

Wildlife

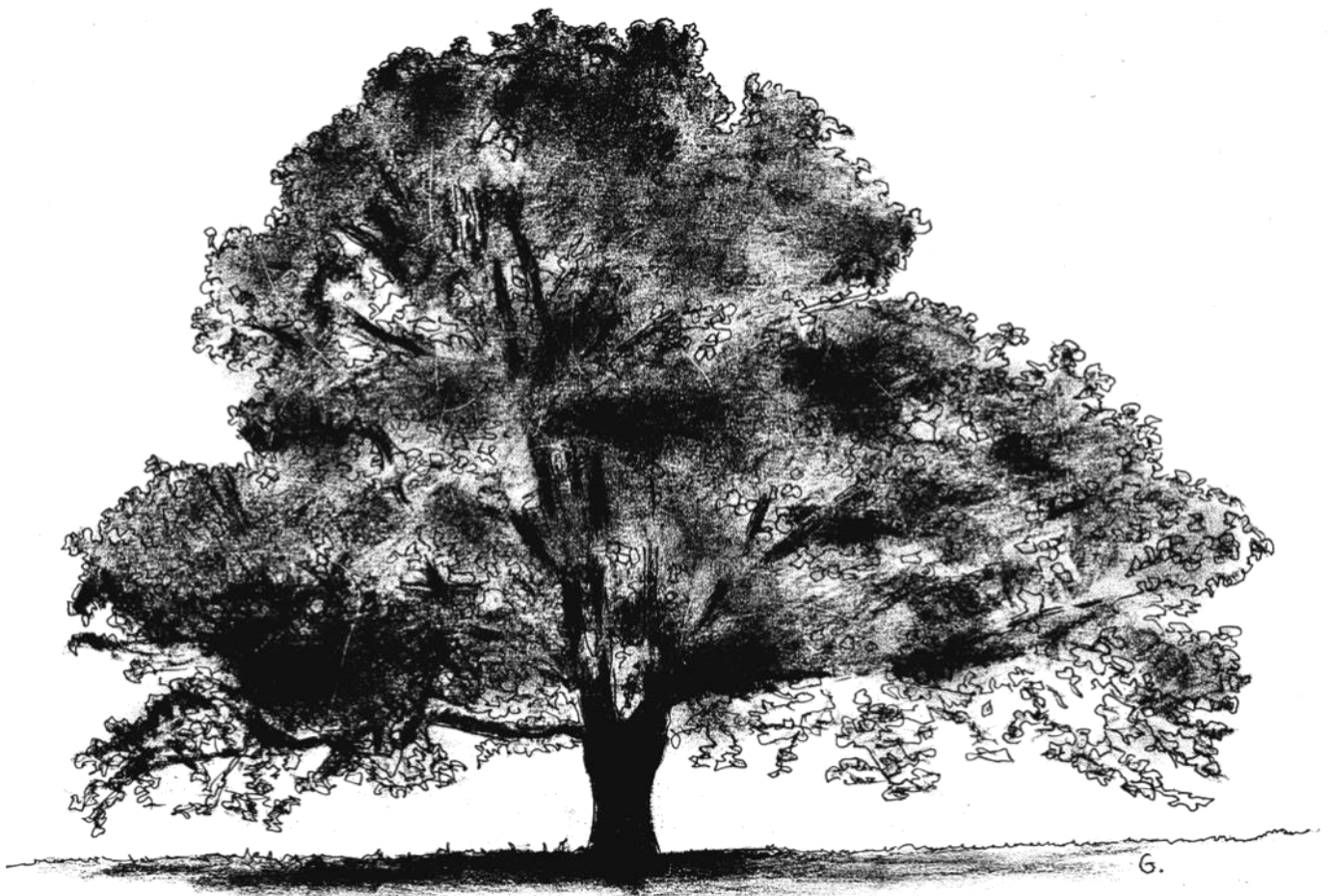


Issue No. 95

Spring 2020

Radnorshire Wildlife Trust Newsletter

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Ash Tree by Gerry Doherty

The impact of Ash Dieback and how we are tackling it.

**Also in this issue: the weird and wonderful world of galls,
a dose of realism on beavers and tree-planting,
and several Remembrances of Things Past.**

Trust News

Chris Ledbury, RWT Chairman

Changes on Council

A warm welcome to new trustees Jenny Chryss from Llanfihangel Brynpabuan and Alice Tite from Rhos-y Meirch, Knighton. Jenny and Alice replace Stephen Mullard and Hilary Rimington who stepped down as trustees in November. The Trust is hugely grateful to Stephen and Hilary for all they have contributed as trustees and we are delighted that they will continue to contribute in other ways.

Legacies

Just before Christmas we learned that, through the generosity of a Trust member who had lived in Leominster, we are to receive a new legacy. He left the Trust his house, and while we are not sure yet how much it will fetch, it will be a valuable boost to our unrestricted income. I've always argued that legacies should be the icing on the cake but with the reduction in funding from NRW and other sources, we are likely to depend on them even more in the future. Sadly, public sector spending on biodiversity in the UK has fallen by 42% as a proportion of GDP since 2008/09 and all Wildlife Trusts rely increasingly on their members for core funding. This legacy certainly removes some of our financial pressure at least temporarily but of course we are constantly faced with new challenges. The latest is ash dieback which is starting to affect some of our reserves and which may require significant funding as large trees become dangerous. More is said about the importance of legacies on page 5.

For a week in January, we made good use of the shop in Llandrindod which is available to different charities for short periods. Our net income was over £2,000 so thanks to all who donated sale items, our customers and, of course, the staff and volunteers who managed it all.

Thanks Suzie

Our wonderful People and Wildlife Officer Suzie Fraser retires at the end of March. Suzie joined the staff in 2007 and her flair and imagination will be greatly missed, not



just by us but by local schools where she introduced so many children to the joy and excitement of nature. We feel that our educational and awareness raising work is vital and we will definitely continue it. Meantime, we welcome Phil Evans as our seasonal officer at Gilfach.

The wider scene

The Wildlife Trusts Annual meeting and AGM was held near Cardiff in November so Darylle and I attended some of the sessions. There was much discussion about the need to generate a greater sense of urgency about the climate and biodiversity crisis and the need for all 46 trusts to work together more effectively. It was also a chance to celebrate our successes, learn about funding trends, hear from Extinction Rebellion and argue about the badger logo! We had a chance to meet the new Wildlife Trusts CEO, Craig Bennett who transfers from Friends of the Earth in April and who will inevitably bring new ideas about how the movement should develop. There will also be a new President, the well-known zoologist and television presenter Liz Bonnin.

The landscape and wildlife of Radnorshire is likely to change significantly over the next decade with climate change and the measures being developed to respond to it. The Welsh Government is keen to see extensive conversion of agricultural land to woodland and restoration of upland peat and it is, of course, developing proposals for supporting farmers after Brexit. The Welsh Wildlife Trusts are developing an ambitious Conservation Strategy which we hope will help to us to be a clear and bold voice for nature's recovery in Wales.



THANK YOU



A huge thank you to all the volunteers who helped raised funds for Radnorshire Wildlife Trust by helping in the Cefnlllys School Community Shop in Llandrindod Wells in January.

A fantastic **£2,238-07** was raised!

Thank you to all of you who donated items as well as the 32 volunteers who between them donated over 180 hours of their time looking after the shop. We really do appreciate it.

Wildlife Matters

Darylle Hardy, RWT Director

Reflections on tree-planting

I recently attended a seminar at Shropshire Wildlife Trust along with foresters, farmers and conservationists about woodland creation in the face of climate change. It was interesting hearing from Forestry England that 17% of a woodland's carbon is stored in the tree's trunk and branches, 5% in the litter, 6% below ground in the roots but an amazing 72% is locked up in the soils of a mature woodland.

