



Epsom & Ewell

Biodiversity Action Plan



Progress report for 2020 & Review of the
2010 – 2020 Biodiversity Action Plan

Introduction

During 2020 as the world struggled to cope with the Covid-19 pandemic, there was also no escaping the looming global emergencies of climate change and loss of biodiversity. Around the world, there is growing realisation that tackling these emergencies is an individual responsibility on all of us. Across the UK local government has responded, some declaring climate emergencies and many agreeing plans that seek to reduce carbon emissions and protect and enhance biodiversity. In Epsom & Ewell, a Climate Change Action Plan has been agreed and we have had a Local Biodiversity Action Plan (LBAP) for many years, which in 2020 was renewed and updated. Despite a very challenging year due to the pandemic, there are some significant successes to report on and a chance to look back over the last decade and take stock of the progress made in protecting and enhancing the Borough's biodiversity.

The importance of Biodiversity:

Biodiversity encompasses the whole variety of life on Earth. It includes all species of plants and animals, their genetic variation, and the complex ecosystems of which they are part. It is not restricted to rare or threatened species but includes the whole of the natural world from the commonplace to the critically endangered.

The intricate network of ecosystems, habitats and species comprising biodiversity provides the support systems that sustain human existence. It provides many of the essentials of life, our oxygen, water, food, clothing, health and relaxation. Consequently, humanity must adopt sustainable ways of living that ensure the protection of biodiversity.

Today we live in a world where the economic activities of an ever increasing human population threaten biodiversity which is being lost at an ever increasing rate. Britain alone is known to have lost 100 species during the twentieth century and today over 40% of priority habitats and 30% of priority species are declining nationally.

There is a broad consensus around the world that we need to act now, or risk handing our children a world we would not recognise as planet Earth!

Progress during 2020

During 2020 the pandemic inevitably had a significant impact on work to conserve and enhance the Borough's biodiversity. Less than half of the planned volunteer tasks took place, grazing could not take place on Epsom Common Local Nature Reserve due to increased visitor pressure with more people and dogs opening up new paths and entering sensitive habitats. Highlighting the crucial importance of maintaining good quality paths to protect biodiversity.



A cut out cow was placed in each grazing area to inform visitors that the cattle would be back in 2021!

Despite all the disruption experienced during 2020 there are still some biodiversity successes to report. Most importantly in October 2020 the Council agreed a new biodiversity action plan 2020 - 2030 to follow on from the 2010 – 2020 plan. The new plan, which is also identified as part of the Borough's Climate Change Action Plan, aims to build on the

progress made to date and has five key objectives. The plan can be viewed using the link below.

<https://www.epsom-ewell.gov.uk/sites/default/files/documents/residents/planning/Epsom%20and%20Ewell%20Biodiversity%20Action%20Plan%202020-30%20final.pdf>

To celebrate the new plan and raise awareness, the Borough's Insight magazine, Issue 79, featured biodiversity on its front cover with an extensive article.



In June 2020, a local naturalist discovered the nationally rare Black Hairstreak butterfly on Great Pasture in Epsom Common Local Nature Reserve (LNR). Whilst it is thought that someone has most likely introduced the butterfly, the habitat is very suitable and an egg search in December 2020 suggests a colony may have established. There are five species of hairstreak butterfly in the UK and the discovery of the Black Hairstreak means that Epsom Common LNR is currently the only known site in the South East of England to have all five species present (Black, Brown, Green, Purple, and White Letter). The discovery indicates the success over recent decades in creating and maintaining a mosaic of habitats across the common.



Black Hairstreak butterfly in Great Pasture on Epsom Common LNR June 2020



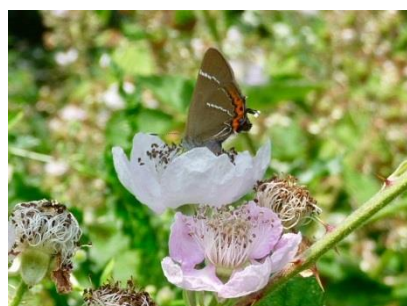
Brown Hairstreak



Green Hairstreak



Purple Hairstreak



White Letter Hairstreak

Meeting and liaising with our partners was, on the whole, able to take place, thanks to the wonders of modern technology. Enabling project planning to continue for schemes such as the proposed wetland at Chamber Mead in the Hogsmill Local Nature Reserve and also task planning for several tasks carried out by the Lower Mole Partnership. Despite our volunteer activities being severely affected by the lockdowns, tasks did still take place when permitted. The annual joint tasks on Epsom and Ashted Commons took place in January 2020, coppicing an area along the border between the two sites.



Volunteers from Ashted Common, Lower Mole Partnership and EEBC Countryside Team
at the January 2020 Epsom & Ashted Commons Joint Task

Below is a selection of photographs showing some of the work carried out by our conservation volunteers during 2020.



EEBC Countryside Team volunteers February 2020 scalloping a hedgerow in Lawn Barn Meadow on Horton Country Park LNR, to encourage the Brown Hairstreak butterfly.



EEBC Countryside Team volunteers February 2020 a very wet task clearing rubbish in the recently created Stones Road Nature Reserve.



EEBC Countryside Team volunteers February 2020 managing scrub in the recently created Stones Road Nature Reserve



EEBC Countryside Team volunteers February 2020 at the start of a vital tools maintenance task held in the Lower Mole Partnership workshop.



EEBC Countryside Team volunteers February 2020 pruning an apple tree in Lambert's Orchard on Horton Country Park LNR



EEBC Countryside Team volunteers March 2020 managing scrub near Wells Glade on Epsom Common LNR



EEBC Countryside Team volunteers return after lockdown August 2020 pulling Himalayan Balsam on the banks of the Hogsmill River



EEBC Countryside Team volunteers August 2020 managing species rich grassland at Churchside on Epsom Common



EEBC Countryside Team volunteers September 2020 managing chalk grassland at Juniper Hill on Epsom Downs



EEBC Countryside Team volunteers September 2020 managing heathland at Castle Heath on Epsom Common LNR



EEBC Countryside Team volunteer David Dixon October 2020 receiving his brush cutter training certificate



EEBC Countryside Officer Lindsay Coomber October 2020 demonstrating a new socially distanced technique for post bashing!



