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Linking the Landscape

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A project to connect local people with the extraordinary natural heritage of the West Berkshire Living Landscape, and to link up and strengthen its threatened wildlife habitats

A report by Hilary Phillips, October 2019



Greenham Common & Bowdown Wood. James Osmond. 2007

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Executive Summary

The Linking the Landscape Project was completed in January 2019. Made possible by a grant from the Heritage Lottery Fund, the project focussed on the nature reserves and wider countryside of the West Berkshire Living Landscape area, with people and wildlife at its core. Its aims were to inspire residents to make strong links with their natural heritage, to reconnect broken links in the landscape in order to create vital corridors and stepping stones for wildlife and to measure and assess the impact of our conservation work on the landscape.

Over the course of the project some 450 volunteers underwent training, contributing more than 5,000 days of their time. Volunteer time was boosted by 22 Conservation Trainees who between them gave an average of 369 days a year to the project. Staff and volunteers held 134 events, walks and talks for 6982 members of the public of all ages. There is a legacy of new volunteer groups and many of the volunteers continue to work alongside BBOWT staff to benefit the important habitats of West Berkshire's Living Landscape.

By modelling the potential for habitat connections we were able to focus our work to ensure the most effective gains for wildlife. Work included creating new glades, rides and coppiced areas within woodlands, clearing old gravel extraction sites of encroaching willow and cutting and raking areas of grassland. Trees overshadowing waterways were managed to let in more light and islands cleared to create safe breeding sites for wetland birds. The size of areas of grassland and heathland habitat, within the project area, increased by almost 10% and 8% respectively.

Landowners were helped with writing and delivering management plans to improve and restore habitat on almost 10ha of land. Volunteers were also granted access to private land in order to complete regular surveys to establish the health of the landscape and assess the impact of our work.

All that hard graft paid off. Three tern rafts were colonised within weeks of deployment, culminating in the successful rearing of chicks. The clearance of 7.5 ha of scrub benefited a range of habitats and species. Removing scrub from half a hectare of reedbed brought a Site of Special Scientific Interest back into healthy condition, and clearing areas from the Common benefitted important ground-nesting birds such as the nightjar, which need secluded patches of bare ground for nesting in the summer months.

The project has made a measurable difference to both the area and connectivity of key habitats, and has left behind a legacy of skilled volunteers. Our experiences were presented to 27 other conservation organisations in a workshop designed to share best practice in landscape-scale monitoring of wildlife and natural systems.

Introduction

The Wildlife Trusts have been at the forefront of pioneering work to develop conservation actions at a landscape scale: Living Landscapes. Each Living Landscape scheme covers a large area: a naturally functioning landscape often encompassing several Wildlife Trust nature reserves and other important wildlife areas. Within these areas Wildlife Trusts up and down the UK work with partners, including landowners and local communities, to enhance the best parts of the natural landscape and reconnect broken links across the landscape, creating stepping stones and corridors for wildlife to expand and thrive.

In 2006, Berkshire, Buckinghamshire & Oxfordshire Wildlife Trust (BBOWT) identified the West Berkshire Living Landscape (WBLL) area. This scheme covers 27 square kilometres, including the river valleys of the Enborne and the Kennet which are separated by the higher gravel plateau and heathland mosaic of Greenham and Crookham Commons. A quarter of the project area is designated as important for wildlife, either locally, nationally or internationally, and includes the largest single area of lowland heathland in Berkshire and one of the largest areas of inland reedbed remaining in our region. Since identifying this important landscape area we have been working in partnership with others to deliver the Living Landscape vision:

“To protect, expand and enhance this unique and diverse landscape of West Berkshire; creating an environment richer in Wildlife for everyone.”

In 2008 an agreement was reached with West Berkshire Council (WBC) to deliver an ambitious project for conservation management and access improvements in the WBLL area. In 2013 a further agreement was signed transferring the management of nine reserves and commons, along with the Thatcham Nature Discovery Centre (Thatcham NDC), from WBC to BBOWT. In January 2013 BBOWT were delighted to be granted Heritage Lottery Fund (HLF) money towards the delivery of a 5 year project “Linking the Landscape”. Total project costs were made up by BBOWT with contributions from grants and charitable trusts and donors including the Greenham Common Trust and Thatcham Town Council.

West Berkshire Council (WBC) were one of several project partners, and Cllr Hilary Cole was delighted when she heard the news that the Heritage Lottery Fund grant had been awarded: *“This will build on the successes of the current Living Landscape project (Heathlands & Beyond) and shows the commitment of both the council and the local Wildlife Trust to care for and protect our most fragile heathland areas for wildlife and for everyone to enjoy.”*

The Project

Aims

The Linking the Landscape project had three interconnected aims, and the involvement of people was central to them all. These were to:

- inspire local people to make strong links with their natural heritage and take an active part in protecting and enhancing it,
- reconnect broken links in the landscape, creating stepping stones and corridors for wildlife to expand and thrive,
- enable us to measure the biodiversity health of the landscape, assess the impact of our conservation work and increase our understanding of species and habitat ecology on a landscape scale.

Aim 1- People Engagement

“Inspire local people to make strong links with their natural heritage and take an active part in protecting and enhancing it”

This was achieved through the following:

- Recruiting volunteers & developing volunteering opportunities and training
- Delivering a varied programme of events for local people
- Providing wildlife-related education activities for children, teachers, youth groups & community groups
- Providing a conservation employment training scheme
- Supporting local wildlife groups
- Providing wildlife-related information in a variety of digital, print format & way-marking

Aim 2 - Practical Conservation

“Reconnect broken links in the landscape, creating stepping stones and corridors for wildlife to expand and thrive”

Practical conservation effort was targeted on:

- High quality land that needs to remain so
- Buffers to these areas that need improvement
- Stepping stones or corridors to link these areas

Conservation measures involved:

- Sustainable small-scale work using volunteers
- Significant learning and participation opportunities
- Facilitating capital works through advice to landowners

Aim 3 – Landscape-scale Monitoring

“Devise and deliver a wide-reaching monitoring scheme to assess the current and on-going 'biodiversity health' of the landscape as a whole, to enable us to evaluate its condition for wildlife and to assess the impact our conservation works are having.”

Traditionally, wildlife surveying/recording has been done by species or on a discreet site. This project designed and trialled a method to assess the wider landscape. It had two main elements:

- Monitoring health of the landscape
- Site Specific research

Key Deliverables and Outcomes

Aim 1: People Engagement

Recruiting volunteers & developing volunteering opportunities and training

Volunteers were key to the delivery of this project, and were recruited from local communities, schools, trainees, and corporate groups. A broad range of ages, skills and abilities exist within the volunteers but what they all had in common was a commitment to conservation. This translated into an astounding number of hours worked in all sorts of weather, and an astonishing quantity of tea and cake consumed. Recruiting and keeping volunteers engaged was vital to the success of the project.

