

Ecology update

Editor

Dr Phil Thomas PhD. FRSA. MCIEEM. MoJ Ecology Lead

Designed by

Design102

Editorial Board

John Cole Claire Soroczynski Beatrice Finch

Sustainability Team

Contact:

MoJ 102 Petty France London SW1H 9AJ The Ministry of Justice ecology update is a biennial update about how the department is delivering against the government's transparency targets for biodiversity and towards Biodiversity 2020 (b2020) as well as meeting statutory obligations on designated sites.



Fig 1: Brasside Ponds SSSI

Contents

Welcome	4
Summary	5
Projects	7
Awards and training	42
Communication and partner liaison	46
Reporting	48
Forward look	50
References and links	51
Conclusion	52
Glossary	53

Welcome

Andy Mills, Director of Property, and Sustainability Champion



It gives me great pleasure to welcome you to our first biennial Ecology update for the Ministry of Justice which highlights some excellent ecology projects taking place across our diverse land holdings, with its amazing biodiversity.

This update is not only a window to share good practice and highlight what works, it's also our opportunity to demonstrate that working with local and national communities, and our lead partnerships, is fundamental in protecting our natural environment

There are some outstanding partnership projects demonstrated here including the national dormouse box project with the People's Trust for Endangered Species, the B-Lines and pollinator projects with Bumblebee Conservation Trust and Buglife.

The partnerships and projects within this update have not only made headway in halting the decline of species and enhanced priority habitats, but have delivered important learning and skills to offenders, both on the custodial and non-custodial estates, which in turn has made valuable and worthwhile headway for our restorative justice programmes and offender behaviour programmes.

I'm confident that as we do this, we will create a more robust business and a uniquely diverse estate that's healthier and protects the future of our native species.

I am very much looking forward to the results of the actions we are putting in place this year to do so much more.

I hope you enjoy reading this update.

Summary

Fig 2: HMP Whatton



Change to MoJ's Estates Directorate is responsible for managing a rich and diverse range of buildings and rural land holdings that support a myriad of biological diversity. The Estates Directorate manages and provides estates management for other government departments such as the Home Office and Crown Prosecution Service.

It also encompasses both European designated habitats and species and Sites of Special Scientific Interest (SSSIs). These range from tidal saltmarsh,

upland-heathland and chalk-downland to nationally important priority species, such as the great crested newt, bats and dormice.

The custodial estate, which encompasses both public and private sector prisons, is a diverse range of broad habitats and landscape scale conservation. These range from a large dairy farm in South Wales to a large scale protected cropping on the east coast of Lincolnshire. It also has a large historic built estate which supports

one of the largest bat roost registers across the government estate.

The non-custodial estate also demonstrates a diverse range of biodiversity: from the rare peregrine falcon across our London skyline, screaming swifts above the National Archives to hundreds of courtyard gardens and urban rich brown-field sites on our HMCTS estate. We also have important lowland heathlands and chalk-downland on the Home Office estate.



Projects

What we have delivered

The custodial estate

- Barn owl project
- Biological surveys
- SSSIs
- Protecting our red squirrels
- Wildlife gardening in prisons
- Badger inoculation project
- · Ponds project

The non-custodial estate

- Wildlife gardening in courts
- Green vegetative roofs
- SSSIs Snaresbrook CC/ Epping Forest
- The National Archives

Community and partner projects

- Dormouse box project
- Bumblebee B-Line project
- Acorns to ancients project
- Social and community in action
- RSPB Big Garden Birdwatch
- Creating reedbeds with RSPB
- Data-download to the National Biodiversity Network
- Erecting swift boxes with Swift Conservation

Shared estates

- SSSIs and Biodiversity Significant Sites
- · Gardening for wildlife
- · Awards and training
- HMPPS Wildlife Award



Fig 4: Bird boxes at The National Archives at Kew

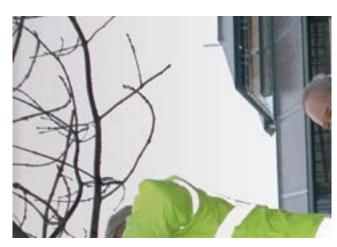


Fig 5: The National Archives at Kew create an eco-haven for birds, bees and much more







The Custodial Estate - Introduction

Her Majesty's Prison and Probation Service (HMPPS) is an executive agency of the Ministry of Justice, responsible on behalf of the Secretary of State for Justice for commissioning and delivering prison and probation services in England and Wales.

The agency was established to bring together prison and probation services, enable offender management programmes to be delivered more effectively, and to strengthen and streamline commissioning to improve efficiency.



Fig 6: Organic allotments at HMP Maidstone

Projects









Fig 7: HMP Coldingley – one of the MoJ's designated sites Fig 8: HMP Hewell, Hewell park lake SSSI

HMPPS delivers offender management services through:

- public sector prisons 110 prisons which provide around 85% of prison places
- private sector organisations operating 13 prisons under contract
- National Probation Service responsible for the management of high-risk offenders; and Community Rehabilitation Companies (CRCs) responsible for the management of low to medium risk offenders in 21 areas across England and Wales (see the non-custodial estate section)
- partnerships with a range of public and third sector partners, including police, local authorities, health and education providers and with a wide range of organisations in the voluntary and social enterprise sector

Barn owl project

The MoJ Ecology Network has been working on their barn owl project for several years with partners such as The Barn Owl Conservation Network (BOCN) and the Hawk and Owl Trust. The MoJ barn owl project was originally partnered through Colin Shawyer, the founder of the BOCN, and Dr Phil Thomas, the MoJ's Principal Ecologist and Head of the MoJ Ecology Network.

The aim of the project was to reduce the gaps in breeding corridors across the countryside by improving habitat or nesting sites across the MoJ Estate where barn owls were traditionally recorded but have since disappeared. As a Schedule 1 bird under the Wildlife and Countryside Act 1981 and a species of conservation importance, it was key that these gaps in the MoJ corridors be closed. Increasing breeding pairs of barn owls across the MoJ Estate Directorate involving the HMPPS estate was a crucial ingredient in this project. The large open rural prisons have the long rank grasslands which are the favoured habitat of the barn owl, allowing the creation of breeding boxes.



Fig 9: Barn owl box, made by prisoners and ready to put up Fig 10: Barn owl monitoring at HMP Prescoed

Barn owl project

The MoJ Ecology Network wanted to involve staff and custodial and non-custodial offenders as an opportunity existed for them to learn new skills, both in rural land management and carpentry for building nesting boxes. All of which made a difference to local communities, offenders, barn owls and the wider environment.

With the project now in its 16th year, it's proved not only to be one of the Ecology Network's most successful projects, but its longest running project. Within the last 18 months, 10 HMPPS sites across 1,310 acres of rough rank grassland have been



actively involved in the project, five of which are being monitored as part of the BOCN. Over 2,000 boxes have been erected across the HMPPS estate, strengthening the barn owl project year on year.



Monitoring nest boxes across our estate is a valuable conservation tool which allows us to make the necessary habitat changes for both the protection of the species and increasing populations. For example, over the past 18 months 10 monitored sites have produced 12 breeding pairs that have gone on to produce 18 broods with 72 fledged individuals. However, with a low mortality rate, we expect that 70% will die within the first 12 months, leaving a total of 21 individuals to reach their four-year life expectancy in the wild.