When a woodland is clear-felled and the soils are churned up, some of this soil carbon is lost. Burning the timber also releases carbon, though preserving it in a building's structure stores it. When you look at the ancient trees at Cwm Byddog nature reserve, you are seeing carbon stores as well as stoic reminders of another age.

Everyone at the woodland seminar was in agreement that planting trees isn't going to save the world, though more woodland cover is welcome for the many functions it can have in our landscape, including slowing rainwater flow and soaking up nutrients before they get into water courses. It was worrying to hear the foresters asking where all the saplings were going to come from for the millions of trees pledged to be planted in the next few years. Let's hope we are not going to see masses of tree stock bought in from overseas with the risk of new pests and diseases coming too.

Forestry England also posed an uncomfortable question about what sort of trees might be planted today to survive the UK's climate in 60 years' time. Sessile Oak is well suited to our area at the moment but it is susceptible to drought and doesn't like waterlogged roots or a quick transition from one to the other – the extreme climatic events that we are likely to see more of. By 2080 our climate could be similar to that of southern Italy, though if you planted a species of tree suited to Italy's climate today, the chances are that it wouldn't thrive or even survive!

Woodland management is a very long-term strategy. The established woodlands on RWT nature reserves have largely been left to self-manage through natural processes, with fallen branches and trees left to rot on the woodland floor. We have gradually been taking out non-native species and allowing natural regeneration to take place in preference to tree planting, although sometimes the felling license requires replacement tree planting.

At Cwm Byddog, the ancient trees have had 'halo' felling around them to increase their longevity and often the felled trees are left to rot – some would say this is a waste of good firewood, but actually it's a deliberate decision to mimic a more natural process. We are also considering some 'halo' work at Cefn Cenarth to create future 'veteran' trees and a more diverse woodland where selection of oaks and coppicing has left a mostly single-aged oak plantation. Mass death of Ash is inevitably going to leave some gaps – see more on page 8. As ever, we believe that habitats that are made up of lots of different species are likely to be more resilient to changes in their environment.

If you are hoping to plant trees or create new woodlands in your community in the next few years, it might be fun to go out with your friends, children and grandchildren in the autumn, collecting tree seed and behaving like a jay, nature's natural tree planter, poking acorns into the ground and waiting to see how many saplings appear!

Operation Owl: be the eyes and ears of the police on raptor persecution

We hear quite a lot about raptor persecution so it is useful to know what is permitted and what is illegal and needs reporting to the Police.

'Operation Owl' is an awareness-raising initiative led by the Police and supported by other organisations including The Wildlife Trusts. Its website is a good source of information on legal and illegal 'pest' control methods, how to recognise signs of crime and how to report a crime. This may involve taking photos, establishing the grid reference and calling the police on 101. It is not lawful to interfere with a trap, however horrifying it seems.

All wild bird species, their eggs and their nests are protected in law but General Licences permit certain actions, for example, control of 'pest' species, or taking old eggs out of nests when you are cleaning out bird boxes. The rules are different for Wales and England, so it is worth checking. Drones and close-up photography can also cause unlawful disturbance to breeding birds.

If you want to get advice before calling the police, you can contact Crimestoppers on 0800 555 111.

<https://www.operationowl.com>



*Tawny Owl
by Pam Knight*

Change to Newsletter Editing

After 16 really enjoyable and interesting years as voluntary editor of the RWT newsletter, I have decided it's time to pass the job on to younger hands. We are fortunate to have recruited a very capable team, with Stephen Mullard and Bill Stow becoming joint text editors and Pam Knight pictures editor. Emma Morgan continues to be responsible for layout and design. This issue is their first and I hope that you like it as much as I do.

Joan Payne

People and Wildlife

Suzie Fraser, RWT People & Wildlife Officer

Our wonderful People and Wildlife Officer, Suzie Fraser, retires in March. We asked her for some highlights of her time with the Trust and this is what she told us. You can see why we will sorely miss her.

Suzie's highlights

I joined the Trust in February 2007. Working part time, 3 days a week, over the last 13 years, has been such a joy. It has totally absorbed my life and I have learnt so much. This is a brief look back at what I was so absorbed in!

The Primary School Wildlife Challenge Quiz

This was a fantastic way of engaging children with all aspects of wildlife. It ran for 10 years, starting in 2005, and in that time all the Radnorshire primary schools took part. Sadly now a few schools have closed. The quiz evolved over the years so that it involved getting the children to survey their school grounds. The RWT Big Habitat Hunt, School Grounds Survey and Quiz became the catalyst for the schools to develop wildlife friendly areas in their school grounds.

Bug Hotels, worm charming and snail racing

Bug hotels have been ever-popular. I've made them from pallets, recycled materials, logs, wine corks, every which way! They have been named Buggingham Palace, Creepy Towers, Inn Vertebrate and Antsel and Beetle Log cabin. I've also done Bug Hotels Revisited to find out what animals have lived in the hotel. Schools have also asked for designs for a Nectar Bar for butterflies, pollinator flower beds and nature trails. I have made bat boxes, bird boxes and hedgehog hibernaculum with schools and after school clubs. I have enthused children by worm charming, snail racing and even loving nettles, all in the name of seeing the value in the less charismatic wildlife. Together with CPRW, we ran a School Grounds competition which worked well to encourage schools' efforts at making their grounds more wildlife friendly.

Gilfach

Schools often asked for activities linked with their curriculum project of that term when they visited Gilfach. Many were easy to do such as Focus on Trees, Litter & Pollution, Minibeasts, Animal Habitats and Biodiversity. But one school's project was "Sparkle & Shine" and I was asked if they could come to Gilfach and do activities linked to that theme. It was the end of November and I had a feeling this subject was something to do with leading up to Christmas. But we were a Nature reserve so no glitter allowed! So we focused on the "sparkly" river water, the "shiny" salmon scales. Although we didn't see any salmon from the river platform, the children did fish printing so they soon forgot any disappointment. I bought some whole trout (cheaper than salmon!) and the children were fascinated by the trout's anatomy, its colour and pattern. And before you knew it we were talking about camouflage and animal behavior!

Events at Gilfach throughout the year have always included school holiday activities. I must admit that I love trying new ways of doing the same thing! So pond dipping became

river dipping, which became river pirates and mini raft racing. A minibeast hunt became tracking and trailing that ended up with the children making their own nature trails. With a bit of fun and imagination the end result is that the children become more observant, happier being outdoors and willing to share with you what they have found.

Not forgetting the grown-ups!

Working in a variety of ways engaging with people has been so enjoyable, from giving talks throughout the county highlighting the work of RWT or Wildlife Friendly gardening, to being at shows. I've taken part in local shows at Presteigne, Nantmel, Aberedw and Knucklas and worked with other Welsh Trusts at the Royal Welsh show. I have helped with many displays but the "piece de resistance" was a display I did at the RWS showing a variety of birds' nests in unusual places. We had an excellent stand and wildlife garden at The Hay Festival in 2012 which was also a highlight, as I felt the profile of The Wildlife Trusts as a whole was raised.

Raising Support

Another aspect of the work we do as a Trust is to support fund-raising events which enable us to do our jobs. Whether it is something like the auction we did in 2011 at Doldowlodd or the charity shop event we've just done this January 2020, it's fantastic how people come to support the work we do. Many projects I have been involved with could not have happened without the time and effort put in by volunteers: people always ready with a smile, in waterproofs or carrying clipboards or with expertise to share for meetings and talks. How lucky we are!