A broad range of training opportunities were provided through the Project and BBOWT’s Developing Your Skills (DYS) programme, with external expertise bought in to deliver specialist training when required (such as for dormouse licence training). Practical conservation and general maintenance skills were developed among volunteers, enabling them to successfully complete conservation tasks such as woodland management and scrub clearance, tree felling, removal of invasive species including bracken, bamboo and Himalayan balsam; coppicing and stool protection and access improvements (building steps and repairing paths). All volunteers involved in practical conservation tasks were given basic training in a range of techniques and the use of hand tools (as well as health & safety training).

In addition to assisting at community engagement events, training sessions and delivering practical conservation tasks, volunteers were also recruited to help with Aim 3: Landscape-scale monitoring. Volunteer surveyors need a good level of skills to collect high quality data and were therefore allocated surveys appropriate to their level of experience. However, it was recognised that a lack of pre-existing skills could

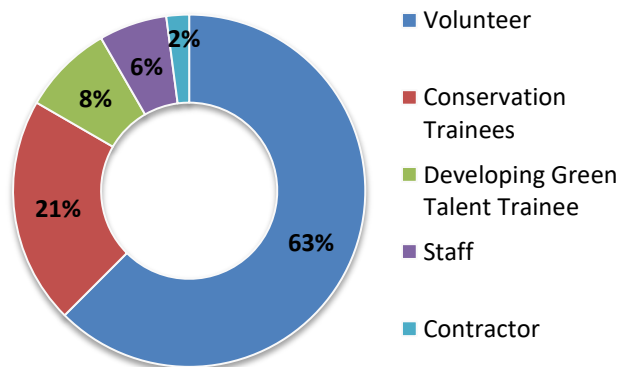


Chart 1 - Pie chart showing the percentage split of survey effort by surveyor type

have been a barrier for many people considering volunteering for this aspect of the project. In order to address this, and provide more opportunities for local people, a series of group and individual 'people engagement' surveys were run throughout the project, alongside training events. These had the specific aim of inspiring people about wildlife and equipping them with the skills to eventually carry out their own surveys.



Training sessions were not confined to volunteers working on the landscape-scale monitoring, with one-day training courses run for volunteers on topics as diverse as scything, leaf miner ID, woodland management and bird song recognition. The LtL team provided more than double the number of training courses originally intended. Nine training courses per year were provided over five years, for a total of 452 volunteers. These courses ran at 78% of full capacity. 55% of core volunteers attended at least one training course and rated their training experience very highly. These courses were across all training needs including surveying skills as well as practical skills followed by opportunities to apply new skills as part of the LtL project.

Volunteer recruitment and retention rates were high due in no small measure to the diversity of opportunities on offer: of topics, style (as part of the core team or in groups) and at various times of the week. However while Chart 1 (above) shows clearly that the majority of surveys for the landscape-scale monitoring were undertaken by volunteers there was insufficient volunteer involvement to cover all surveys, especially the Habitat Condition Assessments which required a degree of botanical knowledge. The more 'popular' surveys with local people were for species such as bird, bat and butterfly.

Posters, leaflets, frequent press releases, press articles and web posts proved successful vehicles for recruitment and in persuading existing volunteers to do more, as did word of mouth.

“People come in, find something that interests them to help with and stick with it. They then tell their friends about it.” Landscape Ecologist 2016

An independent evaluation of the project found that volunteers rated their experience on the project very highly, felt appreciated, experienced an enhanced sense of wellbeing and had learnt a lot. They were mainly motivated by wanting to help wildlife, meet like-minded people, have fun and work on BBOWT’s sites. Their training courses, update evenings and socials were appreciated and two thirds had gone on to participate in new conservation related activities away from the LtL project. Feedback from volunteers indicated that volunteering had increased their skills and knowledge a lot. They also said that it was important for staff to explain why they were being asked to undertake a particular task. Such explanations helped to instil volunteer confidence and trust in their task leaders. Some of the more experienced volunteers had enjoyed passing on the benefits of their own knowledge to the Conservation Trainees and younger volunteers.

Over the life of the Project several volunteer groups developed around either geographical locations or specific weekday meetings. The management and liaison of most of these teams was taken over from the LtL project team by BBOWT reserves staff at the end of the project. Some of the main volunteer groups are listed below:

The Community Orchard at Thatcham NDC: The Thatcham Community Orchard was planted early on in the Project, with the fruit trees and larder hedge starting to become really productive over the 5 years. This has been one of the great successes of the project, meeting all its project related targets and with a ‘Friends of’ group now set up to sustain the group in the long-term. The group provides an important focus for community social events as well as running the practical tasks required to maintain and enhance the orchard. Annual Wassails are held supported by Thatcham Town Council with the Mayor of Thatcham a regular attendee, and in recent years a special Wassail event has also been held for the NDC Nature Tots group. The Groups’ annual Apple day has periodically been combined with the NDC Amazing Autumn event. Other volunteer groups, including the mid-week team and Teen Rangers occasionally help out with more complex management jobs such as hedge-laying in the orchard. This group is now led by one of our very committed Key Volunteers, supported by the Community Engagement Officer based at NDC.



Annual Wassail. Jon Cruise 2017

"In 2015 Thatcham Town Council was pleased to award a grant to BBOWT's Linking the Landscape project of which I have enjoyed attending several events, firstly in my capacity as Deputy Mayor and then as Town Mayor of Thatcham. I am aware that the many events held at Thatcham Nature Discovery Centre and up at Greenham Common have been greatly enjoyed by the families of Thatcham and beyond and that the scheme has really helped local people connect with nature and appreciate wildlife." Councillor Jan Cover, Town Mayor of Thatcham. January 2019.

Volunteer Group at NDC: This team regularly helped with the maintenance of the Thatcham NDC site, its many pathways, benches, fences, signs and steps as well as the scrub, trees, ditches and wildflower areas. A smaller group than some but greatly valued for their contribution to the running of the centre. The group has continued to meet and carry out tasks since the project ended in January 2018.



Audrey's Meadow: A 2.24 hectares of a mixture of improved and semi improved neutral grassland and woodland, the Audrey's Meadow group started off well, with meadow training days and plant ID sessions. However in Year 4 of the project the charismatic leader of the small group of volunteers declined in health, and there has since been little new recruitment into the group. At the end of the project the meadow had not reached the floristic diversity hoped for and contract cuts will be need for another year to reduce fertility before wildflower planting can take place. BBOWT staff continues to manage this site.



Other BBOWT volunteer groups that developed through the project included the very successful and popular Midweek Roving Group and the Bowdown Group. The Newbury District Ornithological Club (NDOC) was already in existence at the start of the Project, but the support of officers and volunteers in taking on the more difficult aspects of habitat management at the Lower Farm site in particular gave the group a more sustainable future. Other external groups the Project worked closely with

were the Greenham and Crookham Conservation Volunteers and Theale Bird Group. In 2014 the BBOWT Wednesday Volunteer team won the BBOWT Volunteer Group of the Year award in recognition of their hard work in Bowdown Woods, Greenham & Crookham Commons, Thatcham Reedbeds and the Nature Discovery Centre.

Twice-yearly Update Evenings were held for volunteers to enable them to see what the project was delivering and to discuss it. Staff and volunteers were invited to give presentations at these social evenings, and this is an aspect of the project that volunteers have been keen to continue after the end of the project.