EEBC Countryside Team volunteers October 2020 repairing erosion caused by dogs on the banks of the Green Man Stream in Pond Wood on Horton Country Park LNR



EEBC Countryside Team volunteers October 2020 completed repair of erosion caused by dogs on the banks of the Green Man Stream in Pond Wood on Horton Country Park LNR



EEBC Countryside Team volunteers October 2020 taking down Tenax fencing at Sherwood Grove in Horton Country Park LNR, used to protect regrowth, from deer after coppicing



EEBC Countryside Team volunteers December 2020 last task of the year, a joint task with the Lower Mole Partnership coppicing in Butcher's Grove on Horton Country Park LNR

Review of the 2010–2020 Epsom & Ewell Biodiversity Action Plan

For ten years from 2010 to 2020 our first biodiversity action plan has helped guide work to protect and enhance the Borough's biodiversity. The plan had no set budget and consequently was restricted to a coordinating/prioritising role, with the plan acting as an essential guide. In addition to the key achievements listed in brief below, a more detailed review of the plans seven objectives is also given.

Key Achievements 2010 - 2020

- A working group to steer the plan was formed with countywide membership and Chris Packham provided a foreword! See appendix 1&2
- The Borough's sites of nature conservation importance (SNCI) were reviewed in 2013, with Epsom & Ewell having the highest proportion of SNCI in Surrey in active management.
- The EEBC Planning Team were provided with biodiversity guidance. A post was created within the Countryside Team to provide ecological advice, ensuring protected species are not harmed and where possible biodiversity is enhanced by development. For example, the creation of the Priest Hill Nature Reserve in Ewell.
- The Council and other land managers continued to use and renew management plans for the Borough's nature reserves and larger open spaces, bringing significant habitat and public access improvements.
- The plan helped highlight and prioritise successful work to improve key habitats, for example, chalk grassland and associated species such as the Small Blue butterfly and the grazed pasture woodland on Epsom Common that supports the Silver Washed Fritillary butterfly.
- Biological monitoring and record keeping were improved helping inform management plans and assisting with planning applications.
- Supporting and encouraging volunteering made a vitally important contribution to protecting and enhancing the Borough's biodiversity.
- Involvement in partnerships and the use of management plans resulted in successfully capturing the funds needed to make improvements.

Objective 1: *Develop partnerships to ensure that the conservation and enhancement of biodiversity in Epsom and Ewell is maintained in the long term.*

Throughout the period of the last plan, the Council has continued to participate in partnerships that have and continue to deliver significant improvements on the ground that either help, protect or enhance biodiversity. For example, collaborating with Surrey County Council has allowed for the creation of over 5 km of new and restored hard surfaced paths, including two new footbridges in the Hogsmill Local Nature Reserve. Improving access allows the public to appreciate the reserve whilst minimising disturbance to plant and animal life.

EEBC also plays an active role in wider partnerships, for example, the Surrey **Nature** Partnership (SNP) Biodiversity Working Group and the Hogsmill Catchment Partnership. The SNP Working Group assists the SNP board with identifying biodiversity priorities and promoting better coordination of biodiversity initiatives across the County. Priorities include, formal adoption and revision of Biodiversity Opportunity Areas (BOA's), supporting volunteer recording efforts across the County and influencing local decision making on matters such as tree planting and new national requirements such as 'Biodiversity Net Gain' within the planning system. The Hogsmill Catchment Partnership has seen significant improvements take place within the Hogsmill River channel with removal of weirs and naturalisation of the river channel.



Pond Wood in Horton Country Park Local Nature Reserve, designated 'Ancient Woodland', SNCI and part of a Surrey Woodland BOA

EEBC continues to strongly support local volunteer groups actively involved in conserving and enhancing biodiversity within the Borough. For example, the Epsom Common Association, Nonsuch Voles, the Lower Mole Partnership (LMP) and the EEBC Countryside Team Volunteers. Using the Heritage Lottery valuation of unskilled volunteer work at £55 per day per volunteer the EEBC Countryside Volunteers alone, have over the period of the last plan, contributed well over a quarter of million pounds in value.



Volunteers from Ashted Common, Lower Mole Partnership and EEBC Countryside Team at the January 2019 Epsom & Ashted Commons Joint Task



Lower Mole Partnership volunteers improving a section of the Round the Borough Hike & Bike route in Horton Country Park LNR.



A Friend of Rosebery Park coppicing a willow in the wildlife area



Countryside Team Volunteers managing scrub in the old Stones Road Allotment site

Objective 2: *Ensure the conservation and enhancement of habitats and species, as specified nationally and in the Surrey Habitat Action Plans*

During the lifetime of the 2010-20 plan, a great deal of successful work to protect and enhance both habitats and individual species of plant and animal took place. In addition, some large scale changes to land use in the Borough took place with biodiversity as the key beneficiary.

For example, during 2013 the Woodland Trust purchased a very large area of land at Langley Vale Farm to create a First World War memorial woodland. This is a major initiative for the Trust who now have a WW1 memorial wood in England, Scotland, Wales and Northern Ireland. The farm is partly in the Boroughs/Districts of Epsom & Ewell, Mole Valley and Reigate & Banstead. The initiative will protect the biodiversity of this land in perpetuity.



View across Langley Vale Farm

In 2014 the new Surrey Wildlife Trust (SWT) Nature Reserve and SNCI at Priest Hill was opened, representing a huge gain for biodiversity in the Borough. The reserve was set up following negotiations between the Developer, EEBC and SWT and allowed for a small number of houses to be built on 'Green Belt' whilst protecting the vast majority of the land in perpetuity through the creation of the nature reserve, which SWT have agreed to take on and manage. Priest Hill Nature Reserve is an example of what could be achieved by a 'biodiversity net gain' approach, which is set to be introduced nationwide in to the planning system via new Local Plans.



