fulfilled as part of the project:

- Specimen ID, collection and drying
- Contemporary herbarium curation and mounting
- Contemporary herbarium digitising and management
- Historic herbarium re-curation and conservation
- Wildlife Watch leader/support assisting
- School and learning resource development
- Visual illustration of contemporary herbarium
- Practical conservation and habitat creation
- Seed collection and rare plant propagation
- Public event guest speaker
- Event and public engagement support

2.2.5 Volunteer opportunities were regularly promoted via the LWT website and social media platforms and also by the partnership organisations, for example via sign up to their membership. It's important to note that LWT acted as the hub for all project volunteer enquiries and activity co-ordination/signposting for Lincolnshire based activity, with the Project Officer overseeing and maintaining all responsibility for newly recruited volunteers, their induction, training, signposting and mentoring throughout. The Project Officer, along with support from wider project staff, also led all Young Botanist activity and Practical Volunteering sessions. NHM conducted their own volunteer engagement following their volunteer engagement processes and procedures.

The total of 338 volunteers engaged in the project, and contributing a total of 6,003 volunteer hours to the project, equivalent of 858 full days.



2.3 Young Botanists (volunteers aged 18 – 35yrs)

2.3.1 A commitment to establishing a cohort of skilled Young Botanists volunteers has been a priority for the project. This was a strong and vibrant offer during the LLP period, which will be looked to be carried forward by LWT. During LLP a range of activities and training covering all aspects from field ID and specimen collection through to plant mounting and community engagement.

A total of 30 sessions and activities for Young Botanists were delivered, equating to 620 voluntary hours to LLP overall. All sessions included informal as well as formal learning opportunities.

A total of 130 volunteers registered as Young Botanists throughout the project, with a total of 69 attending regular activity (53% retention). Young Botanists are expected to continue volunteering beyond the project time-line and into the legacy period. However, it is important to recognise that this age group is transient and it is not deemed a negative outcome if Young Botanists move on to future opportunities, transferring their gained skills and experiences. Signposting across the project partnership and to wider opportunities was ongoing.

An additional 405 younger people (18 – 35) participated in LLP activity throughout the project period and across the project offer.

A total of 130 young people (18 – 35) signed up to the Young Botanists mailing list and continue to keep in touch with the project via email bulletins and news.

Regular email updates created by the Project Officer signposted Young Botanists (and all volunteers and general public) enabling independent interests to be encouraged via the partnership. Individuals were able to progress specialisms and take-up broader volunteer roles in Lincolnshire.

2.3.2 Young botanists were recruited via a range of publicity methods including social media, local groups, colleges and the University of Lincoln. Existing and new contacts were maximised across the county resulting in a continued steady growth of engagement.

2.3.3 Young Botanists taking part in LLP gained the following practical skills:

- Plant identification in the field
- Plant collecting in the field
- Plant anatomy and plant science
- Winter tree identification
- Plant specimen pressing and drying
- Plant mounting and specimen recording
- Habitat creation and management
- Public skill sharing, leadership and engagement

Young Botanists have also importantly gained significant personal skills, with many expressing the impact the project has had on, for example, their confidence, communication skills and wellbeing in their short films and testimonials.

2.3.4 A number of Young Botanists taking on leadership roles, particularly in areas of community engagement, which they tell us is directly as a result of gaining confidence and skills through LLP. Young Botanists have led pop-up plant collection events with their peers as 'Young Green Ambassadors' and facilitated plant collection sessions with Wildlife Watch families. Please ref to appendix 1

2.3.5 The model of engagement for Young Botanists took the form of peer to peer group participation, which proved valuable as it enabled a strong sense of volunteer camaraderie support and networking. This model united and empowered individuals, providing a tailored offer for their demographic needs and aspirations.

Intergenerational programmes of activity also took place to integrate learning and skill sharing so as to not isolate the group, this is particularly evident in the residential training, events, which were highly regarded by all who attended.

This focus on a younger demographic volunteer successfully contributed towards addressing the much-needed age representation and diversity of volunteers across the partnership as well as gender, with a higher than average number of females signing up as Young Botanists.

2.3.6 Two student placements from the Open University and one from the UoL BSc Ecology and Conservation degree, were appointed through a recruitment process as part of the project and based at LWT. These placements were salaried roles and were supported by extra funding secured from Santander and UoL. Under the mentorship of the Project Officer, their 10 weeks of activity contributed to a broad range of project outputs. They gained new specialist skills, accessed training and maximised their learning to directly support project activity and their personal development.


Since their placements they have signed up to volunteering with SLFG and LNU to continue collecting specimens for the contemporary herbarium. In fact, one of the placements has now secured employment with LWT.

“The knowledge and skills I learnt on the course have already helped me secure my first permanent, full time, paid graduate level job in conservation”


Young Botanist




1205 Lincolnshire plants collected




36
plant collection days




10
community collection events



1154
volunteer hours collecting in the field



60
pressing kits built by students at Boston College



80
locations to collect plants were granted, including 58 *SSSI Lincolnshire sites

SPECIMEN AND SEED COLLECTION



125
unique species of seed collected



1085
volunteer hours propagating



1
new bespoke seed bank created for Lincolnshire

*Site of Special Scientific Interest

2.4 Plant collection

- 2.4.1 A Collection Strategy has been created for the historic county of Lincolnshire, from the Humber to the Wash, identifying priority plants species for the contemporary herbaria. Led primarily by LNU and NHM, with the input of advisors across the partnership, this new comprehensive go-to strategy, specific to the county, provides an important framework for collecting, takes into account an array of influencing factors including, diversity of species, habitat, climate change and 'at risk of extinction' species. An annual review of this strategy is built into the legacy period of the project.
- 2.4.2 A partnership with Natural England successfully negotiated consent (licences) to collect plant populations from ancient sites, 69 Sites of Special Scientific Interest (SSSI), private estates, Forestry England, RSPB and Local Authority sites. This targeted effort has helped create an accurate picture of the Lincolnshire flora and establish a scientifically robust collection. Consent, some of which have been granted in areas for the first time, have been extended to 2026

A total of 36 plant collecting 'in the field' events were hosted throughout the project aimed at collecting specimens for the contemporary herbaria. A total of 80 sites across the county were visited. These sessions were reliant on substantial volunteer involvement, with a total of 1,154 volunteer hours contributed, equivalent of 164 full days. A total of 164 volunteers took part in collecting plants for the contemporary collections, 43 of which were newly trained and mentored Young Botanists aged 18 – 35yrs.

16 Field Meetings to collect specimens were organised by LNU for their volunteer Union Members to attend. These all took place within a seasonal 'collection window' between March and September each year (when pandemic restrictions allowed). LNU, adapted their meetings to allow extra time for collecting and members housed the drying units at their home before delivering to SJB centre for mounting.

The South Lincolnshire Flora Group (SLFG), a new partner to the project, held a total of 10 field collection sessions for their volunteers and an additional 10 community public plant collection events were organised by the project team. SLFG also housed a drying unit.

Often both LNU and SLFG focussed their efforts to collect species that are more challenging to identify or rare to find. This not only fuelled their appetite to discover and learn as recorders but also opened up the opportunity for communities to collect more common plants, and therefore LLP unearthed a natural synergy.

Wider volunteer collection was furthermore achieved via groups and organisations, including school children, UoL students and Wildlife Watch families, all of whom contributed to the collection of 'gold standard' specimens for both the NHM and SJBS collections.
- 2.4.3 1,205 plants were successfully collected to a 'gold standard' quality, during the lifetime of the project. It is important to note that the pandemic lock down in England commenced in March 2020, which aligned with the beginning of the third year 'plant collecting window'. This significantly impacted on collection activity through to spring of 2021. Whilst public spaces did fully reopen by July 21 the age of many LLP volunteers were classified as 'vulnerable' by the UK government and naturally the confidence for volunteers to engage in face to face volunteering reduced.
- 2.4.4 A step by step 'guide' to collecting plants has been produced. Forming part of the overall Herbarium Manual, this essential resource, details procedures on how to collect specimens in the field, equipping volunteers with a valuable reference so they can conduct their collecting with confidence. This has been particularly valuable post training and when in the field when independent of the presence of an 'herbarium expert'. This guide ensured specimens successfully met museum standards and quality. Processes were piloted and tailored by volunteers together with the staff team (primarily both Project Officers) during the early stages of the process and adapted regularly.
- 2.4.5 A short film demonstrating the process from start to finish of plant collection, produced by a professional wildlife filmmaker Jack Perks, provides an additional visual and accessible guide. Aimed at engaging wider audiences and younger demographic, but also to offer alternative formats for learning for volunteers. An essential tool for new volunteer recruitment and to publicise LLP online (available online for public viewing) and as part of introductory training.
- 2.4.6 17 apprenticeship students from Boston College, training in carpentry and joinery, hand built a total of 60 botanical presses for the project. These presses, created to a professional standard and generously in-kind for the project, have provided volunteers with the essential kit needed to collect specimens. Presses have been well maintained and regularly used 'in the field' and will do so for many years into the future. The cost of a singular portable botanical press to purchase is £69, therefore this contribution is valued at £4,140.
- 2.4.7 40 DNA specimens were collected in vials using a pioneering new liquid nitrogen processes (and DNA leaf tissue samples using silica gel) led by Dr Michelle Casanova from NHM with partner volunteers in Lincolnshire. These DNA samples are now sited within the Molecular Collections Division at the NHM, available for future scientific research.
- Mounted by
BATE-
7/11/21

Rough grassland. Former arable

TF20326147

VC 54

Coll. Roy Harris
No. 005-0016
Date 30/07/2018

Lincolnshire Plants Past and Future Project partners: SJBS, LWT, NHM, LNU
Supported by The Heritage Lottery Fund
- 27

“I have greatly appreciated the opportunity to learn from the experts and to take part in **such a valuable project**. Everything has been well organised and everyone involved has been friendly, helpful and encouraging.”

volunteer



- 2.4.8 A new 'plant collecting app' to record data has been created and piloted by the Project Officer at NHM. This pioneering technology, tested by Young Botanists in the field, has the potential to be rolled out in the legacy period of the project and for wider national use. Its aim is to advance the functionality of on-site processing of data, by collating plant imagery, plant ID, grid reference, date, time and all relevant information, all linked to individual collector ID numbers.
- 2.4.9 A total of 125 varieties of Lincolnshire seeds have been collected by LLP volunteers and UOL staff.
- 2.4.10 A new seed bank, with freezer facilities and equipment has been created at Banovallum House (LWT) in Horncastle. This seed bank is the starting place for an exciting new relationship with the Millennium Seed Bank managed by Kew Wakehurst Team. The team came and delivered seed collection training in 2021, and with LWT they are in the process of establishing a new National Seed Bank Network. This new network will initially focus on practices within the Wildlife Trust family, but has the potential to go further in the future. It builds upon the plant propagation programme with the UOL team at the Riseholme campus, where trials to find peat-free growing materials for local provenance, native Lincolnshire flora was successfully piloted. A volunteer training programme to support the Riseholme staff had to be placed on hold during the pandemic. The plant propagation work has continued though and through the seed collection and growing programme, various community and natural flood management schemes have now been supplied with these seeds/plants. LWT's Naturehoods programme will see that these plants continue to reach into every corner of Lincolnshire. This is where LWT staff support a local community to co-design nature highways through their neighbourhood, set evidence baselines, restore nature corridors and manage them.

2.5 Habitat creation

- 2.5.1 A total of 22 practical volunteering sessions took place throughout the project, with 606 volunteer hours contributed. These practical activities, in the main, helped create a LLP demonstration garden at Banovallum House, at LWT HQ, a valuable site available for future training, research and public events.
- A second wildlife garden demonstration site was also developed by LWT at the Whisby Education Centre near Lincoln. This is maintained by the LWT's Nature Tots, Wildlife Watch and Young Nature Wardens groups on-site.

- 2.5.2 A regular practical volunteering group from Clarence House, a care-support accommodation for adults with learning disabilities in Horncastle, have participated in the practical creation of this LLP demonstration garden at Banovallum House, with a regular committed team of six volunteers alongside their support workers.
- 2.5.3 As well as habitat creation and landscaping, two new raised beds featuring heathland and limestone flora, some of the county's rarest habitats, have been built. This development in the gardens was also supported by funding from the Lincolnshire Co-op Community Champions Fund, as to ensure longevity of the raised beds, these were built from brick and limestone, which also reflects the historic setting of the grounds. These impressive displays will continue to grow and thrive into the future and contribute to the learning and skills of Young Botanists and Conservation Managers. Three interpretive panels have been installed, detailing illustrative artwork by the renowned artist Lizzie Harper. QR codes are also included to direct visitors to tell the LLP story and the creation of the garden plan, species lists, construction methods and wildlife gardening advice.
- 2.5.4 Banovallum House, together with SJB centre now have gardens available for public viewing and enjoyment, providing stimulus for natural heritage public events in Horncastle. Events, including Heritage Open Days, have attracted 100's of visitors to both gardens throughout the project. Opportunities to unite in a botanical heritage offer between SJBs and LWT has been established during the LLP project, cross-pollinating and growing new audiences between organisations.
- 2.5.5 A programme of regular practical sessions, engaging volunteers, Young Botanists and communities, included the planting out of Tall Thrift (a highly vulnerable and rare native species for Lincolnshire) and meadow cutting to maintain wild flower habitats across community spaces. Tall Thrift plants were propagated in partnership with a local nursery, Cheer's Nursery near Boston, and they did so voluntarily to support nature's recovery. Other species of plants that have been propagated have been so in partnership with UoL and LWT, engaging local volunteers and students, as part of their seed bank programme.
- 2.5.6 2138 plants have been propagated throughout the project at UoL (Riseholme, Campus) and LWT. 1,358 Tall Thrift have been planted out by volunteers and LWT staff at Moor Closes and Dukes Covert Nature Reserves.



2.6 Specimen mounting and recording (contemporary collection)

- 2.6.1 A total of 1,205 specimens have been acquired, 590 at NHM and 615 at SJBS. An additional 388 silica dried DNA samples for molecular science, associated with this collection, have been deposited in the Molecular Collections Facility at NHM.
- 2.6.2 A seven-step process of botanical specimen acquisition and processing has been produced for SJBS, and forms part of an in-depth Herbarium Manual for volunteers and staff to use. The Herbarium Manual covers all aspects of plant collection, drying, handling and herbarium processing. This seven-step process has continually evolved and been tailored throughout the LLP project with input from the project staff and volunteers, working within the Herbarium Room. Whilst bespoke to LLP, this manual is a valuable resource detailing an exemplary 'method of good practice' for wider UK projects and natural science museums to access.
- 2.6.3 A highly original online 'herbarium hub' has been created. This includes a suite of digital media resources (visual information sheets, photographs and films), demonstrating the specialist curation process. A handy visual guide to accompany the seven-step process. These bite-sized resources, aiming to encourage involvement in the project in accessible and engaging ways, can be located via the LLP pages on the LWT website, enabling greater reach to new audiences, offering a spectrum of content, which includes demonstrations in mounting and curating plants as well as introductory talks and tours by partner organisations.
- 2.6.4 A new Herbarium Room has been created at the SJB Centre in Horncastle. This streamlined space provides an important county-wide facility and legacy of the project and is unique to Lincolnshire. This herbarium room, fitted with automatic temperature and humidity control, facilitates key functions to successfully induct, train and support volunteer opportunities at the SJB centre. This herbarium room provides the following resources:
- Quarantine freezer
Mounting desks
Herbarium cabinets
Specimen digital scanner and digital readers
Data logging and processing area, with IT resources
- 2.6.5 Partners, project staff and volunteers in Lincolnshire have gained valuable levels of knowledge and specialist skills in herbaria conservation. A total of 19 training sessions were delivered, attended by 124 learners of all ages and abilities. Most, if not all, of the Lincolnshire partners and volunteers when embarking on this project were unskilled in plant mounting and curating, however the quality of specimens curated are of 'gold standard' quality.

2.6.6 A wide range of volunteers, community groups, students and children have contributed to the curation of specimens for the contemporary collections. Sessions to mount and record specimens have taken place on-site at the SJB Centre in the Herbarium Room and also across wider localities within the community. A strong foundation has been established between SJBS and the University of Lincoln with BA (Hons) Conservation of Cultural Heritage students gaining valuable hands-on conservation experience curating the LLP contemporary collection. This partnership is expected to continue to thrive and grow throughout the legacy period.

A total of 10 volunteers are now regular plant mounters at SJBS.

2.6.7 A strong inclusivity has been established throughout the LLP curation process, with the naming of 'the mounter' of each contemporary specimen for the SJBS herbarium. This additional layer of 'mounted by' detail has provided an important acknowledgement of the skill and craft involved in mounting specimens and the relevance of this often hidden but very important art-form'.

2.6.8 Interpretation of specimens at the SJB centre have been created, with contribution from LNU members. An engaging public facing platform is now exhibited, revealing the often hidden role of the collector and wildlife recorder, and conveying a powerful social and local heritage narrative for the project.