The project team surveyed its core volunteers twice, in 2015 and 2018, and we know from the 102 respondents to these surveys that:

- these volunteers were generally already regular visitors to the countryside
- access to the countryside positively impacted on their physical and mental health and wellbeing
- about 30% had increased their volunteering activity through the Ltl project
- 70% felt they had increased their knowledge and skills quite a lot or significantly
- 70% were motivated to help wildlife
- 70% were motivated to meet like-minded people
- 55% were motivated to visit wildlife-rich sites and have fun
- all rated their experience volunteering with BBOWT as excellent or good
- 70% felt their work had been very much appreciated by BBOWT.

The Linking the Landscape (Ltl) project leaves a legacy of better trained and better skilled volunteers to care for the WBL in future years.

Delivering a varied programme of events for local people

A wide range of events and activities were offered to inspire local people to engage with their natural heritage and take an active part in protecting and enhancing it. Some events were delivered with partner organisations such as the Newbury District Ornithological Club and Berkshire & South Bucks Bat Group with some located 'in the field' and some at the Thatcham Nature Discovery Centre, West Berkshire Museum, Shaw House, local church and village halls, and Newbury Library. Some of the activities were aimed at adult volunteers and others were more family-oriented and included: Dawn chorus walks, Winter wildfowl walks, Bluebell walks, Meadow hay cuts, Bioblitz, Picnics, Careers advice (for students at Reading University), Taster Days (for volunteers and community/education groups), Wildlife Warriors, Meet the Ponies, Nut Hunts, Natural Treasures at the Berkshire Museum, Microscopes for families, Geocaching, Green Halloween, Moth and bat evenings, Wassails and Nature in Art.

“Under the Microscope’ and ‘Go Wild!’ family sessions as well as the bat talks/walks have allowed us to engage different audiences at West Berkshire Museum and Shaw House (West Berkshire Heritage). These activities have also been an excellent means of highlighting the museum’s naturalia collection. The project produced what promises to be a long and sustainable partnership between BBOWT and West Berkshire Heritage.” Clare Bromley, Learning & Participation Officer, West Berkshire Museum December 2018.



Themed countryside walks were a regular and well attended part of the project with BBOWT staff and local experts leading information-packed rambles through the Project area. Landscape history and ecology, fungi, lichen, the seasons, bats, birds, butterflies, moths, heathland and trees were just some of the popular subjects. Attendees were often surprised at the wildlife to be found on their doorstep and keen to find out more. Since the end of the project partnership work with WBC has continued with a range of walks, talks and activities at Shaw House and West Berkshire Museum. Other walks and talks are now hosted by the Thatcham NDC.

"...thank you all for such an enjoyable and educational event today. We hope to join some further guided walks but in any case our walks in future will be far richer than before, with our eyes open to the wildlife around us..." Bowdown Woods guided walk April 2017

There was an aim to provide one large-scale event each year, either initiated by the Ltl team or a partner organisation such as the Greenham Common Trust. Ltl initiated events included: Apple Days, Amazing Autumn, the Big Nature Count and the end of project Control Tower event. The main partnership initiated event that Ltl members supported was the 100 years of Greenham event at which a special silk banner, painted by volunteers and

celebrating the wildlife of Greenham, was paraded with other banners in front of large crowds. An additional event was held in January 2019 marking the end of the ecological monitoring and analysis to share methodology and findings with other conservation organisations.



Wildlife Banner, Mike Johnston 2017.

For local communities, the project team believed they had improved the beauty and wildlife of a number of local sites which, with access improvements, meant the public could gain more enjoyment from them.

54 walks attracting 1,018 people were held over the life of the project. 74% of people attending events were local to the project area (living within 10 miles). 77% rated their events as good or excellent so making a valued contribution to these local communities.

Not all events designed for local people were successful enough to justify their continuance for the life of the project, these projects were mainly aimed at the more difficult to reach audiences including a group with mental health difficulties, an Alzheimer's group and a youth club.

Providing wildlife-related education activities for children, teachers, youth groups & community groups

Wildlife-related education activities were delivered for a broad range of ages and abilities, resulting in some very successful formats that have been implemented elsewhere across the Trust:

Nature Tots: Nature Tots was a great success, it engaged over 600 pre-school children and almost as many parents and carers, and the vast majority were new to countryside activities and lived within 3 miles of the Thatcham Nature Discovery Centre where the sessions were held. Nature Tots attracted a very local audience and one that was largely new to countryside activities.



"I've been meaning to email to say thank you so much for the Nature Tots session we came to last week, I thought it was brilliant! Both my 2 enjoyed it. I was amazed to see Georgie enjoying hunting for bugs, she's usually so girly about things like that!" Nature Tots parent, 2014.

"I just wanted to say thank you very much for yesterday, all the children (and the adults!) had a great time. I know that it can be hard to gauge the children's reactions as they can't tell us so easily, but watching their little faces as they proudly showed their Mum's their bird boxes confirmed it to me!" PALS manager Feb 2016 (PALS is a local charity that supports children and young people who have physical disabilities)

Teen Rangers: The Teen Rangers group successfully engaged LtL staff with a non-traditional audience for nature conservation – the teenager. Monthly sessions for a dozen 12-16 year olds per year were developed by the project team, focusing on practical conservation tasks, wildlife surveying and having fun. This group started out as 'Team Rangers' but re-named themselves early on in the project. The size of the group grew steadily from eight in Year 1 to a full complement of 16 in Year 5, with 50% staying for at least one whole year.

Tasks were carried out by Teen Rangers at the Thatcham Nature Discovery Centre and other LtL sites such as Bowdown Woods and Greenham & Crookham Commons. They included tree planting, bracken and scrub control, deer fence construction and coppicing. They also learnt about surveying and monitoring, through fun tasks such as nightjar and glow worm surveying, owl pellet dissection and butterfly surveys. In 2016 nine of the thirteen Teen Rangers achieved John Muir Awards. Surveys showed the teenagers had enjoyed being outside, being connected with nature, species spotting and doing practical tasks. Their acquisition of clear and effective communication and

team work skills was also valued. Interestingly it was the opportunity to make new friendships with like-minded peers at a typical time of uncertainty in life (e.g. when starting secondary school) that emerged as a key benefit.

Staff had been impressed with the high retention rates of this group and the LTL Teen Ranger model has now been rolled out across other BBOWT sites.

In total 69 teenagers became Teen Rangers and five stuck with the group through all five years.



Teen Ranger 'Taster Day' 2018

"Teamwork skills are a very big one because clearing habitats you have to be aware of who is around you and how to get the job done." Teen Ranger 2018

Schools and colleges: The achievements of some of the programmes for engaging the sustained interest of young people in practical conservation work and surveying had been greater than anticipated. Education activity packages were developed for local school and college groups and included talks, surveying and practical sessions. By the end of the project the education activities had been delivered at The Downs School and Newbury College, and the Willows School programme was being led by its own teachers.

The Downs School now has a nature reserve on site and continues to deliver the outdoor curriculum set up through the LtL project. The model LtL developed at this school for delivering the BTEC Conservation Unit has since been promoted by the BTEC Examination Board as an example of good practice.



Newbury College students cutting scrub, 2015. Julia Hawkins.

