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August 2018 found me standing on the banks of the Lambourn as it flows through Newbury, at a surprisingly green oasis tucked between housing and business estates. The site is managed by The Renewal Community Project and I was there with other BBOWT staff assessing its entry for a community wildlife conservation award. Simple berms had been constructed in-stream projecting out from the riverbank. Built with stakes and faggots and backfilled using locally sourced materials such as hazel coppice and scrub, these berms restore the river's naturally sinuous flow.

This re-meandering and narrowing of the watercourse helps speed the flow, effectively scouring sediment from the riverbed which benefits spawning fish, aquatic invertebrates and plants. Other wildlife benefits from the new habitat of wide berms, which allow space for emergent and bankside plants to grow creating areas of lush vegetation.

The river hummed with life during our visit. We were momentarily hypnotised by the rhythms and songs of birds, butterflies and damselflies scuttering from bank to bank between islands of warm sunlight and cool shadow. We were so mesmerised that when a small furry animal landed with a 'plop' from the far bank and went bobbing downstream it took a moment to register it was not the expected brown rat but rather a beautifully buoyant water vole!

The Kennet and Avon Canal and the River Kennet between Hungerford and Newbury are strongholds for water voles in West Berkshire. Activity also extends over the county boundary into Wiltshire, making this an extensive population. The population on the Lambourn has been declining recently with 2017 being the first year since recording began that no water voles were recorded on the river, so this was an exciting sighting and one the BBOWT Water Vole Project manager hopes to follow up.

For me it highlighted the benefits of this sort of habitat management for the lush vegetation it can help develop along riverbanks as much as for the in-stream benefits to fish, aquatic plants and invertebrates.

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West Berkshire Countryside Society

West Berkshire Countryside Society

The aim of the West Berkshire Countryside Society is to promote the understanding, appreciation and conservation of the West Berkshire countryside... furthering these objectives through practical conservation work and guided walks and talks from local experts. It was formed in 2012 by amalgamating the Friends of the Pang, Kennet & Lambourn Valleys; the Bucklebury Heathland Conservation Group; the Pang Valley Conservation Volunteers & the Barn Owl Group.

Upstream is our quarterly publication designed to highlight conservation matters in West Berkshire and beyond and to publicise the activities of the Society.

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Initial contact for all above and for the Barn Owl Group, Bucklebury Heathland Conservation Group and West Berks Conservation Volunteers should, unless otherwise stated, be made via enquiries@westberkscountryside.org.uk

Volunteers' Task Diary

For outdoor events please wear suitable footwear and clothing. Most practical tasks start at 10am and usually finish around 3pm, unless otherwise stated, so bring a packed lunch. However, we are more than happy to accept any time you can spare! All tools are provided. A map of each task location can be found on the website diary page by clicking on the grid reference shown for that task.