The original historic specimens were packaged in old newspapers. These have been imaged by NHM and returned to SJBS for scanning by volunteers. SJBS plan to use character recognition so specific stories, events and names can be searched for as part of a future social history project.

“The herbarium processing manual is simple and very easy to use. I feel confident that **it will help anyone to volunteer** for this valuable and nationally important project”

LOVE LINCS PLANTS LINC volunteer at Sir Joseph Banks Society

Devil's-bit Scabious

Kirkby Moor SSSI (LWT) Reserve, Kirkby on Bain Oak, birch woodland edge. Lilac-purple flower.

TF22376209

VC: 54

HERBARIUM COLLECTIONS



11,178 historic Lincolnshire specimens re-curated and digitised at Natural History Museum, London



2609 volunteer hours curating



415 contemporary collection specimens curated and digitised at Sir Josph Banks Centre



590 contemporary collection specimens aquired

1

fully equipped Herbarium Room created at Sir Joseph Banks Centre, available for volunteers to access



10

regular, fully-trained volunteer curators based at SJB Centre



new global audience to all digitised specimens via online portals



34

adults trained in specialist botanical mounting and curation

“It’s
someone’s
life in a
box in
plants, it’s
amazing”.
Assistant
Project Officer
NHM



2.7 Re-curation and conservation of historic collection

2.7.1 A total of 11,024 of the LNU Historic Collection specimens have been successfully re-curated and digitised at the NHM. This has been achieved by project staff together with a dedicated team of three regular volunteers, who have gained new skills in mounting, recording and curating. For a list of the LNU Historic Collection collectors, please refer to Appendix 2.

2.7.2 The following processes have been fulfilled:

Photographic and data logging of each acquired collection package and box and any inclusion of letters and communications found in the original consignment

Photographic and data logging of each specimen (as seen when re-opened) including old ink hand written notes and details and uploaded onto NHM botanical collection portal

A sample extracted from each specimen and contained for future scientific and DNA research

Re-mounting of each specimen (with delicate specimens also stored in jars if necessary)

Re-photographing of each freshly mounted specimen and uploaded onto NHM botanical collection portal

The full collection securely stored at the museum

2.7.3 All collectors of the historic collection (over 400) under the instruction of Woodruffe-Peacock, have been officially recorded on the NHM portal. This data now provides a valuable resource to inform future research about botany, collecting and environmental factors across habitats in UK at the time.

2.7.4 The life and trends of Woodruffe-Peacock have been observed by curators at NHM, identifying peaks and challenges of his collecting life. The Assistant Project Officer personally researched Peacock to further interpret and reveal the story of the collection and the collector, findings which subsequently inspired LLP events to ‘collect in the footsteps’ of Peacock in Lincolnshire, establishing strong linkage between contemporary collecting and the historic collection.

2.7.5 The collection has been taxonomically reviewed and all incorrectly identified specimens, amended. Advances in science have informed contemporary knowledge of plants within the collection, the re-curating captures these stages of scientific understanding over time.

2.7.6 The Assistant Project Officer wrote five reports to accompany their findings, these are available on the LNU website:

Getting started! (re-curation)
Aquatic plants
Plant galls
Algae
Lincolnshire Plants: Past and Future - Success!

2.7.7 The themes of these reports were determined by the staff members personal interests as well as what ‘highlights’ the collection presented. A valuable public resource to accompany the historic re-curation collection activity, which reveal what would otherwise be hidden within the collection.

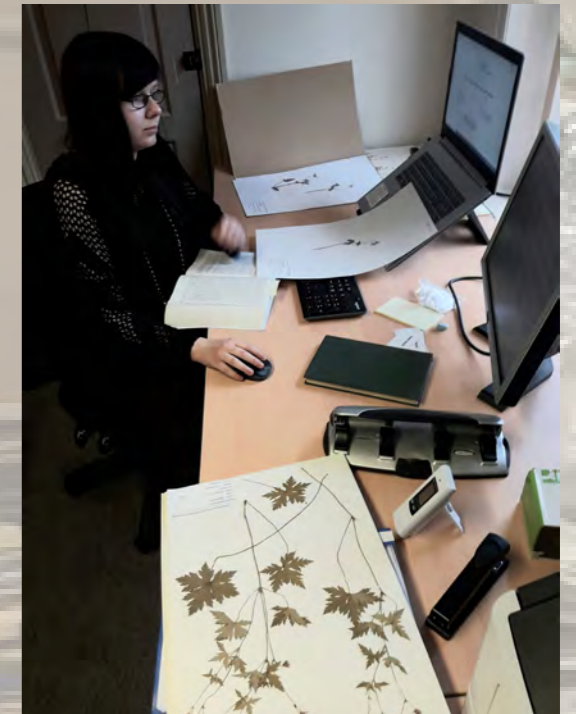
2.8 Management of collections

2.8.1 The specialist Herbarium Room at SJB centre provides a safe and secure space to prepare and treat acquired specimens without risk of damage due to pest or temperature/humidity factors. Specifically drying units, freezers and cabinets all support control measures which are all overseen by a Collection Management Plan. Storage is available to house a total of 1,500 specimens.

2.8.2 All imaged contemporary specimens at SJBS have been uploaded onto a new public data-portal on the SJBS website. This new platform of data not only meets museum standards but puts SJBS ‘ahead of the game’ as a soon to be registered museum, ensuring their collection is accessible locally and internationally, advancing the reach of the collection significantly. To compare, it is not unusual for established natural history museums to still be working with paper-based management systems which includes the NHM, which has less than 5% of its herbarium digitised.

The SJBS database, created by the efforts and commitment of one particular volunteer and Trustee at SJBS, has been tailored to fulfil not just a public facing function online but as backup management function. An unexpected requirement of collection management is the safeguarding of all data and a robust and resilient system is in place.

2.8.3 The full historic collection and thus far contemporary collection specimens, have now been digitised, sited and safeguarded in perpetuity at NHM, meeting the required museum environmental standards.



“Heritage
management
is all about the
data. If you have
a specimen, but
you do not have
the data around it,
you do not have a
specimen”

Trustee
Sir Joseph Banks
Society

Herbarium Room SJBS



“I really enjoyed the whole experience. I was new to Lincolnshire and it meant I met like minded botanical people, visited new places and gained skills. **I loved the drawing & herbarium sessions I attended.** As well as the field work.”

volunteer





“The fact that this course was free and local was a huge benefit. The skills I have learnt have helped me gain paid employment”

Young Botanist

2.9 Training and learning

- 2.9.1 A total of 46 specialist training sessions were delivered, attended by 401 learners. This training comprised of all aspects of the project from plant identification, to collection and curation.
- 2.9.2 Training was delivered at a range of localities and establishments, at spaces provided by project partners, on-location ‘in the field’, within community spaces and at hired spaces to meet the needs and requirements of the training. Due to lock down restrictions training in the latter stages of the project took place via online platforms.
- 2.9.3 All project partners facilitated training (formal and informal) throughout the project. The Senior Curator at NHM, along with the Project Officer, Kath Castillo, delivered 7 training events in plant collection and herbarium curation in Lincolnshire for project partners, staff, volunteers and the wider public. This training provided the nucleus for herbarium creation and management. Regular expert training and learning ‘in the field’ and at the SJBS was continually delivered throughout the project, but due to the pandemic it was impacted upon in year three. This abrupt cutting-off of training will likely affect the momentum and confidence of recipients; however, a plan by partners to refresh learning and engagement, in the legacy period, will work to address this. As in 2021, several ‘toe back in the water’ refresher training events were held, and the partners were encouraged by the response by volunteers.
- 2.9.4 Informal training was widespread across the project with regular skill sharing of new specialist ‘learnt’ knowledge led by project staff and volunteers. The transferring of specialist learnt skills passed onto project recipients, new audiences, fellow volunteers and participants is a particularly extraordinary achievement of the LLP project, with empowered confidence, passion and interaction shared across communities.
- 2.9.5 Inter-partner and staff learning and skill sharing has been abundant throughout the project and a key component to the project, invigorating and enabling independent leadership and confidence. There is clear evidence of collaboration and support/mentorship between partners and the willingness to transfer expertise and knowledge, together with enabling skills to expand opportunities and achieve outcomes. The partners and staff ‘gelled’ together and prided themselves on being approachable, enabling and cooperative. 83% of staff and partners surveyed confirm an increase in knowledge and confidence in specialist areas of expertise personally as a result of the project. This confidence has positively impacted on the resilience, adaptability and leadership capabilities of all partners and staff when working independently, but importantly when also faced with challenges including staff shortages and the pandemic.

- 2.9.6 A total of three specialist training days were delivered for Wildlife Watch Leader volunteers; volunteers who facilitate monthly wildlife themed workshops for children 6 – 14yrs (and their families) across the county of Lincolnshire. A total of 24 Wildlife Watch Leaders attended training in wildflower ID, specimen collection, pressing, drying and mounting.
- 2.9.7 LLP provided each of the 12 Lincolnshire Wildlife Watch groups with their own herbarium kit, equipping volunteers with resources to continue to establish micro herbaria collections with families, connecting families to local plant life and to contribute to the contemporary collections. This transferring of skills by Wildlife Watch Volunteers extended the demographical reach of LLP significantly, engaging 253 children and 188 parents/guardians across Lincolnshire independent of the project team.
- 2.9.8 Three days of Field Identification Skill Certificate (FISC) assessment, in partnership with Natural England Field Unit team and Botanical Society of Britain and Ireland, were delivered across the first two years of the project. Seven Young Botanists were exempt of fees, for this nationally recognised qualification, as part of an in-kind agreement with assessment partners. Tremendous effort was made to bring this assessment to Lincolnshire for the first time, an important training made accessible, enabling volunteers to measure their personal level of skills in plant identification and subsequently measure the impact of their learning in the project. A number of participants reflected on how this assessment transformed their personal journey in the project, unlocking a new-found confidence to lead and share their knowledge with others.
- 2.9.9 Two weekend residentials were delivered, engaging 12 Young Botanists and a further 8 volunteers. This tailored training, a new approach for the partnership, invited nationally regarded experts to deliver modules to share their specialist knowledge, skills and passion onto younger generations in an accessible and inspiring setting. This intergenerational residential, fostered strong and resilient relationships between partners, staff, volunteer and Young Botanists.



2.10 Formal education

- 2.10.1 A total of 161 education sessions have been delivered across Lincolnshire schools, colleges and the University of Lincoln, with a total of 11,845 pupils and students engaged, 95% of which being school pupils. Facilitation took place in educational establishments across Lincolnshire, at LWT education centres, in 'the field' at Nature Reserves and, in the latter stages of the project, online. 660 teachers and educational professionals engaged in LLP activity.
- 2.10.2 A total of 120 individual schools participated in the LLP project. Initial school engagement followed a traditional format of visiting LWT Wildlife Centres however this soon evolved into an unfaltering outreach programme engaging 73 Lincolnshire schools.
- 2.10.3 Primary schools were offered free 'Importance of Plants' assembly sessions and 'Explorer' sessions. 9,223 pupils of primary age were reached via assemblies, which enabled 'whole school' audiences. All teachers reported back 100% positive feedback to the project team and evidence shows how these suggestions were listened to and incorporated by the Education and Community team, with continual commitment to adapting and improving. A total of 22 Explorer sessions were delivered, engaging 910 pupils in more in-depth class-sized activities, linking directly to curriculum topics and KS learning outcomes.
- 2.10.4 A suite of online primary school resources have been produced and available for free for teachers and educators to download. A valuable resource during lock down and for continued use beyond the project. Produced in collaboration with volunteers, with experience of teaching, these resources, together with a 'Teachers Guide', have been tailored to meet the need of teachers and to enrich school learning, further extending the reach of LLP, heritage and plant science to children not just in Lincolnshire but nationally and internationally.
- 2.10.5 A Level pupils' engagement mainly took the form of plant ID and field surveying both in the classroom and on-location in Nature Reserves. This deliberate offer secured a total engagement of 520 pupils in LLP activity, as programmes were tailored to incorporate biology and geography A Level (KS5) curriculum requirements. This baseline of engagement established a clear pathway for students to progress into Young Botanist opportunities.



2.10.6 The UoL launched their new BSc Ecology and Conservation in Autumn 2018, enrolling a total of 54 students throughout the lifetime of the project. Modules within this course were specifically drawn up to incorporate specialist learning in botanical plant science, inspired by LLP and to maximise on the project partnership. This will continue beyond the life of the project, with plans to continue to programme enrichment opportunities for students and to programme guest lectures from LLP partners.

LLP partners contributed to course content, lectures and field study opportunities, this included sessions delivered by NHM and guest lecturing by Head of Conservation at LWT.

A total of 9 UoL educational sessions engaged 40 BSc Ecology and Conservation learners throughout the project. Additionally, students attended lectures as part of the Great Lives series at UoL, both in person and online. Although, the impact is currently unknown, post graduate research and the study of local plant science LLP has seeded opportunities for students to consider undertaking, a result of course leader commitment and local specialist enrichment. This long-term aspiration of the project furthermore invests in local plant life activity, advancing and progressing opportunities to address local environmental and ecological challenges, led by younger generations.

A comprehensive illustrated Tree ID Guide, has been produced by the project team as a valuable enrichment resource for secondary, FE and HE learners. This guide has formed part of core course resources for under graduates at UoL whilst also made available for local, national and international audiences, educational professionals, learners, communities and volunteers, to view and download online via LWT's website.

“Lots of hands on learning experiences with fantastic resources. Incredibly well organised. **The discovery-based learning was fantastic for children** to use and to use the school grounds. It was fantastic! Thank you so much”.

Teacher



2.11 Participation, engagement and public events

2.11.1 A plentiful programme of creative, taster and drop-in style LLP workshops and activities were delivered, engaging a 1033 community and family audiences. These included visual art workshops, habitat creation sessions, plant collection and herbarium mounting. LLP partners maximised opportunities to expand on the herbarium themes as a source of cultural inspiration for public engagement, particularly in areas such as visual interpretation, botanical art, creative journalling of plant life and specimen mounting and curation. A widening of routes to engagement and learning about plant life have been exploited, particularly for organisations from the wildlife and environment sector, whereby a distinctive choice to embrace less traditional offers were made.

2.11.2 A total of 42 LLP engagement 'sessions' were delivered, 70% of which were targeted at family audiences and 'family learning' opportunities. It is important to note that sessions such as Wildlife Watch and Nature Tots, aimed at engaging young children, also engaged parents and guardians through shared participation, and 'family learning'. A total of 499 children and 534 adults engaging in LLP sessions, with 35% of adults engaging via a family focussed activity.

2.11.3 A total of 67 public LLP talks, led by a cross-section of staff and volunteers from the partnership, were hosted across Lincolnshire, often organised in partnership with existing local community groups or events programmes. A total of 2,356 people attended a talk or lecture.

The talks and lecture programme offered important opportunities to increase awareness of botanical science, heritage and Lincolnshire botany across communities, usually accompanied features such as exhibitions, example specimens to view or a Q & A. Importantly they introduced audiences to the natural and social heritage of Lincolnshire. This cohesive inter-relationship between present-day plant science and historical collections stimulated a diverse talks and lecture programme, enabling the project to extend its reach and enthuse a wide range of audiences.

2.11.4 A total of 17 external experts contributed to events and talks throughout the project. The talks programme, and in particular the 'Great Lives' lectures, invited guest speakers and experts to contribute to LLP and to inspire audiences, injecting dynamic perspectives, pioneering ideas and specialist knowledge, enthusing both LLP partners and public audiences alike.

2.11.5 Talks and lectures shifted to online platforms due to the pandemic, and whilst this changed the dynamic and atmosphere of a live talk, larger quantities of audiences were subsequently reached, most likely due to the geographical barriers of Lincolnshire, being removed. LLP online talks enabled the project to successfully sustain engagement during lock down. All online talks and interactive virtual tours are recorded and available online to view via the website and project YouTube channel, platforms which will continually grow new audiences beyond the life of the project. It is fair to acknowledge, that without the pandemic, talks, lectures and presentations would not have been made accessible online to view, but have now become a valuable and accessible future resource and long-lasting legacy for LLP. Only the first Great Lives lecture was held at UoL, with all other lectures hosted online.

2.11.6 Pop-up and wildflower displays across Lincolnshire have engaged audiences via programmed LLP events and also enhanced with the launch of a wildflower trail in 2020. This downloadable illustrated trail, linked to the #NatureNearby campaign aimed at encouraging public access to nature during the pandemic, provides a self-led guide for the general public to discover throughout the seasons.