Opening of Priest Hill Nature Reserve Summer 2014

In 2015 Horton Country Park Local Nature Reserve received a very significant habitat enhancement. To assist the developers of the adjacent former West Park Hospital the Council were agreeable to the creation of two off-line balancing ponds to manage excess surface water run-off from the former hospital site that has been redeveloped for housing and is now called Noble Park. In return, the developers agreed to the creation of a new wetland using the Greenman Stream that flows through the Country Park from its source on Epsom and Ashted Commons. Both the balancing ponds and the wetland have delivered a significant habitat enhancement and will be closely monitored and managed to maximise their benefit.



Emperor dragonfly laying eggs in the new wetland summer 2016



New wetland in Horton Country Park LNR just after construction January 2016 and September 2018

As well as the new ponds in Horton Country Park LNR and also in Priest Hill Nature Reserve, several ponds were successfully restored. Field Pond and Lambert's Pond in Horton Country Park LNR were restored by the Lower Mole Partnership, using funds provided by the Lower Mole Trust and Friends of Horton Country Park. In 2018 Rosebery Park pond was de-silted and the banks restored using coir rolls seeded with native plants to encourage wildlife. During summer 2019 the pond was abuzz with dragonflies for the first time in many years!



Field Pond in Horton Country Park LNR shortly after de-silting in September 2017 and again in June 2019



Coir rolls being installed January 2019 and the pond edge

Managing public access plays a very important role in protecting fragile habitats, in our nature reserves. The last ten years has seen extensive restoration of paths and bridleways across the Borough's nature reserves with the majority of funds secured from external sources. Our volunteers also help manage a network of signs and benches that help keep visitors away from fragile habitats.



Lower Mole Partnership volunteers improving the entrance in to Horton Country Park LNR from Noble Park



Path restoration in Horton Country Park LNR following a successful bid for CIL funds by the Friends of Horton Country Park



Lower Mole Partnership volunteers installed a new memorial bench on Epsom Common LNR



EEBC Countryside Team Volunteers carrying out woodland edge management alongside a main path on Epsom Common LNR

From grazing on Epsom Common to restoring chalk grassland on Epsom Downs, managing our grassland habitats has been a top priority, with volunteers both two and four legged playing a vital role. Our grassland

habitats are vital for many plants and animals and would quickly decline if not actively managed. There is a broad range of grassland habitats from the hay meadows of Horton Country Park to the chalk grassland of Epsom Downs and each requires a different management technique. On Epsom Common, summer grazing by cattle maintains areas of pasture woodland. Whilst on Horton Country Park, a combination of modern machinery and our volunteers helps maintain traditional hay meadows and areas of rotationally cropped rough grassland that are a haven for invertebrates and small mammals. Volunteer cutting and clearing tasks on Epsom Downs help restore and maintain areas of chalk grassland, an internationally scarce habitat. Our volunteers also help maintain areas of species rich grassland on our nature reserves that large machinery would either damage or have difficulty accessing.



Epsom Common LNR cattle grazing in Great Pasture



Horton Country Park LNR wild flowers in Great Ridings. Hay meadows have declined by 79% since the 1930's



Horton Country Park LNR hay making in Little Westcotts



Juniper Hill, Epsom Downs, Round
Headed Rampion



Juniper Hill, Epsom Downs Countryside team volunteers
cutting and clearing chalk grassland



Horton Country Park LNR, using funds from the
Environmental Stewardship scheme an EEBC
tractor using hired flail collector cuts and clears
Slip Meadow.



Hogsmill LNR, EEBC Countryside team volunteers
cutting and clearing rough grassland

Grazing on Epsom Common continues to be the Borough's flagship habitat and wildlife restoration project with cattle on site from early May to early-September. Volunteers once again played a vital role carrying out daily checking and helping maintain the grazing areas to ensure the continued success of the project. The nature conservation benefits of grazing continue to surprise and delight all those involved. Of particular note are the significant increases in butterfly populations and flowering plant species and strong indications that current management is benefiting the reptile population, in particular Adders.



The Marbled White and Silver Washed Fritillary, two butterflies that have benefited from the re-introduction of grazing on Epsom Common LNR

Our woodland and veteran trees are a critical part of the Borough's 'Green Infrastructure' and maximising their biodiversity is essential. Our Environmental Stewardship Higher Level Scheme 2010 – 2020 enabled us to continue managing woodland and veteran trees in the Borough's highest priority woodlands found in Horton Country Park LNR and Epsom Common LNR. In 2015 veteran trees were identified as 'Heritage Assets' by EEBC and must therefore be considered in future development proposals where their health could be affected. A project is underway to map the Borough's veteran trees.



Epsom Common LNR veteran tree survey work



Veteran Oak discovered in Mounthill Gardens, Epsom



Butcher's Grove in Horton Country Park LNR, Primroses are returning as a result of coppicing!



Godbold Copse in Horton Country Park LNR
EEBC Countryside Team volunteers
dismantling deer fencing



Pepys Way in Epsom Common LNR, a contractor
creating woodland edge habitat



Hollymoor Grove in Horton Country Park Local
Nature Reserve, contractor carrying out
thinning of a 1980's plantation



Merrist Wood College on Local Nature Reserve,
trainee arboriculturalists removing non-native
Turkey Oaks

Since the 1960's more than 90% of orchards have been lost in England. Horton Country Park LNR has two orchards that were formerly part of the grounds of Long Grove Hospital. The orchards are home to some unusual varieties of apple and pear and also to the nationally rare Orchard Tooth Crust Fungus. EEBC, The Orchard Project and the Friends of Horton Country Park have worked with our volunteers to restore both Lambert's and Long Grove Orchards managing the trees, planting new fruit trees and also holding events with an Apple Day and a Bio-Blitz in 2017.



Lambert's Orchard in Horton Country Park LNR visitors to the 2017 BioBlitz listening to a local moth expert



Horton Country Park LNR in Long Grove Orchard EEBC Countryside team volunteer's clearing encroaching scrub



Lambert's Orchard Horton Country Park LNR Countryside Team volunteers applying a feeding mulch to fruit trees



Lambert's Orchard Horton Country Park LNR a Kestrel in a pear tree!

As well as work to protect and enhance overall habitats, there has also been a focus on some individual species of both animal and plant. For example, on Epsom Common extensive volunteer work to preserve heather growing in a few remaining areas of remnant heath from the days before the second world war when much of Epsom Common was heather dominated lowland heath.