Date/Time	Venue	Details		
July 2019				
Tue 02 Jul 10.00	Sulham Water Meadows, Home Farm, Sulham	Continuing ragwort control on this SSSI, Parking at Sulham Home Farm SU643 758.		
Tue 09 Jul 10.00	Winterbourne Wood	Bracken bashing. Park in the entrance to the wood SU447 717.		
Tue 16 Jul 10.00	Holt Lodge Farm, Kintbury	Clearing bracken. Meet at Holt Lodge Farm House near Kintbury SU387 648.		
Tue 23 Jul 10.00	Ashampstead Common	Raking previously cut grass in woodland glades. Meet at car park SU586 751 RG8 8QJ.		
Tue 30 Jul 10.00	Furze Hill, Hermitage	Woodland and butterfly habitat management on this parish wildlife site. Parking at new village hall – through double gates off Pinewood Crescent SU511 739.		
August 2019				
Tue 06 Aug 10.00	The Malt House, West Woodhay	Woodland management. Please remember to bring your own lunch with you on this task, our hosts at The Malt House now supply lunch for us during our March visit but not for other occasions SU395 637.		
Tue 13 Aug 10.00	Rushall Manor Farm	Woodland management. Meet at the Black Barn off Back Lane between Stanford Dingley and Bradfield SU584 723.		
Tue 20 Aug 10.00	Grove Pit Common, Leckhampstead	Scrub clearance on this parish wildlife site. Access the common via the track which leaves the B4494 west at Cotswold Farm. SU440 777 Please leave your vehicles at the bottom of the track and walk up to the common. Vehicles carrying tools and refreshments please drive directly to the task site.		
Tue 27 Aug 10.00	Wychwood	BBQ & Tools check RG18 9TD. Parking details to be confirmed.		
September 2019				
Tue 03 Sept 10.00	Rushall Manor Farm	Woodland management. Meet at the Black Barn off Back Lane between Stanford Dingley and Bradfield SU584 723.		
Tue 10 Sept 10.00	Winterbourne Wood	Grass cut and rake clear. Park in the entrance to the wood SU447 717.		
Tue 17 Sept 10.00	Cleeve Water Meadow, Garden Cottage, Streatley	Ongoing maintenance of this important Thames side water meadow. Park in the recreation ground car park at the top of Cleeve Court Road SU593 812.		
Tue 24 Sept 10.00	Elm Farm Organic Research Centre, Kintbury	General woodland management. Parking on opposite side of the road from the main building in track leading to barns SU414 654.		



A record 28 volunteers assembled at Rushall Manor Farm to tidy up timber felled by contractors to ensure safety for users of the permissive path and the many children who visit this countryside education centre near Bradfield. We assembled larger trunks and branches into log-piles, put aside firewood for removal and burned smaller brash. We left behind a safer environment and a clearer woodland floor where existing wild flowers will flourish. Just as noteworthy were the hardy 15 who turned out for the second of two tasks to continue laying a roadside hedge at the Malthouse, West Woodhay. Conditions were atrocious – very wet and windy, with the rain blowing across open fields, but all who had said they would attend did so. By early afternoon everyone was cold and wet and it was unwise to continue, so work stopped.

We haloed veteran trees on Ashampstead Common, cutting and pulling up bramble around them so that they will prosper unhindered, our efforts also helping snowdrops and bluebells to thrive. One tree's branches were formed into a woodpile habitat and a path was widened to deter encroaching vegetation. We also cut back undergrowth from a circular path designed to allow wheelchair access. At Furze Hill, Hermitage, we followed up work by SSE's tree surgeons who had felled timber along the route of an overhead power line, enabling us to clear wood from clay-pits and ponds associated with the old brickworks, and so encouraging bird life. We also maintained hedges and fences and "bashed" bramble in the wild-flower meadow.

We made our third visit of the winter to the banks of the River Pang at Stanford Dingley, to clear trees and vegetation, resulting in an improved river walk and habitat. Bucklebury Estates, who own the land, expressed much appreciation and have asked us to return for a further three visits next winter.

Hedge-laying normally involves inserting stakes that are bound together to strengthen the hedge to make it firm against livestock. But at Sheepdrove Organic Farm near Lambourn, we laid a stake-less hedge that was far thicker than usual to encourage biodiversity and nesting, particular for Yellowhammers (on the "red" list of threatened species), and for Corn Buntings (also on the "red" list, with Sheepdrove being one of their last refuges in Berkshire) which nest in fields but use hedges. The tree line and hedge form a buffer against any spraying in neighbouring fields but the latter was turning into a tree line, so laying it gave a better barrier.

April saw us make two visits to
Winterbourne Wood to clear brash
left by contractors who had coppiced
several acres of Alder, our work

encouraging flowers to flourish. We had several fires and generated a significant amount of firewood to be taken away. Our previous efforts have resulted in primroses appearing where they had never been seen before.