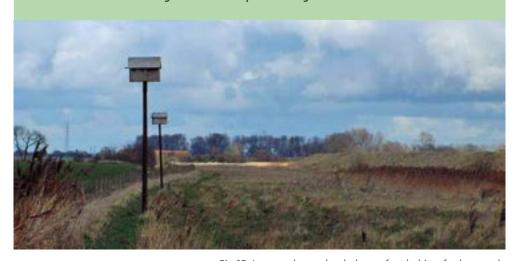


Fig 12: Long rank grassland, the perfect habitat for barn owls

Biological surveys

Biological surveys are a vital tool in the practical management of both our priority habitats and species. The MoJ Ecology network has implemented a tranche of Phase 1 habitat and species surveys across the HMPPS estate throughout 2016-18, which will continue through 2018 and on to 2020 as part of our commitment to b2020, covering designated sites and biodiversity significant sites.

Priority has been given to those sites that legally require HMPPS to fulfil a Site Management Agreement (SMA), such as the SSSI sites (SSSIs). Biological surveys remain current and active for three years; after this they are required to be reviewed and the biological status of either the species or habitat on site to be re-calculated where relevant.

Carrying out species and habitat surveys at sites during 2016-18 was a huge challenge to the Ecology Network. To deliver these surveys across a wider network of biodiversity significant sites has involved invaluable partnerships, with organisations such as Peoples Trust for Endangered Species, Buglife, the Woodland Trust, RSPB, Bumblebee Conservation Trust and many more lead partners.



Fig 13: Measuring ancient trees, Fig 14: Mammal surveying

Biological surveys





Fig 15: Bat monitoring programme Fig 16: Bat surveying

Once the data is secured from the surveys, it is uploaded to the species and habitat databases and National Biodiversity Network (NBN) which includes:

- Bat roost register
- Priority species register
- Stage 1 site master database
- · Ponds and wetlands register
- SAPs and HAPs database

The surveys and data are not only used to help achieve actions and targets, but have proved vital to colleagues in project development and building maintenance. They allow the MoJ Principal Ecologist to advise MoJ project sponsors and building contractors where priority species are, or could be found, which has averted costly delays in major building projects.

Sites of Special Scientific Interest (SSSIs)

Sites of Special Scientific Interest (SSSIs) are the country's very best wildlife and geological sites. They include some of the most spectacular and beautiful habitats – large wetlands teeming with waders and waterfowl, winding chalk rivers, gorse and heather-clad heathlands, flower-rich meadows, windswept shingle beaches, remote uplands, moorlands and peat bogs.

The custodial estate has nine nationally important SSSIs, three of which have European designations – including Special Areas of Conservation (SAC), Special Protection Areas (SPAs) – two of which are International Ramsar sites. In addition, there are more than 35 sites that neighbour, or sit astride, SSSIs with many more biodiversity significant sites across the estate.



Fig 17: Brasside Ponds SSSI



We believe it's essential to preserve our remaining natural heritage for future generations. Wildlife and geological features are under huge pressure from development, pollution, climate change and unsustainable land management. SSSIs are important as they support plants and animals that find it more difficult to survive in the wider countryside. Protecting and managing our SSSIs is a shared responsibility and an investment for the benefit of future generations.

Sites of Special Scientific Interest (SSSIs)

SSSIs are fully protected by law and the MoJ Ecology Network advise on this legislation. They also advise on site management and protect sites by reporting their health status and b2020 outcomes to Defra. Figures 17-20 are examples of just a few SSSIs across the custodial estate, each one totally unique in its biological status with its own LBAP. The LBAPs help local staff, Facility Management (FM) providers and their partners manage the biological importance of the sites and in turn help us report towards the government's transparency targets and b2020 outcomes.

All SSSIs on the custodial estate have one thing in common: they are all rich in priority species. These include international important wading birds at HMP Haverigg and HMP North Sea Camp, great crested newts and raptors at HMPYOI Prescoed in Wales and lichens, liverworts and stitchworts on upland heathland at HMP Dartmoor.

With varied and diverse species comes the need to have varied and diverse partnerships to support these.



Fig 19: HMP Haverigg, Fig 20: HMP North Sea Camp



The HMPPS custodial estate – being one of the largest rural estates in MoJ – has strived to encourage these partnerships so they can have the very best people and specialists in the UK advising on species and habitat management.

Through the services of the MoJ Ecology Network, three separate Memorandums of Understanding (MoU) have been drafted and signed over the last 18 months, with several major lead partners enabling training and advice to be given at the right time and at the right site.

These partnerships are covered in the community and partnership section but, in short, these MoUs and partnerships have been invaluable for the SSSIs and the flora and fauna they support.

Protecting red squirrels





Fig 21: Red squirrel

There are only two sites on the HMPPS custodial estate which have been identified as either having a red squirrel population or recorded activity. These are HMP Northumberland and HMP Isle of Wight (Parkhurst Forest SSSI). Surveys have taken place at both sites over the last 12 months and the MoJ Ecology Network has established that, at present, both populations are active but under pressure. Further surveys throughout 2018-19 will monitor their progress. Working closely with Save our Squirrels and local wildlife trusts has been pivotal in how we manage our estate for this rare and declining species.

Surveys in summer 2017 at HMP Northumberland showed that there were six dreys. Feeding sign surveys were very successful with five feeding stations being used and natural signs of pine cone feeding quite prevalent. Although these methods of surveying have their challenges, it is estimated from the varying survey methods on approximately 10 transects, that our active population is very much on the edge of its territorial range and under threat from declining habitat management.



One of the easiest and most practical measures put in place is habitat management and creating wildlife corridors so that local red squirrel populations can track between feeding and breeding sites and allow the migration of species and genetic pools.

Eradication and control of the grey squirrel population is also a priority and working with our neighbours and partners such as the wildlife trusts and Save our Squirrels has been essential in this endeavour. Further but more limited actions have been creating localised feeding stations especially during lean times or hard winters.

Wildlife gardening in prisons

Gardening in prisons is certainly not a new thing: its origins go back well over 100 years and it was particularly prevalent in World War 2 when Dig for Victory was encouraged by the War Department and the Ministry of Food. What is new is that we now see prisons actively planting and managing their gardens for wildlife.

Many of our larger city and town prisons are managing their gardens for declining pollinators. But we are still unsure how these pollinators are benefiting the wider community in local gardens and allotments – something we are now working on with the Bumblebee Conservation Trust.



Fig 22: Short-haired bumblebee





Our urban and city brownfield sites are now some of our most important biological centres for native species of flora and fauna: from the black redstart, moths and butterflies in our town orchards to our rare declining native honey bees. Gardens play a huge part in our social and community lives and give prisons an opportunity to provide learning and skills to offenders which are transferable to industries such as commercial horticulture and landscaping. This plays a large part in enabling offenders to seek employment on release from custody.

Both HMPPS and MoJ believe that green space and gardens in prisons are an important aspect of reducing re-offending and play an active role in therapeutic offending behavioural programmes for offenders.

Badger inoculation

Badgers are one of our oldest native mammals and, due to their persecution, they are the only animal to have an Act of Parliament all to themselves, The Protection of Badgers Act 1992.