Team RWT

Working with such thoughtful, kind and professional people has been an absolute gift. All the different projects I have been involved in have been made so much easier because of the ease with which we have worked together. Working to our strengths, supporting each other when necessary and always having time to listen and share ideas. I'm very grateful to have been in such a happy working environment. I wish the Trust all the best in the future and thank everyone helping to protect our wildlife for the future.

I moved from near Three Cocks nearly 6 years ago to a smallholding between Carmarthen and Llandeilo. We live off-grid, have made tracks on the land, planted hundreds of trees, dug lots of ponds and have a resident stoat who uses our outside toilets to do its business (in the corner!). Because we need to restore a stone cottage we are living in a lovely shed! I have to drive over two little rivers to get to a minor road. I am aware of my carbon footprint, so stopping driving to work will help a miniscule amount. I hope to concentrate on my home and make it a special place for my family, especially my grandchildren. It makes me very happy that two of my little grandsons live in Radnorshire.

Conserving Radnorshire's wildlife for future generations



Suzie working her magic!

You don't need to be rich and famous to make a positive difference for future generations to enjoy Radnorshire's wildlife as we do – the *raison d'être* of RWT.

Members' and supporters' generosity over the years has made RWT what it is today and all gifts are gratefully appreciated. But it is the particular generosity of a few people who have left legacies to RWT which has made it possible, in an area with very few corporate supporters (no Amazon or Vodafone HQs here!), to purchase nature reserves and build up funds to see RWT through lean years. For example, the generosity of Flossie Brand allowed us to purchase our Tylcau reserve, while more recently, sale of some property left to the Trust will assist hugely with our core costs at a time of much reduced grant funding.

Might you think of supporting us in the same way by leaving something to RWT in your Will? Dealing with Wills is a task which many people understandably put off but delaying can lead to problems for your nearest and dearest and might mean you miss out on benefiting RWT and other charities you would like to support.

This article is not the place to go into the technicalities of Wills but a useful guide can be found by visiting the Remember a Charity website (www.rememberacharity.org.uk), which explains how legacies can be left to charities e.g. a specific amount of money – a pecuniary bequest; a percentage share in your estate after specific and pecuniary bequests – a residuary legacy; the gift of something (perhaps an object or some property) you own – a specific bequest; or a gift which is dependent on something else happening (e.g. if other beneficiaries predecease you) – a contingent legacy. If you have already made a Will, a bequest to RWT can easily be made by adding a codicil.

Should you choose to give to RWT, you will need the following details: *Radnorshire Wildlife Trust, Warwick House, High Street, Llandrindod Wells, LD1 6AG Registered Charity Number 519021.*

Legacies to registered charities are wholly exempt from Inheritance Tax and can save on the Inheritance Tax payable on the rest of your estate.

Gifts in Wills to RWT are not about death but about celebrating your love of wildlife. RWT is incredibly grateful for these gifts which help us plan for the future. With your support we can continue to plan for vital long-term projects involving wildlife across Radnorshire. Your legacy will be a precious gift for local wildlife.

Do get in touch should you want any further guidance or have questions on other ways of helping RWT, such as Gift Aided donations or collections at funerals.

A New County Recorder for Bees and Wasps

Janice Vincett, Radnorshire (VC43) & Brecknock (VC42) Aculeate Recorder

In October 2019, I was delighted to be asked to consider whether I would take on the role of Vice County Recorder for aculeates in VC 43 Radnorshire and VC 42 Brecknock. Aculeates are part of the vast insect order, Hymenoptera, but the defining feature of all aculeates is that the egg-laying ovipositor is modified to form a sting. Of course, I agreed and have the wonderful task of verifying the records for bees and wasps sent in for these two counties.

Initially, I will be looking through the BIS database to check whether any unassessed records are verifiable by checking that the record contains information about where the insect was seen and what the location is like. The date that the record was made is important as this can be useful for identification purposes. It is also necessary to have the name of the recorder and any other evidence provided will add clues that can help with the identification of the insect.



Photo Janice Vincett

Common Carder Bee

A good photograph is very useful, especially a few photos of the insect from different angles. A view from above, the face, antennae and leg colour are often areas that can help with identification. This is easier said than done. I know from personal experience just how difficult this can be, usually just managing to get the behind of the bee before it disappears. Perseverance is key and the more photos the better.

There are useful pages of information about all aculeate species on the Bees, Wasps and Ants Recording Society website at <https://www.bwars.com> and a guide published in 2015 by Steven Falk and Richard Lewington, 'Field Guide to the Bees of Great Britain and Ireland' is very good. Look out for the 2nd edition which may be on its way. As some bees and wasps can be tricky to identify, I would be happy to accept any freshly deceased insects, carefully packaged to avoid damage to them. My contact details are in the Vice County Recorder section in this magazine.

I hope to run a few more identification workshops this year, and have one arranged already for June 6th, 10 – 4pm at Penbont Tea Rooms, Elan Valley. Please phone the Elan Valley Trust if you would like to book a place. A meadow walk is also planned, looking for pollinators on Sunday 28th June in the Elan Valley. Details will be in the Elan Valley Events leaflet.

I look forward to receiving your records of bees and wasps!

2019 Butterfly Report: A Mixed Picture

Chris Ledbury, Radnorshire (VC43) Butterfly Recorder



Nearly 2000 records were sent in last year in various ways – direct to me on paper or spreadsheets plus online recording like the Big Butterfly Count, iRecord, the Wider Countryside Survey and the Local Record Centre App. I then collate all results and validate them and send to Butterfly Conservation with a copy to our Local Records Centre. The UK now has the best monitoring of butterflies and moths of any country and one of the largest data sets in the world thanks to the efforts of volunteers. This allows us to monitor trends and trigger conservation action where and when needed, so keep the records coming.



In 2019, 31 butterfly species were recorded in Radnorshire. It was a poor year for some species but good for others. Common Blue records were sparse for the first brood but a bit better for the second. The biggest colony recorded was in Llandrindod with 16 at one site. Skippers were rare for some reason with hardly any Small Skippers and only two Essex Skippers. Silver-washed Fritillary also had a very bad year with just three records. This was the

first year I have not seen them as they are normally reasonably common in sunny wooded spots with plenty of violets especially in the south of the county. Dark Green and Small Pearl-bordered Frits were also down in number as was the Small Heath. A search along the Monk's Trod failed to record any Large Heath but we will survey again this year. Several species such as Purple and Green Hairstreak were only recorded in a few locations as usual but this may be more a case of being overlooked. Purple Hairstreaks live high in the tops of oak trees and are often missed. We had only one record of Marbled White again so the hoped for expansion of this beautiful butterfly into Radnorshire is very slow. However, the Painted Lady had a wonderful year with huge numbers migrating to Britain from Africa. Radnorshire was no exception and hundreds were recorded. The warm late summer encouraged large numbers of Small Tortoiseshells and Peacocks. Happily our small Grayling colony at Gilfach was recorded again so I hope it is now established there.

Small Heath and Small Pearl-bordered Fritillary drawings by Pam Knight

Radnorshire Moths in 2019

Pete & Ginny Clarke, Radnorshire (VC43) County Moth Recorders

2019 was an unexpectedly good year for moths. After a slow start in spring, moths came out in good numbers through the summer. August, which often signals the end of the main season, continued with good weather and lots of species. By the end of the moth season, 2019 had turned out to be the fourth best year since 2007. There were 698 recorded species including twelve new species, five new macro moths and seven micros. There were also three species which had not been seen for many years. Darylle Hardy found a Bedstraw Hawkmoth in her trap at Penlanole, last recorded in 1974 and Chris Ledbury had an Olive moth at Llanstephan, last seen in 1988. Finally, Sorchia Lewis spotted a Lackey in Elan Valley, not recorded since 1974.