Two visits were also made to Cleeve Court, Streatley with continuing maintenance of the path across the water meadow. We rebuilt protection around a coppiced stool, pruned pollarded willows and resumed attacks on nettles. Our previous efforts have resulted in much better showings of Lodden Lilies and the encouragement of Comfrey to flourish. We also cut back overhanging branches on the Thames Path boundary and burned material generated from our and others' previous work.

At Grove Pit Common, Leckhampstead

we removed trees and branches that had fallen onto the paths, partially or completely blocking access. Haloing was carried out around some trees that were heavily overgrown with Elder. A variety of metal, plastic sheeting and polystyrene was removed.

Terry Crawford



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Protected from cattle poaching, intensive agriculture or overmanagement in urban environments, river corridors, streams and even wet ditches can play an important role in connecting isolated areas of biodiversity in both town and country, making it easier for wildlife to move between sites.

Such wildlife corridors can be critical to ensuring healthy and robust populations of plants and animals, enabling species to respond to catastrophic events such as flooding or fire and maintain a healthy genetic diversity. Wide, well vegetated banks and field margins can also prevent soil and other pollutants being washed into watercourses, which contributes to the maintenance of good water quality so crucial for wildlife and people.

Its not just aquatic mammals like water voles and otters that will use these wet wildlife corridors. Well-vegetated banks and riverside margins will support an abundance of insect

life, including declining species of damselfly and dragonfly, a whole host of pollinators and hundreds of species of beetles, spiders and other beneficial invertebrates. In turn these species provide food for amphibians, birds, bats and other small mammals that shelter and hunt among the tussocky vegetation.

Ditches are known to be valuable for yellow wagtails, song thrushes, starlings and reed buntings – all listed on the Red/Amber Lists of birds of conservation concern – and they provide sheltered early spring foraging for bumblebees. If trees and hedges are also allowed to flourish along these waterways the benefits are even greater, with additional protection of soil, increased rain infiltration, and great habitat provision for declining species such as dormouse and yellowhammer.

At a time when international headlines are warning that approximately 10% of insects worldwide and one million animal and plant species are threatened with extinction as a result



of human activities, it is timely to consider what actions can be taken to safeguard those that remain. Ensuring wide, diverse and insecticide free margins connecting all our waterways is one way we can help to restore and reconnect our landscapes for people and wildlife.

Hilary Phillips, Living Landscapes Community Engagement manager, BBOWT

Food Chains in 6m²

This is all about a small pond, which my wife had always wanted. We had a surplus piece of pond liner of 4mx2m, which seemed a bit small, but we went ahead anyway. Little did we imagine the adventure we were in for.

The liner was in place last May a metre or two in front of the kitchen window. The broad-bodied chaser dragonflies appeared within days. Favourite plants were rounded up, loddon lilies, kingcups, skullcap, common valerian, great burnet and brooklime with purple loosestrife and water avens being bought in. The dazzling yellow flowers of the kingcups were soon reflecting in the water and later on we had the tall pink spires of loosestrife and purple heads of great burnet. The frogs soon arrived using the floating stems of brooklime as camouflage, 6 at first. Then one morning there was

only one. Our suspicions fell on a large grass snake living nearby.

2018 was a dry summer. We had created a giant birdbath. How the birds loved it! There was a favourite corner, partially hidden by great burnet, where bathers were safe from prying eyes: wren, robin, blue tit, blackbird and song thrush were regulars.

The insects in the pond soon built up to the point where there was constant movement of the water; this attracted our resident grey wagtail collecting food for her young but also depositing her young's faeces, an unexpected feature. Later in the year more dragonflies appeared, a remarkably tame male common darter and the rather magnificent southern hawker. All the flowers, especially the loosestrife and gypsywort, which had hitched a lift on the kingcups,



contributed to the nectar supply and fed the insects, which fed the birds, a food chain in miniature.

Autumn produced floating leaves and the end to insect life and the pond surface was now quite still, time for reflections. One of the unexpected simplest of pleasures was watching rain drops (from the dry kitchen). Is it raining? Check the pond. Large rain drops create magnificent bubbles which float away like a miniature fleet of sailing ships. And all from 6m²! I cannot recommend it too highly.