Fig 24 and Fig 25: Trapping badgers for our inoculation project at the HMPPS training college in Warwickshire, Fig 26: Badgers playing



Due to the size and rural landscape of the HMPPS estate, there are many badger setts dotted around, particularly in the South West and Midlands. It was therefore not surprising when, in early 2016, MoJ was approached to take part in a badger inoculation project in Warwickshire at the HMPPS training centre, Newbold Revel and at HMPYOI Prescoed, Cilwrgi farm in Wales

One of the MoJ Ecology Network's volunteers, based at HMPPS Newbold Revel, is working with the local badger group to survey, trap and vaccinate badgers against bovine tuberculosis (bTB). Cattle vaccination is a possible long-term solution, but this is not yet available and is subject to regulatory approval and changes in EEC legislation. Badger vaccination has the potential to reduce bTB without the negative impacts of perturbation (increased transference of bTB between infected and healthy badgers and cattle) arising from a badger cull.

Cilwrgi farm is following Newbold Revel, and the MoJ Ecology Network have recruited a badger coordinator who will be assessing all sites where there is substantial badger activity.

Ponds

The MoJ Estate Directorate has, for many years, managed ponds, lakes, rivers and wetlands. One of the main aims for the MoJ Ecology Network has been to create new wildlife ponds that can either be sustained by natural clean fresh water or at least hold clean fresh water for four months of the breeding calendar year for amphibians. Working closely with the Freshwater Habitats Trust on their Million Ponds Project and amphibian and reptile conservation groups, we have built and designed many new ponds across the MoJ Estate Directorate.



Fig 28: HMP Frankland and Brasside Ponds SSSI Fig 29: A great crested newt found widespread across our estate

Fig 27: European water vole



Our existing and new ponds range from the size of a kitchen sink to several hectares (ha) – Brasside Ponds SSSI is over 10 ha. All ponds support a myriad of biodiversity, including great crested newts,

white-clawed crayfish, otter, and one of our rarer mammals, the water-vole.

Protecting and monitoring these dynamic wetlands, the MoJ Ecology Network liaises closely with our partners, estate staff and FM providers to manage these habitats for their unique aquatic flora and fauna.

We estimate that over the last 18 months we have created over 100 new ponds across our estate. As we leave the new ponds to develop naturally, letting nature take its course, we are now looking forward to the surveys which will evaluate our hard work. In 2018-20, we hope to be continuing with our challenging ponds project and to reach our goal of 500 ponds by 2020.

Introduction

The following executive agencies form part of the non-custodial estate under the MoJ.

Her Majesty's Courts & Tribunals
Service – an Executive Agency of MoJ
responsible for the administration of
the criminal, civil and family courts
and tribunals in England and Wales
and non-devolved tribunals in Scotland
and Northern Ireland.

National Probation Service – a statutory criminal justice service that supervises high-risk offenders that are released into the community and Community Payback is one of the statutory programmes available to the justice system for non-custodial offending (See Community and Partner Projects Section).

The National Archives – we have also been working with the official archive and publisher for the UK government and for England and Wales. Their role is to collect and secure the future of the government record, both digital and physical, to preserve it for generations to come and to make it as accessible and available as possible.







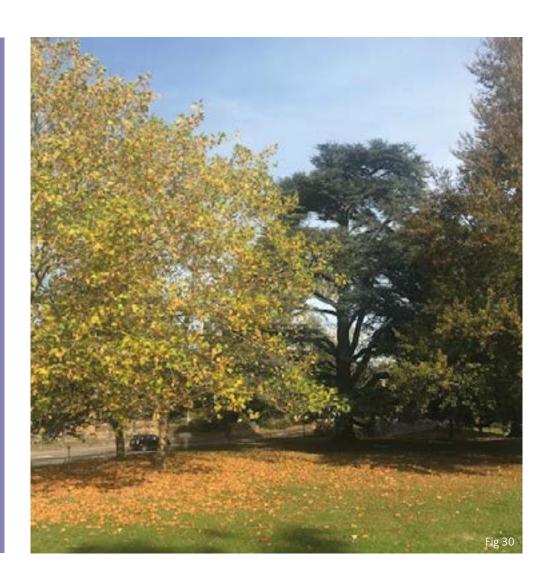
Wildlife gardening in courts

Gardening in courts, like prisons, not only brings wildlife to our natural urban hotspots in towns and cities, but also encourages community and people's involvement with nature. Numerous research papers and projects highlight the value of gardening in reducing stress and offending behaviour.

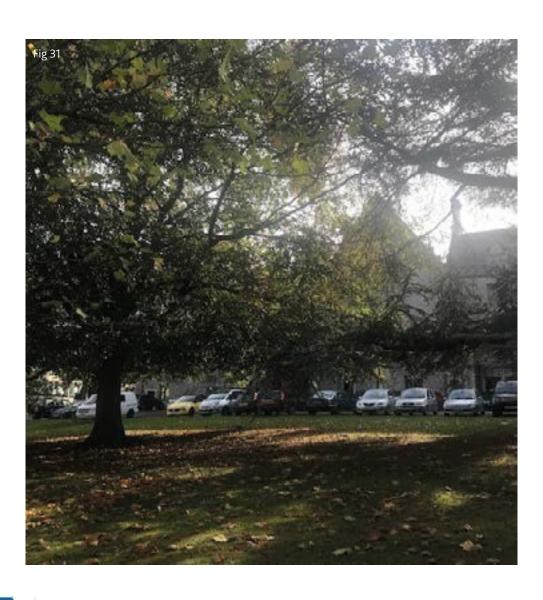
Many courts across the HMCTS estate value their gardens, not only for staff and public visitors, but also for the natural environment. Gardens play a huge part in the life of urban nature and can also play a major part in people's lives, both for relaxing and community volunteering.

The facilities management sustainability teams at Mitie and G4S are aware of this important tool in managing wildlife and involving people in nature on the courts estate. The Green Champions network on the court estate is actively encouraging staff to volunteer and enhance local gardens and car parks surrounding court buildings, as well as Judges' lodgings.

As you can see from Fig 30 and 31, the grounds at Taunton Crown, County and Family Court are a picture of tranquillity for both staff and the natural environment.



Wildlife gardening in courts



All urban sites can encourage wildlife, whether it's with hanging baskets, raised borders or bug hotels. Any site can make a difference to our natural flora and fauna. It's these valuable brownfield and town sites that are closing the gaps on fragmentation in our towns and cities as well as creating eco-havens and wildlife corridors for our native flora and fauna, especially our native pollinators.

To demonstrate the positive thinking on building wildlife into urban and built environments, the HMCTS Contact Centre at Crown House, Loughborough and their Keep it Green team have been focusing on wildlife and are looking at erecting bird boxes, bug hotels and even looking at sinking a sink or water tub to create a wildlife pond. Simple – yet these actions make a huge difference to wildlife.

Green vegetative roofs on courts



A green or vegetative roof – called living roof – is a roof on a building that is partially or completely covered with vegetation and a growing medium, planted over a waterproofing membrane. It may also include additional layers such as a root barrier and drainage and occasionally irrigation systems.

Green roofs are beneficial for several reasons: from absorbing rainwater, creating wildlife habitats, conserving energy by providing insulation, and providing an aesthetic skyline landscape.

Working with partners such as the Bumblebee Conservation Trust, Buglife and the Royal Society for the Protection of Birds, we are identifying existing green roofs that we can adapt fully or partially to encourage our native pollinators and song birds into our town and city landscapes.

Fig 32 shows how HMP Chelmsford have placed gabions on the roof filled with additional material – in this case, deconstructed pallets and turves to encourage invertebrates. These can add a further micro-climate to the roof and increase diversity in the local fauna populations. Further additions include bird boxes – in this case, house sparrow terraces.