“The presentation was **outstanding**, particularly well constructed and presented so clearly. A pleasure and privilege to attend”

Audience member

99%
recommend
Love Lincs Plants
to a friend

84
volunteer
hours

86% of audiences rated
their experience as **good** or **excellent**

67
public talks and lectures programmed

3187
attendance figures

at public talks

93% of audiences interested
in attending future events

17
external **experts** contributed to activity

TALKS AND PUBLIC EVENTS

7
Great Lives lectures
at University of Lincoln

88% of participants
felt more passionate about **caring**
for nature after taking part

New **global** audiences reached
via streamed live lectures and
online recordings



19,124 audiences reached at **in-person publicity** events

publicity
events
attended
48



1,675,412
website audiences



410 project email sign ups
in receipt of **regular bulletins** and opportunities



736,472 unique FaceBook
impressions



970
Twitter
followers
23,000
average
impression
per tweet
1,462,656
twitter
impressions

AUDIENCE DEVELOPMENT AND PUBLICITY


4,000 000
audiences reached
via **television**


872,500
audiences reached
via **print**


490,00
audiences reached
via **radio**


12,020
audiences reached
via **e-newsletters**

2.12 Publicity events and creative communications

2.12.1 LLP programmed a number of high-profile events to successfully publicise the project, gaining national profile and following. The BBC's, Chris Packham took part in an LLP 'Bioblitz' event at UoL (a Bioblitz is a wildlife ID event to audit biodiversity in a particular locality) in the early stages of the project, a strategic move establishing a high-profile launch and credibility for the project and symbolising the ambition of LLP.

Subsequently Chris Packham collected a specimen as part of the '30 inspirational plants' collection and his involvement continues to be profiled within the project across the project materials. Additionally, LLP featured on BBC Countryfile, gaining prime time television coverage with an audience reach to over four million viewers.

2.12.2 A total of 48 publicity events were programmed across the project period. These events often engaged large numbers of drop-in audiences as part of open days and festivals across Lincolnshire. Supported by various members of the partnership, together with volunteers, a range of pop up displays, exhibition materials and project information formed the main offer, together with collection specimens and demonstrations for the public to view and to have a go at taking part in.

2.12.3 A collection of '30 inspiring plants' were shortlisted to tell the cultural heritage story of Lincolnshire. Each plant collected presented a human story and personal connection by the collector, a compelling narrative symbolising the benefits of the project, and the richness of the local natural and social heritage of Lincolnshire.

Effort to include a diverse demographic of collectors was an important feature to this collection which has been created into an accessible online flip-book publication to view, reaching a far greater audience than in print.

2.12.4 A call out to local artists to enter a visual art competition inspired by Lincolnshire Plants, engaged high levels of interest, with a total of 130 entries submitted. 30 winning entries cumulated into a temporary exhibition of 'Lincspirational Plants' shown at The Wilderspin School Museum as part of the Barton Art Festival in June 2021. A total of 150 audiences attended this event, with a further 500 audiences reached via a tour of exhibitions at SJB Centre and Whisby Natural World Centre.

An LLP finale tour of projected artworks in October 2021 continued to extend audiences significantly: a smart and innovative method of audience development enabling the project to reach new creative and community audiences across Lincolnshire. Additional online audiences have been reached with a Lincspirational LLP art auction, to raise funds for LWT. A total of 4,000 hits were made to view 137 auction artworks and a total of £1,667 was raised to support local conservation of plant life.

Visual art has been an identifiable thread of engagement throughout LLP. From visual artists at SJBS illustrating the contemporary herbarium to enriched interpretive information and the visualisation of communication of collections. Also, the hosting of exhibitions and talks sharing Lane-Claypon's botanical watercolours at SJB Centre to engaging community groups in creatively mounting specimens to the Lincspirational touring exhibition.

2.12.5 Additional creative opportunities to engage and grow audiences have been successful. Particularly engaging school children in Haiku poetry inspired by Lincolnshire Plants resulting in a total of 27 entries and the creation of over 100 flower lanterns made by school pupils in Lincoln city, facilitated by local artists, Lumoworkshop.

In partnership with Boutham Park Lake Restoration (NLHF funded), the culmination of visual and creative responses to the project were showcased at a spectacular finale event in Lincoln, with 'Lincspirational' artwork and haiku's by local children projected onto an outdoor screen and a parade of 'wild flower lanterns' created by local school children were walked around the park with a parade of over 300 children and families walking together to celebrate Lincolnshire plants and wildlife. Over 1,500 people attended this event in October 2021. This partnership, together with St Botolph's Church (Boston Stump) in Boston, fostered new opportunities, valuable skills sharing and networking between teams.

2.12.6 Whilst a marketing plan was not formalised by the project, an innovative and creative quality of audience development methodology delivered by the project team is evident, and opportunities to promote LLP not missed. This is particularly evident in LLP social media posts and the achievement to gain nearly 1000 followers on twitter resulting in 737,472 audience engagements. Opportunities to follow, re-tweet and connect with national plant and nature inspired activity established a strong and evolving LLP profile.

2.12.7 Quarterly reports, produced by the Project Officer, provided a visual and informative update, with bite-sized and animated stories packed with visual imagery covering the projects progress, achievements, targets reached and personal updates from volunteers and communities. These personal and inclusive reports were also important for all partners to unite in their passion and commitment to the project and to collectively represent themselves to inspire future activity. Reports were in-boxed directly to a mailing list of 410 and also uploaded online via to the LLP website, with links promoted via social media.

2.12.8 A suite of eight short films sharing personal experience of taking part in LLP, by Young Botanists have been created. Individually captured by Young Botanists during lock down, each film is demonstrative of their confidence and personal development throughout the project. The distribution and utilisation of these films is yet to be fully realised, due to the pandemic, however a plan for them to encourage future younger volunteers to engage in LLP legacy activity is underway.

What difference has the project made?

3.1 What difference have we made to heritage?

3.1.2 The full restoration and re-curation of the LNU Historic Collection is now sited at the Natural History Museum London, one of the most highly regarded natural history museums in the world. Following 40 years of temporary and inadequate storage in Lincolnshire, this collection is now physically and digitally safeguarded and entirely accessible to an international audience. Curated to the highest standards, each specimen is now available to view publicly and for 100's of years into the future.

3.1.3 The largest repository of natural heritage material from what is, in national collections, an under-represented county, is now available for future scientific research and analysis. The natural heritage of Lincolnshire, collected by Rev. E.A. Woodruffe-Peacock his collaborators, and other historic collectors, is a significant collection dating back to the 1810's. Whilst it is difficult to fully predict the advances in science in the near future, there is a confidence that this collection will inform critical advances and understanding of biodiversity, conservation, environmental change in the UK and worldwide.

3.1.4 The historic collection as 'presented' upon acquisition by the NHM, has been recorded and digitised, resulting in a multi-layered social historical narrative, far extending the story of just the singular specimen. The tenacity and sensitivity procured by the NHM team, honouring the original placement and presentation of specimens, whilst also conserving the inclusion of letters discovered within the collection together with newspaper wrappings and other informative features, has made certain that the attention to detail of Woodruffe-Peacock himself and the societal and scientific stories of the time have not been lost. The preservation of such details opens up a treasure chest of heritage, for a wide range of historians, researchers, artists, designers and scientists alike. Newspaper wrappings and other valuable supplementary materials have now been acquired by SJBS, awaiting a future local heritage project.

3.1.5 Singular specimens from the historic collection have been championed and celebrated (usually commemorating a milestone, such as the 1000th specimen re-curated at NHM or national days such as 'National Meadows Day'). These creative celebrations gave focus to the personal story behind each and every specimen, revealing the collector, location and identity of the plant. Presented in e-newsletters, visual reports, on social media and online platforms, these bite-sized interpretive features, provided an important accessibility and route into what is, for perhaps many audiences, an overwhelming and expansive collection.

3.1.6 A cohort of present-day collectors from Lincolnshire have created history. Volunteers of all ages from across the county have reclaimed and re-shaped a positive identity of the modern-day collector, embracing the opportunity to make history and make a difference, for future generations. Importantly, LLP and in particular Young Botanists, have positively challenged perceptions of the 'typical' collector, exuding their passionate first-hand experience to their peers and wider audiences, broadening accessibility to heritage for those less represented, particularly younger people and women. This project has distinctly bridged the narrative between historic collections and the present-day collecting of plant life, with volunteers invigorating and enlivening the relationship and making the historic collection relevant in today's world and 'climate'.

The inclusivity of the LLP project has been exceptional in that it has positively aided communities to contribute to the contemporary collection, as 'collectors', alongside nationally recognised experts and scientists, redefining the capabilities of communities in shaping their future heritage.

A compelling symbiotic relationship between the collector and the contemporary collection has been established, yielding a strong sense of pride for volunteers. Each individual plant collector or group has gained a strong sense of inclusivity within the project, each appointed with a unique 'collector number', granting personal affiliation alongside each specimen on museum databases and portals. Volunteer collectors recall their excitement when searching their specimens online, revealing the value in this very rewarding feature, realising their contribution is formally acknowledged, not just for the duration of the project, but beyond their lifetime.

It's important to note that the principles and ethics of plant collection have evolved over time in response to excessive collection and exploitation of the natural world. Subsequently protection laws were brought in to protect wildlife in the UK, making the uprooting of any wildflower without permission, illegal. It is not uncommon for the act of picking a wildflower to be frowned upon and seen as wrong, particularly from the wildlife conservation sector who aim to protect species, particularly those rare and endangered. The LLP project, with confidence and conviction, has positively re-claimed the importance of collecting to generate present-day heritage for future generations to access. A transparent and informative strategy of communication has empowered all involved, aided by an expert and high-profile partnership, progressive events and having a Collection Strategy in place.

3.1.7 The Herbarium Room at SJB centre is the first of its kind for Lincolnshire. Importantly this archiving facility nurtures and grows specialist heritage skills and knowledge of local people, volunteers and students, inspiring local interest in curating and conserving botanical specimens (contemporary and historical) that have been acquired throughout the project.

This Herbarium Room at SJB centre is now a benchmark in how to connect local naturalist groups and volunteers with large-scale museums and collections, a space which has been referred to as a 'Satellite Herbarium Room'. LLP has pioneered a unique approach and facility for NHM, functioning an 'on-location' high-spec centre for botanical collections to be acquired and prepared for them. Curators have gained hands-on understanding in how a satellite herbarium needs to function, the capacity required, the resources needed and the challenges to overcome, all of which will benefit future contemporary acquisitions of museum specimens nationally.

3.1.8 The SJBS is in the process of gaining formal museum accreditation with Arts Council England (ACE). This accreditation will guarantee the sustainability of a new heritage centre for Lincolnshire and subsequently raise the profile and identity of the contemporary collection and the Herbarium Room substantially. To achieve museum status the SJBS is undergoing a rigorous process to meet a range of required standards 'helping people access collections and protect them for future generations.' The LLP project has equipped the Society with a wealth of invaluable hands-on experience of botanical curation, collection digitisation and conservation, a notable boost to their journey towards becoming a museum within the next 3 years. SJBS have also joined the Natural Sciences Collections Association (NatSCA) to propel their future plans, learning and skills for their volunteers and team. The legacy of the LLP project for SJBS is extraordinary, particularly given the challenges of the pandemic.

3.1.9 An international event, European Researchers' Night, in the first year of the project sited at NHM in London, attracted approximately 5,000 visitors, 70% of which were academics and students under the age of 35. This event raised the profile of the project to a very receptive younger audience, fostering national interest in the uniqueness and value of the LLP project, in particular the model and role of involving local communities, volunteers and organisations to enhance and create contemporary museum collections.

3.1.10 A programme of illustrated LLP talks led by NHM and SJBS focussed on the Sir Joseph Banks expeditions, each bringing to life the heritage and narrative of one of the worlds' leading collectors, reached new audiences at events such as the Gravity Fields Festival. These inventive LLP programmes of talks and field events such as the 'Banks on the Witham' boat trip (a homage to Sir Joseph Banks' fishing excursions) presented local heritage in interactive ways, inspiring a new generation of young botanists and new audiences to discover more about their local heritage.

3.1.11 Explorer days, led by the Education and Community Officers invited children to re-imagine themselves as present-day explorers, following in the footsteps of the world-renowned Sir Joseph Banks, Woodruffe-Peacock and pioneering local female collector Joan Gibbons. These interactive and highly inventive sessions transported 100's of Lincolnshire children into a realm of imagination and a wealth of local heritage whilst importantly enabling children to collect specimens for their own collection as 'collectors', using the very same resources and techniques as 'The Greats'. A progressive feature to LLP validating the driven effort and commitment to inclusivity and empowerment for all involved.

3.1.12 The story of local historic collectors and museum botanical collections features prominently in a comprehensive downloadable 'Teacher's Guide', together with cross-curricula 'Further Ideas' information sheets. These have been made available to learning professionals working across all key stages, as well as community groups and the wider public ensuring learning can continue to inspire children and empower teachers to introduce heritage (self-led) within classrooms across Lincolnshire, independently and beyond the LLP project activity.

3.1.13 Attractive interpretation panels have been created and installed at SJB centre and also at the Banovallum House Gardens in Horncastle. These panels have been beautifully designed to further reveal the natural heritage of the collections for the general public and visitors to enjoy. Collectively produced, with the input from local botanical volunteers from LNU, together with illustrations by local artists and QR codes to directly link viewers and audiences to the NHM data portal and information on wildlife gardening, these panels successfully unify and brand the project across localities and platforms.

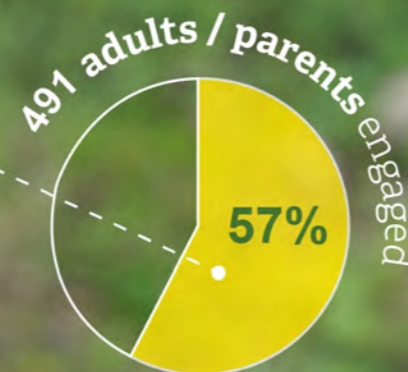
3.1.14 A visual art exhibition has been installed within the Herbarium Room at SJB centre to further interpret and convey the contemporary collection for the wider public. These artworks, produced by SJBS artists in residence, reveal the connectivity between scientific illustration and botanical collections, particularly in the era of expeditions such as Sir Joseph Banks, whereby visual illustration was critical in conveying lifeforms for scientific purposes, whilst also revealing the wonder of the natural world to wider audiences. These new visual botanical artworks, inspired by the contemporary collection, creatively convey the relevance of contemporary plant illustration within a modern-day museum environment.



COMMUNITY ENGAGEMENT


1138
workshop
participants

647
children
engaged in
workshops



306
hours of
volunteer support

***53**
community
workshops



***39 family
focussed**

12
wildlife
watch

groups trained
and equipped with
herbarium kits

3.2 How have we improved access and made a difference for Greater Lincolnshire communities?

3.2.1 The public accessibility to such a significant historical collection of Lincolnshire plants has never been seen before in the UK. The international accessibility of over 11,000 historic specimens is now available for audiences to view in person and online. The LLP project has notably contributed to the British and Irish Botanical collection and advanced the digitisation of specimens for NHM, a far cry from its past life, a displaced collection stored in a dark locked storeroom with no public access.

3.2.2 An online virtual 'Herbarium Hub', packed full of helpful illustrated guides, is the 'go to' project resource and is now available for free at the click of a button. Resources include demonstration films, step by step information sheets, PowerPoint presentations to use in schools and fact and activity sheets all inspired by the natural and historical heritage of Lincolnshire Plants. This Herbarium Hub connects effectively with the 'Herbarium Room' at SJB centre, providing a spectrum of in person and online routes to the project opportunities and learning, now and into the future.

3.2.3 New digital systems that enable volunteers to book an herbarium room workstation at SJBS (based on their interest), as well as being able to view an online 'task bar', has levered self-guided accessibility to heritage opportunities. This visibility empowers volunteers to consider wider opportunities and personal choices, enabling individuals to plan their own volunteering pathways and independently access the collection to fulfil personal interest.

3.2.4 To improve visitor engagement and access at SJB centre, 'playout devices' have been installed within exhibition areas to provide audio and sensory experiences to accompany visual materials. A new handling collection of 30 Inspirational Plants has also been created to enable audiences and groups to 'get closer' to specimens.



3.2.5 An extraordinary level of community outreach engagement across Lincolnshire ensured the benefits of the project extended to those harder to reach. A total of 73 outreach visits to primary schools across the county of Lincolnshire were successfully delivered, a positive contribution that guaranteed 1000's of Lincolnshire children gained access to LLP opportunities and improved connectivity to plant life, particularly those living in areas with greater barriers and higher levels of socio-economic and demographic deprivation, enriching for all involved, pupils, teachers, staff and volunteers alike.

With the coastal areas (East Lindsey) of Boston and Lincoln in the top 10% of England's most deprived areas, this engagement significantly improved accessibility and equality of engagement. A total of 25 schools within this top 10% were engaged, a total of 3,463 (KS1 and KS2) pupils.

3.2.6 The skills gained by the project team, the Head Curator, Technician Assistant, Project Officer at NHM and three volunteers in handling and acquiring the historical collection will be transferable within the museum. The collaboration between Lincolnshire Partners has enriched their practice and professional learning, impacting on broader national and international NHM work.