Castle Heath on Epsom Common LNR Countryside
Team staff and volunteers managing the heather

The last ten years has seen a significant effort along the North Downs to encourage the declining Small Blue butterfly. The food plant for the larval stage of the butterfly is Kidney Vetch, which thrives on the poor chalk soils found in the east of the Borough and on Epsom Downs. To encourage the butterfly in the Borough, areas in Howell Hill and Priest Hill Nature Reserves, Epsom Downs Golf Course and Epsom Downs have had scrapes created, where small areas have had top soil removed to reveal the chalky substrate preferred by Kidney Vetch. The result has been a great success with increased sightings of the butterfly.



Howell Hill Nature Reserve, Small Blue Butterfly laying an egg
on Kidney Vetch

Along with the Council's commitment to helping ensure that bats, one of our protected species, are protected from injury by new development, thanks to parks' friends groups, bat boxes have also been placed in Shadbolt Park and Rosebery Park. The EEBC Countryside Team monitor the boxes for signs of activity.



Bat boxes being installed at Shadbolt Park April 2019

Objective 3: *Ensure opportunities for the conservation and enhancement of the whole biodiversity resource in Epsom and Ewell are identified considered and acted upon*

The focus for objective three has been improving biodiversity advice to the EEBC Planning Team, highlighting the need to maintain our sites of nature conservation importance, emphasising the importance of site management plans and involvement in wider partnerships.

There is little doubt that over time the role of planning future development both within and outside the Borough will have the greatest impact on our biodiversity. The 2010-20 plan succeeded in providing the EEBC Planning Team with a biodiversity guide, to ensure that impacts on biodiversity and opportunities for enhancement are assessed correctly during planning applications. In addition, to assist the Planning Team further, the ecological expertise of the Countryside Team was utilised with the expansion of the existing part-time ecologist's role, giving expert ecological advice to the Planning Team as a formal consultee.



Pyramidal Orchids at the Downs Road Reservoir SNCI owned by Thames Water
with Queens Stand in the background

Throughout the period of the last plan, Epsom & Ewell had the highest proportion of Sites of Nature Conservation Importance (SNCI) in active management in Surrey. The government's 'Single Data Set' uses the measure of SNCI in active conservation management to help monitor the current condition of the nation's biodiversity. The Borough currently has 13 SNCI with 10 currently under active conservation management giving Epsom & Ewell the highest score in Surrey, 77% (Average 44%). During 2015 the "Local Sites" committee designated two new SNCI in Epsom & Ewell. These are the small Thames Water covered reservoir site on Epsom Downs, where a site visit in summer 2014, discovered the presence of the Small Blue Butterfly, along with several species of orchid. Langley Bottom Farm, now owned by the Woodland Trust, was also designated with approximately one third of the farm located in Epsom & Ewell. The farm is of particular note for its arable plants and also includes 'Ancient' Woodland.

Site management plans play a crucial role in coordinating work across our open spaces and helping to secure funding. Implemented by our staff and volunteers, management plans ensure a consistent and planned approach to the management of biodiversity in the Boroughs open spaces. The plans for Horton Country Park LNR 2017-2117 and the Hogsmill LNR 2017-2117 join the Epsom Common plan 2016-2116 in taking a **100 year** approach, emphasising the need to take a very long-term approach to managing biodiversity.



Maintaining the enthusiasm, morale and skills of our volunteers is an essential part of implementing management plans the photograph above show the Countryside Team volunteers on their annual away day, which in May 2019 was to the Weald & Downland Museum. The photographs below show some of our monitoring volunteers on a Dragon and Damselfly identification session at Great Pond on Epsom Common. The Management Plans also identify a programme of public access improvements and the photo below shows machinery used to restore a section of path in Horton Country Park LNR during summer 2019



Involvement in wider partnerships has proved to be a very important way of ensuring as wide as possible approach to protecting and enhancing the Borough's biodiversity. For example, for almost forty years, EEBC and other partners have supported the work of the Lower Mole Partnership. Today, from our woodlands, chalk grassland, and ponds, to our paths, benches and signs, the work of their volunteers can be seen in almost every corner of the Borough's open spaces.



Lower Mole Partnership volunteers building a fence to protect Round Pond in Nonsuch Park



A bench on Epsom Common LNR constructed by Lower Mole Partnership volunteers



A landmark post on Epsom Common LNR constructed by Lower Mole Partnership volunteers



Lower Mole Partnership volunteers desilting Field Pond in Horton Country Park LNR

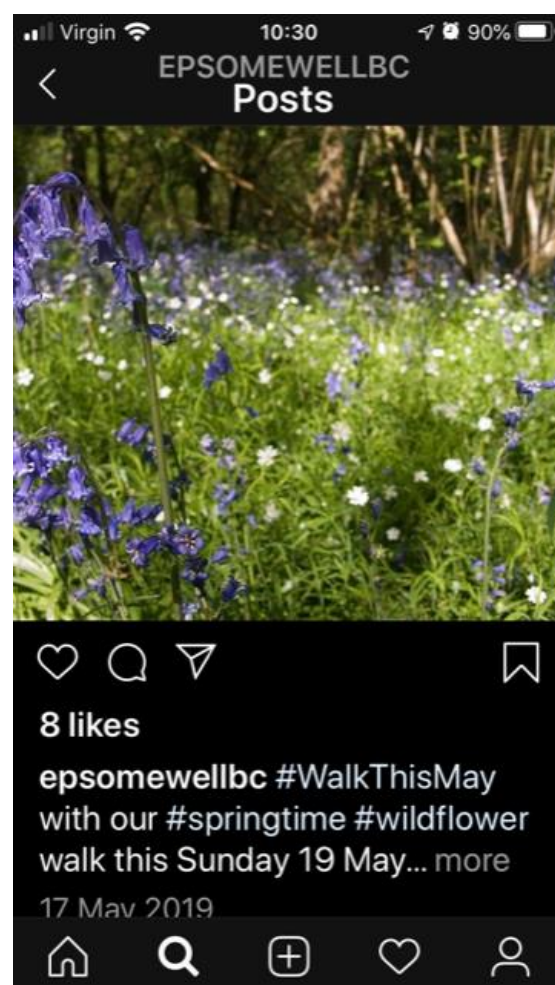
The Hogsmill Catchment Partnership is another good example of the effectiveness of the Council belonging to wider partnerships. The partnership aims to work with stakeholder's, including EEBC, to influence the management of the water environment and to coordinate projects, partnership working and funds more effectively to realise multiple benefits (for example, biodiversity, water quality, flood risk management, local amenity, enhancing health and wellbeing). In the last ten years, the Borough's biodiversity has benefited significantly, with the removal of weirs to allow fish passage and the naturalising of the river bed and banks, previously lined with concrete. Future plans include the construction of a wetland in the Hogsmill LNR.