The Willows Programme: The aim of this programme was to create an outdoor learning curriculum for the Willows primary school teachers to be able to deliver themselves without support from the project. From the teachers' feedback on the 2014 INSET day it seemed they had discovered a whole range of new activities they could do relatively easily with the children including worm charming, mirrors in the woods, gardening, the pollination game and sky viewing.

The LtL team had at first struggled to create a relationship with the Willows school after the first INSET day. Then the school took advantage of a bursary to visit the Nature Discovery Centre led by BBOWT's Education Officer. From then on the LtL Community and Engagement Officer supported sessions delivered by the BBOWT Education Officer as a way of better delivering activities to this school. Subsequently the lead teacher left the school and LtL's involvement with it ceased. Project staff believed that the package of activities had worked well for the children and teachers.

Newbury College: Packages of three sessions (a talk, survey and practical) were run by the Landscape Ecology Officer for students (aged 19+) with learning disabilities from Newbury College. The feedback from teachers on the quality of the sessions was very positive. The Community Engagement Officer, BBOWT's Education Officer and the teachers reported that the students had enjoyed the practical sessions and got through a substantial workload, leaving the sites tidy at the end.

In year 4 of the project (2016) Newbury College were runners-up in the Dorothy Morley Awards for conservation, with their work delivering habitat management and visitor access improvements to a publicly used lake on the college campus. They also created a wildlife garden in the college grounds, inspired by their work with the project.

"Most of these students [with learning disabilities] need practical, active learning.....and will find it hard to gain paid work so it is important that they have belief in themselves as useful citizens. Some of the group worked extremely hard and I could see how it might be possible for them to find practical work in the future." Newbury College teacher 2015

Providing a conservation employment training scheme

The project aimed to recruit four **Conservation Trainees** (CTs) per year. These were volunteers who committed to doing three days of unpaid work for the project each week over a six to twelve month period. The principal aim of the Conservation Trainee Scheme was, and still is, to inspire people to take an active part in protecting and enhancing the natural heritage and gaining new skills to do this. Reasonable travel costs were paid and protective clothing and equipment were provided. The Conservation Trainees made a significant contribution to the achievement of the project.

The vast majority of Conservation Trainee time was spent on practical work but they also contributed to events, community activities and surveys. Each Conservation Trainee was required to gain a chainsaw and first aid qualification and was encouraged to take up an additional 10 training courses offered by BBOWT on topics such as safety on site, brush cutting, group leadership, driving awareness, tool maintenance, interview technique and ecological survey techniques. Conservation Trainees were also encouraged to take up training opportunities provided for other BBOWT volunteers and the public through the Developing Your Skills programme. They spent up to 25 days each year on training.

The Conservation Trainee scheme proved particularly attractive to young adults seeking work experience relevant to finding paid employment in the natural heritage sector. The majority had to work in a paid job whilst doing their traineeship. 74% of the Conservation Trainees found paid work in the natural heritage sector after their traineeships and the depth and breadth of their knowledge and skills greatly increased the effectiveness of the LTL staff.

The willingness of the Conservation Trainees to get involved in all aspects of the project, not just the practical conservation work, had been appreciated and the LTL officers felt the progression in the Conservation Trainees' knowledge, skills and competence had been substantive.

"They are the glue that seems to connect everything together." Community Engagement Officer 2016



The Conservation Trainees had also benefited:

"Not many other Wildlife Trusts offer this range of experience. People have been keen to involve us and give us training. I have felt appreciated.....It's taken me to the next level of experience and given me skills I didn't expect to get. It's increased my confidence in the skills I had and got me a Developing Green Talent post." Conservation Trainee 2015

"There were plenty of opportunities to take responsibility... to lead a volunteer group, drive a vehicle, lead young ranger sessions. If I wanted to try something there was lots of support to enable me to have a go... my wildlife

knowledge grew very quickly. Most beneficial of all was being around committed, enthusiastic, knowledgeable people who were so supportive and inspirational.” Conservation Trainee 2018

Conservation Trainees felt that they had become part of a really good network of like-minded people (experts, field staff and volunteers) who could help each other. Key volunteers took great pleasure in seeing Conservation Trainees complete their training and move into paid jobs in conservation.

22 Conservation Trainees contributed an average of **369 days** per year to the LtL project.

Supporting local wildlife groups

To make use of local expertise and to help increase data on species of the LtL area, the team worked closely with several local wildlife groups including: Newbury & District Ornithological Club, Theale Area Bird Group, the Berkshire Moth Group, the local bird ringing group and in particular Berkshire Mammal Group and Berkshire & South Bucks Bat Group. Very few records of bats and small mammals existed in the LtL area when the project started, and it was mutually beneficial to provide training and public engagement opportunities and encourage more volunteers to sign up with these groups. The project staff, trainees and volunteers supported Newbury Ringing Group with habitat management at their Continuous Effort Site, which contributed records to Adrian Hickman’s annual bird reports.



Specialist groups were able to survey at sites new to them, including BBOWT reserves and private land. This has increased information and knowledge of species in the project area and the wider areas covered by these groups. Joint events were held with the support of project staff and the aim of increasing the groups’ capacity for future work. External groups involved were very positive about the project

and close working relationships continue to be maintained.

“it ... allowed me to do what I love most, inspire, train and get people completely hooked on bats. I am sure we have had at least 2-3 licenced people come from the DYS courses and many people from these courses returning to the bat group events” James Shipman, Chair Berkshire & South Bucks Bat Group.

Providing wildlife-related information in a variety of digital, print format & way-marking

Many posters, leaflets, frequent press releases, press articles and web posts were produced over the life of the Project and proved successful vehicles for recruitment of volunteers and to spread knowledge of the project and wildlife-related information among the local community.

BBC Radio Berkshire interviews were a regular feature, on subjects as diverse as: Nut hunt, Apple Day, barn owls and nightjars. A national TV programme 'Disappearing Britain' featured a piece on radio-tracking the Greenham adders as part of this project and a heathland birds feature on BBC Radio 4 'Saving Species'

Interpretation at the Thatcham Community Orchard included signage for individual trees, a banner for use at the annual

Wassail and other events, gate signs and an interpretation board. A number of printed leaflets showing circular walks were designed and printed and have been very popular; during the project they were updated, reprinted, digitised and made available through the BBOWT website. They are still being produced and have been the subject of special features by local newspapers. They are now distributed by the recently opened Control Tower which is situated on the edge of Greenham & Crookham Commons and has a very popular café.