"Great link to the science curriculum, lots of new interesting facts for children to enjoy with a good use of context to help children visualise and understand plant facts. A great assembly thank you"

Teacher

4 What unplanned outcomes / outputs has the project had?

- 4.1 The South Lincolnshire Flora Group contributed significantly to the collection of specimens across the county. This group of local volunteers, committed significant unplanned time and expertise to the project, subsequently impacting positively on the success of the quantity and quality of the contemporary collection.
- 4.2 Apprenticeship students from Boston College resourced the project significantly, producing 60 pressing kits for volunteers to use in the field. This output not only benefited the project financially, but facilitated a new connectivity between local young people and the project, providing students with a 'real life' project experience and direct interactivity with their local heritage. A new partnership between Boston College and LWT has now been established.
- 4.3 A new joint membership offer has been founded between SJBS and LNU, to encourage accessibility to field recording and specimen collections, for students at the University of Lincoln.
- 4.4 Pioneering advances to collecting in the field were piloted by NHM in Lincolnshire. This included the collection of DNA specimens and the development of a phone App for collectors to sign into and use in the field, replacing paper-based recording of data when collecting specimens.
- 4.5 The application to gain museum accreditation by SJBS, will secure future public accessibility and engagement to the contemporary collection. This together with the digitising of the contemporary collection at SJBS has elevated the accessibility and reach of the collection from local to global. Not originally acknowledged as a priority output, having a searchable online portal has raised the profile and networking capabilities of this soon to be accredited museum. Importantly this visibility during the pandemic also maintained engagement when public spaces were closed.

- 4.6 An expansion of the contemporary natural science collection, to include entomological specimens (insects) at SJBS has commenced with support from LNU volunteers. This is a direct result of the inspiration and learning acquired through the LLP project.
- 4.7 The safeguarding of 800 existing specimens from the Seaward Herbarium (Global Collection), already acquired by SJBS. This has been achieved through the safe storage of specimens in LLP herbarium cabinets after freezing and the volunteering effort of UoL students who helped curate, data log and image the collection. These are now all available to view on the SJBS collections page on their website.
- 4.8 The LLP 'brand' is nationally recognised, resulting in a notable level of online followers on twitter by nationally and internationally recognised organisations and individuals, putting the heritage of Lincolnshire in an international arena. The raised profile and creative communication by LLP, from a zero position, is impressive and will be an important networking tool in the legacy period.
- 4.9 Cross partnership success has resulted in new voluntary appointments made. This includes Dr Fred Rumsey, Senior Curator at NHM appointed President of LNU from 2022, and Professor Libby John, UoL, as the current President of SJBS.
- 4.10 Two project staff have been made permanent employees at LWT, ensuring their gained skills and knowledge from LLP are retained locally and remain connected to the partnership beyond the completion of the project.

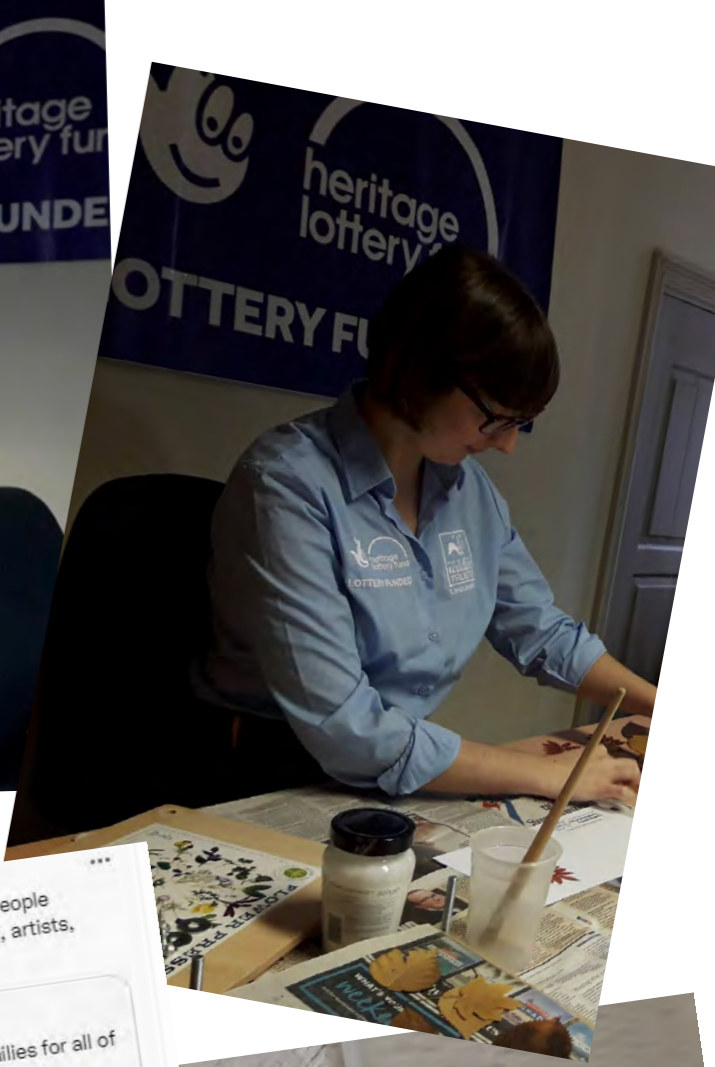
A new relationship has been established with the Kew Millennium Seed Bank and LWT, resulting in the first 'in field' training session on seed collection by the Kew Wakehurst Team in 2022, which flowered from conversations on how to create a high standard seed bank locally. This has also grown on again with LWT establishing with the Kew Team a National Seed Bank Network across the Wildlife Trust family. This was built upon the unforeseen outputs between UOL and LWT in regards to trialling plant propagation and providing yet further volunteering opportunities that are and will lead to nature's recovery seeing local provenance, native Lincolnshire flora being cared for across the county by communities in their Naturehoods.

“New projects are developing with external partners, following the (LLP) model. Our Dunescapes project, volunteering and student placements, are things six years ago that were not there. Now they feel like they are semi-regular”

Senior Lecturer
University of Lincoln



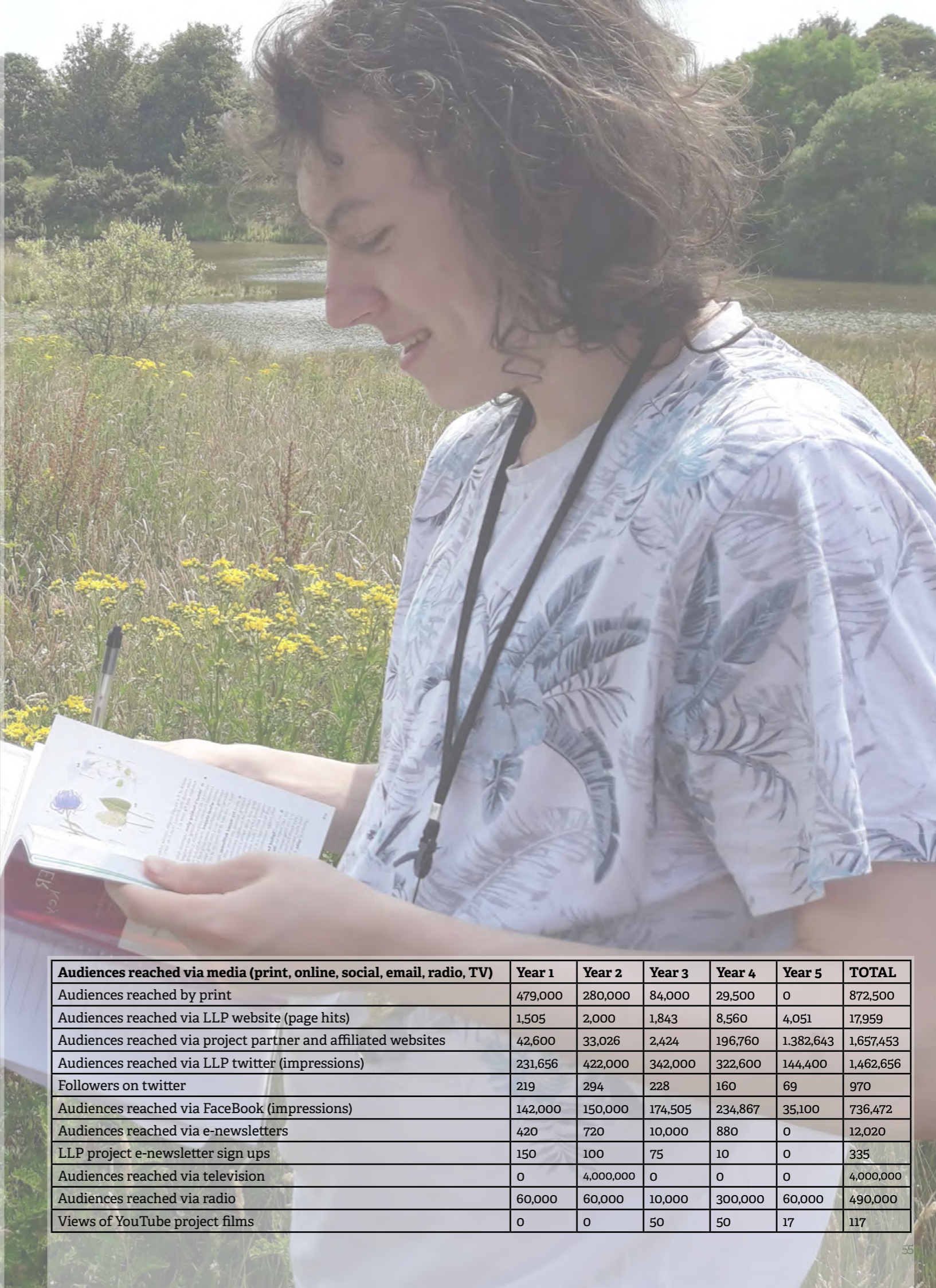
Acknowledging our funders:



ANNUAL STATISTICS

Volunteering	Year 1	Year 2	Year 3	Year 4	Year 5	TOTAL
Total (new) registered volunteers	84	193	33	12	8	330
Number of (new) adult volunteers aged 35yrs +	68	158	27	10	10	273
Number of Young Botanist volunteers aged 18 - 35yrs	19	35	12	0	3	69
Total volunteering hours	1228	3001	1471	282	21	6,003
Volunteering hours completed by adults aged 35yrs +	999	2673	1408	226	21	5,327
Volunteering hours completed by Young Botanists	229	328	63	56	0	676
Number of Young Botanist sessions	13	12	5	1	0	31
Plant and seed collecting						
Number of plant collection sessions	9	19	6	1	1	36
Number of plants collected	226	681	172	95	31	1,205
Number of seed species collected	0	14	66	58	62	200
Number of plants (from seed) propagated	120	0	1268	640	0	2,028
Herbarium curation						
Total historic specimens re-curated, imaged and digitised at NHM	-	-	-	-	-	12,026
Specimens re-curated, imaged and digitised from main collection	0	1,553	2,770	1,976	4,725	11,024
Bryophytes re-curated and digitised at NHM	-	1,002	-	-	-	1,002
Contemporary specimens curated, imaged and digitised	-	-	-	-	-	500
Contemporary specimens acquired by SJBS	-	-	-	-	-	615
Contemporary specimens curated, imaged and digitised at SJBS	-	-	-	-	-	415
Contemporary specimens acquired by NHM	-	-	-	-	-	590
Contemporary specimens curated, imaged and digitised at NHM	-	-	-	-	-	85
Contemporary specimens curated, digitised (not imaged) at NHM	-	-	-	-	-	150
Education , training and informal learning						
Number of all formal education sessions delivered	22	69	40	23	7	161
Number of schools engaged	15	56	36	7	6	120
Total number of learners in formal education engaged	891	6306	3791	713	144	11,845
Number of school pupils engaged	720	6203	3777	451	144	11,295
Number of FE and HE students engaged	171	103	14	262	0	550
Number of teachers engaged	46	398	196	94	31	765
Number of training sessions	10	26	5	4	1	46
Number of participants trained	95	242	17	36	8	401
Engagement and events						
Total number of public workshops and facilitated sessions	19	15	8	4	7	53
Number of participants engaged	463	417	153	155	192	1,380
Number of public talks	7	19	24	4	13	67
Audiences reached via public talks	275	869	622	580	831	3,187
Number of public (in-person) promotional events attended	14	17	6	5	6	48
Audiences reached via (in-person) promotional events	3,417	13,148	153	487	1,919	19,124

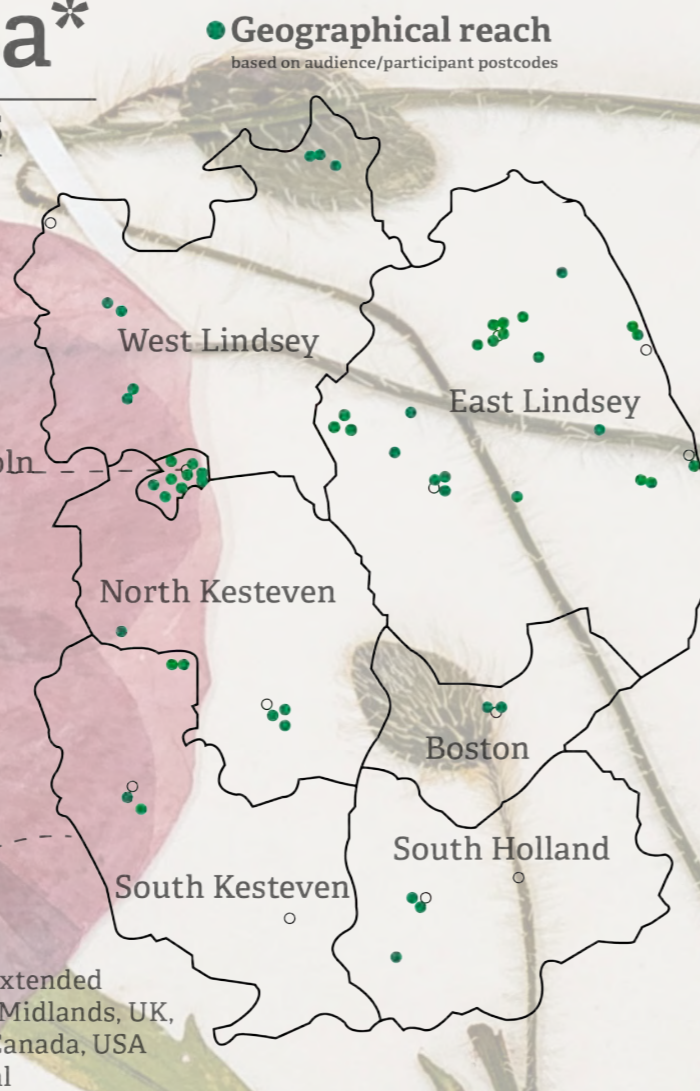
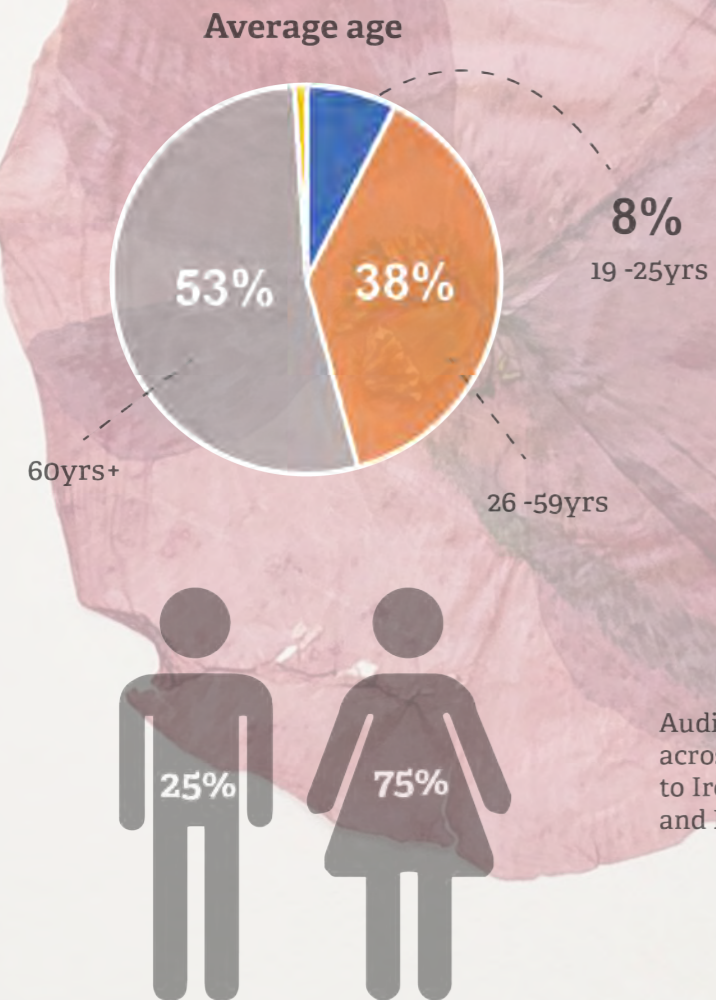
Year 1 / September 2017 - August 2018
Year 2 / September 2018 - August 2019
Year 3 / September 2019- August 2020
Year 4 / September 2020 - August 2021
Year 5 / September 2021 - November 2022 (3 months only)