Hogsmill LNR, South East Rivers Trust staff and volunteers installing
in channel features to improve the rivers habitats for fish

Objective 4: *Raise awareness, appreciation and involvement in the conservation and enhancement of biodiversity in Epsom and Ewell*

The focus for the plan included ensuring that opportunities were taken to publicise the importance of our local biodiversity, to celebrate achievements and encourage active involvement through volunteering. This was achieved by working with the Council's Communications Team, taking advantage of the Borough's Insight magazine with regular articles and in the later years of the plan use of social media.



E-Insight article and an Instagram post from 2019

The Council continues to raise awareness by encouraging active participation in site management. This is achieved through walks, talks, events, leaflets, the web site, regular weekly conservation tasks, through working with 'Friends Groups', local youth groups and support for the Lower Mole Partnership. Volunteering has thrived during the last ten years

with the four separate groups operating in the Boroughs open spaces (Lower Mole Partnership, Epsom Common Association, EEBC Countryside Team Volunteers and the Nonsuch Voles.



Epsom Common LNR local Scouts pulling bracken and helping the cattle manage Horton Heath



Epsom Downs, Countryside Team volunteers taking part in the 20 mile Round the Borough Bike event September 2018



Horton Country Park LNR, glorious autumn colours, Countryside Team Volunteers heading home at the end of an autumn task in Emmets's Mead.



Epsom Common LNR a view of Epsom Common Day July 2019

In addition, the Council set up a signed 20 mile “Hike & Bike” route linking the Boroughs five main open spaces, holding popular annual walking and cycling events to encourage residents to actively explore their open spaces. All helping to raise awareness of the Boroughs natural environment and the opportunities to get actively involved.

Issues were also highlighted, for example in 2014, the annual biodiversity report highlighted the need to protect the ecology of a pond in Horton Country Park LNR from constant daily disturbance by dogs. 'Field Pond', which is used for pond dipping, had become a shadow of its former self with very few aquatic species able to tolerate the constant daily disturbance. Using a small grant from a local County Councillor, the pond was fenced by the Lower Mole Partnership volunteers and a new notice was placed on the gate leading to the pond, explaining the need for dog owners to stop their pets entering the pond. During the summers of 2015, 2016, 2017, 2018 and 2019 a pond dip for a local Beaver Group has discovered an astonishing recovery with the return and much greater abundance of aquatic life. The notice is still in place after six years, which is very positive and an indication that visitors to our nature reserves are willing to help address the serious issue of long term incremental damage to habitats on nature reserves due to public access.



Horton Country Park LNR Field Pond surveying for Great Crested Newts



Horton Country Park LNR Field Pond gate, fence and notice

Success was shared and celebrated publically, with the naming by the Orchard Project of Lambert's and Long Grove Orchards in Horton Country Park LNR in their list of UK top ten orchards! A particular high point and a great tribute to the work over many years of staff and volunteers to rejuvenate these community orchards, that were formerly a part of the Long Grove Hospital estate, planted in the early 1900's

TOP 10



Heritage Orchards



1. Otley Chevin Orchard, West Yorkshire
2. Lady Gilbert, Harrow
3. Waltham Abbey, Essex
4. Royal Edinburgh Community Hospital Garden
5. Hainault Lodge, Redbridge
6. Platt Fields Park, Manchester
7. Lambert's & Longrove, Epsom & Ewell
8. Hesketh Lane Recreation Ground, Tingley, Leeds
9. Froebels, Roehampton
10. Rose Garden, Glasgow

THE ORCHARD
 **PROJECT**

Celebrating our 10th Anniversary: 2009 - 2019

Objective 5: *Provide on-going monitoring of biodiversity in Epsom and Ewell*

Monitoring our biodiversity is a crucial aspect of protecting and enhancing the Borough's ecosystems. Over the lifetime of the 2010-20 plan, the Council and its partners have developed and improved the scale and breadth of monitoring, moving from activities largely confined to our nature reserves to a broader more Borough wide role. The key to enabling increased activity has been the recruitment of volunteers and development of an ecologist's role within the EEBC Countryside Team, a role that doubles in both monitoring and providing expert advice to EEBC Planners regarding protected species.

Monitoring is vital in assessing the effectiveness of the conservation work being carried out and ensures that efforts are prioritised to where they are most effective. For example, the regular monitoring of both flora and fauna in the grazed areas on Epsom Common has clearly indicated the significant benefits of grazing and justifies its continuation. Having trained eyes regularly monitoring our nature reserves has resulted in finding new species and noting the return of some, like the nationally scarce Downy Emerald dragonfly at Great Pond on Epsom Common, that had not been seen for many years and the White Legged Damselfly, a new sighting also on Epsom Common.



Epsom Common LNR a Downy Emerald dragonfly on the edge of great Pond May 2016



Epsom Common LNR a White-Legged damselfly in Rye Meadow June 2017

Monitoring has included the following activities and outcomes:-

- Regular breeding bird surveys on both Epsom Common and Horton Country Park, with additional volunteer observations from other locations. Species numbers have remained stable between 2010 and 2020.

- Butterfly transects walked once per week over the summer period on Epsom Common LNR, Horton Country Park LNR, Hogsmill LNR, Nonsuch Park and Epsom Downs. An overall increase in species has been recorded on Epsom Common with all records sent to the UK database.