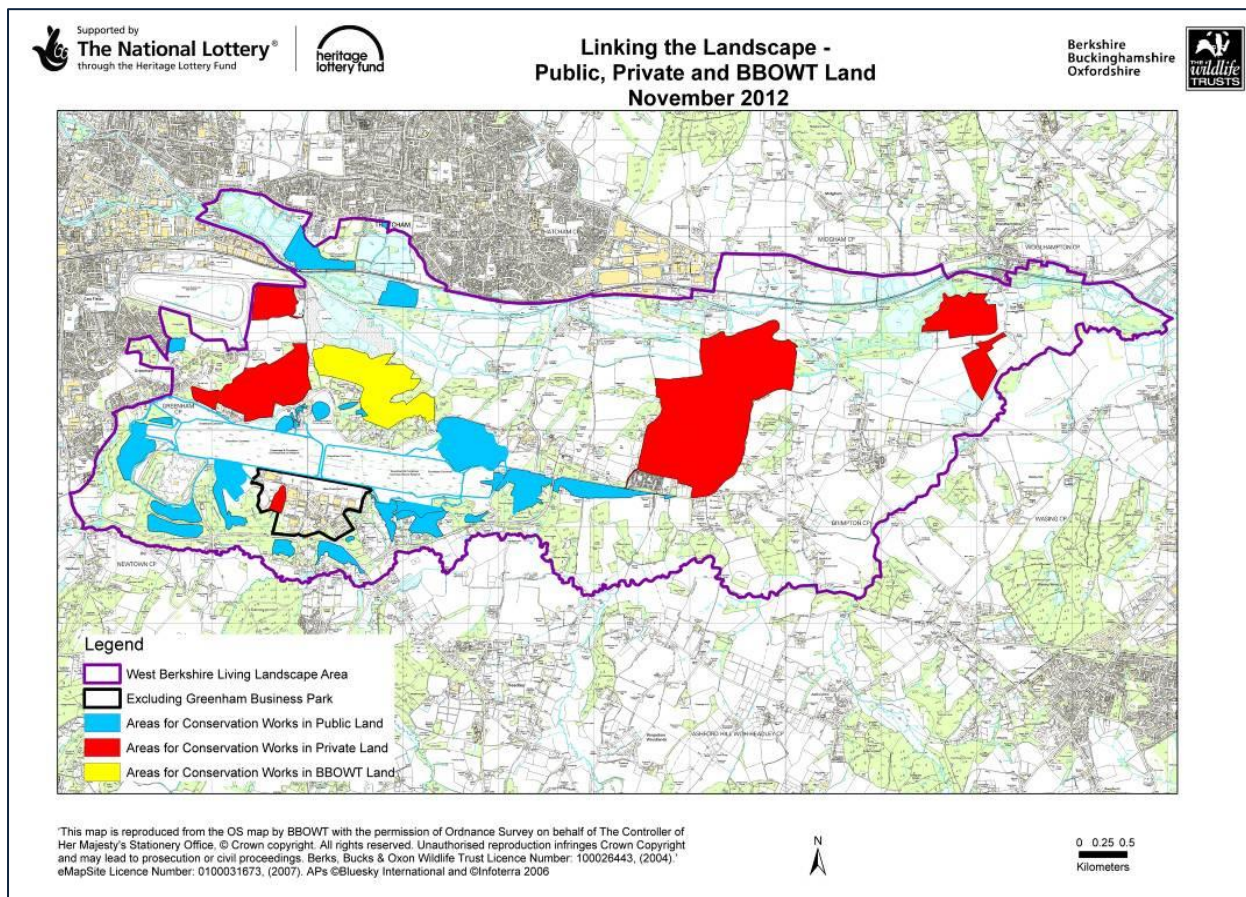
The project worked with a digital media developer to produce a dynamic suite of web-based media. The touchscreen was installed at Thatcham NDC in 2017 and the app was launched in January 2018. The app was available on both Apple and Android platforms and was promoted through press articles, leaflets, posters and by the Greenham Common seasonal wardens. Sessions were held with Teen Rangers using the app., the Seasonal Wardens promoted it widely, volunteers were encouraged to use it during work parties and the education team introduced it to local children. Despite this take up was slow, probably as a result of fierce competition from other apps, and on-going maintenance and trouble-shooting costs higher than anticipated.

Aim 2 - Practical Conservation

Core Areas

The goal was to maintain high quality, core areas within which species can thrive and from which they can disperse to other parts of the network. For the Linking the Landscape Project area, we were already aware of the core areas of high nature conservation value, and had recently restored 14 hectares of lowland heathland on two sites. So, the question we needed to answer during the development stage of Linking the Landscape was where are the gaps? Where should we target our conservation resources to provide the best linkages?

To achieve this, landscape connectivity models for each of the core habitats (woodland, wetland and heathland) were generated. These models were then used to highlight which locations would provide the best conservation gains in terms of increasing habitat linkages and existing habitat quality and size. We then used this information, plus data from the Land Registry that we purchased during the development stage, to target areas and talk to the land owners/managers to see what could be achieved. The areas selected for conservation works were a mix of private, public and BBOWT owned land, where the project staff and many volunteers carried out practical conservation tasks.



To further focus conservation activities several specialist reports were commissioned over the life of the Project, including for ground nesting birds, lapwing breeding success, nightingale populations and adder movements across Greenham & Crookham Commons¹. Student research projects were encouraged, and resulted in an undergraduate study carried out by a BSc Animal Biology & Conservation student from Oxford Brookes University: 'The Influence of Heathland Restoration upon Reptile Populations on two sites in South England'; and a post-grad study by a MEnvSci Environmental Science student from the University of Southampton: 'Evaluating the effectiveness of dog exclusion zones to reduce disturbance to ground nesting birds on Greenham Common'.

The Linking the Landscape target core areas were:

¹ 'Greenham and Crookham Commons Adder (*Vipera berus*) telemetry study 2016' with overview of the two year project with management Recommendations, Nigel Hand Central Ecology)

- **Greenham and Crookham Commons** heathland- nearly 279 hectares of SSSI. The largest area of lowland heathland in Berkshire, owned by West Berkshire Council. The main area of the heathland is managed with an agri-environment grant and just less than 38 hectares was targeted as part of this project.
- **Bowdown Woods** – nearly 67 hectares of SSSI. A diverse mix of deciduous woodlands, with an area of restored heathland, owned by BBOWT.
- **Thatcham Reedbeds** – 67 hectares of SSSI designation and an international Special Area of Conservation (SAC). The largest area of inland reedbeds in Southern England, with species rich alder woodland and fen habitats. The 22 hectares owned by West Berkshire Council being the area within which work took place as part of this project.

Shortly after the LtL project started WBC reached an agreement with BBOWT to manage its reserves and land holdings in WBC area. This effectively brought several large parcels of high quality habitat under BBOWTs direct management including Greenham & Crookham Commons, Thatcham Reedbeds and Audrey’s Meadow; thus boosting efforts to deliver key practical conservation aims linked to the project.



Scything at Audrey’s Meadow. Roger Stace. 2016

Corridors and stepping stones.

The project area had the advantage of several natural corridors that could help the movement of species through the landscape. These were taken into consideration with the modelling of target areas for the project, and acted as a good base for work undertaken to provide more corridors and stepping stones of high quality habitat. These natural corridors include the River Kennet and River Enborne, other water courses like ditches, the Kennet & Avon canal, the railway line running east-west, hedgerows, and gully woodlands running from the Greenham and Crookham Commons plateau to the wetlands of the River Kennet Valley and the River Enborne to the south.