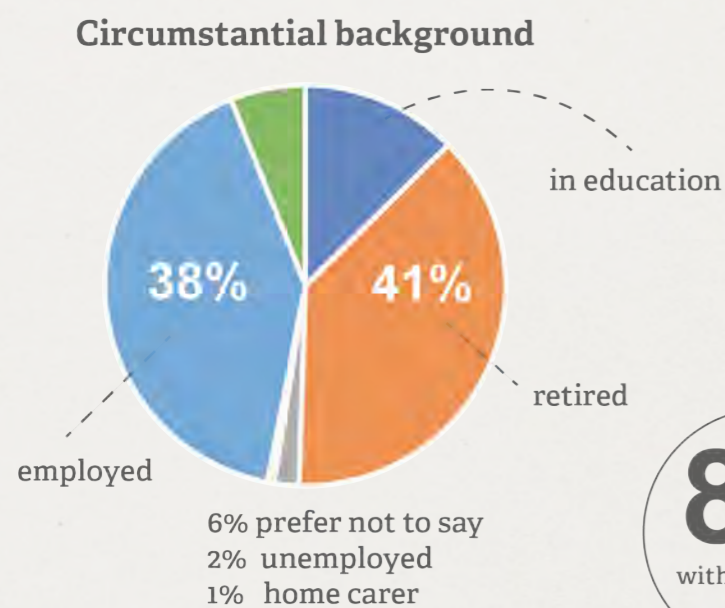
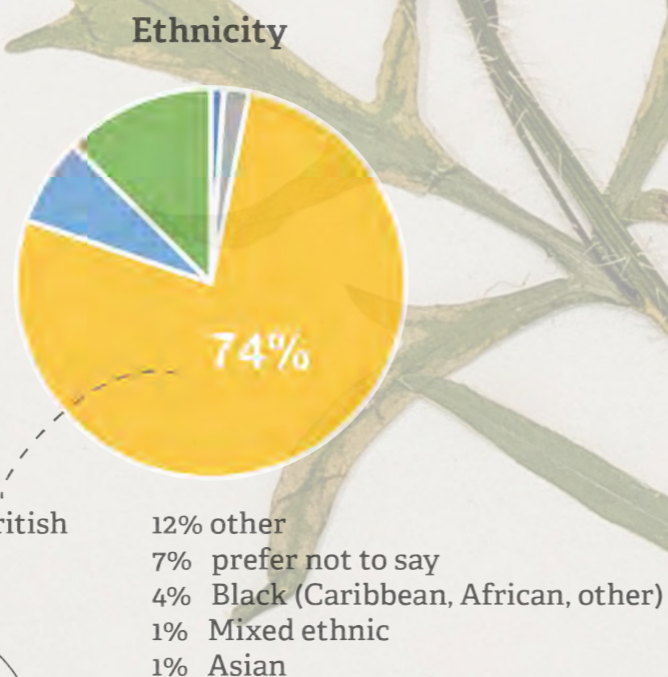
Audiences reached via media (print, online, social, email, radio, TV)	Year 1	Year 2	Year 3	Year 4	Year 5	TOTAL
Audiences reached by print	479,000	280,000	84,000	29,500	0	872,500
Audiences reached via LLP website (page hits)	1,505	2,000	1,843	8,560	4,051	17,959
Audiences reached via project partner and affiliated websites	42,600	33,026	2,424	196,760	1,382,643	1,657,453
Audiences reached via LLP twitter (impressions)	231,656	422,000	342,000	322,600	144,400	1,462,656
Followers on twitter	219	294	228	160	69	970
Audiences reached via FaceBook (impressions)	142,000	150,000	174,505	234,867	35,100	736,472
Audiences reached via e-newsletters	420	720	10,000	880	0	12,020
LLP project e-newsletter sign ups	150	100	75	10	0	335
Audiences reached via television	0	4,000,000	0	0	0	4,000,000
Audiences reached via radio	60,000	60,000	10,000	300,000	60,000	490,000
Views of YouTube project films	0	0	50	50	17	117

Demographic data*

AUDIENCES, PARTICIPANTS, VOLUNTEERS

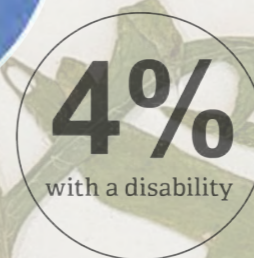
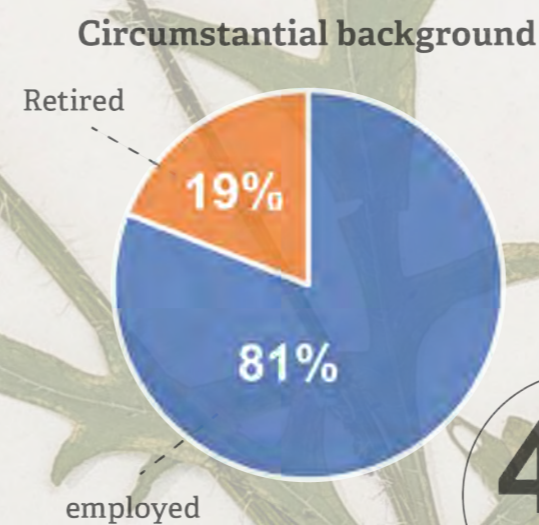
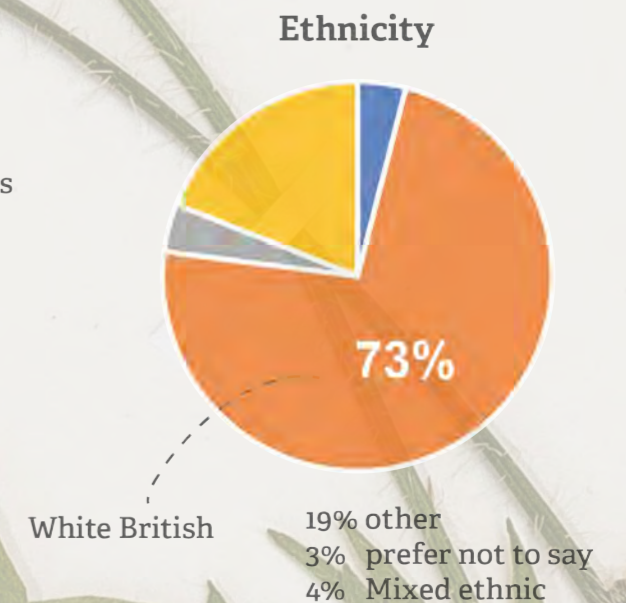
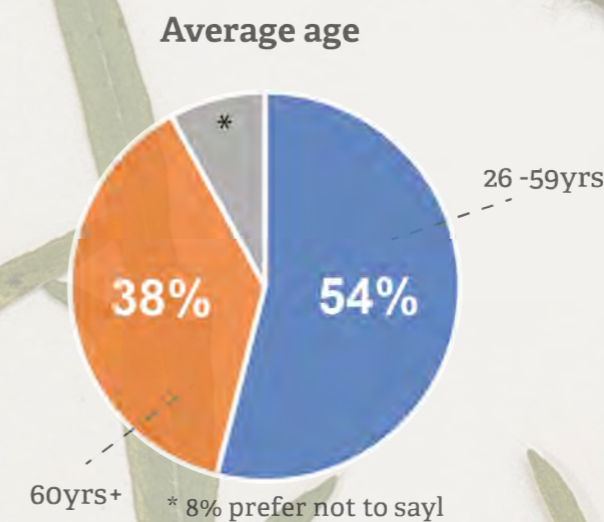
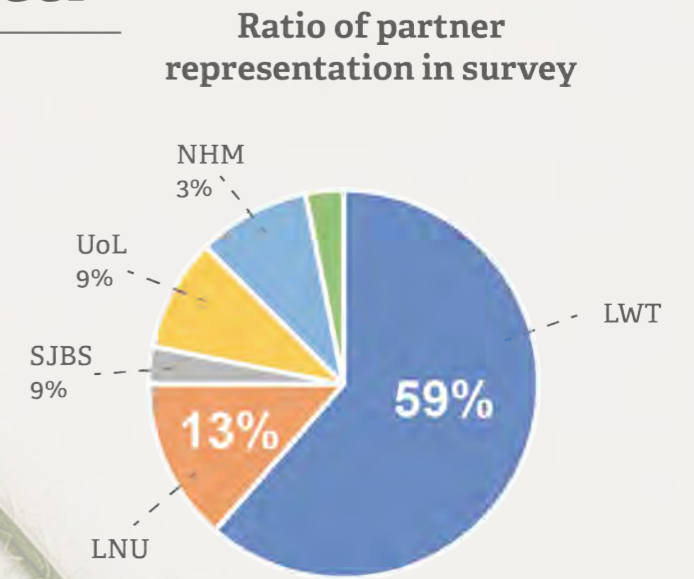


Audiences extended across East Midlands, UK, to Ireland, Canada, USA and Portugal



Demographic data*

STAFF AND PROJECT PARTNERS



* Total of 203 forms were completed: 101 surveys completed by adult audiences attending events in the final 6 months of the project, 70% of which attended virtual due to lockdown restrictions + 101 surveys completed by volunteers and participants who completed questionnaires in the final 6 months of the project, retrospectively

* Total of 32 staff and individuals working towards the delivery of the project across the partnership completed this survey

6 Review

6.1 What worked well and why?

6.1.1 Recruitment of the project team.

The combination of appointing both leading Project Officers with existing connectivity and experience at both LWT and NHM ensured continuity, quality, organisational progression and effective use of specialist skills and localised knowledge. The external recruitments brought with them individually comparative skill-sets and expertise to the project, each with distinctive aspirations to introduce new ideas and fulfil personal ambitions. The open-mindedness, support and trust instilled by the Project Managers at both LWT and NHM, enabled the project team to thrive and deliver LLP with energy, passion and quality.

6.1.2 The smooth acquisition and re-curation of the historic collection.

As soon as the LNU Historic Collection was handed over to the NHM, the conservation and re-curation was underway. This was simply down to the existing expertise, resources and capacity of the team.

6.1.3 Quality of contemporary herbaria.

The standard of specimens collected by the project volunteers and communities were excellent and met museum standards. When drawing up the project proposal, it may not at first have been of high concern that the quality of specimens may impact on the success of the project, but it was soon realised that this was crucial. Achieving these standards was the result of positive communication, specialist training and the continued mentorship provided by the curators at NHM and Project Officers. Importantly if the standards had not been met, the morale of volunteers and partners would have been negatively impacted. However, positive feedback, encouragement and appreciation empowered and progressed 'in the field' success.

6.1.4 The creation of a real-life Herbarium Room in Lincolnshire, alongside an online Herbarium Hub and accompanying suite of media resources.

This inspiring combination of accessible engagement and learning pathways into the project for the wider public will most certainly continue into the legacy period and beyond. The quality of both in-person and virtual spaces are exemplary, and this is down to the vision, drive and tenacity of the project team. It's important to highlight that in particular the comprehensive online resources validate the innovative skills and adaptability of the project, with a swift efficient re-assignment of staff time and focus, when faced with external challenges due to the pandemic.

6.1.5 Partnership skill-sharing, resilience and innovation.

Each member of the LLP 'steering group' brought with them specialist expertise and a passion for the project. Individually they acknowledged and respected the expertise 'around the table', and whilst a formal skills audit was not undertaken, there was a clear openness and willingness to share skills, support and mentor each other. Each partner remained active and contributed to the outputs of the project directly and as a result 'there were no silent partners.' During adverse and challenging times, the partnership pulled together, and as one member reflected, "I know if I need support or advice I can just pick up the phone".

The unforeseen impact of the pandemic and subsequent lock down, arrived at a time when the project was thriving and positively progressing at quite a pace. The sudden unexpected halt to activity was understandably difficult, not just for the project but for partner organisations, volunteers and individuals alike. Whilst this external factor could never have been predicted or planned for, the project impressively adapted its plans and public offer, surviving these challenges as best as possible due to the resilient strength and swift adaptability of the partnership and project team.

6.1.6 Progression routes for Young Botanists

FISC was brought to Lincolnshire for the first time as a way to monitor and improve botany skill levels and to further create a community of botanists. This assessment, together with project training and programmes provided a baseline of essential skills enabling Young Botanists to thrive beyond the project. Many individuals went on to progress their education, take up new career opportunities and volunteering. Please see appendix for individual journeys personally conveyed by each Young Botanist.

6.1.7 The maximising of volunteer skills and volunteer mentorship.

Opportunities were not missed to empower and encourage volunteers to input their skills, time and effort into the project. This was successful due to the interpersonal and communication skills of the LWT team, existing and LLP staff. The LLP LWT Staff were dedicated, and the Project Officer ensured there was continuity across the project, with all volunteers supported and all volunteering efforts regularly celebrated. The Project Officer was the main contact and co-ordinator for all Lincolnshire based volunteering and also the leader of the Young Botanist volunteer group. All of LWT LLP staff were furloughed and during this period existing LWT staff ensured some level of activity and communications with volunteers and the wider public continued. Again, illustrating the dedication of LWT to this project as an organisation, and this was supported by the LLP partner organisations too.

6.1.8 University of Lincoln LLP offer for students.

From the outset, opportunities were maximised to inject local expertise and Lincolnshire ecological application as part of the new BSc (Hons) Ecology and Conservation degree, aiding student learning and research. It was a timely collaboration, the LLP partnership establishing a core course offer of real-life science and Lincolnshire natural heritage, realised through conversations at an early development stage, in advance of the degree launch within the first year of the project. Adaptations and learning through the partnership have ensured student LLP engagement is embedded with both under and postgraduate opportunities continuing into the legacy period. The engagement and building of all the materials and activities between the LLP staff and existing education and community officers, means LLP is truly embedded in LWT offer going forward.

6.19 The quality of school engagement.

Tasked with an ambitious target to engage pupils throughout the project period, it would not be unfair to imagine the Education and Community team 'hitting the target but missing the point', however this is far from the truth. The quality of presentation and engagement across Lincolnshire schools was delivered with a high level of detail for learning, never losing momentum or energy. The project team listened to teachers feedback, continually evolving their offer to fulfil and inspire pupils and the school community.

6.2 What did not work so well and why?

6.2.1 Plant collection targets

A target figure of a minimum of 4,500 specimens was set to be collected during the three-year activity plan, 3,000 specimens for NHM and 1,500 for SJBS. Given the window of collecting specimens is only feasible between March and September, to meet this target, a total of 60 plants were required to be collected during each field visit, equating to 75 days across the project period.

When field collecting commenced in the first year of the project, it soon became clear that this was far too ambitious, and a target of 1200 was established. This new calculation was based on the following factors:

- Many LNU members had not collected specimens for a long time, if ever, and were needing to learn new skills as well as collect
- Recording specimens is simpler and less time consuming than collecting specimens in the field, which requires far more time to extract, press and record, following exact systems, processes and the use of specialist kit
- Training new, less experienced, volunteers, including Young Botanists, to first ID correctly and then to collect and record specimens requires significantly more time. There was a need to allow for learning to take place and to build confidence

- Plant collection has a seasonal window and this window is variable, for example a later than predicted flowering season could occur. Additionally, the weather can also have an impact, and did 'Beast from the East, for example
- Earlier collection of common plants is quicker to achieve. Rarer plants require far more time to find and plan for
- LNU field trips are not always botanical in focus, with insects and other living species also recorded. This therefore determined variable levels of participation
- Field meetings soon determined that a group of three or four volunteers collecting plants is a manageable number to coordinate, two groups of three or four for larger sites. This could not have been predicted until activity commenced
- Travel time to and from each site, as well as time taken to get around at site reduces time to collection

6.2.2 The average number of plants collected on a given Field Meeting with LNU was 20, an exceptionally good day would be 40 plants, however this was rare. This figure was far smaller with less experienced groups and when training was required.

6.2.3 Younger membership to LNU

From the outset LNU recognised the critical need to attract new and younger members to their union. LLP opened up valuable opportunities to grow new membership, facilitate inter-generational skill sharing and new specialist methodology within the field for existing and new members, however the integration of younger less experienced volunteers and the aspiration for younger people to independently sign-up as members was not fully realised due to a number of factors:

- The confidence levels of Young Botanists to independently join a 'perceived' field of experts, with the pandemic also interrupting the development of their personal skills and knowledge
- A tailored programme of project opportunities provided Young Botanists with adequate engagement activity, leaving them with perhaps little desire to independently engage and sign up as an LNU member
- The marketing and publicity of LNU field meetings is geared more towards experienced and traditional/older audiences
- The lack of public transport in Lincolnshire, with Field Meetings often sited in harder to reach locations in the county, accessibility was challenging

6.2.4 Installing the herbarium equipment in a listed building

There were delays in the launching of a fully functioning Herbarium Room space as the size of the herbarium (museum) cabinets were not compatible with the SJB Centre listed building space. With a re-design and new plan, the room was completed and operational six months later than expected, which did delay delivery and volunteer training at the centre.