Butterfly Conservation (BC) have created an up-to-date list of all Welsh moth species, so we can compare county by county. Our overall species count is now 1,138 which means Radnorshire has the lowest species count in Wales, despite finding so many new species every year since 2007!

Carlton & Dawn Parry had an excellent find, spotting a Pretty Chalk Carpet on their outside light at Howey, new for Radnorshire. Surprisingly, it has been recorded in every other Welsh county except Radnorshire! With more people recording moths in different locations and environments, we would hope to track down the other 100 or so undiscovered species that we can expect to be out there.

In 2019, just under 25,000 moths were recorded by the moth group and members of the public which was a little bit down on previous years. BC are always warning about loss of numbers of moths but this does not seem to be the trend in Radnorshire at the moment. Of course, there is some variation in levels of recording and there is a considerable variation in annual cycles in numbers for each species, but in a simple analysis of 2007-2019 only a few species have had a clearly discernible drop in numbers. Of these Copper Underwing, Swallow Prominent and November Moths are the most obvious, while Blair's Shoulder Knot seems to have vanished.

Migrant moths are always good to see, and this year some interesting species flew in. Along with the Bedstraw Hawkmoth, there was a Marbled Beauty in Glasbury, and Clifden Nonpareil for Stephen & Judy Mullard in Ffynnon Gynydd. These are all long-distance migrants from Europe, though the latter has become resident in a few places in the south of England. Humming-bird Hawkmoth had a good year too. The first appeared in February and they continued to be found right through to October, which is unusual.

Finally, we need to thank everyone who sent us their moth records, whether regular recorders or individuals. All records are important as we would not know what moths are in our area without you.



Photo Stephen Mullard

Clifden Nonpareil



Photo Darylle Hardy

Bedstraw Hawkmoth



Photo Carlton Parry

Pretty Chalk Carpet

Ash Dieback

Jonathan Stone, RWT Reserves Officer

Many members will be familiar with Ash Dieback, caused by the fungus *Hymenoscyphus fraxineus*. Since the first reported cases in Wales in 2013, it has spread through the Welsh countryside, arriving in Radnorshire in 2015. The widespread practice of importing ash saplings from nurseries in Europe may have first brought the fungus to the UK and certainly hastened its spread, though the spores, which can travel many miles on the wind, may also have arrived here naturally.



Ash leaf drawing
by Pam Knight

What is the impact on ash trees?

In Asia, where it originated, it doesn't cause much harm to its native hosts, but since its introduction to Europe about 30 years ago, it has devastated our native ash (*Fraxinus excelsior*), which has no natural defence against it. The fungus destroys the tree's water transport system, the phloem and xylem, which results in the tree being unable to move water and nutrients around its structure. Repeated loss of nutrition and water, the depletion of energy reserves because of the lack of leaves, and the invasion of secondary root-killing pathogens such as Honey Fungus, cause the tree to become brittle, lose branches and eventually die.

Although trees exhibit varying degrees of resilience, experience from other northern European countries, Kent and East Anglia suggests that most ash trees in Wales will be affected. The levels of mortality and severe damage that will result are matters of considerable uncertainty but are likely to be very high in woodland situations and high in non-woodland ones.

What is the impact on RWT nature reserves?

Ash is one of the most common tree species in Radnorshire and is found at most of our nature reserves. It is the most frequent woodland canopy tree at Bailey Eion, Sideland, Cwm Byddog and parts of Llanbwchllyn. In addition, there are important veteran ash, many of which support rare lichens, at Burfa, Gilfach, Tylcau and Pentrosfa.

Ash has high biodiversity value, supporting 955 other species. While few of these are at direct risk of extinction, the populations of many are likely to be reduced. Holes that develop in old ash trees often remain dry for many years: some in Radnorshire have been used by nesting Barn Owls. The relatively alkaline bark makes an ideal substrate for many lichen species. In woodland, ash allows more sunlight to reach the woodland floor than most other native trees and its leaves decompose to recycle nutrients faster, often resulting in a rich ground flora.

What is RWT going to do?

We aim to retain as many infected ash as possible, for as long as possible, in the hope that some will prove resistant, and that these resistant trees will reproduce. Retaining dead trees will benefit the many important species of invertebrates and fungi that rely on decaying wood. At our less well visited reserves, trees will be allowed to die and fall naturally.

Where dangerous trees are close to roads and buildings, we will act to make them safe and this is very likely to mean substantial felling and tree surgery over the coming years.

Although we would prefer not to fell, the potential risk to life sometimes leaves no other option.

Before felling in high risk areas, we will look for ways to prevent people from coming near to dangerous trees. Where path or reserve closure is necessary, we will try to provide alternative routes. At Bailey Eion, for example, the path through the reserve is included in several popular local walks but a 400m detour is available, following nearby public rights of way.

During summer 2019, we surveyed our high risk areas, near to buildings, roads and busy footpaths, assessing the health of some 200 mature ash trees. Although almost all showed some signs of the disease, only a small minority were in the advanced stages of dieback. We will repeat these surveys annually to monitor progress.

What will happen to the areas where ash trees have been lost?

We will develop recovery plans for each reserve as the disease unfolds. We expect gaps in the woodland canopy to provide opportunities for natural regeneration, resulting in a more diverse age structure and a healthy, resilient woodland in the long term. Where necessary, we will carry out supplementary planting and select trees that support some of the species supported by ash. Field Maple, with a bark chemistry similar to ash will, for example, provide an alternative habitat for some of the important lichens.

What can you do?

- Help us share our decision making and thinking on managing ash dieback with others.
- Respect signage and closures of paths and reserves and encourage others to do the same.
- Check the website regularly for updates on path and reserve closures.
- Consider donating and supporting our core work. We expect essential tree work to cost many thousands of pounds over the next few years: money that we would prefer to be using for nature conservation. Every penny helps and we are incredibly grateful for the ongoing support we receive.

Where can I find out more?

We are in the process of producing an Ash Dieback Action Plan which will provide more details of our approach. Alternatively, for site-specific queries, please contact the Reserves Officer.



CORONAVIRUS and RWT

As you can imagine the information and advice regarding the spread of the Covid-19 virus has been changing rapidly as this newsletter goes to print. We shall try and address some of the questions you may have:

Events

We have decided to cancel all events until further notice. We have not produced the events leaflet in light of this. When it is safe to do so we will resume and email you / add them to our website and /or produce a leaflet for the summer newsletter.

Wildlife Habitats Group Events

Unfortunately it looks likely that the first three events that were planned will have to be postponed (see below). Elsa will be in contact with group members approximately 3 weeks before each event to let you know the latest and will be following the government's advice.

Shop & Offices at Warwick House, Llandrindod Wells

The shop will now be closed until further notice. Staff are working according to the advice of social distancing.

Volunteer Groups

Both the Tuesday Volunteer Group and the Gilfach Rangers have been cancelled until further notice.

RWT Nature Reserves

Whilst exercise is permitted under strict limits, please follow the government's rules about staying at home to stop the spread of this nasty disease.

Powys County Council have issued a statement asking tourists not to visit our beautiful county until this pandemic is over: <https://en.powys.gov.uk/article/8788/VISITORS-TO-POWYS>

We have shut the Byre and toilet facilities at Gilfach Nature Reserve and our bird hides at Gilfach, Pwllpatti and Llanbwchlllyn until advised otherwise.