Charles Flower

Elm Zigzag Sawfly

Elm zigzag sawfly (Aproceros leucopoda) has now been confirmed in Britain following a discovery of the distinctive zigzag feeding traces in Surrey in 2017. Soon after the press release documenting the finding and the significant media interest that followed, reported sightings of the sawfly were received via Tree Alert from various parts of southeast England.

The speed of the sawfly's spread is partially due to its frenetic lifestyle. In good weather, they can complete their life cycle in under a month, completing multiple generations before sheltering in a walled cocoon over winter. As well as growing at speed, the adult sawflies have another strategy for rapid colonisation – they don't need to mate to lay fertile eggs.

In some areas of Europe, the sawfly has been reported as causing severe defoliation (74-98%) or even complete defoliation, but in other countries (such as Bulgaria) defoliation rates appear to be much lower (1-2%). There are no records of trees being killed by the sawfly, although severe defoliation may lead to some dieback of shoots and branches. Britain has a cooler climate compared with the parts of continental Europe where significant defoliation has been recorded, and it may be that the sawfly's life cycle will be slower here and populations less damaging

The zigzag feeding pattern produced by the young larvae is characteristic and simple to diagnose, especially if the larva is present. Starting from the outside of the leaf, the young larva begins to feed toward the central leaf vein, winding its way sinuously between the leaf veins. As the larvae grow, the width of their feeding traces typically increases. Eventually

the larvae moves back toward the outer edge of the leaf where it begins to feed in a more 'normal' leaf-chewing fashion without the original zigzag. This later feeding damage can be more difficult to identify, as the original zigzag pattern becomes less obvious. When fully grown, the larva leaves the feeding trace and wanders a short distance to find a secure place to pupate.

The adult sawfly is difficult to identify conclusively without taxonomic expertise and a microscope.

Generally, their appearance is that of a small, black sawfly with white legs. Adults are thought to emerge in Britain in April and the first feeding damage may be noticeable soon after this time.

Elms harbour a large diversity of herbivorous invertebrates, many of which may produce feeding damage similar to that produced by elm zigzag sawfly, particularly the more general damage produced by the mature larvae. Leaf miners, which feed between the leaf surfaces ('internal chewers'), produce a darkened feeding area, but don't eat through the leaf itself. The various leaf feeders ('external chewers') that utilise elm often remove small chunks from leaves, but they don't produce the characteristic zigzag of the sawfly larvae. It is also unlikely



that there will only be one elm zigzag sawfly feeding trace on a tree, so if in doubt take the time to look for more feeding traces to see if any display the expected pattern.

We do not know when elm zigzag sawfly first made it into the UK, but initial data suggests that it has had enough time to establish itself over a wide area, though the full extent is currently unknown. It has been observed near Farnham & the most westerly report to date is from the Reading area. We would therefore welcome reports of the species to learn if it has reached West Berkshire. These can all be submitted through 'Tree Alert' (www.treealert.forestry.gov.uk).

Peter Crow, Project Manager for Observatree (www.observatree.org.uk)



Photos by Gyorgy Csoka, Hungary Forest Research Institute, Bugwood.org

What's for dinner?

Pellets are sausage-shaped objects which contain undigested parts of the bird's diet which are ejected through the mouth. Many birds produce pellets. Pellets are quite different from droppings. They do not smell and are not unpleasant to work with. They consist of the indigestible parts of the bird's diet surrounded by fur and fibre. Pellets can be pulled apart using fingers and tweezers to separate the fur and expose the bones of the prey which the bird has eaten. Barn owls produce 2 or 3 pellets every 24 hours and each pellet will typically contain the bones from 2 -3 small mammals.