One example of a target corridor and stepping stones areas is Woolhampton Quarry Nature Reserve (WQNR), comprising 70 hectares of restored land following sand and gravel extraction. It is a mixed wetland habitat including lakes, woodland, meadow, scrub, and reedbeds forming part of the 1,700 ha Wasing Estate. The River Kennet runs through the site and the River Enborne close by to the south-east, providing links with other lakes and wetland features of the area. The project helped ensure the area developed with quality stepping stones and links by working on 39.4 hectares of the WQNR. A plan of habitat management, survey and monitoring work was agreed with Wasing Estate as part of the HLF application. This was subsequently delivered by BBOWT staff, Conservation Trainees and skilled volunteers.

Some of the habitat management activities undertaken at WQNR were: creating scrapes, clearing paths of scrub, clearing over-shading woodland from alongside ditches, cutting scallops into areas of hawthorn and willow to allow



Chick on tern raft. R Irving. 2016.

more light in, reedbed management and grass cutting, raking and clearance. One tern raft was built and deployed at WQNR providing a safe nesting site for breeding terns. Within half an hour of launching the raft a pair of terns was showing interest and three chicks were fledged later in the summer. Clearing two islands of over-grown vegetation provided habitat for breeding oyster catchers, which successfully bred in 2016 after many year's absence. Theale Area Bird

Conservation Group (TABCG) has been instrumental in supporting this work and for carrying it forward after the project end.

Buffers

'Buffers' were areas created around the other high quality sites to protect wildlife from adverse impacts from the wider environment. In many cases work to create buffers created more patches of good habitat in their own right.

Several of the stepping stones in the previous section were also buffers. Specific Linking the Landscape target buffer areas (from east to west) are:

- **Greenham Buffers** – 41.63 ha of Greenham and Crookham Commons made up of several small areas on the edges of the Common where secondary woodland has grown over the last 30-60 years and become part of the overall diversity of the site.
- **Bowdown Buffers** – primarily gardens adjacent to Bowdown Woods, where invasive species such as bamboo and Himalayan balsam had been allowed to thrive and then encroach on Bowdown Wood.
- **Handpost Gully** – 3 hectares of gully woodland, a SSSI within the boundary of a business park and owned by Greenham Common Trust. As well as being a SSSI and therefore important in its own right, as a small area it acts as a buffer to Greenham and Crookham Common.

Initial success of the work on private sites led to us making agreements with two more landowners during the project delivery. Out of 4,839 volunteering days over 5 years, 3,451 days were recorded for carrying out practical tasks and 42.5ha of habitat work was completed on reserves, increasing the capacity for work on our West Berkshire reserves and, in turn, increasing their value to wildlife. Members of the team made sure educational walks and talks took place on private land as well as BBOWT reserves, thus providing opportunities for landowners and land managers to learn more about the habitats and species on their land. This helped them to develop an understanding of how their land contributed a wildlife-friendly stepping stone in the wider landscape, and many landowners intend to continue the conservation management and maintain links with volunteers.

“The Trainees were integral to everything we did throughout the project. Without such a hard-working, dedicated team we’d have achieved just a fraction of what we did ” Conservation Officer (mentor of Conservation Trainees)
2016

The project team and core volunteers emphasised in the evaluation survey how essential it has been that projects like LtL persuade and support private land owners to engage in landscape scale change, to add natural capital value to the wildlife friendly habitat provided on voluntary sector and publicly owned land. Across the 27 sq km of the project there is a limited amount of non-privately owned land for volunteers, groups and Conservation Trainees to work on and these participants valued gaining access to wildlife habitat that was normally not open to the public.

“We’ve run out of trees to fell on our sites [for chainsaw training] so we are having to look for other sites to train up our volunteers for their chainsaw licences.” Conservation Officer 2016

Private landowner agreements were challenging to secure during the development phase, with landowners unsure about exactly what they might be committing themselves to in the longer term if they signed an agreement.

However, once the agreements were in place and the project work started, the engagement with private land owners developed well, with trust and respect for the LtL land managers' clearly increasing year on year.

Outcomes

The practical work on private sites went well with more being achieved than planned. In addition to the 42.5ha work on reserves, the project helped in the recovery of 9.5ha of privately-owned habitat ranging from improvement of lakeside habitat for waders, to management of a private SSSI reedbed. A total of 52ha habitat management took place across the WBLL area. By the end of the project access for surveys was granted by 16 different landowners, or their agents, across the project area and habitat management work had been provided for nine.

Woodlands were a key focus for this project. Many had been neglected and to get them back into good management glades and other open areas were created, allowing light in to benefit the woodland ground flora. The team also worked on old gravel extraction sites, clearing encroaching willow and improving the management of grasslands. Over-grown willow was coppiced, scallops cut to allow light into waterways, and islands cleared of vegetation to allow oyster catchers a safe site to breed.



Three tern rafts were installed, two on private sites, and all had nesting terns with chicks in their first year. Scrub clearance from half a hectare reeds brought a Site of Special Scientific Interest (SSSI) back into healthy condition and access to reserves was improved, with a total of 15km of track maintained or enhanced on reserves and in the wider countryside. Habitat management work was carried out on Crookham Common in response to a commissioned report on breeding lapwings, with sparse willow and birch scrub cleared to restore an area of open gravel that had at

one time been a site for breeding Lapwing. Subsequent to this, and following additional clearance, Lapwing once again bred on the site in 2019.

Some of the habitat conservation achievements of the project (cumulative figures for 5 years):

- 0.8ha gorse managed
- 1.8ha bracken pulled and treated
- 2.3ha woodland coppiced
- 3.7ha Himalayan balsam pulled
- 7.2ha scrub managed
- 15ha grassland managed for the benefit of wildlife

Aim 3: Landscape-scale Monitoring

Over recent years the need to target biodiversity gains at a landscape scale has become increasingly well understood amongst the conservation community. Essentially, the better the connectivity and availability of good quality habitat across a large area, the better the chances the landscape has of supporting sustainable populations of biodiversity. This will become increasingly important as the impacts of climate change continue to develop.

Landscape scale conservation work is very much in its infancy and monitoring of this kind can be said to be almost non-existent across UK conservation organisations. Therefore the development of the landscape monitoring of West Berkshire Project area represented not only a significant step forward for BBOWT but also for the conservation community as a whole.

The monitoring programme had two top level elements:

- 1) monitoring of the health of the landscape, and
- 2) carrying out site specific research.

These two different strands are important as they answer different questions for which different types of data need to be collected.

The full monitoring report is available on request.

Monitoring health of the landscape

The assessment of the health of the landscape was carried out in a staggered fashion over the life of the project, but essentially collected 'before and after' data that was used to show changes over time and assess the impact of the project on the landscape's wildlife.

The project area was divided into 3 core habitat types (woodland, wetland and heathland) and the interlinking matrix/farmland; all urban areas were excluded. The monitoring was tailored to these habitats, with a proportional representation of each and a further weighting based on those that already had active Conservation Management (CM) and those that did not. The surveys took place in random 200m² sample squares across the landscape and

recorded the condition of the habitat and the abundance and diversity of the key fauna taxa present. The mapping out of these sample squares was a desk-based exercise using habitat data from the Thames Valley Environmental Record Centre (TVERC).



Staff and Conservation Trainees carry out a woodland HCA.
Simon Claybourn. 2018.

