BADCOG NEWS.
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Natural History at Beighton All Saints Church.

All Saints church is located centrally in its churchyard on Church Hill at the northern end of the Beighton settlement. The site is sheltered to the north by the majority of its larger trees, whilst the south aspect is more open, providing a good view of the church from Sandy Lane. The extensively wooded grounds of Cedar House, previously the Rectory, and trees in other nearby properties and farmland complement the habitat.

Following several years of preparation, and project development work, the church itself was the subject of a major repairs and improvements campaign in 2019 and 2020, centred on the sympathetic renovation of the C14th open timber roof structure, and rethatching in local Norfolk reed.

Whilst the churchyard has suffered some periods of neglect, it has been managed successfully in recent years, under advice from the Norfolk Wildlife Trust and their Churchyard Conservation Scheme. Areas around recent graves are close mown in the season, with the balance managed by the BVCG on a two cuts per year cycle.

The trees comprise four mature lime trees positioned beside the access path to the northwest of the church, several large and old yew trees of both the English and fastigiate Irish varieties, and there are also various ash, hawthorn, holly and plum trees within the boundary vegetation, particularly to the east.

Tree work has included some raising of the crown on the lime trees, and the removal of an extensive covering of ivy on one of the large yew trees, which, it is hoped, is now recovering after its ordeal. There is evidence of Chalara, ash dieback, on the ash trees, which is being monitored. Current work focuses on general management, with a mind to the recommendations of a tree hazard risk assessment undertaken as part of the recent works. Some holly may soon be removed to return light and space to another challenged yew.

The presence of bats in the church environment is clear to all, especially inside where their offerings need to be cleared before each use, and often in between. A bat survey was required as part of the preparations for the repair works, and the timing of the construction work was dictated by their breeding and roosting habits.

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Bat surveys were undertaken in June and August 2018, and 5 species were recorded:

Common pipistrelle
Soprano pipistrelle
Natterer's
Brown long eared
Serotine

A follow up survey was conducted in September 2020, which noted common and soprano pipistrelles, as well as brown long eared and noctule bats. Bat boxes have been installed on trees in the churchyard and there is also a box inside the church located high up on the nave east gable, almost obscured from view by the truss bracings. Evidence of continued internal use of the church by bats remains!

The NWT surveyed the churchyard in 2010, when a plan for conservation areas was proposed and essentially adopted. They revisited in March, May, and July of 2019, and provided a species list which showed a pleasing variety of plants, but no great rarities. There are, however, two particular challenges. The first is an invasion of Alexanders, *Smymium olusatrum* into the north west corner of the site, and steps are being taken to control this. The second, and potentially more difficult, is the presence of a large stand of Giant Hogweed, *Heracleum mantegazzianum* in the adjoining field, spreading towards the churchyard boundary. Some seedlings have been found within the site, but careful monitoring and destruction has worked thus far. Sorties into the field armed with a pair of heavy-duty marigolds and a brace of trusty glypho' pistols may have had an effect, especially near to the churchyard boundary. Results will be seen this coming spring when there will be a review of tactics.

Walks around All Saints at various times of the year can be rewarding: after marvelling at the restored C14th open timber framed thatched roof internally and externally, look out for plenty of wild flowers, bats, butterflies, bumblebees and moths and gather bullaces and blackberries. Buzzards roost in the grounds of Cedar House, and red kites have been seen nearby. Hopefully, our turtle doves will return this year. If you hear them, look up to the tower – the heads of the four apostles provide favoured perches.

Giles Mack

Nature Notes

Have we seen fewer blue tits in our gardens?

In 2020 the BTO's Garden Watch highlighted the struggle blue tits were experiencing following an unusually warm spring. The fifth warmest April in more than 100 years meant that invertebrates including butterflies and moths got off to an early start. Caterpillars, being important food for nestlings and their early development will have resulted in reduced survival of the developing small birds. The BTO will be watching to see how these smaller populations of blue tits cope during the winter of 2020 -2021.

Testing bees' spatial awareness.

It sounds like an interesting experiment set up by scientists in Australia to view bumble bees' ability to negotiate small spaces and gaps.

By constructing a tunnel between the hive and foraging area, deliberately shaped to narrow along its length, the investigators recorded the bees' method of scoping the space they had available. Flying from side to side slowed their flight when the gap was smaller or the bee larger. Sometimes turning their bodies sideways if the gap was narrower than their wingspan all the participating bees were able to fly through.

Many creatures avoid collisions by understanding their shape and size in relation to the world around them. Think of birds flying fast through thickets. Why should we be surprised that bees have this ability? The New South Wales scientists presumably enjoyed their investigations.