Green vegetative roofs on courts

As you can see from Fig 33 and 34, Colchester Combined Court Centre also has green roofs which contain a similar mix to that of HMP Chelmsford. However, one of the main challenges to both Chelmsford and Colchester and other such green roofs is to ensure each roof is managed appropriately, making best use of the seed and plant mix and allowing it to grow to its full potential. Working with local and national pollinator groups we are identifying the most appropriate mix to ensure an increase in the wildlife population.



"When one creates green roofs, one doesn't need to fear the so-called paving of the landscape: the houses themselves become part of the landscape."

– Frederich Hundertwasser, Architect and Philosopher



We have seen a steady increase in local native species, including local songbird populations and invertebrates. There's no doubt that green roofs create unique highways in the sky for native fauna, something we have been learning to do through larger city landscapes in London, Manchester and Birmingham.

SSSIs

Epping Forest SSSI is one of only a few remaining large-scale ancient wood-pastures in lowland Britain. It has retained habitats of high nature conservation value including ancient semi-natural woodland.

old grassland plains and

scattered wetland



Epping Forest was traditionally managed as wood pasture where trees were lopped or pollarded above the reach of browsing animals to produce a crop of wood. This practice prolonged the life of individual trees and created a distinctive woodland structure markedly different from that found under other forms of woodland management.

The MoJ Ecology Network, working in close partnership with our facilities management provider, Mitie, has drafted a SMA for Snaresbrook Crown Court which will enable them and local volunteers to take forward management of the SSSI through to 2020 and the UK's b2020 outcomes.

Fig 35: Common adder



Fig 36: Snaresbrook Crown Court



Recent enhancements Mitie have made to the estate at Snaresbrook have included a nest box programme for bats and birds, as well as bug hotels and the addition of reptile reserves for grass snakes and adders. Inclusion of habitat piles for small mammals and invertebrates has also brought diversity to the habitat structure.

The MoJ Ecology Network carried out a Phase 1 habitat survey including a National Vegetation Classification survey in 2016 and 2017. Additionally, a tranche of reptile surveys has been implemented, all of which help build up the picture of the site's biological diversity.

The National Archives (affiliated)

The National Archives (TNA) at Kew are located a short walk from the River Thames in London and the grounds surrounding the building bring diversity and enjoyment to staff and visitors alike.

Over the last 18 months, TNA have implemented their own LBAP as well as creating micro-climates, erecting bird and bat boxes, bug hotels and even swift boxes on the face of the main building. Working closely with the MoJ Ecology Network, they have literally brought the gardens to life.



Fig 37: An assortment of nesting boxes

Having a wildlife pond and a water feature on site adds diversity to the habitats at TNA, providing added interest for visitors throughout the year. Fig 37 shows just a few of the boxes that have been erected on the grounds of TNA. These were made courtesy of offenders at HMP Springhill in Buckinghamshire, one of HMPPS' open prisons.

TNA is classed as a biodiversity significant site, which reflects its unique geology and topography. Many of the sites across the MoJ Estate Directorate have nationally recognised priority species. Specifically at TNA, the rare two-lipped door snail can be found just a short walk away from the main building.



Fig 38: The two-lipped door snail

Introduction

The MoJ Ecology Network, led by Dr Phil Thomas, is driving forward a programme of involving national and local Non-Government Organisations (NGOs) including RSPB, the Wildlife Trusts and the Woodland Trust. It also includes the MoJ's Probation Trusts community payback teams and Community Rehabilitation Companies (CRCs) as well as a mix of HMPPS prisons in the public and private sector.

In the forward look section, we have listed some community and partner projects that we hope to deliver in 2018-19.

The following projects are a sample cross section of what was delivered since 2016.



Fig 39: Offenders participating in a community payback nature project









Dormouse box project



People's Trust for Endangered Species

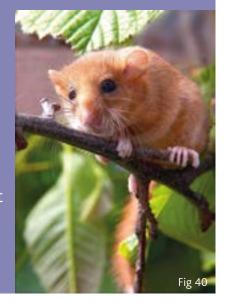
The MoJ Ecology Network worked alongside the People's Trust for Endangered Species (PTES) and their dormouse project officer, Ian Wright, on the dormouse box project. This was the main project the Ecology Network signed up to when they agreed an MoU with PTES, although we have looked at the Living with Mammals project as well.

Over the first year of the Moorland project, staff and offenders in the wood-shop at HMPYOI provided hundreds of boxes for

erection by PTES, all destined for dormouse projects across the UK.

The project recently moved to HMP Humber and continues to provide learning and skills and worthwhile productive work to offenders.

As well as supporting PTES with their dormouse project, staff and offenders receive training on habitat management and guidance on how to build healthy woodlands for the dormouse.



HMP Humber and the dormouse project were awarded the 'Judges Gold Commendation Award' in the 2016 HMPPS Wildlife Award, for their conservation work for dormice across the UK.





The Ecology Network is working closely with PTES to survey the MoJ Estate Directorate to try and understand the population status of this secretive and protected mammal. Further projects, such as 'living with mammals', are being explored for late 2018 to early 2019.

Fig 40. Dormouse, Fig 41. The dormouse box, Fig 42. Ian Wright from PTES holding a dormouse



Bumblebee B-Line Project

Bumblebee Conservation Trust

The Bumblebee Conservation Trust (BBCT) was established because of serious concerns about the plight of the bumblebee. In the last 80 years, bumblebee populations have crashed. Two species have become nationally extinct and several others have declined dramatically.

One of the three main aims that BBCT is working towards is to raise awareness and increase understanding about bumblebees including the social, economic, environmental and cultural



benefits which they and other pollinators provide. Dr Phil Thomas approached BBCT and signed a Memorandum of Understanding (MoU) with them. Thus, the MoJ Ecology Network agreed to jointly work on several projects, one of which was the Bumblebee B-Line project.

Designed specifically to create flower-rich habitats, it is a significant focus of BBCT's current Bees for Everyone project.

On the HMPPS estate, however, the MoJ Ecology Network were keen to identify landscape areas where pathways between rich habitats could be set up. These have historically been degraded, or have completely disappeared. Starting with rural sites in Yorkshire the planting of endemic species of trees and shrubs and seeding wildflower grasslands and meadows has been encouraged at HMP Full Sutton, HMP Hatfield and HMPYOI Wetherby.

The benefit to nature has not just been for bees, but all other invertebrates and, of course, all the supporting ecosystems. In late and early 2017, the MoJ Ecology Network was added to the London Pathways projects for bumblebees which now encompasses a broad spectrum of inner-city sites across the MoJ Estate Directorate.

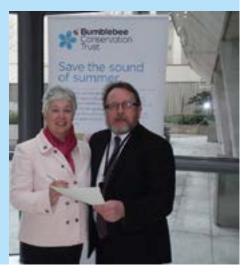


Fig 43: Shrill-carder bee

Fig 44: Phil Thomas, MoJ principal Ecologist, and Gill Perkins, CEO at BBCT, sign at MoJ's 2015 Climate Week

Acorns to ancients

Woodland Trust

The MoJ Ecology Network has an excellent working partnership and MoU with the Woodland Trust. This includes collaborating on projects such as recording and monitoring ancient trees, planting woodlands for carbon capture and the acorns to ancients project. The specific aim of this project is to grow heritage veteran seeds to produce future endemic material for nationally recorded ancient woodland tree sites, both on the MoJ and Woodland Trust Estates.