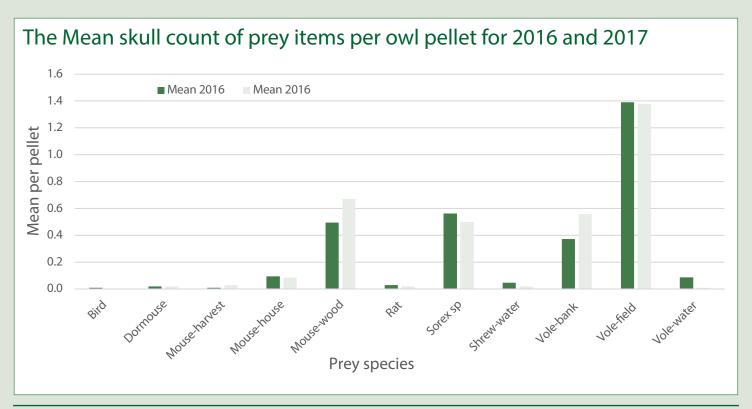
The species of mammal will depend on the habitat over which the bird has been hunting. In West Berkshire the main habitat is rough, tussocky grassland which encourages shorttailed field voles. This habitat is often found in the river valleys, field margins and some grazed grassland. Grassland is only of value for small mammals if it is allowed to grow long enough to develop a thatch for the mammals to feed, breed and have security. Pasture grazed tightly by cows, horses or particularly sheep is of little value for barn owls. Similarly, arable fields are not of value for small mammals.

It is well known that short-tailed voles are a major part of a barn owl's diet. What is not so well-known is what other prey the birds consume and how significant these other items are in their diet. To try to find answers to these questions a project was set up in 2016 between the People and Wildlife Group at Reading University and The Barn Owl Group section of West Berkshire Countryside Society. The Group has contributed the pellets which volunteers have collected when monitoring nest boxes and roost sites. The university was able to utilise the resources of about 100 students who

were keen to dissect pellets. Looking at the upper part of the skull they were then able to identify the species. The size and shape of the bones is a good start in identification but the students were able to separate out similar species such as wood mouse and house mouse by close examination of features such as the shape of the teeth. They were even able to sort out the sex of the animal by the shape of the pelvis.

The counts of skulls found in owl pellets in 2016 (105 pellets) and 2017 (106 pellets) is detailed in the following table:

Prey	Number of skulls found 2016 (105)	Number of skulls found 2017 (106)
Bird	1	0
Dormouse	2	2
Mouse-harvest	1	3
Mouse-house	10	9
Mouse-wood	52	71
Rat	3	2
Sorex sp	59	53
Shrew-water	5	2
Vole-bank	39	59
Vole-field	146	146
Vole-water	9	1
Total	327	348



The main prey species of field vole, wood mouse, shrew and bank vole were found in remarkably similar numbers over the two years. It was surprising that the wood mouse was so popular as it is mainly a woodland species. At the other end of the scale it is good to see the dormouse and harvest mouse on the menu although it would have been preferable that these species had not been eaten. Barn owls seem more expert in finding these rare species than most human surveyors! It is also surprising that barn owls are taking water voles and rats. It is usually thought that these species are too big for barn owls to take on. Maybe they were young or sickly ones.

This joint project between The Barn Owl Group and Reading University is ongoing and it is hoped that data for 2018 can be added shortly. Further ahead we are hoping to do more detailed analysis. For example, it would be interesting to find out how the barn owl's diet varies across nest boxes located in different habitats. An alternative project might be to look





at a barn owl's diet at a single site and measure how the diet changes from year to year and correlating this to the weather in the critical months of April, May and June. There are many interesting opportunities.

Would you like to dissect a barn owl pellet? If so, please send an email with your request to enquiries@ westberkscountryside.org.uk including your name and postal address. The first 10 requests received will be sent a barn owl pellet.

John Dellow

Skull Lower jawbone Ear capsule Shoulder blade Upper arm Forearm Ulna radius Peiv: Thigh Shin Ribs Vertebrae Toes Teeth

Society Publications

The Society has a number of excellent publications available for sale. Most notably, Dick Greenaway's latest book, 'What's in a Berkshire Wood? And how did it get there?' Full details can be found on WBCS website.