- Surveying of ponds for Great Crested Newts (GCN) (a protected species) discovered that Blakes Pond on Epsom Common has a significant GCN population, Field Pond in Horton Country Park an increasing population and GCN discovered in Round Pond in Nonsuch Park.

- Reptile surveying, cooperating with the Surrey Amphibian and Reptile Group.

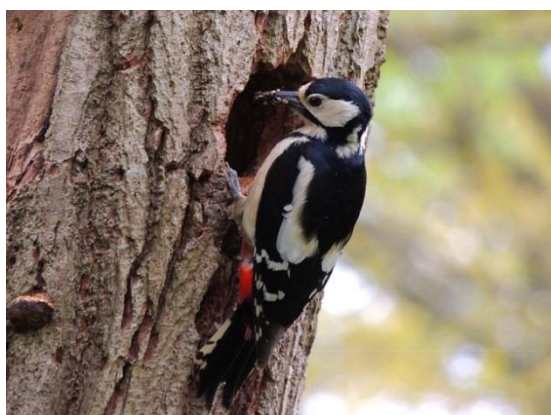
- Small mammal surveying with Surrey Wildlife Trust.

- Regular bat presence surveys both within and outside open spaces, resulting in discovery of Borough's largest known bat roost in Ewell.

- Support for student dissertations that assist management regimes, for example, the impact of coppicing woodland on small mammals

- Annual moth surveys carried out in the Borough's nature reserves.

- A broad range of in depth surveys have been carried out to inform future conservation activity. Surveys have indicated the location of species rich grassland, the presence of internationally important insects in veteran trees and other extremely rare insects on Epsom Common.



A Great Spotted Woodpecker in Rye Meadow Epsom Common LNR



A Chiffchaff singing in Great Pasture Epsom Common LNR

Monitoring has sadly also not always provided good news, the puzzling absence of Yellowhammers continued, despite the suitable habitat and their recent presence in Great Pasture on Epsom Common. We can only assume that Epsom Common is subject to the reported national decline of this migratory bird, perhaps for reasons outside of the UK.



Horton Country Park LNR, Figure of eight moth (*Diloba caeruleocephala*) autumn 2019



Horton Country Park LNR, Figure of eight moth (*Diloba caeruleocephala*) autumn 2019



Checking a reptile refuge on Epsom Common LNR



Adder on Epsom Common LNR



A very difficult to photograph White-Letter Hairstreak butterfly resting in the canopy of a large English Elm in the Hogsmill LNR summer 2016



Tiny (size of a pin head) Brown Hairstreak butterfly egg laid on young Blackthorn Stem in Horton Country Park LNR

A good example of the important results that monitoring can achieve is given by the a baseline survey commissioned by EEBC in 2019 looking at the invertebrate population within the grazed areas on Epsom common. The survey included several control locations outside of the grazed areas for comparison. The results were impressive with a total of 673 species of invertebrate recorded. Of these, twenty-nine species have a conservation designation. A notable discovery were two species of invertebrate associated with the very old crab apple trees in Rye Meadow these were, the first records of the arboreal spider *Episinus maculipes* and the Schedule 41 Lace-bug *Physatocheila smreczynskii* (which was selected as a key indicator of ancient orchards) and for which this is the only known site in the county!

There are almost certainly more exciting discoveries to be made that can add to the Borough's current list of 113 species of principle importance



The Dormouse found on Epsom Common LNR
February 2012



Volunteers positioning Dormouse boxes on
Epsom Common LNR winter 2013/14



Countryside Officer Pete Howarth surveying
Stones Road SSSI for Great Crested Newts spring



Photo taken at Blakes Pond on Epsom common LNR
shows the difference in size between the Smooth
Newt and the Great Crested Newt



Epsom Common LNR a Harp Trap being used for the woodland bat survey



Epsom Common LNR a captured Pipistrelle bat being measured during the woodland bat survey May 2017



Epsom Common LNR a captured Brown Long Eared bat about to be released during the bat survey August 2018



Epsom Common LNR a captured Noctule bat just released during the woodland bat survey may 2017

Monitoring has also involved working with partners from outside the Borough. For example during 2014 the Zoological Society of London (ZSL) approached the Countryside Team and Lower Mole Partnership to ask for volunteer assistance with their “Riverfly” project, which monitors aquatic invertebrates to warn of poor water quality in rivers. Subsequently, a small volunteer network has been formed to help monitor water quality in the Hogsmill River and this has continues to operate successfully.

This successful partnership working is coordinated by the Hogsmill Catchment Partnership, led by the South East Rivers Trust, with results helping to inform the Environment Agency about the quality of water in the river.

The Hogsmill Needs You!

Volunteers needed for river monitoring





The Zoological Society of London is offering training in the **River Monitoring Initiative (RMI)** sampling method. The RMI is a national scheme for monitoring the health of rivers developed by the Riverfly Partnership.

In order to be trained in the RMI you must be able to sample the river for at least 6 months. Once at the river, samples take about 20 minutes and are taken a minimum of every 2 months.

In the Training you will learn;

- The background of the RMI.
- How to kick sample a river.
- How to identify river invertebrates.
- What to do with the RMI data.

You will also meet other volunteers working up and down the Hogsmill River. Everyone involved in the scheme will have a day out at London Zoo.

The training will take place at Kingston University, Knights Park Campus on

Saturday April 26th
11am to 3pm

To book a place or for more information please contact : Joe.Pecorelli@zsl.org



In 2016 the Hogsmill Catchment Partnership put out a request for volunteers to carry out an Outfall Safari. This involved surveying stretches of the river and with the help of a mobile app, mapping and recording the impact of outfalls. The aim was to greatly improve the understanding of the river system and help to target sources of pollution. Volunteers from the EEBC Countryside Team and the Lower Mole Partnership took part helping to target sources of pollution.

Please help Survey Outfalls on the Hogsmill River



As a result of misconnected plumbing, pollution can find its way into urban rivers via surface water outfalls (drains). **The Hogsmill Partnership** is looking for volunteers to help conduct the Hogsmill's first **Outfall Safari**. This involves surveying stretches of the river and, with the help of a mobile app, mapping and recording the impact of outfalls. This survey will greatly improve our understanding of the river system and help to target sources of pollution. The survey will take place during:

October 2016

Once registered you will receive a full briefing on how to take part. You can choose which stretch of the river you want to survey and conduct the survey at a time that is convenient to you as long as it is within the survey period of October 2016. Where possible the survey will be conducted from the footpath by the side of the river but, in parts, it may be necessary to walk in the river where it is safe to do so. All training and equipment will be provided by ZSL.