7 Lessons learnt and recommendations

7.1 LWT Project Officer capacity

The duties of the LWT Project Officer were too ambitious for one person to solely achieve. The pressure of embarking on a new ‘never before achieved’ collection of specimens to form contemporary herbaria alongside a training programme was underestimated. LLP was not a ‘business as usual’ programme, it required a far greater lead in time and greater capacity for staff to grow.

Important to also note is that the Project Officer duties covered all levels of responsibility, from leadership, to practical delivery, from programme coordination to operational tasks. Six months into the project, duties were successfully delegated to a wider core staff at LWT, including the Head of Conservation, however this did result in a knock-on effect on their capacity.

Strategic level staff at LWT were required to assist with hands-on project delivery, due to staff illness and/or the limited capacity of the project team. Whilst demanding, these collaborative interventions facilitated a greater connectivity to the benefits and impact of the project and directly informed future plans and ambitions.

Recommendation 1:

Allow for a greater resource of staff time for future projects, considering operational and project management duties. Hidden tasks such as ordering, invoicing and administration as well as reporting, PR and recruitment should not be under-estimated and these duties should not remain with just a single individual.

Recommendation 2:

Assign clear roles across the partnership before commencing future project activity, ensuring responsibilities are more explicit during the delivery phase by respective partners.

Recommendation 3:

Plan opportunities to integrate all levels of staff across the partnership in the delivery of engagement activity to inform strategic planning and development.

7.2 Organisational inclusivity and continuity

Changes were made during the stage two development phase, at the request of NHLE, to position LLP within the ‘conservation’ department at LWT, as opposed to an original placement within the ‘public engagement and communication’ department. This was to establish a clear distinction between project activity and core LWT activity. This decision initially created posts having to be line managed by two different line management Departments as split individual posts between project and core activities. The expectations needed to be calibrated accordingly, and although a little bumpy in alignment in the start, it actually resulted in great work being embedded in both Departments together.

This model however, did stimulate new opportunities by exposing and ‘cross pollinating’ skills and new engagement opportunities across all departments. Consequently, various core staff contributed regularly to the delivery of activity, which yielded positive results.

As school and community activity was led by staff employed and positioned at LWT, the involvement of the wider partnership was not fully utilised and opportunities missed.

Recommendation 4:

Consider positioning project staff across multiple departments or seconding roles out to wider partner organisations to allow for greater visibility, involvement and learning.

7.3 Curation of collections

As the contemporary collections grew, SJBS welcomed more visibly diverse specimens within their collection to aid public engagement, whereas NHM welcomed specimens of all variants of the same plant to aid scientific research. Flexibility and less duplication between contemporary collections therefore naturally occurred. Decisions were also made by the project team to not collect very rare/endangered species, indicating there was a need for a line to be drawn, to preserve and protect local species most at risk.

Recommendation 5:

For the partnership to define the differences and needs of each contemporary collection within the Collection Strategy.

7.4 Training facilities and specialist expertise in Lincolnshire

The project team were faced with significant challenges when seeking available space suitable to deliver training in Lincolnshire, particularly for over-stay residentials. This was due to accessibility, affordability and functionality. Consequently, this challenging experience inspired LLP partners to consider a future capital project to create a much needed residential ‘hub’ in Lincolnshire to accommodate pioneering events and training.

Additionally, limited access to experienced training experts and teachers (for example FSC tutors) in Lincolnshire, together with limited resources to fund external tutors, meant there was a reliance on LLP project staff and wider LWT staff to meet outcomes.

Recommendation 6:

For the partnership to research the need and feasibility for an accessible training and learning facility in Lincolnshire, to inform future capital plans and project activity.

Recommendation 7:

For a budget to be secured for external tutors/trainers when scoping future funded programmes which aim to meet specialist learning outcomes.

7.5 Younger Botanist access to engagement

Having a centralised hub for volunteering proved successful but did challenge the capacity of the Project Officer. The use of LWT social media as well a face to face engagement to promote project volunteering to younger audiences, as well as dedicating a proportionate amount of time to inducting and safeguarding volunteers, helped significantly with volunteer retention and contribution. The barriers and accessibility for younger volunteers has been a challenge, and the pandemic did impact on the momentum of engagement and progress by the project team. However, one key learning outcome of LLP is that mentorship and peer led encouragement makes a real difference.

Recommendation 8:

For each partner organisation to appoint a ‘Volunteer and Engagement Champion’ to support future engagement, and for these champions to meet regularly to share good practice, policy and skills.

Recommendation 9:

For the partnership to create a volunteer and engagement pathway as a guide to support sustainable and accessible volunteering opportunities across the partnership. This needs to be co-developed with Young Botanists.

7.6 Volunteer policy and procedures

Volunteer registration procedures and management across the partnership is inconsistent, with partners conducting minimal volunteer registration processes (apart from NHM). The standard system used appears to simply gain contact details or signing up as a member, with information of volunteer data at each partner organisation not comparative. Not having volunteer registration systems and volunteer policy in place significantly limits opportunities to review, assess and enable volunteer engagement effectively, and would lead to improvements across all partners to meet safeguarding and health and safety.

Recommendation 10:

For each partner organisation to create a volunteer policy and set of procedures to support future volunteer engagement.

7.7 Less is more, sustaining engagement

The outputs of this project put significant pressure on project staff and from the offset LLP fired from all cylinders to fulfil its targets. Whilst this ambition proved valuable with important audiences reached, opportunities to establish more sustainable embedded relationships and opportunities with target groups and communities were lost. For example, more time to collaborate with a cohort of Lincolnshire schools regularly, rather than delivering high numbers of one-off sessions with schools, would have yielded more sustainable and impactful outcomes for LLP and project partners.

Recommendation 11:

For future engagement programmes to deliver a ‘balance of offer’, investing limited project resources and time to create more embedded and long-term relationships, rather than delivering high quantities of one-off experiences and learning.

7.8 Evaluation framework

With the absence of an evaluation framework, the multiple methods adopted by the project team to evaluate LLP were insufficient, as they were not comparative and were, in the main, qualitative.

It is recognised this was probably lost in translation with changes in staff within several of the partner organisations from when the project was conceived through development phase to delivery phase.

Recommendation 12:

In advance of all future project delivery, there is a need to establish an evaluation framework and a suite of comparative tools and methods, directly responding to project outputs and outcomes.

8 Budget

8.1 Overview

The original project time-line was set to complete in October 2020 after starting in autumn 2017. Due to the Covid pandemic, an initial ‘no cost extension’ was agreed with the NLHF to 30th June 2021 in the autumn of 2020. With further lockdowns and pandemic related complications this was again extended to 31st December 2021.

Project staff at both LWT and NHM were furloughed for varying periods. This was due to schools being closed, volunteers not being allowed to access buildings, and other related impacts through following the Government’s guidance at the time. Salary for staff on furlough was not claimed through NLHF grant, and neither was any top-up salary for staff on furlough, as this was provided by the host bodies of the project staff, as 100% salary costs were not covered by the Government’s furlough grant.

As part of the ‘no cost extension’ it was agreed to transfer budget between differing expenditure lines, which also reflected impacts of the pandemic, for example volunteer activities placed on hold and so highly limiting travel expenditure by volunteers, but requiring events to go online that required specialist software and programmes.

8.2 Income

The three partners of LNU, LWT and SJBS all provided match funding to secure the NLHF grant, and the original contracted amounts identified were:

- LNU contribution £23,003
- LWT contribution £15,000
- SJBS contribution £10,000

The LNU part way through the project realised the revised match contribution from them had not been ratified by members, as this was revised between July-September 2017 with NLHF, just prior to the permission to start. The LNU membership had ratified up to £20,000. LWT agreed to cover the £3,003 difference and therefore in 2020 it was agreed these figures would be revised to the following:

- LNU contribution £20,000
- LWT contribution £18,003
- SJBS contribution £10,000

NLFH awarded a grant of £499,000.

8.3 Expenditure

The headings within the table are those defined by NLHF. This is not the full list of budget headings by NLHF, but only the ones relevant to this project.

8.4 Budget balance

The increased expenditure reflects the project being extended by a further 14 months and the associated increased administration costs for that period. The original budget did not obviously include Full Cost Recovery for the extension period, but this was still incurred even with staff on furlough, as LWT staff (non-project) had to continue to deliver project management services, activities and communications to maintain the audit trail, financial services, partnership management, evaluation procedure, engagement with audiences and keeping a project profile alive. Further to this, NLHF requested a different approach to evaluation and legacy planning to be undertaken to that originally agreed within the application.

Various budget changes were agreed due to the impact of the pandemic, so increased expenditure on capital items such as establishing the seed bank were facilitated through reduced expenditure spent on travel by staff and volunteers due to activities being placed on hold. All these changes between budget lines were agreed with NLHF in autumn of 2020 and spring of 2021 in the two ‘no cost extension’ requests. Although, even with these agreed changes the pandemic has led to a general increase in inflation, therefore some activities were again more costly than they had been estimated, even during the ‘no cost extension’ processes.

This variation in budget represents just over a 10% increase in cash expenditure, which considering the project was extended by 14 months and continued to be delivered in a global pandemic, seems reasonable. The expenditure not covered by the income, will be underwritten in the first incidence by LWT.

Cost Heading	Original budget	Final Budget	Difference
Capital			
Repair and conservation work	20,000	17,086	+2,914
Other capital work	1,000	7,338	-6,338
Equipment and materials (capital)	10,794	10,412	+382
Other costs (capital)	1,400	2,636	-1,236
SUB TOTAL	33,194	37,472	-4,278
Activity			
New staff costs	334,835	366,815	-31,980
Recruitment	1,300	388	+ 912
Travel for staff	24,600	14,377	+10,223
Training for volunteers	2,000	30	+1,970
Travel and expenses for volunteers	14,600	1,004	+13,596
Equipment and materials (activity)	14,607	28,553	-13,946
Other costs (activity)	5,000	1,848	+3,152
Professional fees (activity)	5,500	18,242	-12,742
Publicity and promotion	1,000	1,102	-102
SUB TOTAL	403,442	432,359	-28,917
Project management, contingency and legacy			
Full cost recovery	52,561	73,117	-20,556
Evaluation	3,000	10,000	-7,000
Contingency	8,023	8,023	0
Inflation	8,023	8,023	0
Increased management and maintenance	30,000	30,000	0
VAT	8,760	11,684	-2,924
SUB TOTAL	110,367	140,847	-30,480
TOTAL	547,003	610,678	-63,675

9 Going forward

9.1 Together, we are more

The greatest lesson learnt is an old one, that more is achieved together, and therefore the partners have committed to continue to work together as the Love Lincs Plants Partnership. They have developed a shared vision, which sets the tone of their combined efforts to come, as follows:

The Love Lincs Plants Partnership delivering for people and plants of Lincolnshire, actively being supported by a suite of skilled and trained volunteers, with the next generation of botanists contributing to the recovery and science of Lincolnshire's plants, while all celebrate and treasure the importance of Lincolnshire plants.

From this vision, a set of strategic aims flow setting the overall joint goals and ethos of the partnership:

- Cooperation and mutual support between partners
- Seek collectively to continue to build the evidence for plant science in Lincolnshire
- Deliver nature's recovery for plants of Lincolnshire
- Support the continued development and training of volunteers and next generation botanists
- Inspire people to love the plants of Lincolnshire

Followed by a series of practical, high level objectives that provide a step by step approach to how the above will be delivered:

1. To hold regular partnership Steering Group meetings to deliver, monitor, report and review the 2022-26 Legacy Action Plan
2. To continue to build the Lincolnshire Herbarium and securing relevant accreditation(s)
3. To continue plant collection, processing and management of specimens within Lincolnshire including supplying key specimens to the Natural History Museum
4. To build the Lincolnshire seed bank and plant propagation programme
5. To deliver an annual series of events to celebrate and promote Love Lincs Plants
6. To report on successes and lessons learnt through local to global networks
7. To seek joint opportunities to help deliver the above

The vision, strategic aims and objectives are underpinned by a Love Lincs Plants Memorandum of Agreement (MoA), which all partners have signed up to for the coming five years, taking us initially through to 2026.. The MoA provides the governance structure and financial commitments by partners required to enable two further documents that have been jointly developed, these are:

- Love Lincs Plants Management and Maintenance Plan (MMP): clearly identifies the kit and resources that have resulted from the funded project during 2017-21 that need to be maintained and the risks to them in the coming legacy period and beyond. The MMP goes on to identify what work is required to maintain the capital and digital kit, estimating the resource to do so based on the initial outlay (time and costs) and who will lead and own that responsibility. This document has gone on to inform the following:
- Love Lincs Plants Legacy Action Plan: sets out the key thematic activities that need to be delivered by the partners to ensure that the Love Lincs Plants Vision is met and the MMP is delivered.

The NLHF is supporting the above through an award of £30,000 for the five-year legacy period. This will ensure the project outputs and outcomes continue to be embedded within the Love Lincs Plants Partners, and the key thematic activities identified in the Legacy Action Plan are as follows.

9.2 Lincolnshire Plant Collection: growing contemporary specimens

The partners developed a plant collection strategy, the ownership of which lies with the LNU. This will inform plant collection across Lincolnshire and will be reviewed on a regularly basis to ensure it continues to deliver the science and conservation required to help recover Lincolnshire's native flora, so it can adapt to change in the future. The LNU, LWT and UOL working with the South Lincolnshire Flora Group will be key to success. The plant collectors will arrange for dried specimens to be delivered to the SJBS.

9.3 Lincolnshire specimens and herbaria

The Lincolnshire Herbarium will continue to be hosted and managed by SJBS supported by the LLP partners. A part-time Botanical Collections Officer will be employed to manage the herbarium, volunteer/ student support and training, and outreach activities. This Officer will also be responsible for ensuring the herbarium reflects the standards as set out in the Herbarium Manual developed during the project by partners.

SJBS will work with NHM to ensure batches of contemporary specimens continue to be received for processing within the national herbarium. NHM will work with the partners to ensure key gaps in the national collection are filled.

SJBS will be supported by all partners in achieving various accreditations for the newly developing Natural History Centre in the building where the Lincolnshire Herbarium is hosted, which will include contingency planning for the herbarium.

9.4 Lincolnshire habitat demonstration beds, seed bank and plant propagation

LWT will continue to develop the gardens at their headquarters as a centre of excellence for showcasing the habitats of Lincolnshire, developing a county seed bank and propagating local provenance, native plants. This will be done in conjunction with UOL and the Millennium Seed Bank based in Sussex as part of Kew Gardens working with their Wakehurst Team. Volunteering will be continued to be offered which will be supported by LWT and UOL staff, and opportunities for joint events between LWT and SJBS in Horncastle will be sought. LWT will finalise establishing a national network within The Wildlife Trust family with the Wakehurst Team on seed banks and plant propagation.

9.5 Next generation botanists and curators

All partners will continue to seek to offer the next generation the chance to develop their skills. LWT with the UOL will continue to lead on botanical field skills, such as plant survey and identification. This will be through teaching at the UOL and also via courses open to all, including where possible repeating the highly successful residential ones. The LNU and South Lincolnshire Flora Group field sessions will be advertised proactively to encourage the next generation to participate.

SJBS and UOL heritage department will continue to nurture their relationship ensuring students get experience within a heritage centre and handling collections. Both LWT, SJBS and NHM will where possible offer student and graduate placements, and all partners will contribute to developing research required so students can identify dissertation opportunities.

LWT has embedded the Love Lincs Plants educational and outreach offer into their day to day practices of working with local schools at all key stages, through their Watch Groups and community outreach programme. The materials and kit will be refreshed and maintained so the young people of Lincolnshire learn about their native flora.

9.6 Engagement and communications

All partners will maintain a digital presence and where relevant input to printed materials and press releases so that Love Lincs Plants continues to be celebrated and understood by a local to international audience. LWT will specifically maintain the LLP social media accounts and will host a winter series of online virtual lectures. The partners will look to host a scientific conference on herbaria in the legacy period also.

An annual series of events to engage the wider public and to signpost them to volunteering opportunities with the partners to support LLP activities will continue. The events will be arranged by the LLP Steering Group at their biannual meetings linked to relevant themes, for example, Woodruffe-Peacock's anniversary in 2022. Through this project the partners have learnt how to make a virtual offer online and how to manage that process, so reaching far beyond their previous audiences, and so this will be continued, alongside the more traditional face to face events. Typically, these events have also tended to be delivered within the partners own grounds/centres, but the project clearly evidenced that taking the events to communities in their patch worked, and so we shall again 'Love Lincs Plants' across Lincolnshire within communities.