This project continues to grow from its early foundations and will provide a basis for future veteran tree stock. It will also provide transferable skills to both custodial and non-custodial offenders which makes a valuable contribution to the restorative justice agenda.

HMP Ford was the first HMPPS site to be involved in this project and has lead the way by growing acorns to oak tree whips, to be distributed throughout England's woodlands. HMP Ford's success in this project spurred two more prisons (HMP Hatfield in Yorkshire and HMP Dartmoor in Devon) to take on the challenge to grow 'on stock'.

HMP Hatfield have managed to put their own stamp on this project by creating accurate and detailed data on each batch of acorns. This included the time of collection, the date of sowing with the name of the individual who sowed it and a unique batch number that can be traced right through to planting. This has proved invaluable for Hatfield's biosecurity, especially when it comes to reducing pests and diseases and ensuring consistent soil and compost during the potting on process.





Fig 45: Bea and Paul, MoJ Ecology Network volunteers, hugging a large oak,

Fig 46: Tree planting in the community



Social and community action

Rhubarb Farm is a horticultural social enterprise located in Langwith, an old pit village on the north Nottinghamshire and Derbyshire border, which produces vegetables for its vegetable bag scheme. The farm takes ex-offenders as volunteers under a HMPPS contract to support their future training and employment.



Fig 47: Ex-offenders planting brassicas

Ex-offenders are only one group within Rhubarb Farm's volunteer model. They also take people with mental health problems, drug and alcohol misuse issues, learning and physical disability, people with physical ill health, teenagers who are struggling at school, young people (aged 16 to 24) who are not in education, employment or training, and people with dementia. This is very much about community development and works extremely well as people help and learn from each other and become a thereby improving their understanding of their community through interaction with othersbecause their understanding has improved.

Rhubarb Farm's ethos is not just to help people improve their own lives, raise their aspirations, provide skills and confidence, but also to develop their awareness of growing vegetables and environmental sustainability.

Social and community action

To this latter aim, Rhubarb Farm's most striking sustainable feature is its one and only toilet – a composting toilet. The same as a pit latrine found in developing countries, the toilet uses no water, and the composted solids, when removed from the chamber under the toilet, can be used as compost.

Rhubarb Farm recycles everything it can lay its hands on and never spends money on materials unless it cannot source them by other ways. The crops are protected under old piping donated from a utility company, benches in the polytunnels and raised beds are made from old scaffolding planks, and the car park surface is from old road plannings.

Rhubarb Farm already employs three ex-offenders, one of whom spent eight years in and out of prison, and they are now planning to employ another three under a new programme.



Fig 48: A school group visiting the composting toilet

Big Garden Birdwatch



The Big Garden Birdwatch (BGB) has proved one of the most valuable and successful MoJ surveys to date. It provides an invaluable insight into how small songbird populations are thriving across our diverse estate.

The BGB can be carried out by both custodial and non-custodial offenders. In fact, many of the surveys carried out on the HMPPS estate in prisons are undertaken by the offenders themselves. As the offenders fill out the survey forms, they are actively learning about their environment and, for some, learning important basic communication skills. Once the data is inputted to our BGB database, we can extract important data regarding species populations and trends. This enables us to amend and alter how we manage our habitats and how we distribute vital

resources to enhance declining bird populations.

Collaborating with our habitat and species lead partners such as RSPB, the wildlife trusts and our wider stakeholders, we can



Fig 49: Tree sparrow

share our historical records and survey data, such as the BGB survey, and move towards a more managed landscape scale habitat for our songbird populations.

With our data, we can produce lists such as the top 10 declining or improving species. We also have an opportunity to look at regional trends and see how climate change is affecting migrations and resident populations as well as other more urban and development pressures.



Fig 50: Common garden birds likely to be seen on the Big Garden Birdwatch

Creating reedbeds with RSPB



MoJ has worked with RSPB for many years on individual ad-hoc community projects. Recently, a project was highlighted in the HMPPS estate that brought a very innovative reedbed project to the forefront.

HMPYOI Hollesley Bay have been working closely with RSPB at Botany Marshes on Abby Farm in Snape, Suffolk, which has undergone redevelopment. HMPYOI Hollesley Bay had the job of growing the reeds for them in their polythene tunnels.



RSPB supplied the panicles and from these offenders grew 15,000 reeds which were planted using the help of a team of prisoners from Hollesley Bay.



Hollesley Marshes, which neighbours the prison, has also undergone recent redevelopment and prisoners have aided in this project by clearing footpaths, banks and old World War 2 pill boxes. This will allow further habitat creation work.



HMPYOI Hollesley Bay will maintain this RSPB partnership and continue to grow and supply reeds for important wetland habitat creation as part of a national initiative supported through the Environment Agency.

Fig 51: Phragmites in all their glory, Fig 52: Planting panicles Fig 53: Bittern, a priority species associated with reedbeds

Data download to the National Biodiversity Network

The MoJ Ecology Network is a member of the National Biodiversity Network (NBN) which provides important scientific and biological data to a large community of partnerships. This joined up approach enables us to work towards the same goal of protecting and enhancing our native flora and fauna. As well as providing information to a data hub the NBN focuses on making new partnerships and providing support for community projects.

All the MoJ designated sites have a statutory obligation to maintain the scientific importance of the site through SMAs. It is through these that we endeavour to record and survey our priority species and habitats. These surveys range from Phase 1 habitat and species surveys to national community projects such as the Big Garden Birdwatch. The MoJ Ecology Network national BAP coordinator then sifts through the recorded data and uploads to the National Biodiversity Network data hub where these records are made available to our partners and the wider wildlife conservation community.

The MoJ Ecology Network aims to carry out a Phase 1 Habitat survey at every designated site and biodiversity significant sites across the MoJ Estate Directorate.

This challenging target will help support the b2020 outcomes and help build up a true picture of the biological diversity of the MoJ Estate Directorate.

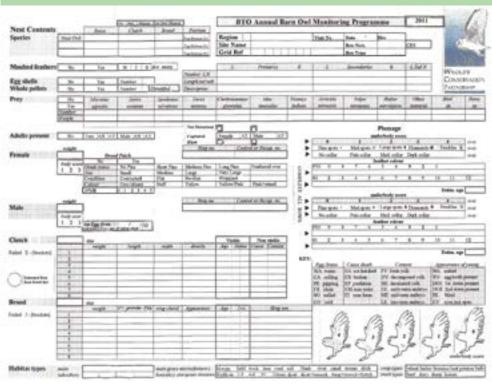


Fig 54: Copy of the Barn Owl Monitoring Form which we use in our barn owl project and on behalf of our partner, the Barn Owl Conservation Network

Erecting swift boxes with Swift Conservation

Swifts are amazing birds and supreme aerialists. They spend much of their life in the air, a lot of that at low level, feeding on airborne insects. They feed, drink, mate and sleep on the wing and only land to breed. So a young swift will spend its first two or three years in constant flight before it nests. There is still, however, an awful lot we don't know about these charismatic birds – hence the work we carry out in conjunction with Swift Conservation.

The MoJ Ecology Network first worked with Swift Conservation to erect swift boxes during the re-modelling of HMP



Nottingham. This enabled us to advise the conservation team at HMP Full Sutton to do similar work. The team then erected boxes on the external solid fuel store at the prison, with the addition of a speaker system echoing swift screaming calls.

The MoJ Ecology Network have also worked closely with the National Archives, who have also erected boxes on their main building.