All publications can be obtained from rg.greenaway@btinternet.com



Dates for Your Diary

Nightjars and Glow Worms at Dusk

Wednesday 3 July 8.30pm-10.00pm

Tim Culley leads an evening walk looking at heathland restoration and some of the specialized wildlife associated with this habitat. Meet at Angel's Corner, by the Scout Hut on Bucklebury Common. Grid ref: SU 550 688.

Butterflies, Botany and Bog

Sunday 21 July 2.00pm

Join Charles Gilchrist and Grahame Hawker for a short walk around Snelsmore Common to look at the plant and butterfly life on the Common. Meet at Snelsmore Common Grid ref: SU463 710.

The Organic Research Centre, Hamstead Marshall

The Organic Research Centre (ORC) located on Elm Farm in Hamstead Marshall, is a registered charity, founded in 1980 by David Astor – editor and trustee of The Observer newspaper. After he retired in 1975, he continued to support a number of charities and causes, in 1980 establishing the Progressive Farming Trust Ltd., which is ORC's parent educational charity, The ORC has continued to pursue Astor's sustainability goals.

The ORC is now the UK's leading independent research centre for the development of organic farming and the study of ecological processes related to agricultural production systems (agroecology). ORC's research includes the development of methods of food production and land management for important environmental issues. These include climate change, soil, biodiversity conservation and food security. The term "agroecology" includes all methods of farming, whether organic or conventional. It does though have much more in common with organic farming. Organic farmers consider the effects of their farming practices on the soil, crops and livestock, the quality of the food they produce, the local community and the wider environment. The word 'organic' is a legal term. In the UK, all organic farmers, growers and processors must register with one of the organic certification bodies which inspect them at least once a year. Elm farm used to





have buffaloes and cattle, but is now a sheep farm.

The main offices are located at Elm Farm in refurbished barns and outbuildings. The refurbishment was carried out to high environmental standards including traditional materials, renewable energy and water capture and reuse. The ORC conference facility is situated within a restored 18th century barn. When the weather is wet it is used by WBCS volunteers for lunch breaks.

The WBCS started to volunteer for the ORC at Elm Farm in 2014. Tasks undertaken since then have been varied including hazel coppicing, hedge laying, maintaining footpaths, building and repairing steps and footbridges. The two regular tasks undertaken each year are hedge laying and maintaining Donkey Field. Usually about ten to twenty people attend, occasionally in very poor winter weather.

Donkey Field is a fenced area with a pond, a small stream and wild flowers in Spring. There are no donkeys. There is a wooden footbridge over the stream and a bench to rest on. A path goes through Donkey Field which is part of a 2.5-mile farm trail open to the public. It is a permissive path, not a public right of way. Records indicate that Donkey Field has never been

ploughed and has a small wildflower meadow and a grass meadow. It is maintained annually by WBCS volunteers. Invasive brambles, willow shoots and weeds are cut each year in the wild flower meadow to allow the flowers to grow freely. Not all brambles are cut as they provide food and shelter for wildlife. There are ant hill mounds in the grass meadow which are typical of old grassland and are an integral element in pasture ecology.

Another major task is hedge laying. Over a period of three years the group laid a long old hedge on the farm. Hedge laying is always done in winter outside the main bird nesting season which is from 1st March until 31st August. Hedges can be legally pruned and trees cut at any time of the year, however, wild birds and their nests and eggs have legal protection and must not be disturbed or harmed. Another hedge, which has not been laid before, has been started, a nice contrast to the previous task. Posts and binders for the hedge laying are cut on site from hazel hedges.

Volunteers are always made welcome by ORC staff some of whom sometimes don their wellies to assist. Cakes are also provided which are guaranteed to please the volunteers.

Bob Sarney



Don't forget our website! www.westberkscountryside.org.uk