Strong winds

We experienced periods of strong, seemingly unseasonal winds at various times in 2020 but generally winter is our windiest season when the jet stream is typically stronger and flows over the UK bringing in Atlantic gales. Most of the maximum recorded wind speeds have occurred in winter.

Some of the strongest gusts have been 142mph over Fraserburgh, Aberdeenshire in February 1989 and 118mph at Gwennap Head in Cornwall in December 1979.

Harnessing this power. Part of the government's green strategy has proposed many more wind farms in a quest to mitigate some of the worst impacts of climate change.

Like our lichens

Lungwort lichen or *Lobaria pulmonaria* is green and shaggy and lives on trees. It was common in the UK until the 18th century but air pollution and habitat loss mean it now survives in a few places in the Lake District.

A two to three hundred year old oak tree, home to one of the largest surviving populations of the lichen, blew down in 2020 and a method of transplanting the Lungwort lichen has been tried out in the Borrowdale valley.

Conservationists and members of the local Lichen and Bryophites group hoped that by gluing, stapling or fixing it with wire mesh to dozens of new host trees Lobaria would eventually attach, become independent and reproduce. The plan was to fix patches on the southern side of the trunk for maximum light and moisture and high enough up to protect it from slugs and snails.

Climate and Diet

Researchers at Oxford University say that people will have to eat less meat to combat climate change because other green measures will not be sufficient to prevent temperatures rising.

Greenhouse emissions caused by the food system are not on track to meet the targets set by the 2015 Paris climate agreement.

Scientists at the university estimated the gases likely to be released from the agricultural industry between now and 2100 including fertiliser, the running of the farm machinery and methane from cows.

They then performed an experiment in which modelled the effect of the entire planet switching to electric cars, geo-thermally heated homes and renewable power sources.

The resulting simulation showed that these changes were not enough to reduce climate harming emissions and the planet would warm between 2051 and 2060 if no changes were made to the food system.

Wildflower meadow for Lingwood

For the past few months, Ernest and I have been advising Lingwood Parish Council on a project to create a wildflower area on Lingwood Village Green. This exciting venture will not only enhance this popular village amenity, but it will also benefit bees and butterflies. As many of us know, creating a wildflower meadow from scratch is not a simple task.

First, the whole area will need to be taken back to bare earth by spraying off any vegetation, requiring professionals who have the licence to undertake this type of work. Once the vegetation has been killed off, which will take a few weeks or so, the area will require a light till before the wildflower mix can be spread, normally by hand. A light roll is then needed to ensure the seeds are in contact with the soil. All of this takes time and even then, with a bit of luck, it will take a few more years to see the results of all this work.

In comparison, it takes one man, one hour with an earth moving machine to destroy a similar size wildflower meadow!

Tony McKie

BADCOG Work Party Dates

16th January: Howe's Meadow

30th January: Peter's Wood - Hedge/tree care & replanting

13th February: Buckenham Woods

27th February: Planting scheme - Check website/Facebook for details!

13th March: Holly Lane Pond

27th March: Walsham Fen

Work parties start at 10.30am and finish no later than 1pm.

Ponds

Many of you will be aware of the recent death of Richard Waddingham, a North Norfolk farmer. He restored around 40 ponds on his 600 acres of land sparking interest in 'Ghost Ponds' with the query, 'Can the buried seed bank of in-filled ponds be brought back to life, and by doing so resurrect a more diverse plant community, in a shorter time span, than that created by digging a new pond from scratch?'

Reading recently about him reminded me of two connections with BADCOG. Firstly that BADCOG had a similar aim with its first project - to restore a neglected pond in Blofield's Holly Lane (Right) digging out the mud and silt, allowing in light and keeping up regular management. So many ponds in the country have been lost as ecosystems for insects, aquatic plants and the birds and animals which feed on them.

Secondly the life story of Richard has close similarities with one of BADCOG's late members David Cullen.

They both attended Gresham's school where David honed his love and knowledge of birds, plants and wildlife's environment and habitats. David, with the encouragement of his teacher Dick Bagnall Oakeley, recorded many of his findings and entered a public schools essay competition for which he received an RSPB award and medal

While Richard was at the school he became a keen artist and bird watcher sometimes using his other love of cross country running to take in some bird watching at Cley before running back to school.

They both went on the study at the Royal Agricultural College in Cirencester.

We can probably imagine the interesting conversations they might have enjoyed had their years in education overlapped.

Barbara Pilch

Lingering Leaves

One of my memories from long ago in suburban London was the whiff of leaf-smoke in November. Our street had an avenue of majestic Limes shedding copious quantities of leaves which were swept into piles and set alight on the roadside, certainly to be frowned upon today but I did rather like the smell of the smoke at the time!