Every sample square needed a Habitat Condition Assessment (HCA). Habitat condition surveys were carried out by assessing a set of habitat criteria or quality indicators within the sample square. The suite of habitat quality indicators were set for each of the core habitats and the matrix found in the project area. The criteria used in these surveys were bespoke for the West Berkshire Living Landscape and had been devised during the development phase of the project in consultation with relevant organisations, such as Reading and Oxford Universities and conservation organisations such as The Wildlife Trust network and the BTO. They were based on the English habitat condition assessment approach used by Natural England in monitoring SSSIs and agri-environment schemes, and BOWT's own extensive experience of condition monitoring on nature reserves. The aim was to survey at least 25% of the area, equating to approximately 125 sample squares. In total 166 squares were surveyed which equates to 33% of the project area.

Species groups for fauna surveys were chosen for surveying for ease of survey and the assumptions that can be made regarding the health of the landscape based on the presence or absence of species within the group. Not every

sample square needed to be surveyed for every fauna group. Surveys were allocated depending on the suitability of the habitat type within the square for a particular fauna group and the availability of surveyors. Standard national methodologies were adopted, for example, birds were monitored using the BTO Breeding Bird Survey transects.

Volunteers, trainees and staff carried out Habitat Condition Assessments (HCAs), but the length of time it took to train volunteers to [confidently] undertake HCA surveys was an issue, due to the amount of botanical identification knowledge required. This meant that only a handful of surveyors were able to conduct the surveys. Surveyors were much easier to recruit and replace in fauna surveys. The results collected from the surveys provided a snapshot of the biodiversity health of the West Berkshire Living Landscape.

Site-specific research

In addition to those carried out for habitats and species several other surveys were conducted as part of the project to assess populations of locally rare species and other potential indicators of habitat health in a landscape. It also enabled specific management questions based at the site level to be addressed. For example, what impact the current grazing level is having on the vegetation at Greenham Common and were additional to the previously mentioned student research projects 'The Influence of Heathland Restoration upon Reptile Populations on two sites in South England'; and 'Evaluating the effectiveness of dog exclusion zones to reduce disturbance to ground nesting birds on Greenham Common'.

The main research reports:

Thatcham Reedbeds CES

The Newbury Ringing Group (NRG) has been surveying the Thatcham Reedbeds NNR for the past 26 years using the British Trust for Ornithology's 'Constant Effort Site' (CES) methodology. The rigorous standardisation of the survey methodology and its implementation provided an accurate assessment of bird populations in Thatcham Reedbeds NNR and a clear indication of population trends. Ringing data from the period 2013-2018 was used in analysis to cover the data collection period of the linking the Landscape project.

Adder Tracking

Nigel Hand was commissioned to survey and track adder movements on Greenham and Crookham Commons. His report - 'Review - Radio Telemetry of Adders on Greenham and Crookham Commons April to October 2015' provided valuable insights to the populations of adders around the Commons, group size and location, group isolation, habitat use and potential improvements to habitat management.



Lapwing Populations

Adrian Hickman was commissioned to produce a preliminary study mapping populations of Northern Lapwing *Vanellus vanellus*: 'Lapwings across the Landscape report. A survey to determine the distribution and numbers of breeding Northern Lapwing *Vanellus vanellus* within and just beyond the boundaries of the West Berkshire Linking the Landscapes area in 2014'. One of the findings was a problem with the lack of consistently available suitable habitat which is largely dependent on conducive agricultural operations or the effects of occasional extreme weather events, such as flooding. It was stated that 'if the Lapwing is to have a chance of maintaining or increasing its population it is imperative to encourage the implementation of measures, at a landscape scale, that maximise the amount of suitable habitat available at any one time during the breeding season.' In response to this report habitat management work was carried out on Crookham Common, which contributed to Lapwing returning to breeding at the site in 2019.

Nightingales

Adrian Hickman also produced a report on the population of *Nightingale Luscinia megarhynchos*: 'West Berkshire Linking the Landscapes project Distribution and numbers of *Nightingale Luscinia megarhynchos* in the Linking the Landscapes project areas 2014.' This report concluded that: 'The Berkshire population of nightingales is apparently conforming to a National shift in habitat preference from woodland to scrub (particularly associated with disused gravel pits). Although numbers have increased, the Berkshire population has undergone a significant range contraction with the remaining birds retreating to the only available suitable habitat. Scrub habitats in Berkshire, including those within the LtL area, are of conservation importance to this species.'

Between 2013 – 2018 Ground Nesting Bird reports were produced annually by Adrian Hickman, funded by the project. The 2018 report recorded that Little Ringed plovers bred successfully for the first time since 2010 fledging one chick; two to four Lapwing pairs were present, one pair which hatched two chicks . There were fewer Nightingale territories, with those currently all in the eastern half of the site, and low numbers of Dartford Warblers, probably due to severe storms and heavy snow early in the year.



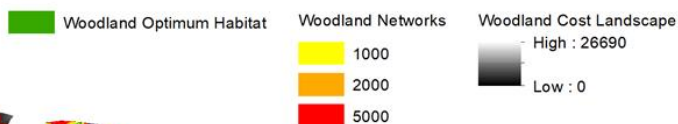
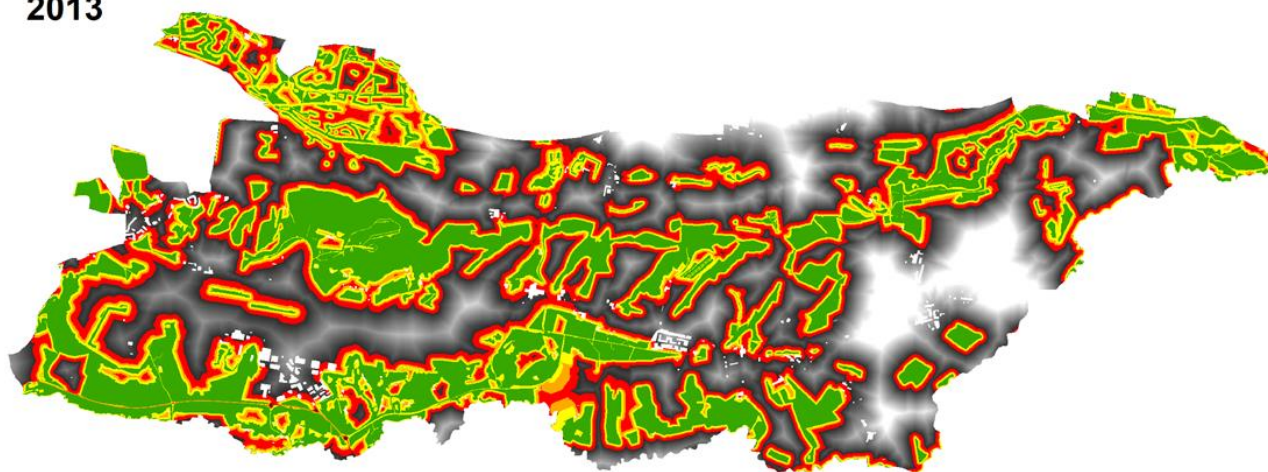
Little Ringed plover chick 2018.