9.7 Opportunities and innovation

The partners have committed to seek further opportunities as a collective to trial and innovative in the field of plant science including piloting the use of field apps for example. They will work together to ensure their offer attracts new volunteers, members and sponsors, and where fortuitous to do so, they will make joint bids to external funders.

9.8 Closing remarks

The partners have formed strong bonds, have overcome everything from the 'Beast from the East' to a global pandemic, to organisational and staffing changes and challenges. This, in itself, illustrates we should and will continue to deliver for the plants and people of Lincolnshire. We will Love Lincs Plants!



Appendix 1

Personal journeys/Young Botanists (18 -35)



Adam Lucas

My interest in plants started when I volunteered at a china clay museum in Cornwall and I was asked to produce an identification guide to the flora on the site. Although this project was unfortunately cancelled before it could be realised, my enthusiasm for botany was begun. From there, I became a recorder for the Botanical Society in Hampshire, contributing records for the BSBI Atlas 2020 project. I have since expanded to include fungal recording for the British Mycological Society.

I have been involved in the Love Lincs Plants project since 2019. In that time, I have gained a number of personal benefits. Firstly, my social circle has improved through making contact with the organisers and other volunteers. It has also reinforced my pre-existing relationships within the South Lincolnshire Flora Group and through my involvement with the project, I came to discover that a North Lincolnshire group will be established as well. It has also allowed me to interact with those with similar interests and build up my social and professional network. Additionally, my involvement in the project has helped to improve my confidence by granting me experience in working in a team environment and leaving an important and long-lasting legacy. I am also more confident in using the skills I have developed through this project. Because of the outdoors nature of the project, I have experienced an improvement in my physical health, not just in terms of fitness and exercise but also just being outside has had a benefit on my mental health as it is very relaxing but also fulfilling to be involved in something so worthwhile. As a result of this, I have noticed that my wellbeing and personal attitude have changed as my self-esteem and self worth have increased.

I have acquired a number of new skills and knowledge during this time. I am now able to archive plant specimens into families and genera using the numbering system of Stace Edition 4. This has also enabled me to locate taxa in Stace 4 more efficiently. I can use herbarium data to extrapolate where and when the specimen was collected and who has worked on the specimen during the entire herbarium process. This is an important skill because it allows me to interpret specimen provenance data effectively. Another skill I have developed on this project is the ability to successfully transfer data from the specimen collection sheets on to the database spreadsheet using Excel. This will then aid future curators and researchers when studying the specimens. In addition to these skills, I have developed a knowledge of the various herbarium curation techniques used in this project. For example, I now know what goes into collecting the specimens and recording the relevant data in the field. I also know what information is pertinent to a herbarium curator and is required to be entered into a database.

In the future, I wish to use these skills and knowledge to further my career in botany and biological recording. This can be achieved by pursuing more voluntary roles with the Wildlife Trust, Botanical Society of Britain and Ireland, and the British Mycological Society. I would like to focus primarily on plant and fungus recording and surveying. I would also like to gain more knowledge and experience at identifying plant and fungus species. The experience I have gathered through the Love Lincs Plants project will help in this by giving me the opportunity to transpose these skills to another herbarium elsewhere in the country.

Amy Primavera

My botanical knowledge was very basic before participating in the project and keen to remedy this and learn more, I jumped at the chance to attend the LLP Young Botanist's sessions in 2018 & I've been hooked ever since. The project team have been fantastic at passing on their knowledge & skills – I feel this has given me a varied foundation skill set that I can build further on in the future. Most notably, the training on how to use botanical keys has been invaluable. Now I feel confident to use botanical keys, and using this together with the plant collection skills I've gained I have had the opportunity to share these skills with others through the volunteering I do as a Wildlife Watch Leader for LWT. It's been great to see the enthusiasm within the Wildlife Watch groups – they created beautiful herbarium folders & totally mastered starting to learn the Latin names of local plants – what an inspiration! Some of the sessions I attended covered herbarium training and this gave me the skills to become a herbarium volunteer for the project – I have been able to contribute with specimen mounting – it's been such a great experience to gain an insight into this craft & be part of a group with a shared passion for plants.

On a personal level, I feel I have gained so much from the project. There was a social element to the sessions, and opportunity to meet & learn alongside other like-minded young people. I feel I was able to learn more in this style of learning environment, with lots of chance to bounce ideas off one another, and share other knowledge and experiences. Before engaging with the project, I was considering a career change & exploring which volunteering and education routes would be most appropriate. The project has given me confidence and hope that I may be able to align a career with my core values & my love of the natural world.

I think most of all, what I've learnt during the project has made me really happy! It brings a huge smile to my face whenever I see a new plant, I've had the opportunity to meet some really lovely people & a walk is even more enjoyable now (always new plants to spot on the way!)



Coll. Brian Hedley (LNU)
No. 001-0053
Date 07/07/2018

I'm very much looking forward to spending more seasons improving my botanical skills, learning more and building on what I have learnt. To learn more I joined the 2020 Identiplant course & have now completed – the course has been fantastic and I have really enjoyed building my skills in field botany. I am also now a member of the BSBI and a volunteer for the National Plant Monitoring Scheme. I have been able to use the Identification skills I've learnt through the project when beginning surveys at one of my NPMS survey squares in my home-town of Scunthorpe. Also, I have been enjoying sending in plant records to my local naturalist's group, the Lincolnshire Naturalist's Union. I hope to go on to study Plant Biodiversity & Habitat Assessment Methods at University of Oxford in 2021, & I am particularly interested in gaining more experience in surveying techniques. Something I have enjoyed the most through getting involved with Love Lincs Plants has been engaging with others and sharing my love for plants and the natural world. With my volunteering with Lincolnshire Wildlife Trust as a Wildlife Watch leader I was able to share my enthusiasm & the skills I've learnt from the project when helping build a new Watch group in a fairly urban area in my home-town, Scunthorpe. It was an absolute joy to see the new group engage & enjoy the plant activities so much. The project has given me the confidence to pursue a career change and I hope to be able to secure a job where I can continue to learn more botanically & share this with others.

Thanks so much to the National Lottery Heritage Fund & the Love Lincs Plants team!

Bethany McGuire

My name is Bethany, I'm 21 and based in Boston, Lincolnshire. I live there when I'm not at the University of Reading studying Environmental Management or on my placement year at WWT Slimbridge undertaking practical reserve management! I was able to get involved in LLP by volunteering at Gibraltar Point with the Lincs Wildlife Trust during the summer of 2019. It was one of the best things I've done because it's allowed me to gain practical experience in conservation but also offered me the opportunity to learn about more about LoveLincsPlants and attend one of the residential courses for flower rich grasslands!

Although I have only attended the residential Flower-rich Grasslands course, I have gained so much in such a short period of time. Being surrounded by budding botanists and like-minded individuals was really beneficial at helping me grow on a personal but also professional level. It was a great opportunity to get involved in a variety of activities, from presentations to fieldwork, allowing me to work on multiple practical skills but also improve on my personal skills such as confidence, teamwork and communication. I also believe that it has improved my wellbeing, not just over those few days but in the long term. When walking around my local nature hotspots, I don't just look up to appreciate the birds but I look down at the ground, take my time and enjoy the smaller, less noticeable species around me. I take pleasure in learning to identify them and taking photos to remember them make me happy and I try and encourage others to do the same and also be excited by plants!

Through the project I've improved upon a range of skills, notably learning how to identify plants using keys as well as learning the tell-tale signs of certain species to differentiate them from similar species as a result of my peers. It has been really useful and after the course I even ordered a hand lens and my own copy of the Francis Rose Wildflower Identification Key which was recommended during the course! By improving on my plant identification skills, I have also improved upon my knowledge of specific habitats, namely meadows. By being able to visit and work within Kingerby Beck Meadows, it's reinforced my current knowledge of meadows but also the identification of key meadow species. By working within this site and gathering our own

specimens for species mounting, it allowed me to work on a skill and project I never knew existed until then. It really appealed to the creative side of me and allowed me to enjoy both art and botany simultaneously. I'm extremely grateful to have played a small part in it after learning so much about it during the course, so I really hope I can contribute to this project again in the future.

I am currently studying a degree in Environmental Management and enjoying the more ecological and conservation-based modules available as opposed to the sustainability-based modules I thought I would be enjoying originally. After attending the course between my first and second year, it's helped me understand the ecological side of environmental topics better and as a result I want to pursue a career in the conservation sector.

In the future I ideally want to become a Reserve Warden and I hope these new skills and knowledge gained from the project will help me take another few steps towards my goal. Species identification is a really helpful and important skill to have in roles similar to that as it is all about managing the environment. With this project sparking my interest in botany so early on, I have so much more time to learn and grow as a botanist and environmentalist that I hopefully will be able to work in this field when I graduate. I am grateful that this course has provided me with a variety of botanical knowledge and a range of skills to grow within this sector and hopefully I will be able to attend more courses with LoveLincsPlants in the future and further develop my skills.



“The project team have been fantastic at **passing on their knowledge and skills**, I feel this has given me a varied foundation skill set that I can build further on in the future.”

Young Botanist

Yellow archangel

Haugham Wood, Muckton
Ancient woodland. Yellow flower

TF35688208

VC: 54

Collette Tait

My name is Collette Tait. I have been lucky enough to participate in some of the courses run by LoveLincsPlants, which have included Winter Twig Identification, Woodland Flora and Ecology Training, Herbarium mounting skills and specimen collection.

The courses have been really engaging and fun and have given me the confidence to pursue a career in botany. I feel much more equipped in terms of plant identification and have been introduced to other skills, such as mapping vegetation, which will be imperative in applying for work once I have completed my degree. The courses have also allowed me to meet other like-minded people and make links with professionals with whom I can gain experience in the future. I had an interest in botany prior to attending the courses, however, that passion was really ignited when I was able to spend time learning about local plant ecology, in more depth, with experts.



Since attending the courses, it has given me the incentive to gain more practical experience and knowledge. I have booked multiple botanical courses both online and face-to-face whilst also completing the final year of my degree. I have incorporated botanical surveying within the final modules of my degree to continue developing the skills which I have learnt through LoveLincsPlants. I have also joined the committee for the local branch of Butterfly conservation (which was signposted to me by the LoveLincsPlants Team), and I have also attended a course on wildflowers and their interactions with specific lepidoptera. I believe that it is important to appreciate the wider context of botany and the effects of plants and their interactions with multiple organisms within ecosystems.

I love living in Lincolnshire and appreciate the diverse habitats and the plants which they support. Lincolnshire is, however, predominantly agricultural and there is much scope for extending existing species-rich habitats and improving biodiversity, which starts with vegetation. I hope, that ultimately, I can contribute to improving the local biodiversity through habitat surveying and advising landowners about how to best manage their land for themselves and for wildlife. This is what I hope to achieve in the future, and I feel that LoveLincsPlants has given me the foundation to be able to attain this goal.

I would like to say thank you to everyone who has contributed towards LoveLincsPlants. For me, personally, it has been a wonderful experience and one which has helped to shape my future.

December 2021 Update: Collette has successfully gained a position with Natural England as a farm adviser in Lincolnshire where she will be putting her plant identification skills into practice.

Nathan Clark

The Love Lincs Plants project came at a real pivotal point in my life. I'm a local that lives just outside of Lincoln and at the time I was in my summer between Year 12 and Year 13. Although I knew I wanted to study some type of biology at university, I wasn't terribly certain where I wanted to end up. One of my parents saw the opportunity online and considering it was very close-by, I thought it was worth a shot. Since then, it's opened up a whole new career path for me and it has put me in touch with a group of local volunteers that I have helped for almost 2.5(!) years now. I'm now in the second year of my degree at Cambridge and I think the project has had a real impact on me and my goals for the future.



Taking part in the Love Lincs Plants project has definitely changed my career goals. I used to be more interested in academia, but I really enjoy the visual and hands-on aspects of fieldwork. Especially now, in the pandemic, I find myself wishing to go back to those days more and more. In between attending those sessions and now, I have sought out more guidance to expand my survey skills, having attended some walks alongside other natural historians on fungi. I would love to gain some skills in identifying invertebrates too, but I am still practicing my ID skills on plants as much as time allows. I am currently coordinating with a team of other students from my university to create conservation and climate policy outreach, and I do not think I would have the confidence to do that without the experience from the LLP project.

I didn't have any exposure to field botany skills before taking part in the Love Lincs Plants project. I have gained a lot of new skills including reading and interpreting keys, the ecologies of meadow grasslands and heathland, and how specimens are recorded and preserved for herbariums. Learning to visually analyse plants is a surprisingly difficult skill to get started with, and it's very rewarding to finally crack that one species you can't identify offhand. Alongside the field skills practice, I was involved with a virtual project with the Cambridge University Herbarium over the summer and it was very useful for me to know the process behind herbarium specimen creation.

Most importantly, it put me in touch with many people who shared a similar interest to me! It has been amazing to meet so many new people and hear their stories. From school and even at university, there are unfortunately so few people interested in field botany. It was inspiring to know there was a wider community of people that also liked to get "stuck-in" with something practical. Everyone involved in the project, to the staff and the other students, has been very welcoming and I think that is a real strength of the project as a whole.

The practical element is undeniably the best part. Many of the trips to reserves and SSSIs have stuck in my mind very clearly considering they were over two years ago now! It's been really useful for my university work to have the practical experience to help back up the theory and abstractions that I learn in my lectures. I still sometimes refer back to notes that I've made during these courses, especially when it comes to plant anatomy. I could not have predicted how important the Love Lincs Plants project could have been to me before getting involved. It was a truly unique experience at a time when I lacked the guidance to put my own thoughts into action. My sincerest thanks extends to everyone who was involved, whether they were staff or fellow students. It was an amazing experience.

Richard Doan

My name is Richard Doan and I work for the Lincolnshire Wildlife Trust as the Coast & The Wash Assistant Warden. I feel very privileged to have been involved in the Love Lincs Plants project. The courses I have been involved in have ranged from Winter Tree ID to a weekend course on grassland habitat management. I have also taken part in a very daunting FISC assessment. This is a recognised qualification in which it tests your identification skill level. For this I achieved a level 3 and over the next year or two I hope to achieve a level 4 qualification.

The team at Love Lincs plants have been absolutely fantastic at passing on their extensive knowledge throughout all of the excellent training sessions. From a skills perspective for me I really appreciated and enjoyed going through the wild flower keys. Since I started learning botany in 2008 I would literally spend hours trawling through my Paul Sterry photographic wild flower guide. The thought of using of using the Francis Rose wildflower key was always a very daunting prospect. Since the project I have felt comfortable using this guide and this has been a real game changer for me in terms of identifying plants.

An additional skill I have acquired since taking part in the project was feeling more comfortable being able to learn and identify rushes, grasses and sedges. The prospect of tackling these groups of species in the past seemed for me impossible and an absolute mine field. I was also able to gain a better understanding of the ecology associated with a variety of differing habitats. I feel this is very important from a personal and career point of view. In 2019 I was carrying a survey of Common Spotted Orchids on one of our nature reserves and was able to find and identify several Common Broomrape plants. Upon further investigation it transpired that this was a new record for the reserve and was subsequently entered into the 2020 atlas.

I feel very lucky to be working in the conservation sector and the skills I have obtained throughout these training courses has only reinforced my love for botany and conservation. At work I have recently been given the opportunity to transform a previous grazing pasture field into a wildflower meadow. For this I have been tasked with carrying out a condition assessment of the field at several periods throughout the year recording all the species present ranging from wild flowers to grasses. I have no doubt that the skills I have obtained throughout the project will help me to do this to a high standard.

It has been fantastic to meet so many like-minded young botanists while taking part in the Love Lincs Plants training courses. On a personal level being able to carry on learning these new skills in my own time has been beneficial to my wellbeing no end; particularly during the 2020 Coronavirus pandemic. The courses have also been really important to me in giving me a real confidence boost and as such I have been able to share my knowledge and new skills with our team of volunteers. I would like to finish by saying a massive thank you to all the team at Love Lincs Plants and to all the incredible partners who have made the project possible.





Roksana Drobinoga

Hello, my name is Roksana and I study MA in Conservation of Cultural Heritage at the University of Lincoln. I want to specialise in the conservation of natural history specimens, preventive conservation and health and safety. I first got involved with the LoveLincsPlants project when I searched online for opportunities to gain experience in working with and handling botanical specimens. Through contact with the Sir Joseph Banks Society, I learned about the available training and other projects made possible due to the LoveLincsPlants funding. I took particular interest in the digitisation project of Professor Mark Seaward herbaria collection curated by the Society. After a few weeks from the initial contact, I have started working on this collection using the facilities funded by the LoveLincsPlants National Lottery Heritage Fund Project i.e. digital scanner, IT and herbarium cabinets.

My involvement with the LoveLincsPlants project and the Sir Joseph Banks Society improved my confidence in my communication skills and social interactions. Those can sometimes be anxious for me, as English is my second language, and I feel conscious about my pronunciation when approaching new people.