Wildlife Habitats Group



All RWT members are most welcome to join the Wildlife Habitats Group, a friendly group of people who share their experience of managing land and gardens to benefit nature through sociable visits to wildlife-friendly places. There's no membership fee, most of the visits are free of charge, and if you don't have your own transport, we can usually arrange a lift. To join and receive full details of events, email the voluntary co-ordinator Elsa Harflett: elsa.harflett@hotmail.com, or you can contact the RWT Offices (details on the back page).

Our planned visits for Summer 2020

Given the latest advice issued by the government with regard to controlling the spread of the COVID-19 virus, it looks highly likely the first three events will have to be postponed.

Thursday 28 May: 1st Beaver visit

An evening visit, when we will join the Welsh Beaver Project (WBP) as they go looking for beavers living at an enclosed site near Llangorse. Maximum group size is 13 in order to fit into the hide, and there is a charge of £5.00 per person.

Saturday 6 June: A former corn mill beside the River Edw

A visit by kind invitation of RWT members Anne and Tim Hockridge to their home and grounds.

Saturday 13 June: Birches Farm Nature Reserve near Kington, Herefordshire

The group will be met by Assistant Warden Bob North, who will give us a history of the farm, its previous owner and its management past and present. He will then take us around the reserve to pick out a few of the highlights.

Thursday 9 July: 2nd Beaver visit

See previous description (Thursday 28 May)

We hope to re-arrange any postponed events. We appreciate this is all very disappointing and unsettling but it's important we heed the advice given at this time to control the spread of this disease.

Galls in Radnorshire

John Ockenden

A gall is an abnormality in a plant where the tissue has reacted to another organism invading it by enlarging its cells which provide shelter or nutrition for the invader (the 'causer'). Causers range from mites and midges, sawflies and gall wasps to bacteria, fungi and parasitic plants. Each causer is specific to its host: the midge *Hartigiola annulipes* for example only attacks Beech.

Gall sites can vary: some will be on leaves some on stems or twigs, some in buds. They can be very obvious: the oak-apple, for example, caused by the gall wasp *Biorhiza pallida*. Less obvious though are galls caused by mites and midges, for example the tiny pimples on field maple leaves, often in large numbers and bright red, caused by the mite *Aceria myriadeum*. Gallings caused by rusts and other fungi can be quite spectacular: bright orange twisted nettle plants, or the contorted stems of Meadowsweet covered in a dense white powdery mildew. Galls rarely cause harm to their hosts and there are several thousand species of galls in Great Britain, and more in continental Europe.

One of the fascinations of galls and their causers is the study of their life-cycles. As a rule, the causer has an annual life-cycle, with the adult insect laying an egg on the host, the larva developing, with the gall-tissue enlarging into its specific shape as it does so. The adult then emerges in the autumn to continue the cycle, sometimes overwintering in leaf-litter. With fungal galls, once the fungus has matured, its spores spread ready to over-winter in time for its new hosts to emerge.

Oak galls

Some causers, however, have much more complicated life-styles. Gall Wasps typically target oaks, and the galls themselves are many and varied. These wasps are not the sort that appear at every picnic, but are typically minute, and have alternating sexual and asexual generations. Each generation causes very different galls, usually at different times of the year, and often on different parts of the tree. For example, the sexual generation of the wasp *Neuroterus quercusbaccarum* causes the currant galls on oak catkins in the early Spring and the asexual generation forms the spangle galls on the underside of leaves in the autumn. When these fall to the ground, the wasp larvae over-winter in them before emerging the following year as sexual wasps.

Marble galls in winter usually have a small hole visible on their surface where the wasp has emerged. Interestingly,



Diplolepis nervosa

Sputnik Galls on Rose.
Gall Wasp; a variation of the more common Smooth Pea Gall.



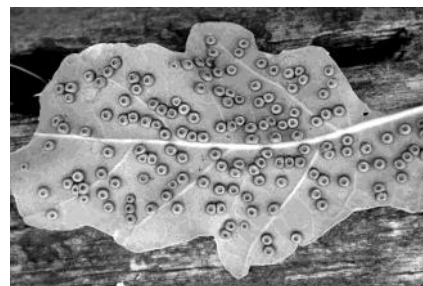
Taphrina alni

Alder Tongue.
Gall on female Alder cones, caused by a fungus.



Andricus kollari

Marble Gall on Oak, Burfa Bog 2018.
An unusual coalesced group.
Note exit-holes of Gall Wasps.



Neuroterus numismalis

Silk Button Spangle Galls on Oak.
Caused by the asexual generation of a gall wasp.

some species alternate between our English and the non-native Turkey Oak. One of these is the Knopper Gall, caused by the wasp *Andricus quercuscalicis*. The species appeared in Britain in the 1950s, and is now ubiquitous. It deforms the acorn into a misshapen sticky lump, with up to ten occurring on each acorn. The sexual galls then occur on the male catkins of the Turkey Oak.

Ash galls

The loss of ash trees as a result of ash die-back will have a major impact on the invertebrate gall-causers reliant on this species, of which there are four groups: psyllid species or jumping plant lice (only one is recorded in Radnorshire), two mites, four midges and two aphids (the latter unknown in the county). The commonest ones are three midges which each cause different shaped galls: *Dasineura acrophila* which cause each leaflet to form a pea-pod shape; *D. fraxini*, a pouch along the leaflet's centre vein; and *D. fraxinea*, small poached-egg shapes on the leaflet.

Mites can cause a tight roll on the leaflet edge or cause the female inflorescences to form ugly 'cauliflowers'. A looser roll, often blood-red when young, contains the psyllid *Psyllopsis fraxini*. In 2013 the ash trees (both young and old) around the motte in Burfa Bog reserve had vast numbers of the five main galls, visible on every leaflet.

Galls in RWT reserves and around the county

I have been recording in Radnorshire, often with my Hereford colleague Phil Marshall, over the last 10 years, and it has been tremendously rewarding to be able to add so many records from the RWT Reserves. The mix of habitats dictates the richness of a site for galls: oaks and willows in particular guarantee variety. Gilfach is notable as a result; its diversity along the Afon Marteg and the old railway, plus the extensive oak woods, is exceptional. Tylcau has proved almost equally rich. A good 'score' for a site is around 50 records; 30 is more usual. Both Llanbwchllyn

and Rhayader Tunnel have 50 records. For the highest numbers it is necessary to visit a site in early summer and again in autumn, as many gall-causers are seasonal. Look out later in the year in most of our reserves for the spectacular Tongue Gall on Alder cones, caused by the fungus *Taphrina alni*. It arrived in Cornwall in the 1940s, and by 1999 had spread throughout Britain.

Finding a rarity is always on the cards. Phil and I were recording at Cwm Byddog in 2014 when a misformed Yellow Archangel caught our eye. We suspected it was caused by the gall of a tiny midge, *Dasineura strumosa*. A specimen was sent to the national authorities on plant galls, and examination under a microscope confirmed our suspicions. Extremely rare in England, this was the first time the insect had been recorded in Wales. 2019 proved equally fruitful: in July we found *Andricus inflator*, a gall-wasp gall, on oaks at Glasbury churchyard (now in Breconshire, but officially still in Radnorshire) - a third record for Wales and a first for

Radnorshire. The Ramshorn Gall *Andricus aries*, also on oak, was found nearby, a first for the Powys area. This arrived in the UK in 1997 from Eastern Europe and has spread rapidly, only recently reaching Wales.

The British Plant Gall Society honoured Radnorshire with its AGM and annual Gall-gathering weekend in Llandrindod in September 2019. I led a party of 23 around four RWT reserves and adjacent areas. We had plenty of good records and another first for Wales: a fungus gall *Microbotryum cordae* on Water-pepper at Cefnlllys. Members were highly impressed by the Trust's Reserves, not just for the galls, and despite the persistent rain!