All these reports have been used to adapt habitat management practices in the BBOWT reserves and wider countryside, where it could be influenced.

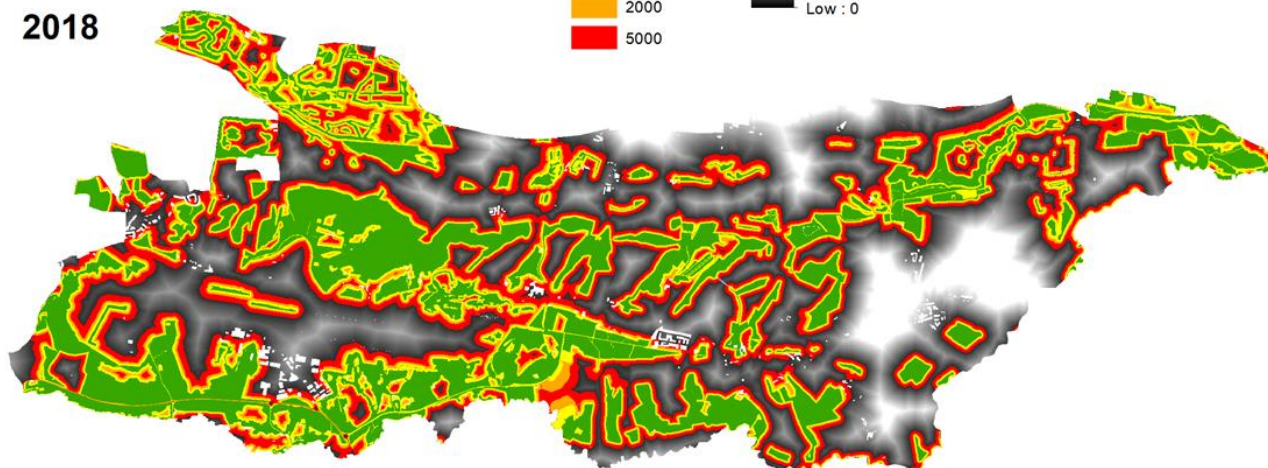
Habitat Connectivity Mapping

Landscape scale conservation is based on the understanding that wildlife populations will be stronger and more sustainable if they are supported by large, good quality habitat patches, which are well linked to each other and together cover an extensive or landscape scale area. Therefore in order to provide increasing benefit for wildlife, landscapes need restoring so that their habitat patches are better linked, and existing patches have improved quality

2013



2018



or condition. By their very nature landscapes are however very large and it is essential to target conservation work to take place in the locations which will provide the best linkages and improved condition for the most efficient resource input. To achieve this, landscape connectivity models for each of the core habitats (woodland, wetland and heathland) were generated for the West Berkshire Living Landscape area. These models were then used to highlight which locations would provide the best conservation gains in terms of increasing habitat linkages and existing habitat quality and size.

The habitat connectivity modelling work carried out at the end of the project showed some measurable changes to the extent and connectivity of the main habitats measured, for example:

- There were more grassland habitat patches in 2018 with a greater total area compared to 2013 (a 9.7% increase in area). However these additions were mostly isolated sites or expanded existing network components, with little joining up of existing components.
- There were 7 fewer heathland habitat patches in 2018 compared to 2013, due to the modification and merging of existing patches. New patches were also added in different locations. Despite the number of patches decreasing, the total area of these patches was 8.1% greater in 2018 compared to 2013. As a result the average patch size was also greater.
- Wetland habitat had the lowest coverage of the four broad habitat types, accounting for only 1.6% of the living landscape area and changed little over the course of the project.
- Of the four broad habitat types, woodland has the most extensive and evenly distributed cover of habitat patches. There were 40 more habitat patches in 2018 compared to 2013, with an increase of 2.4% (15.2ha) giving a total cover of 23% of the living landscape area.

Analysis and Discussion

The HCA results achieved by comparing 'before' and 'after' data sets gave an indication of the issues associated with a very short-term surveying project, one being the lack of immediate positive indicative changes in areas managed for the benefit of wildlife. It highlighted what could be initially negative impacts of scrub management, tree felling and other common conservation operations through loss of established structure, sources of food and shelter, and botanical species diversity. However, it is important to acknowledge that the survey methodologies used to assess habitat change did reflect an expected, or at least explicable, change in areas both managed and unmanaged for conservation. The HCA's were found not only to give an accurate snapshot of the health of an area of habitat, but also change over time.

HCAs, concentrating not only on indicative species, but also on structural change, captured a positive change in those areas already in Conservation Management (CM) versus those that were not. The results indicate only a small positive change but habitat management work for the benefit of specialists can take some time to have a significant effect. This result could result from the lag-time of regrowth (from seedbank), or recolonization (from nearby

populations) of specialist flora and the time it takes for recolonization by associated specialist fauna. This correlates with the need for increased connectivity: when a derelict area of habitat is managed for conservation purposes there needs to be adequate connectivity to an area of equal or greater 'quality' for recolonization to occur.

Species surveys were not entirely helpful in assessing trends on a landscape-scale in the relatively short timescale of this project. Future projects might benefit from trend data being provided by local environmental record centres, specialist recording groups or extracted from national datasets. However, the narrower scope species-based reports were found to give solid evidence of the use of the wider landscape by particular species, acting as indicators of the presence and quality of particular habitats. In combination with the habitat surveys this can be used to highlight where there may be other pressures on these local populations.

The habitat connectivity mapping model used gives a very clear impression of how particular species can use different areas within a landscape. When combined with robust satellite imagery, local knowledge of land use change and habitat condition assessment data the model can be an excellent way to visually track both short and long-term connectivity change.

Conclusion

The HLF funding, in combination with local knowledge and expertise of both BBOWT staff and their many outstanding volunteers, enabled the successful delivery of this complex and far-reaching project. While many outputs can be measured in habitat and species gains, there are more intangible and difficult to quantify outcomes that need to be maintained after the extra resources disappear at the end of the project. These include the goodwill of land owners and land managers, the enthusiasm of new volunteers, and the willingness and capacity of the organisation to absorb and nurture this expanded engagement group. The BBOWT teams looking after reserves and the Nature Discovery Centre have achieved a great deal of this, supporting many of the new [volunteer groups](#) developed over the life of the project. The [Teen Rangers](#) and [Nature Tots](#) groups have not just continued in the WBLL area but have spread to other sites across the three counties of Berks, Bucks and and some have been taken on by Key Volunteers, such as the [Thatcham Community Orchard](#).

BBOWT would like to thank all involved in this project, from HLF to key landowners who allowed access and supported the project, the enthusiastic and committed staff and volunteers, the eager trainees and students, and the specialist groups who worked with us – especially Berkshire and South Bucks Bat Group, the Berkshire Mammal Group and Newbury and District Ornithological Club. Thanks go to the members of staff who worked to deliver the project over the years including Ed Sweetman, Caroline Temple, Simon Claybourne, Chris Burch, Jone Ayres, Karen Job, Conor Watson and Hilary Phillips. Particular thanks are due to Jacky Akam who developed the project, and Roger Stace who has been integral to its delivery, management and legacy.