The MoJ Sustainability Team and Swift Conservation worked closely with Sarah Foster from the Metropolitan Police Service environment and sustainability team, New Scotland Yard, to see if MoJ HQ Petty France could be a new home for swift boxes.



Fig 55 and Fig 56: Swifts in flight

Community and partner projects

Erecting swift boxes with Swift Conservation

Although successful installation had taken place for swift boxes at New Scotland Yard, it was announced that Metropolitan Police were moving out of their building and a new developer was moving in. Consequently, Metropolitan Police and



Swift Conservation hoped a new home could be found for the boxes in the local vicinity. These were re-erected at MoJ HQ at 102 Petty France – just around the corner.



Working collaboratively with partners such as the Metropolitan Police, Swift Conservation and facility management teams is a great way to protect these vulnerable species, secure their future and improve our networking opportunities.



Swifts are under so much pressure within our urban, city and town landscapes, from building upgrades to new building developments. Modern building methods take every precaution to ensure that the building exterior shell retains its integrity and many modern construction materials (like plastics, metals

and reinforced concrete) do not deteriorate to form suitable access points for swifts. The need to provide well-designed integral boxes for new constructed buildings or wall-hung boxes on existing buildings such as we are erecting across the MoJ Estates is paramount for swift populations.

The MoJ Ecology Network hopes these projects will inspire other project sponsors and site managers to erect swift boxes and encourage an environment that will enhance swift populations, which are nationally declining.

Fig 57: Swift box, Fig 58: HMP Full Sutton, Fig 59: Edward Mayer (Swift Conservation), Sarah L Foster (Recycling Officer Metropolitan Police Service), Assistant Commissioner Martin Hewitt and Dr Phil Thomas (Mol Ecology Lead) moving swift boxes from New Scotland Yard to 102 Petty France



Introduction

The MoJ Estates Directorate has driven the agenda for greater collaboration through an estates shared service. The MoJ Estates Directorate manages one of the largest and most complex estates across government including MoJ, Home Office, CPS, DfE, MHCLG, DIT, DEXEU and a number of arm's length bodies. The service also provides professional support to several cluster departments and arm's length bodies (ALBs) and includes the Department for Education (DfE) and the Department for Communities and Local Government (DCLG).

Implementing LBAPs and SMAs at designated SSSIs and biodiversity significant sites has been one of the main focuses for the MoJ Sustainability Team's ecologist and the MoJ Ecology Network as this helps to support our statutory and mandatory obligations to the natural environment. This work commenced with the Immigration Removal Centres (IRCs), several of which showed signs of significant biodiversity, including a SSSI.



Fig 60: Home Office HQ Marsham Street



Fig 61: IRC The Verne

SSSIs and biodiversity significant sites

IRC The Verne (transferred back to HMPPS July 2018)

On behalf of the Home Office, MoJ manages SSSI IRC The Verne, formerly a prison and originally built as a military fortress in the 19th century. Surrounded by the Isle of Portland SSSI, the site is both culturally and biologically important.

Now an Immigration Removal Centre (IRC), the site is important biologically for its flora and fauna. The MoJ's ecologist is working closely with the Home Office and the FM provider to manage the protected species on site and the

micro-climates, all of which are managed through an LBAP and SMA.

The LBAP is jointly managed with HMPYOI Portland as part of an LBAP network, which consists of Isle of Portland conservation volunteers, the Dorset Wildlife Trust and specialist guidance from Natural England.



Recent biological and species surveys have identified adder, common lizard, slow-worm and a breeding pair of barn owls within the moat of The Verne, all of which are protected species under the Wildlife and Countryside Act 1981. With so many reptiles on site, we have involved Amphibian and Reptile Conservation (ARC) as a partner to give us advice on population and habitat management for these species.

Providing species and habitat data from The Verne to the NBN will aid us in how we direct our FM provider in important habitat management and assist towards reporting against b2020.



Fig 62: Adder

Fig 63: The Napoleonic moat and fortress at IRC The Verne, located in the Isle of Portland SSSI

Gardening for wildlife

Across the MoJ Estate Directorate, there are many urban sites in towns and cities which are not typically associated with wildlife and our natural countryside. However, many of these sites, including the Home Office HQ at Marsham Street, can be just as important for wildlife as the green field sites and local nature reserves across our rural estate.

Projects that encourage pollinators and wildflowers (e.g. the B-Lines project across London) not only make a difference to native pollinators, such as bumblebees, honey bees and butterflies etc., but can also make a difference to people. Having a small green space within a city or town site can make a huge difference to how people work, relax and interact



in their natural environment which in turn can affect everyday decisions.

The MoJ Ecology Network and its volunteers are looking at how they can bring nature's pollinators to town and city offices with the inclusion of hanging baskets, raised beds and borders, bug hotels, bird and bat boxes and replacing (where appropriate) amenity grassland with natural wildflower meadows. The Ecology Network is also looking at replacing (where appropriate and operationally practical) corporate planting schemes with native species of trees and shrubs.

Together, these actions can slowly but surely make the difference to native species, by creating wildlife corridors, buffer zones and natural oases where wildlife can thrive and survive.

By including staff and local communities the Ecology Network can create a well-balanced and sustainable natural environment for both town and city landscapes.



Fig 64: Recycled living wall at HMP Stoke Heath, Fig 65: Painted lady butterfly

Gardening for wildlife



In early 2016 the Home Office approached FM provider for support on a new ecology initiative, the Wild West End. This involved some of the area's largest property owners introducing green stepping stones to Regents Park and St James's Park to encourage more birds, bats and insects to them.

The Home Office HQ FM provider (Bouygues Energies and Services) were approached with a proposal to replant some of the external flower beds with a range of plants proven to encourage pollination. The new planting at Marsham Street took place in the end of April 2016.

All the plants chosen were on the Royal Horticultural Society (RHS) Perfect for Pollinators list. These offer a perfect opportunity for bees, butterflies and other pollinating insects.



Wild bees and other pollinators are in decline. Planting pollen-rich flowers over a long season can help reduce this trend. An abundance of pollinators will ensure garden plants continue to reproduce through seed and ensure that fruit and vegetable crops such as apples, strawberries and tomatoes successfully deliver crops.



Fig 66 and Fig 67: Some of the pollinating plants that have been introduced at Marsham Street Fig 68: Home Office HQ Marsham Street

HMPPS Wildlife Award





HMPPS Wildlife Award is now in its ninth successful year and each year it encompasses more and more diverse and challenging projects from across the HMPPS estate. Its sponsors, Catholic Concern for Animals and Anglican Society for the Welfare of Animals, continue to fully support this award. They have expressed their delight and admiration at the amount of work that is focussed on protecting and enhancing the lives of animals and native wildlife species across the HMPPS estate.

The HMPPS Wildlife Award continues to go from strength to strength and is now being considered as a marker for a new national MoJ Wildlife Award. The Sustainability team is considering extending these awards to become a cross-Government initiative.

The HMPPS Wildlife Award has, over the last nine years, made great strides in contributing to the restorative justice agenda and has highlighted the involvement that both custodial and non-custodial offenders can have on local communities and nature projects. The HMPPS Wildlife Award has, without doubt, filled its brief for the sponsors in highlighting the work protecting and enhancing the lives of animals.

For HMPPS, it has shown that offenders working in nature can make a difference to both the environment they work in and the flora and fauna that thrive there as well as changing lives, reducing reoffending and enhancing local community green spaces.



Fig 69: Nicholaston House and judges



Training is one of our fundamental approaches to communicating and changing behaviour among MoJ Estate Directorate staff and suppliers and supports them in fulfilling statutory duties at designated sites, specifically towards SMAs.