I am planning further visits to RWT reserves in the coming year to add to existing site records. Records from our reserves, and from anywhere within Powys, will be very welcome. Photos (with as much detail as possible), or specimens, are always welcome for identification and I can be contacted at: johnnockenden001@gmail.com

Galled!

Ray Woods

In a recent issue of British Wildlife, Radnorshire's recorder of mosses and liverworts Mark Lawley published a thought-provoking paper on where the study of natural history was heading. Mark has researched and written about the lives of now deceased naturalists and is well qualified to compare their achievements with those of the present day. He finds the current generation to be generally lacking, being obsessed with distribution records to the exclusion of everything else. As a botanist I have to plead "guilty". For the last several years I have prioritized the collection of plant data by 10km squares for the new Atlas of the British Flora. Where is a plant? was my only question. I never stopped to ask why it was there. With the Atlas recording finished I promise Mark I will improve. In an attempt to do better, let's not ask where are there galls on oak trees but why?

Late last year a large and daunting scientific paper provided some answers. It examined the way that gall wasps direct the activities of the oak tree's genes to cause the galls to form. Creating these galls requires a large number of genes. How did they evolve and why in oak? It turns out that I, as a natural historian, actually had the answer but didn't know it.

There is an extraordinary web site called "OneZoom Tree of Life Explorer" that allows you to journey along the branches of a "tree" to establish the evolutionary relationships of all living organisms! I was puzzled to find a "branch" that placed all the members of the pea family alongside the roses and oak trees. They seemed to have little in common until I discovered that in each of these plant families there are species that form root nodules that house nitrogen-fixing bacteria. Well we all knew that was the case for the pea family - but the rose and oak families? Well yes - there is a mountain aven in the rose family in northern Canada with root nodules and our own alder tree in the same family as the oak has them too. Because of the economic value of plants that fix their own nitrogen the genetic basis of



Andricus quercuscalicis

Knopper Galls on acorns

this trick has been unravelled. It takes over a hundred genes to achieve and it could never have arisen more than once so all these plants must share a common ancestor.

This set me thinking. Do the genes for root nodules exist in other plants in these families but have been switched off? I could not find an answer until the oak gall paper appeared. Yes, was the answer. These genes are still present in oak trees but never get switched on to form nodules until, you guessed it, the gall wasp lays its egg with chemicals that switch the genes on.

Where else do we find impressive complex galls? Dog roses have some astounding examples. They too probably have an unused set of root nodule genes the little wasps have worked on. Are there any complex galls in the pea family? The answer seems to be no. Perhaps any wasp that succeeds in taking over the nodule genes stops the nitrogen-fixing process and so disadvantages its host that it fails to survive. What of other families of plants with complex galls? The willow family has some fine examples. On the "tree of life" it has been placed on a different branch to the roses, peas and oak families but quite close by. Perhaps when we fully sequence its genes it might sit more conformably with the nodule forming families. The gall wasps and maybe even a naturalist seem to have worked that out.

All photos John Ockenden

Not all is lost...it's just perspective

Silvia Cojocaru, RWT Black Grouse Recovery Project Officer

We wish bon voyage to Silvia Cojocaru as her Black Grouse project finished at the end of March. She plans to do some travelling but we hope to see her again when she gets back. We are very grateful for all she has done for the Trust in her time with us. She leaves us with some fascinating contrasts between mid-Wales and Romania.

I moved to Wales a couple of years ago and, to be honest I still struggle with the unpredictability of the weather. Don't get me wrong, rain five days out of seven isn't a bad thing, but I come from a place which has four seasons (most of the time). It's difficult to try and compare two countries which demonstrate each other's past and future. Romania still has areas of traditional agriculture, sustaining a high number of species whereas Wales started losing species many decades ago as a result of changed farming practices. Romania shows how Wales used to be, with an abundance of invertebrates, reptiles, birds and small and large mammals. Wales shows how Romania might become if the right measures are not taken in time to protect what is still there.

This article should be about comparing the two countries, and to be honest I have tried to get my head around it and I find it difficult to do. I like both countries, the good and the bad. Maybe Romania has four seasons and Wales has a lot of rain; and maybe Romania has a lot of wildlife, but Wales has the better system to protect its wildlife. It took me a while to understand how the Wildlife Trust system works and, believe me, it is brilliant. I will compare the countries by highlighting some of the population declines in Wales and describing the changes in land management here which could threaten the same species in Romania in the near future.



Merveille du Jour

Photo Silvia Cojocaru



Photo Paul Leafe

Wryneck

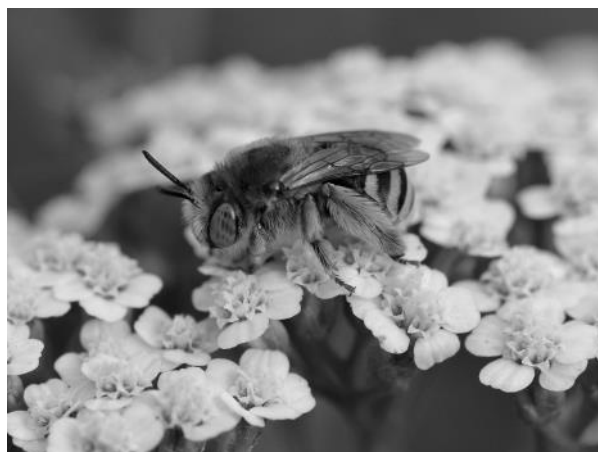
Some of the bird species that have massively declined in Wales in the last century include: Red-backed Shrike, Turtle Dove, Yellowhammer, Tree Sparrow, Wryneck, Lesser Spotted Woodpecker, Wood Warbler, Tree Pipit and Cuckoo. The Red-backed Shrike used to be widespread in Wales using farmland, scrub and heathland habitats for breeding, but in the 1800s the numbers had started to decline and today it is extinct as a breeding species in the UK. The Wryneck population has declined since the 1950s and it is also now extinct as a breeding species in the UK. Wryneck prefer open habitats, like orchards, meadows and pastures with mature trees with natural cavities or cavities that have been created by other species for nesting.

Some farmland specialists have experienced severe declines since 1970. The Turtle Dove population has declined in most of Western Europe, with it being extinct as a breeding species in Wales. In Wales, the Tree Sparrow population has suffered a staggering decline between the late 1970s and the early 1990s and because of the sedentary character of the species, there are areas in Wales where it is locally extinct. Whilst the Corncrake can still be heard calling in hay meadows across Eastern Europe, the widespread loss of hay meadows in the UK has seen a 98% decline in their numbers since 1968 and the species is also extinct as a breeding species in Wales.

The woodland specialists have suffered too, with species like Lesser Spotted Woodpecker and Spotted Flycatcher declining by 80% in the period 1970-2015. There are still pairs of Lesser Spotted Woodpecker breeding in Wales, the species using deciduous woodlands and orchards with dead trees. Populations of Wood Warbler declined by more than 10% since 1970. The Tree Pipit's decline is more recent, starting in 1994 and although Wales still has a good population, changes in forest structure, the spread of plantations and reduced management in the lowland woodlands can lead to further decline.

What these species have in common is that they have all suffered from loss of habitat caused by changed land use, agricultural intensification and usage of pesticide and insecticides. The scrubland and meadows are being lost in Wales, alongside many of the mature woodland and organic orchards. This is the big advantage that Romania still has and its fields are not all monocultures or overgrazed. All these species, and many more, which are absent or threatened in Wales, are widespread and common in Romania.