Through the extra volunteering opportunity, I experienced a professional workplace environment and learned how to approach official projects and responsibilities. I was asked to work independently and provide feedback on the project's process and possible improvements. This experience makes the prospect of starting a job after I finish University less daunting, as I know what to expect and feel more prepared to start working.

I have attended a drop-in session on the University campus in 2019 with the LoveLincs Plants project officer, Aidan Neary and project officer Kath Castillo from the Natural History Museum; receiving training in traditional plant mounting techniques. The session included an explanation of specimen mounting techniques and the use of conservation materials. During the session, I was given the opportunity to mount a plant and gain practical experience in handling botanical specimens. The project team also discussed with me the conservation aspects of mounted botanical specimens and their job experiences. It gave me a rare personal insight into the profession, which I truly appreciated.

As part of the Seaward collection digitisation project with the Sir Joseph Banks Society, I was involved in the initial creation of the documentation system. I was given a basic introduction to the SQL system and training in data entry. I was provided with a working station and was taught how to operate a scanner. Through my involvement in the project I learned about the Dandy and Stace plant taxonomy.

Due to my participation in two projects, I learned a step by step process of what happens with botanical specimens over time. From plant collection, handling, preventive care, processing and mounting to digitisation and archiving.

In the future, I want to continue working with natural history specimens. While I do not plan to become a botanist myself, I will be working alongside them and take care of their work through conservation. My involvement with the LoveLincsPlants project and volunteering at the Sir Joseph Banks Centre has helped me understand the basics of botanists' work. It was very interesting to speak with some of the botanists and have a chance to understand their profession better. I got to experience their approach to mounting and classification of botanical specimens. I believe the skills I learned will help me in my conservation career and will assist me in future networking with new people and collaboration in multidisciplinary jobs or projects.

Ruth Taylor

I became involved with the Love Lincs Plants Project as it coincided with my conservation traineeship. It offered me to chance to work on knowledge and skills essential for a career in conservation. I had been working in university administration but I knew this was not what I wanted to do for the rest of my working life. Having volunteered at Far Ings NNR I knew that a career in conservation was what I was interested in. I applied for a residential volunteer position and was lucky enough to get it. Following on from this I started the traineeship and I now have my first permanent position as an assistant warden along the Lincolnshire coast. During my traineeship I involved myself in as many different aspects of conservation work and learning as I possibly could and the Project formed a valuable part of this. The other course participants were learning alongside me so I didn't feel as though I was struggling to keep up. This helped me to relax and get the most out of the training. Each session was well structured and we had experts to teach and guide us who were happy to answer any questions I had.

Being part of the Love Lincs Plants Project has helped me to gain new skills and knowledge. I know I now have a good grounding to build on but also recognise that I need to continue practicing what I have learnt. I took part in a residential weekend which focused on the ecology and flora of flower-rich grassland at the Lincolnshire Wildlife Trust's Kingerby Beck Meadows SSSI reserve. Having a full weekend of study was beneficial as we were able to focus on many different aspects of the habitat, practice identifying species and use keys. We also had the opportunity to mount some of the specimens we collected and identified bringing together the new skills I had been developing. I attended several day courses including winter tree identification, identifying grasses and various aspects of creating an herbarium. The resources produced for each session are really useful points of reference for me. I have been able to use some of my new skills with my local Wildlife Watch group in the creation our own herbarium.



It has been really interesting getting to know the other participants on the courses. We are all from different backgrounds and at different stages in our learning and careers so it was nice to make new friends and be able to help each other. I've gained more confidence in my abilities but I realise I still have a lot to learn and I am happy to ask for help. When I am out walking I like being able to identify so much more of the environment I pass through. Being outside, whether that be for the field work involved in these training sessions or for exercise, benefits my mental and my physical health so there are many ways in which the project has helped me on a personal level.

The skills and knowledge I have gained and will continue to build on following the Love Lincs Plants Project will help me to advance in my career. For example; identification of plants is a skill required to conduct habitat assessments. These are vital as it shows if management work is having the desired effect in improving or maintaining the condition of a habitat and identify any changes that need to be made. These assessments are carried out on reserves around the county so I am able to assist in different habitats which I don't ordinarily work on, as well as those found on my suite of reserves. I don't know where my career will take me in the future so having an understanding and experience of different habitats will provide me with transferable skills. My current role involves a lot of public engagement and I am often asked to identify plants, animals and birds so I now have more confidence in being able to do this. I plan to continue learning and will take part in other opportunities as they arise and would like to continue helping with the new Lincolnshire Herbarium.

I've really enjoyed the training sessions and I am grateful for the opportunity to be involved.

“On a personal level being able to carry on learning these new skills in my own time has been beneficial to my wellbeing no end; particularly during the 2020 Corona virus pandemic. The courses have also been **really important to me in giving me a real confidence boost** and as such I have been able to share my knowledge and new skills with our team of volunteers.”

Young Botanist

Stephen Dempster

I was 30 when I got involved in Love Lincs Plants. I can't remember how I heard about it, possibly through Twitter, or through the South Lincolnshire Botanical Recording Group, which I had just joined. I was keen to get a qualification in botany, and saw that the opportunity was being offered to take a FISC exam. At university I had studied an agricultural course, but I was interested in botany in my spare time, had taught myself to identify a wide range of species, and I also got to do some great botanical identification classes on a year out I took in Germany, but my qualifications didn't make it clear that I had botanical identification skills, so careers in botany and conservation weren't open to me.



To prepare for the FISC assessment I particularly focussed on learning to identify several grasses, rushes and sedges, using books and online resources, and I also made a lot more effort to learn the plants' Latin names than I had before. I found the FISC exam very interesting and fun, it took place in a very special location where I encountered a lot of wildlife, and in 2018 I managed to get a Level 4 certificate, which was the best I was hoping for. I didn't attend many other Love Lincs Plants events, because I work full time. That year I attended classes in making herbarium samples, and I went out a couple of times botanising with the South Lincolnshire Botanical Recording Group at the weekends, which was a very rewarding experience, meeting some plants that were new to me, learning some of the finer distinctions and sharing my love of nature with others.

Later in 2021 I'm going to attend another LoveLincsPlants session in identifying coastal plants. I have been taking an active part in #wildflowerhour on Twitter, where people from across the country post pictures of plants they've found in the week, for one hour every Sunday night. That's been a really great way to learn about plants I don't often meet in Lincolnshire. Now I find when I meet a plant species that's new to me, I can conjure up a name just because people have shared pictures of it online. I have submitted thousands of botanical records to the County Recorder.

In 2020 having the FISC certificate helped me to change careers and greatly improve my personal situation. I went from working in technical support in agriculture to being a lecturer at Bishop Burton College, initially to teach agriculture, but from 2021 I will also be teaching a module in Flora and Fauna Identification on Bishop Burton's conservation degree. It means I get to share my love of nature with a lot of young people. Already I've had opportunities to talk to young farmers about identifying arable weeds, the relative threat different species pose to

crops, the broad differences between plant families, the effects fertilisers have on wildflower diversity. I'll find a way to turn any topic back to wildflowers.

With government grants for farmers shifting from being based on the amount of land that was farmed to the variety of habitats being maintained it's an important time to talk to farmers about wildlife. Teaching a module on the conservation degree is already making my work life more varied and interesting. No two days are the same. There'll be a lot of field trips involved, and I'm having to get to know all the nature reserves in Yorkshire. Having the FISC certificate is helping me to develop my career and benefiting a lot of young people at the college.

Dr Stephen Dempster is now a lecturer in Precision Crop Technology at Bishop Burton College in Beverley.

Sally Bavin

In 2018 and 2019 I took part in the free botany training for 18-35 year olds provided by the Lincolnshire Wildlife Trust and part of their LoveLincsPlants project. I would like to commend Lincs Wildlife Trust for identifying the need for free training for young people in the county. Before this course became available, other training courses I had considered such as those run by the FSC or CIEEM come with a hefty price tag, and were virtually never held locally within my home county of Lincolnshire so would have involved long travel and overnight stays. As a recent graduate struggling to secure my first permanent job in conservation, the cost posed a barrier to me taking part in a structured botany training course. The LoveLincsPlants training course was ideal, because it was free and local. This removed those barriers. Even though it was free, the course was still well-structured and delivered by experts. It ticked all the boxes.

The main practical skill I am taking away is how to use plant keys to identify unknown plants. I am now familiar with the main plant families which really helps with knowing where to start. A major achievement was becoming able to identify trees in the winter from their buds, initially using the FSC's key. I am now familiar with the common species and simply recognise them. Overall I am a much more confident botanist than before taking part. The best part for me, was learning about the flora and ecology of a variety of habitats such as heathland, meadows and especially woodland. Woodland has always been the habitat closest to my heart. Not surprisingly then, the highlight for me was the woodland weekend residential field course led by Keith Kirby, studying the flora of ancient woodland. I was fascinated and enchanted by Keith's presentation about the primeval wood-pasture landscape that evidence suggests was the structure of the initial 'wild-wood' in the UK after the last ice age. It totally changed my depth of understanding of woodland ecology.

The knowledge and skills I learnt on the course have already helped me secure my first permanent, full time, paid, graduate level job in conservation. I am proud to say I have now been working as part of the Conservation Team at the Woodland Trust for over a year. Plant ID skills (especially tree and woodland flora ID) are really important for my day to day work, and no doubt my ability to add my FISC assessment score to my CV helped me secure the job. It was not until I started working at the Woodland Trust that I discovered how much of a national treasure Keith Kirby is in the world of woodland ecology! I didn't know at the time quite how lucky I was to have such a renowned expert as a free tutor for a whole weekend!

Getting to know the wild plants of my home county has opened my eyes with a new level of appreciation for them. This makes any walk in a green space so much more interesting and enjoyable. At the time of taking part in the course, I never could have guessed just how important that aspect would become for my mental and physical health during the lock downs of 2020 and 2021.

Thank you to all involved with delivering the LoveLincsPlants young botanist training. It was great to get the chance to meet other young people with an interest in plants and nature in general and I hope the others got as much out of it as I did.



“The knowledge and skills I learnt on the course have already helped me secure my first permanent, full time, paid, graduate level job in conservation.”

Young Botanist

Appendix 2

Data and reporting detail from NHM

The LNU Historic acquisition, donated to NHM at the start of the project in 2017, is as follows:

Edward Adrian Woodruffe-Peacock (1958-1922) **8,615 specimens** in total. 3,125 of these specimens were collected by Peacock, with a remainder collected by over 400 individual collectors, largely from Lincolnshire but also across the UK. This includes key collections from Miss C.E Stow, Joseph Burt Davy, Thomas Weymss Bogg and Edward.B. Bogg, and R.E Cole.

Elizabeth Joan Gibbons (1902-1988) **1,857 specimens**. Gibbons was the author of Lincolnshire's only Flora, published in 1975.

Miss C.M. Cautley **198 specimens**
'Gainsborough collection' (anonymous) **354 specimens**

Total historic specimens: 11,024

Additional collections from LNU were processed by NHM, along with the main LNU Historic Collection.

NHM have also databased all 1,002 bryophytes collected by Frank Lammiman and his fellow LNU and British Bryophyte Society (BBS) member Christine Rieser. This collection surfaced when the project was underway and donated to the NHM by the LNU in 2018.

Frank Lammiman **729 bryophytes specimens**

Christine Rieser **273 bryophytes specimens**

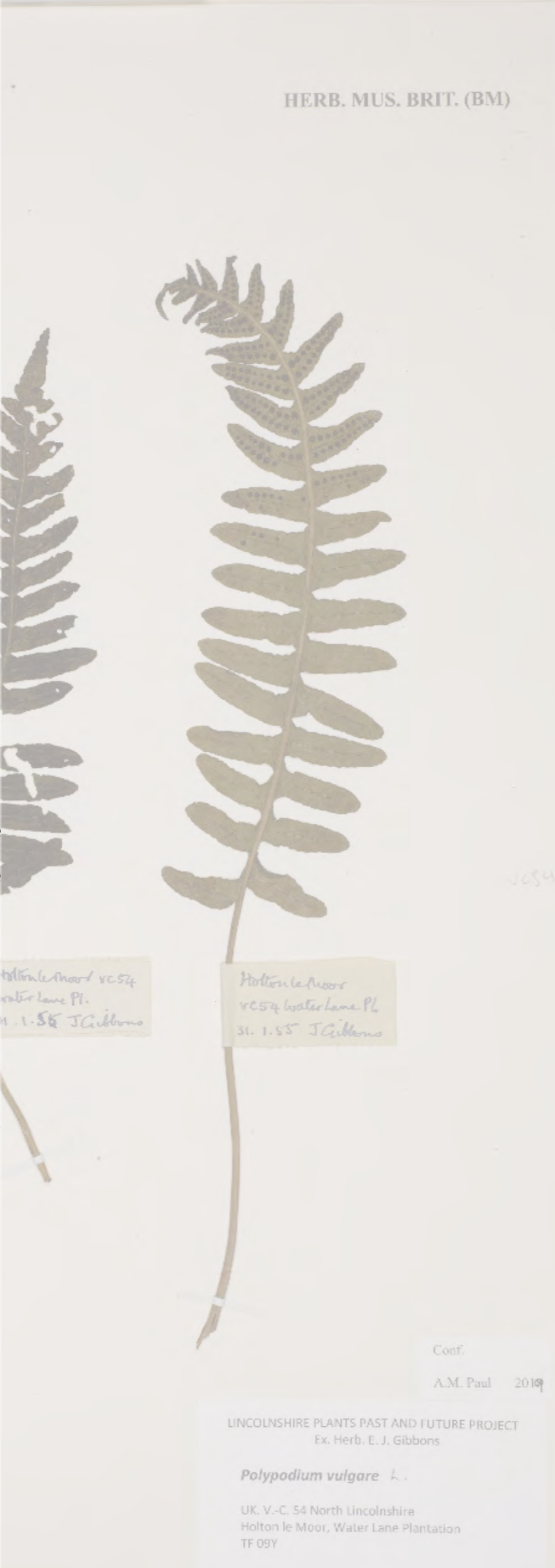
Total bryophyte specimens: 1,002

Sir Joseph Banks collection:

There are 462 specimens from the UK collected by Sir Joseph Banks (1743-1820) in the British & Irish herbarium held at NHM which were acquired by the museum prior to the project. These have all been databased and made available on the NHM Data Portal and is a key project outcome. Fifty five of Bank's specimens have been imaged so far, including all 16 specimens from Lincolnshire.

For more information about the curation of the Historic Collections as part of LLP, please follow this link on the LNU website to view all reports produced by the Assistant Project Officer based at NHM:

<https://lnu.org/lincolnshire-plants-past-and-future/>





Appendix 3

Useful links

Project partner links

- Lincolnshire Wildlife Trust
www.lincstrust.org.uk/what-we-do/love-lincs-plants
- Sir Joseph Banks Society collections
www.joseph-banks.org.uk/collections
- Lincolnshire Naturalists' Union
www.lnu.org/lincolnshire-plants-past-and-future
- University of Lincoln
www.lincoln.ac.uk/course/ecclsvub
- National History Museum (London) collections
www.data.nhm.ac.uk/dataset/lincs-plants

Love Lincs Plants resources

- All project films on YouTube
www.youtube.com/c/LincolnshireWildlifeTrust/playlists
- Herbarium Hub
www.lincstrust.org.uk/what-we-do/love-lincs-plants/herbarium-hub
- School resources
www.lincstrust.org.uk/what-we-do/love-lincs-plants/schools
- Tree ID guide
www.lincstrust.org.uk/what-we-do/love-lincs-plants/tree-guide
- Habitat beds
www.lincstrust.org.uk/lovelincsplants-habitat-beds
- Lincspirational plants
<https://www.lincstrust.org.uk/what-we-do/love-lincs-plants>

Future engagement opportunities

- Love Lincs Plants Twitter
www.twitter.com/LoveLincsPlants
- Plant collection for contemporary herbaria
- Lincolnshire Naturalists' Union regular field meetings
www.lnu.org
- South Lincolnshire Flora Group plant collection
www.southlincsfloragroup.wordpress.com
- Herbarium conservation, volunteering and exhibitions at Sir Joseph Banks Society
www.joseph-banks.org.uk
- Volunteering at Lincolnshire Wildlife Trust
www.lincstrust.org.uk/get-involved
- BSc Ecology and Conservation degree programme at the University of Lincoln
www.lincoln.ac.uk/collegeofscience

Discover the full Natural History Museum botanical collection
www.nhm.ac.uk/our-science/collections/botany-collections.html

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LOVE LINC'S PLANTS LINCOLNSHIRE HERBARIUM

Mounted by: B Shepherd 20/3/2014 RA

Ononis spinosa L.
Spiny Restharrow

Raithby Beck, Raithby by Spilsby
New Woodland, Pink / White Flower

TF36676847

VC: 54

Coll: James Stainton (LNU)



External evaluation and
report by INSTAR
www.we-are-instar.co.uk