The following categories are used for training purposes:

- Professional and Specialist training
- · Practical habitat and species training
- Statutory mandatory legislation
- · Behavioural change training

Over the past 12 months, we have worked with partners to bring interesting and worthwhile training to staff and offenders.

"Fulfilling the biodiversity duty"



Fig 70: Dr Richard Comont delivering Bumblebee training at the Prison Service College, Newbold Revel



MoJ Estate Directorate course examples:

Biosecurity

This course is run on our behalf by the Animal and Plant Health Agency (APHA) and looks at the wider countryside in respect to harmful pests and diseases, specifically at designated sites and sites which grow trees and plants. Following simple steps to protect our countryside, woodlands, gardens and our vulnerable species, this course gives staff an opportunity to draft and implement an action plan to secure their sites, biological security from alien and invasive species. This course has also enabled integration through ecosystem services for flora and fauna on a landscape scale.

Biodiversity awareness

This four-day residential certificated course is run by the MoJ's Principal Ecologist and looks at all aspects of ecology and biodiversity from habitat management, species diversity and countryside interpretation to wildlife and countryside law. It also includes behavioural change and a practical module which applies the course theory.

Wildlife and countryside law

This one-day course specialises in legislation connected with priority species, habitats, designated sites, the Natural Environment and Rural Communities Act 2006 and European legislation and is run by the MoJ's ecologist.

Over 350 staff have been trained on this introductory wildlife law course, giving staff at our environmentally sensitive sites and FM providers the confidence they need to be aware of statutory and

mandatory requirements. In some cases, they can advise other staff on compliance and implement practical action to enhance habitats for species, contributing to b2020.



Fig 71: Biodiversity awareness course



Tree verifiers

Run by the Woodland Trust, this course provides both practical and office-based skills in the clarification and verification of ancient and veteran trees to record ancient trees on the Ancient Tree Forum tree register.

Apart from giving the obvious verifying skills for ancient trees, the course also enables and promotes communication skills and practical observation skills. These have proved valuable in recording individual ancient trees of historical and social note on the MoJ Estate.



Fig 72 and Fig 73: Tree hugging is one way of measuring the girth of trees; anything over 4 hugs is a veteran tree. The photos here show some of our volunteers from the MoJ Ecology network measuring ancient and veteran trees



Training plays a vital role within the MoJ Ecology Network, the MoJ Sustainability Team and the wider Estates. It improves business performance, increases service delivery to our customers and partners and it benefits both staff and volunteers in acquiring new skills and updating existing ones. Upskilling and enabling new tasks keeps our volunteers and staff engaged, motivated and incentivised. All of this also helps and supports our natural environment, including our most vulnerable species and habitats.

Training for offenders can be invaluable when it comes to transferable skills and supporting the restorative justice agenda. All new MoUs signed with our ecology partners now incorporate a section on learning and skills for offenders.

Communication and partner liaison

Communicating our targets, actions and policy to the public, partners and stakeholders is an important part of managing and promoting biodiversity. There are several mediums and systems which we utilise for this aspect of our work within the MoJ Ecology Network. As part of out Communications Strategy we are published on the gov.uk website the Biodiversity Policy, Biosecurity Strategy and a Pollinator Strategy.

Ecology e-News:

A quarterly newsletter for the Ecology Network which keeps volunteers and partners up-to-date with ongoing projects, surveys, BAPs, events, good practice, audits and much more.

Training:

See the training section for more details on this aspect of the MoJ Ecology Network's work.

Ecology volunteer meetings:

Whenever possible, we bring together our ecology volunteers who then report against their area and what's happening regarding projects, surveys, audits and partner liaison in their corner of the MoJ Estate Directorate.

Partner liaison meetings:

There's no doubt that much of the work of the MoJ Ecology Network would not be as far advanced as it is without its partners, so communicating with them is vital. Allowing our partners a forum to discuss new and existing ecological projects is essential to how we deliver against our own targets and outcomes on biodiversity.



Communication and partner liaison

Conferences, seminars and events

For the last three years, the MoJ Ecology Network has been involved in organising a Biodiversity Day at MoJ HQ Petty France. This has proved very successful and a great platform to raise awareness of biodiversity among HQ staff. Involving partners and outside agencies has been a challenge and the support of ministers and under secretaries has been most encouraging and gives impetus to staff on the importance of the biodiversity message.

The MoJ Ecology Network attended the 14th National Biodiversity Network Conference, 'Climate, Collaboration and Collection', and took the opportunity to network with many of its biodiversity partners. At the conference, topics such as using satellites for recording data on a landscape scale and recording abundance, rather than just basic data, were presented.

Conferences and seminars give us an excellent opportunity not just to network with our partners and stakeholders, but to raise awareness of important ecological issues on our own estate. We can also use them as platforms to raise discussions such as the restorative justice agenda and offending behaviour programmes in nature.

MoJ understands that biodiversity is everyone's responsibility and that communications and biodiversity awareness is vitally important for halting the decline of species.

Working with partners, stakeholders and statutory agencies is not just vital in how we interpret and implement the government's targets for biodiversity, but vital in how we retain and protect our estate's biological importance for our statutory compliance and for future generations.



Fig 75: Dr Phil Thomas, MoJ Ecology Lead, giving a presentation at the Animal and Plant Health Agency technical seminar Fig 76: MoJ Ecology Network stall at the UK Biodiversity Conference

Reporting

Reporting benefits our natural environment. The MoJ Sustainability Team is required to report against several government targets and national UK biodiversity initiatives.

SSSIs remain our high-level priority; delivering against our statutory and mandatory obligations is crucial if we are to maintain and manage these jewels in our crown. Reporting against our actions to reduce not only the overall loss of biodiversity, but to halt the decline of species, is also critical if we are to work in collaboration with our partners and stakeholders in managing our diverse landscape and ecosystem services.

In October 2010 in Nagoya, Japan, over 190 countries around the world reached an historic agreement to take urgent action to halt the loss of biodiversity. This agreement recognised just how important our wildlife and ecosystems are for sustaining a healthy planet and for delivering essential benefits for people.

b2020 forms part of the UK's strategy, supporting EU member states' biodiversity strategy. The new ambitious biodiversity strategy for England builds upon the Natural Environment white paper, the first for over 20 years. Our aim here is to support this strategy through active, practical and accurate reporting on all our biodiversity targets and actions.

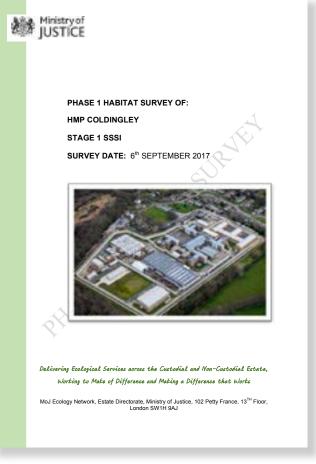


Fig 77: Phase 1 Habitat Survey at HMP Coldingley

Forward look

We hope this report will set the standard for future reports and encourage our Ecology Network, volunteers and biodiversity champions to strike a path to achieving excellence. In the next biennial report, we will describe how we have delivered on partnerships, our achievements, success and our challenges.

We will be creating an SSSI action plan to prioritize and manage our strategic actions towards the UKs targets for biodiversity 2020.