Although Romania is still wildlife rich, access to it is limited. There are National and Natural Parks, Nature Reserve and Natura 2000 sites, but many of them are inaccessible to the general public or are on private land. One of the reasons I like Wales is the accessibility. It doesn't matter how rare wildlife is because you can get close to it, walk around and enjoy the great outdoors. Although Romania has a good Wood Warbler population, the closest I got to one was at Gilfach, the same for the Spotted Flycatchers and many other species.



Green-eyed Bee

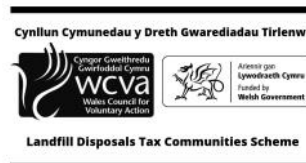
Photo Silvia Cojocaru



*Drawing of a Red-backed Shrike
by Edie Leafe, age 12 years old*

I can see how wildlife-poor the British Isles are, and how much has been lost, but Darylle reminded me the other day that we are on an island. Ecologically speaking, it is obvious that Romania will have a higher biodiversity as it is on the continent connected to a lot of other countries and the wildlife can move around a lot easier.

I can say that both Romania and Wales are both great in their own way, you just need to find your own reasons to love the place where you live. I never knew how good Romania was until I started working as a translator for a biodiversity project in Transylvania, and I was quite surprised to discover how good Wales and Radnorshire were after I started working at Gilfach. So, it is always about perspective, and if I have to choose some of the most exciting encounters from last year, you will see that both Wales and Romania kept me on my toes. In Romania, seeing the Green-Eyed Bee, the Knapweed Fritillary and the Scarce Copper; in Wales, seeing the Skomer Puffins, and at Gilfach, catching a Merveille du Jour in the moth trap, watching a Cuckoo catch caterpillars at sunset or just counting the colours of the waxcaps in the meadow.



The Black Grouse Recovery Project is part of a larger programme funded by the Landfill Disposals Tax Communities Scheme, 'Resilient Reserves for the Heart of Wales', which aims to improve habitat quality in several RWT nature reserves.

A (very) Brief Sixty Years in Nature Conservation

Pete Jennings, Radnorshire (VC43) Bird Recorder

We lived in a bungalow in Hampshire from the mid-1950s with a big garden which had stag beetles, adders, lizards, grass snakes and sometimes a singing nightingale. A small tributary of the River Itchen ran through it with bullheads, loaches, crayfish, grey wagtails, water voles, watercress, the occasional kingfisher and brown trout and even a large salmon once. Aged nine, I placed broken land drains numbered 1-20 in the stream and counted the number of sheltering bullheads and crayfish weekly.



Coot by Alan Harris

For years all seemed wonderful and never-changing. Then one day when I was twelve the stream was killed forever by a huge slurry run-off from the farm a mile upstream. Brown and stinking had replaced crystal clear and beautiful. There were slapped wrists, of course, but nothing meaningful. Just as today. I was upset, shocked and angry and have been ever since. The effects of DDT were raw in the 1960s and nature conservation very new. The RSPB membership was under 30,000 and most wildlife trusts just twinkles. Together with thalidomide it was being realised that the big chemical companies were curing us with one hand and killing us with the other. Nothing changes. Because of DDT sparrowhawks only returned to our village in the mid-1970s and were generally scarce into the 1980s.

In 1966 we won the World Cup and I joined a local group of conservation volunteers as by far its youngest member. Like most such groups at the time all we did was restore ponds, mostly of the village variety. In the autumn and winter, 6-12 of us did one, or sometimes two, each Saturday. Break times were punctuated by the clatter of hand-rolling and pipe tobacco tins rather than inane iphone jingles. We even had a Lord and his wiry Lady in our number (straight briar and Redbreast Flake, Passing Cloud). Doorstops of cheese and ham appeared and sometimes beer from the village pub (four pints of best, four of mild and a shandy for the nipper). My notebooks tell me that we did over a hundred ponds in four seasons. Eels were omnipresent in ponds then and today the merest whiff of marsh gas or Old Holborn brings back many happy memories.

The late 1960s was a strange mixture for a teenager of peace and love and powerful protest. (Grosvenor Square: The Met. to headmaster; “keep him under control and in school!”). Colour TV arrived with “The Private Life of the Kingfisher” (wow!) and Attenborough started his good work with “The World About Us”. Interest in wildlife and nature conservation was growing fast. “Plant a Tree in ‘73” and “Plant some more in ‘74” were major nationwide events. Our BioSoc at college planted more than 10,000 native trees which today are wonderful woodlands. David Bellamy started putting “bricks-thru-windows” at a national level as did Colin Tubbs as our NCC officer for Hampshire.

In 1981 came the disaster of The Wildlife & Countryside Act which set the pattern for all the ineffective environmental protection legislation that is alive and kicking wildlife to this day. I provided some evidence for the first case brought against a landowner under Section 28 of the Act. Amazingly, we won but it was clear that the protection provided by the Act was inadequate as were the resources to implement it. The result is that today in many places, we are now crawling about on our knees getting excited about the left-over, little life-forms remaining from the ravages of domesticated grazing animals, drainage and deforestation. Then another blow. In early 1983 just as Michael Heseltine, the Environment Minister, was about to give the annual tens of millions of Nature Conservancy money to the wildlife trusts he was moved to Defence by Margaret Thatcher. That might have changed nature conservation in Britain for the better forever.

Now in the 21st century we are in an “emergency” and in need of some “bricks-thru-windows” environmentalism rather than cosy chats around tables and pussy-footing protest. We have Attenborough, Packham and Thunberg on the case but will they progress from flicking pebbles to something heftier?

While we wait, 2020 is being promoted around the world as a big year for native tree planting in severely deforested countries like ours. So if you are an individual you might try to plant, or cause to be planted, 20 native trees this year and if you are an organisation or own a few acres how about 2,020 trees? Perhaps in the future people will be able to look up for wildlife more rather than down. Straining their necks and not their knees.

Birdwatching Highlights of 2019

Pete Jennings, Radnorshire (VC43) Bird Recorder

I had three major highlights in 2019.

A Kingfisher feeding in the wake of a pair of Otters which were turning up stones mid-stream while the Kingfisher dived up and down from an overhanging alder a few metres downstream catching one shrimp after another. I never imagined that such a feeding association might exist. But then thought it has probably been going on for millions of years.



Lesser Whitethroat
by Alan Harris

In the middle of a small tarmac lane in bright sunshine just twenty yards from me: the full blown display of a very yellow male Yellowhammer to a female just a few inches in front of him. Bobbing and bowing and going from side to side in a half-circle whilst making a very quiet type of song. The female quite still and watching transfixed. No need to trek for days through jungle to a bird of paradise, this is happening right here every spring but rarely seen.

I was leading a group along a hedgerowed lane when we heard an extremely high-pitched sound right by us, a few feet away in the hedge. Was it an insect, a small mammal perhaps, surely not a bird? Eventually at the base of the hedge could be seen a pair of Lesser Whitethroats with the male displaying to the female and making these short bursts of incredibly sharp and high pitched calls. I had never heard such a natural sound before and was totally unaware that it existed in the voice of the Lesser Whitethroat. With a bit of research I found out that it was first described by W.H. Hudson in his book "Hampshire Days" published in 1906. It has been likened to various bat calls or to the shrilling of a great green bush cricket.

The Common Swifts need you!

Radnorshire Wildlife Trust wants to initiate a volunteer based Swift Project in Llandrindod Wells.



This is a scoping project to try and awaken the local community's interest in swifts. We know very little about the swift population in Llandrindod Wells. The project's main objective is to increase our knowledge about swift numbers in the town, through community engagement and surveys carried out by a local volunteer group.

As part of the project, a Swift Volunteering Group will be created to carry out surveys and engage with the local community by organising various events.