Briefing sessions for volunteers will take place at:

Horton Country Park, 10am on September 20th

Kingston University, 2pm on September 22nd

For more information contact Joe.Pecorelli@ZSL.org, 07974725557

Please register your interest to help at : hogsmilloutfalls.eventbrite.co.uk

Once registered more information will be sent to you about where and when the briefing sessions will take place.



Objective 6: *Seek to increase the funding available for the long term conservation, enhancement and monitoring of biodiversity in Epsom and Ewell*

Not surprisingly funding the management and enhancement of the Borough's biodiversity presents a significant challenge. Throughout the period of the plan, externally sourced funding was in place, playing a vital role in the management of biodiversity for both Epsom Common and Horton Country Park Local Nature Reserves. The key source was the 2010-2020 Environmental Stewardship Higher Level Scheme, along with the Countryside Stewardship Basic Payments Scheme.

On a smaller but nevertheless vital scale, donations from the Lower Mole Trust, the Epsom Common Association and private individuals have contributed to desilting ponds and new benches.



Tools used by the Countryside Team volunteers are paid for and maintained using externally sourced funds. Countryside Team volunteer using electric brush cutter



Lower Mole Partnership volunteers installed a new memorial bench on Epsom Common LNR spring 2019



Nonsuch Park Lower Mole Partnership volunteers building a fence to protect Round Pond from dogs July 2017



Management of the grazed areas on Epsom Common LNR paid for using externally sourced funds. End of season scrub management in Epsom Common LNR

Partnership working has been a key way of increasing the funding available to help manage the Borough's biodiversity by improvements to habitats and public access within or nature reserves. Examples include the South East Rivers Trust (SERT) working with EEBC and the Environment Agency to improve the ecology of the Hogsmill River, using grant aided funding that has delivered a programme of bank side and in-river habitat improvements since 2013. Volunteers have removed some vegetation along the banks of to let more light reach the river channel, allowing aquatic plant life to create natural berms that help scour the river bed and naturalise the river channel see photos below.



Hogsmill LNR photo taken Autumn 2016 showing natural berm that has formed following Countryside Team volunteers opening up the overgrown banks of the Hogsmill River in autumn 2015



Hogsmill LNR same location as photo opposite taken in autumn 2015 at the end of the task showing clearly what a big difference managing bankside vegetation can make!

In 2013/14, SERT secured funding for major work in the Hogsmill to remove two large weirs and remove the concrete bed and walls at the confluence where the Green Lanes Stream joins the Hogsmill River, all helping naturalise the channel.



Beginning August 2014



End November 2014

The Lower Mole Partnership volunteers have continued to manage the Stones Road SSSI using funds provided by Surrey County Council. In addition, the Lower Mole Partnership continues to manage the 'Buffer Zone' located in the disused allotment site using funds received from the developers of the Lintons Lane housing development. The buffer zone provides additional habitat for Great Crested Newts including a new pond and is also reducing misuse issues on the former allotment site. Epsom & Ewell Borough Council, has decided to retain the former allotment with the EEBC Countryside Team Volunteers now helping to manage the site as a nature reserve, with the aim of protecting habitat for the Great Crested Newts.



Lower Mole Countryside Management Partnership volunteers constructing the new Buffer Zone pond in 2013



Countryside Team Volunteers managing scrub in the old Stones Road Allotment site February 2019

Our longstanding partnership with Surrey Country Council has resulted in major public access improvements in the Hogsmill Local Nature Reserve, with several kilometres of new and restored paths including two new footbridges, all paid for by externally secured funding. The public can now enjoy riverside walks in the footsteps of the Pre-Raphaelite painters and witness the electric blue flash of kingfishers!



Hogsmill LNR new footbridge across the Bonesgate Stream January 2012



Hogsmill LNR restored path alongside Bonesgate Stream November 2011



Hogsmill LNR a Kingfisher perched on the banks of the Hogsmill River March 2020

Objective 7: *Seek to identify the wider benefits to the community of improving biodiversity*

Between 2010 and 2020 nationally and internationally there has been increasing understanding that we need to incorporate the benefits (services) provided by biodiversity and natural processes in to our economic models. The UK government published a watershed document the 'UK Ecosystem Assessment' that showed very clearly how we undervalue our natural resources and the services they provide. The result of under valuing our natural resources is ultimately an unsustainable future. Addressing this issue demands a long-term approach that recognises the delicate balance of the ecosystems that provide us with vital ecosystem services such as clean air, fresh water and fertile soils. This concept is as applicable to Epsom & Ewell as anywhere else on the planet.

It is undoubtedly a big and complex subject however; it was possible to identify local issues to illustrate the challenge being faced. For example, biodiversity in our open spaces provides a range of vital ecosystem services and in particular a cultural ecosystem service providing residents with well-recognised and significant psychological and health benefits.

Some of our open spaces in Epsom & Ewell show signs of strain due to high visitor numbers with woodland wildflowers and aquatic life in ponds under visible pressure from constant daily disturbance.



Horton Country Park LNR Pond Wood, photograph shows bluebells receding from the path edge with the much-loved carpet of bluebells now some distance from the path

An example of the actual costs that can accrue was the need to restore Great Pond Dam on Epsom Common in 2012 as illustrated in the photos below, due to erosion caused by dogs entering the pond.



Erosion damage to the dam of Great Pond on Epsom Common LNR caused by dogs. Autumn 2012 repairs cost £18500

The UK Ecosystem Assessment approach shows clearly that sustainable management of our open spaces today not only helps protect their biodiversity but also ensures that wider and in some cases very costly environmental impacts are avoided.