Our garden today doesn't have the majestic Limes but we do have a variety of mature trees which give us considerable pleasure, add much to our wildlife but also produce copious quantities of leaves each autumn. In these enlightened times bonfires are not an option so each autumn we simply collect them and let Nature do what she does best.

We do help a little by creating "pens" each year using pallets (more recycling!) and packing the pens with our leaves. The quantities seem daunting at first and we temporarily have to add a second tier of lightweight pallets but within a few months the leaves have decayed to the point where the upper tier can be removed and stored for next year's pen. The decay takes place entirely without intervention from us except an occasional soaking during very dry periods. Bacterial activity is so brisk that on frosty mornings in the winter months the pen can often be seen to be quietly steaming!

Our experience is that the leaf mould is ready to be used just two years later. The photos show the current 2020 pen being filled and alongside is the 2018 pen with a volume reduced by about two thirds now being ready for use around the garden.

I do miss the whiff of lingering smoke from the burning leaves but the benefits of our leaf pens linger a great lot longer! *Peter Mackness*

Black Poplar Trees

The mature black poplar is now a rare tree in Britain. There are thought to be only a few thousand left. In the 1980s and 90s a national survey was carried out when a total of only 80 trees were identified in Norfolk. Cuttings were taken as they strike easily and a black poplar nursery was established at Easton Agricultural College. The subsequent young trees were then planted out, mainly on wetland sites near water meadows, river banks and in one or two places in the Broads. The idea was to start a new generation before we lost the last of the old veterans.

Native black poplars are quite distinctive trees and once you get your eye in you can recognize them from a distance. They can grow to 100ft or more with larger boughs arching down in a distinctive manner. The trunk of a mature black poplar often tends to lean to one side and the bark is deeply fissured often with an abundance of rough burs and bosses, and can look dark. In early Spring, male catkins are red while female are green. Since nearly all black poplars were planted, male trees were favoured as they did not produce the copious and to some, annoying fluff of the females.

The only known female black poplar in Norfolk is on Old Buckenham common in the south of the county, and we have a cutting from this tree growing in the lower, damper part of Jary's meadow, along with a male, I think, possibly from Bradwell near Yarmouth. I also mustn't forget that about 20 years ago BADCOG planted six black poplars alongside the Lackford run between Brundall and Braydeston church.

Finally, researchers are beginning to discover more evidence of the use of black poplars in the construction of medieval and early buildings, particularly the great crucks in barns and houses, which were always assumed to be of oak or elm, but have now been identified, often of black poplar. The great arching boughs mentioned earlier, being cut or split lengthways to produce two symmetrical beams to form these crucks.

Ernest Hoyos

MAIN WORK PARTY REPORTS

Oct 31 – Howes Meadow – Area B – raked and cleared to fire site. Hay turner used after the removal of the wet heavy vegetation was cleared.
Dec 12 – Jary's Meadow – Areas of east & west meadow mown on 05 Dec raked and cleared to fire sites. E meadow S boundary bank cut using brushcutter and the meadow side of the hedge trimmed back. Encroaching bramble onto path network adjoining the Fen cut back
Dec 19 – Railway Wood – Annual maintenance carried out. Clearance of nettles to spoil heap and fallen timber to wood piles. Encroaching vegetation onto Public Footpath cut back.

ADDITIONAL WORK

Oct 28 – Walsham Fen – Areas mown A1 and part of A2 on Oct 22, raked and cleared to spoil heaps by BVCG.
Oct 30 – Limpenhoe Church – Conservation area mown raked and cleared to spoil heap
Oct 30 – Howes Meadow – Completed clearance of fallen oak and debris.
Nov 01 – Howes Meadow – Removed undamaged owl box from fallen oak.
Nov 04 – Lingwood Pond – The piled cut reed by the S boundary hedge cleared to the village allotment site.
Nov 05 – Howes Meadow – Area B – last remaining small patch of reed scythed and cleared to fire site
Nov 06/07/08/11/13/18- Howes Meadow – Cutting and clearance of fallen oak
Nov 11 – Southwood Church – Conservation areas mown raked and cleared to spoil heaps by BVCG
Nov 16 – Snowdrop Acre – Fallen timber from area around and in pond and across gate cut up and moved to wood pile.
Nov 18 – Strumpshaw Stone Pit – Area mown
Nov 20 – Strumpshaw Stone Pit – Area raked and cleared to spoil heap
Nov 20 – Snowdrop Acre – Fallen branches placed on railway fence pile.
Nov 20/23/26/28 – Howes Meadow – Cutting and clearance of fallen oak
Dec 05 – Jary's Meadow – Areas of east and west meadow mown