2018-2019

Partnerships:

We are in discussion with central partners to look at how we can work closer within their regions and on joint national projects. It is hoped that during 2018-19, we will secure an agreement on a more structured partnership with partners such as RSPB, Natural England and the wildlife trusts, especially as we work towards Defra's 25-year environmental plan.

We are already working with other government departments, such as the Animal and Plant Health Agency, Natural England and Ministry of Defence, to progress joint conservation projects.

Projects:

We will be working closer with the Woodland Trust on existing projects and we are looking to plant woodlands as part of our carbon capture project. This is in the early stages of planning.

Our work with the Bumblebee Conservation Trust will extend to look at landscape scale habitat management for declining species. This could involve national B-Lines, increasing our wildflower meadows and supporting re-introduction projects, such as the short-haired bumblebee along the Kent coast.

Forward look

Discussions with Natural Resources Wales, Buglife, Butterfly Conservation, Groundworks, and amphibian and reptile groups in Wales will promote the work we are going to carry out at the prison in Wrexham, HMP Berwyn. These will act as yardsticks for similar sites across the MoJ Estate Directorate.

Our Biodiversity Action Plan programme will grow from the existing 20 BAPs to 30 BAPs across a range of urban and rural sites by 2020. In addition, it is expected that we will have increased our designated sites to 11, although this is very much dependent on each site's biological significance and criteria laid down by Natural England, Natural Resources Wales and Scottish Natural Heritage.

In line with the above, we are planning to report under the Greening Government Commitments' transparency targets by continuing to manage SSSIs in a favourable condition, or at the minimum, unfavourable but recovering – and with this being 95% of our current SSSIs, this is very challenging.

We shall be continuing with our robust biodiversity and ecology training programme and increasing our training programme in 2018 with further courses offered by lead partners. This will further support our statutory obligations to the NERC Act 2006 s40 as well as supporting our recent strategy and policy for biodiversity.

In mid-2018 we will be drafting our woodland statement of action, which will incorporate our work with the Woodland Trust and other like-minded organisations and charities, publishing in 2019.

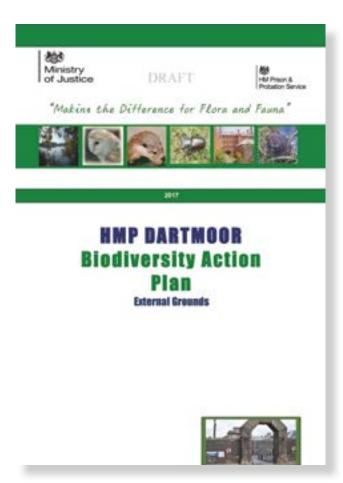


Fig 80: HMP Dartmoor Local Biodiversity Action Plan

Conclusion

Dr Phil Thomas, MoJ Ecology Lead



I'm delighted to be the editor of our first biennial ecology report, which demonstrates the commitment of the MoJ Estates Directorate and the wider MoJ Estate Directorate to the field of ecology and biological diversity. I hope the projects and initiatives exhibited illustrate the real dedication from MoJ Estate Directorate staff, offenders, partners and stakeholders in protecting and enhancing our native flora and fauna.

As we move towards a new reporting year and closer to our b2020 outcomes, I'm mindful of the importance of working more collaboratively and smartly with our existing partners and with future partners to deliver our own ambitious and challenging outcomes.

With climate change firmly on our agenda, we are working across a landscape scale to plan how we shall adapt our operational estate maintenance at all our environmentally sensitive sites. We are combating climate change on our estate and reducing environmental impacts on both species and habitats, which we hope will ultimately reduce pressure on our finely balanced estate ecosystem services which will support the UK's climate change adaptation plan.

References and links

Throughout this biennial ecology report, we have referred to our partners, projects, awards, initiatives and like-minded organisations.

Partners and stakeholders:

http://bumblebeeconservation.org/about-us/

https://www.gov.uk/government/organisations/department-for-environment-food-rural-affairs

https://www.gov.uk/government/organisations/environment-agency

http://www.forestry.gov.uk/fr/infd-5txhaj

http://www.freshwaterhabitats.org.uk/

http://www.nbn.org.uk/

https://www.gov.uk/government/organisations/natural-england

http://ptes.org/

http://www.rspb.org.uk/

http://www.bats.org.uk/pages/about_us.html

http://www.wildlifetrusts.org/

http://www.woodlandtrust.org.uk/

http://www.biodiversitywales.org.uk/

http://livingroofs.org/

Projects:

http://www.freshwaterhabitats.org.uk/projects/million-ponds/

http://www.rsne.org.uk/

http://designatedsites.naturalengland.org.uk/#citation

http://www.swift-conservation.org/

http://www.rhubarbfarm.co.uk/Ex_offenders.php

Articles, reports and papers:

http://www.nbn.org.uk/News/Latest-news/Ministry-of-Justice-and-its-Biodiverse-Estate.aspx

http://www.suffolkbiodiversity.org/content/suffolkbiodiversity.org/PDFs/Newsletters/SBP%20update%20spring%202014.pdf

http://jncc.defra.gov.uk/PDF/UKBAP_BiodiversityNews-56.pdf

http://www.theguardian.com/society/gallery/2008/sep/21/biodiverse.prisons

http://www.swift-conservation.org/news.htm

http://www.cbd.int/countries/targets/?country=gb

Glossary

Acronyms/abbreviations	Description
ВАР	Biodiversity Action Plan
ВВСТ	Bumblebee Conservation Trust
Biodiversity 2020	A strategy for England's wildlife and ecosystem services.
Biosecurity	Preventive measures designed to reduce the risk of transmission of infectious diseases in crops and livestock, including invasive alien species
В (ТВ)	Bovine (Tuberculosis)
BOCN	Barn Owl Conservation Network
Defra	Department of Environment Food and Rural Affairs
EA	Environment Agency
Fera	Food Environment Research Agency
GCN	Great Crested Newt
НМСТЅ	Her Majesty's Courts and Tribunals Service
HMPPS	Her Majesty's Prison and Probation Service (including Young Offenders)

Glossary

Acronyms / Abbreviations	Description
LBAP	Local Biodiversity Action Plan
MoU	Memorandum of Understanding
NBN	National Biodiversity Network
NEETs	A young person who is Not in Education Employment or Training
NERC Act 2006 s40	Natural Environment and Rural Communities Act of Parliament, Section 40 being the Biodiversity Duty
NNR	National Nature Reserve
NRW	Natural Resources Wales
Panicles	The basic forms of grass seed-heads are spike, raceme, and panicle but they may grade from one form to another and may have specialised forms
Phase 1 Habitat Survey	A Phase 1 habitat classification and associated field survey technique provides are latively rapid system to record habitats
PTES	People's Trust for Endangered Species

Glossary

Acronyms / Abbreviations	Description
RAMSAR	Sites that are wetlands of international importance designated under the Ramsar Convention
RSPB	Royal Society for the Protection of Birds
SAC	Special Area of Conservation
SAP	Species Action Plan
SMA	Site Management Agreement
SPA	Special Protection Area
SSSI	Site of Special Scientific Interest
SNCI/SINC	Site of Nature Conservation Importance
sos	Save our Squirrels
TNA	The National Archives

With thanks and credit

We would like to thank and credit those organisations, partners, stakeholders and colleagues who have given their time to make this report possible.

MoJ Estates Directorate Performance and Account Unit Sustainability Team 13th Floor, 102 Petty France London, SW1H 9AJ

sdenquiries@justice.gov.uk