During 2018 the Surrey Nature Partnership (SNP) <https://surreynaturepartnership.org.uk/> to which EEBC is affiliated through the Surrey Nature Partnership Biodiversity Working Group, published a Natural Capital Investment Plan for Surrey following several years of work under the Valuing Surrey Project and its vision of a healthy, green Surrey with a prospering economy. The project focused on developing an understanding of the value of the county's natural assets, which underpin the provision of ecosystem services, 30% of which are thought to be in decline in Surrey. In 2017, the project delivered an estimate of £90 million as the value of the economic and social/wellbeing benefits of woodland across the county, with the majority of that value being for health and wellbeing.

The majority of us are guilty of taking the natural environment and the services we derive from it for granted. In Surrey, the continued resilience of our economy is dependent on a healthy, functioning landscape. More information can be found [here](#).

<https://surreynaturepartnership.files.wordpress.com/2014/09/surrey-nature-partnership-briefing-note-on-a-natural-capital-approach-for-surrey-sept-2017.pdf>

In 2018, The SNP via Surrey Wildlife Trust published [The State of Surrey's Nature](#), providing a current stock-take of the county's biodiversity. The report quantifies our most threatened wildlife but also celebrates why Surrey's biodiversity is so special. This will help clarify responsibilities to both national and international conservation, and serve to further inform our priorities at the county level. It will also be a baseline from which to measure future biodiversity trends and changes.



The Stag Beetle is the Borough's flagship animal species with the south east of England being a global stronghold. The beetle larvae rely on buried decaying wood and live for several years before emerging as a short-lived adult beetle such as the female in the photo

Conclusion:

Our 2010 to 2020 biodiversity action plan has overseen and reported on progress to manage, record, publicise and enhance the Borough's biodiversity on a significant scale. The plan has provided an overarching framework that via guidance from the Working Group, has helped prioritise the work of those involved in managing the Borough's biodiversity. The annual reports provide a detailed account of the work undertaken and what was achieved, which is summarised in this report.

Whilst there was progress on many fronts, there were also key lessons learnt, none more so than the clear need to expand and improve monitoring and recording, so that we can be sure that overall, our biodiversity is not declining and that records are available to assist in decision-making, including for planning applications. The plan and in particular the annual reporting, highlighted the crucial role played by our volunteers, without whom there would be far less positive progress to report. The plan also highlighted the importance of management plans in securing funding and the value of wider partnerships.

Looking to the future, the updated plan 2021-2031 is set to take advantage of the soon to be enacted Environment Bill. It will place a statutory duty on local authorities with a planning function, to publish biodiversity reports every five years, which summarise actions taken to enhance biodiversity and report on biodiversity gains achieved via the biodiversity net gain principle in the planning system. The future also looks set to emphasise the value of the services nature provides, the crucial role our biodiversity plays in delivering those services and our need to adopt sustainable lives, which do not cause extinctions or change climates.

Finally, as always, **A BIG THANK YOU from the Working Group to all the volunteers who have helped conserve and enhance biodiversity in the Borough from 2010 - 2020 in all weathers!**

If you have any questions or you would like to find out more about the implementation of the Epsom & Ewell Local Biodiversity Action Plan please call 01372 732000 and ask to speak to the Countryside Team or email countryside@epsom-Ewell.gov.uk

Appendix 1 - To help guide and implement the Boroughs biodiversity action plan a working group was formed in 2010. The 'Working Group' comprised the following individuals:

Mark Berry: Head of Place Development, Epsom & Ewell Borough Council

Stewart Cocker: Countryside Manager, Epsom & Ewell Borough Council

Sarah Clift: Senior Countryside Officer, Epsom & Ewell Borough Council

Peter Howarth: Countryside Officer (Ecologist) Epsom & Ewell Borough Council

Jeremy Young: Tree Officer, Epsom & Ewell Borough Council

John Edwards: County Ecologist, Surrey County Council

Alastair Kirk: Surrey Biological Record Centre Manager

Helen Cocker: Countryside Partnerships Manager

Kevin Morgan: Locally based ecologist and environmental consultant

This report summarises progress made over ten years under the plans seven objectives. **Please note activities reported on can contribute to and be relevant to more than one objective.**

Appendix 2 – Foreword written by Chris Packham

TV presenter and naturalist **Chris Packham** is a nationally recognised wildlife expert, presenter, photographer and author with a passionate concern for conservation and the environment. In 2012 Chris agreed to write the foreword for the Epsom & Ewell Local Biodiversity Action Plan and it remains as relevant today as it was in 2012.



When you are a kid size matters and thus the magnificent male Stag Beetles emergence was an eagerly anticipated annual event. A nearby street had some monstrous oaks and a diversion from the normal route to school would pay dividends and fill my jam jars. To be fair these creatures have lost none of their allure over the years but now it's not just their size that matters, it's their importance as a flagship species - they along with the Oaks which nourish their peculiar larvae. So I'm not surprised that you have chosen them as your local heroes to champion the Biodiversity Action Plan - and you have impressive numbers of these giants too!

In simple terms any communities' biodiversity is a measure of its health and stability. The more niches that are filled the better the natural machine will function and prosper. Thus nationally, regionally and locally we have constructed plans which aim to protect and enhance the richness of life at these respective levels. All have their roles but local strategies are tremendously important because they are implicitly governed by those who live, work and influence that community - these are formulated, enacted and enjoyed by those 'on the ground'. They are about 'personal wildlife conservation'!

In these days where doom and gloom are a constant temptation, I remain optimistic about our abilities to make a difference because we have such a well-stocked armory of abilities to effectively conserve life. We have studied it, tested it, we know what we need to do. The introduction of grazing on Epsom Common has seen superb revivals in butterfly and plant diversity and even established a future for a population of the charismatic Yellowhammer. This has only been achieved by many years of tireless volunteer endeavor - an essential component of contemporary conservation.



And ultimately this success is good for us too. We uniquely have a conscience so we have to try to do what we know is right, but also we can enjoy a better quality of life as a result, the sight of a Stag Beetle whirring across the dusk sky or the charming song of the Yellowhammer with its

'little bit of bread but no cheese' can make your day. And that's the real key here; it will make your day and not mine, because the borough of Epsom and Ewell is yours. You mend it, restore it and protect it and you can revel, be proud of and enjoy it! Superb!

Chris Packham