Through the **Developing SWIFTly Local Community Project**, RWT managed to get a small amount of money from the Welsh Ornithological Society which can cover some of the expert advice and materials to build a few nest boxes.



We need a volunteer to coordinate the Swift Volunteer Group and the various events planned.

If you would like more details about the job, please email Emma on emma@rwtwales.org or Darylle on darylle@rwtwales.org and ask for the job description. Anyone who would like to be part of the Volunteering Group is welcome to contact us. Training and equipment for surveys will be provided.

Plant Hunting and Collecting in Radnorshire from the 18th to 19th Century

Barbara Brown, Welsh Officer for the Botanical Society of Britain & Ireland (BSBI)

As Radnorshire is far from the coast and nestles within a ring of hills, its botanical delights were discovered relatively late. Even Edward Llwyd, who first described the Snowdon Lily in Snowdonia, just seems to have passed through Rhayader in June 1678 without recording any plants.

The first definite plant record for the Vice Country of Radnorshire was made as late as 1726 by the Rev. Littleton Brown of Bishop's Castle. He was clearly someone who took the biblical behest to "consider the lilies" seriously! He wrote in a letter "24th of May, I went hence to Rhaidder Gowy (Rhayader)... great quantity of *Pinguicula* in flower". This is Butterwort – a pretty insectivorous plant with violet like flowers which is still plentiful in the wetter areas of the Elan Valley.

He went on to record, "*Juncus bubosus* (a rush) everywhere in ye bogs, *Viola lutea* (Mountain Pansy) in ye Mountainous pastures". Reassuringly, the latter is still found in local fields. Strangely, he also records "*Aquilegia vulgaris* (Columbine) by ye brooks asides amongst ye mountains", which is not commonly seen now unless just outside a garden.

Some of the travellers who followed him were hardly likely to encourage others however! Henry Skrine wrote in 1798 "I do not remember a more dreary solitude than that which prevaieth on the Cwmtymthen hill...Over their gloomy hollows we proceeded in mournful silence emerging from a deep narrow channel fringed with wood and issued forth into the spacious plan in which Rhayader Gowy is situated".

This perhaps partly explains the lack of other records until the creation of the botanical societies of the 19th century. Their members used the railways to enable a more comprehensive survey of plants and the preservation of material.

The account of the Woolhope Naturalist club of their visit to Llandrindod Wells in June 1867, describes the members having a real field day! Once alighting at mid-day, they investigated the Llanfawr quarries for geological samples of greenstone and fossils. They did not neglect to call at the Pump House however, noting "surprise was general at finding the waters so little disagreeable"! Most were tempted by the less healthy (but possibly more enjoyable?) "excellent bitter beer of the hotel".

The account of their botanising which follows paints a fabulous picture of these intrepid Victorians. "They went like a pack of foxhounds" to the bog at the upper end of the common (Pentrosfa area) "jumping from tuft to tuft and passing between dark ominous holes". Mr Curley notes though "that (if the residents) looked for casualties, none of importance occurred". It is enough to make you quite nostalgic for the heady days before Health & Safety!



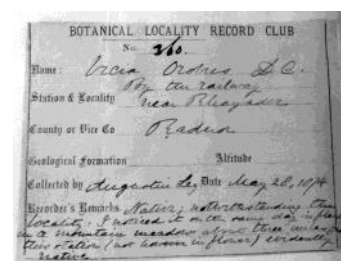
Barbara Brown

The flowers of the *Vicia Orobus* or Wood Bitter Vetch plant.

Reassuringly many of the plants they noted can still be seen on site, including Marsh Cinquefoil, Bog Bean and Marsh Lousewort.

Some of the results of all this botanising and collecting can still be seen today. A search of the Botanical Society of Britain and Ireland's database of records revealed 185 19th century records, mostly drawn from herbarium collections. Many herbaria can be viewed by appointment and it is fascinating to read the copperplate labels and correction notes. Several of the specimens have interesting tales to tell. The Natural History Museum herbarium holds *Vicia orobus* material (Wood Bitter Vetch) from Rhayader collected by several botanists including Augustin Ley. The Rev Ley was an eminent botanist who determined the endemic Least Whitebeam (*Sorbus minima*) which grows in Brecknock.

The Rev. Ley came to Rhayader in 1874 and collected a *Vicia orobus* plant by the railway. As can be seen in the photographs, he remarks "native, notwithstanding the locality". He goes on to add "I noticed it on the same day in plenty in a mountain meadow about three miles from this station...evidently native".



Augustin Ley's specimen of *Vicia Orobus* collected in 1874.

It seems from this he was surprised to see the *V. orobus* established near the railway. Remember that this date is no more than 10 years after the line was opened and the line took 5 years to construct. He came back in 1886 and collected more from the locality.

Intriguingly, Colonel F J Hanbury also visited in 1889 and collected *V. orobus* from “a railway bank 2 miles north of Rhayader”. These specimens were probably from the Marteg Halt request stop which was very near Gilfach reserve. Nowadays this plant is mostly found in the railway cutting on the reserve.

So perhaps these samples shed light on the origin of *V. orobus* population at Gilfach and indicate that the plant was quick to establish on the railway and soon flourishing. This is of interest as *V. orobus* is a protected species in Wales, occurring on the Section 7 list and is traditionally seen as a hay meadow plant.

There are many other local specimens held in Museum herbariums across the UK, including the Museum of Wales in Cardiff, but also in Birmingham, Liverpool and Manchester. Those heavy sepia pages await you, each a veritable time capsule of the flowers from our past.

Return of the Beaver?

Alicia Leow-Dyke, Welsh Beaver Project Officer



Beavers by Sue Morgan

Wales has abundant habitat to support beavers and the Welsh Beaver Project, led by Wildlife Trusts Wales is currently consulting with the public and working on a licence application for a managed pilot reintroduction to the Dyfi catchment. This has prompted many questions.

Were beavers found in Wales and will they cause problems for our native species?

The Eurasian Beaver is native to Wales and was once widespread. They play a vital role in enriching biodiversity, restoring and managing wetland ecosystems.

Once released, surely they will spread everywhere?

Beavers prefer to stay in or near water – most of their activity occurs within 20 metres of the water's edge.

How will they affect fish stocks?

They DO NOT eat fish. They are herbivores and eat the bark from deciduous trees such as willow and birch, as well as herbaceous plants. Research from Europe and North America has also shown that fish can benefit from beaver activity and they can navigate over or around beaver dams.

Killing the trees is surely a problem and river systems will be damaged?

Beavers prefer deciduous trees such as willow and birch, which can coppice, so the trees do not die and may even live longer as a result. The root systems are intact and will help stabilise riverbanks.

So beavers can prevent flooding?

Research has shown that beaver dams can slow and reduce water-flow, which helps alleviate flood risk as well as trapping sediments. Study sites in England suggest that beavers could form part of a natural-management solution for water resource and flooding issues, but this needs to be in conjunction with other solutions, such as replanting upland areas or riparian corridors.

Won't the dams cause harmful local flooding on agricultural land?

Beavers build dams to control the water level, but only if they have to and this tends to occur on smaller streams and tributaries. Main rivers are too powerful for beavers to dam. In some situations, beaver activity may conflict with human activities, for example, damming in an unsuitable location or unwanted tree felling, but there are a number of mitigation techniques that can be employed to minimise the risk. It is important that there is a management system in place, and this will be trialled during the pilot reintroduction.

For more information please visit the Welsh Beaver Project website www.welshbeaverproject.org

The Welsh Beaver Project Officer, Alicia Leow-Dyke, is hosted at the RWT Offices as it's centrally located but her post is externally funded.

Book Review:

‘Rebirding’ by Benedict MacDonald

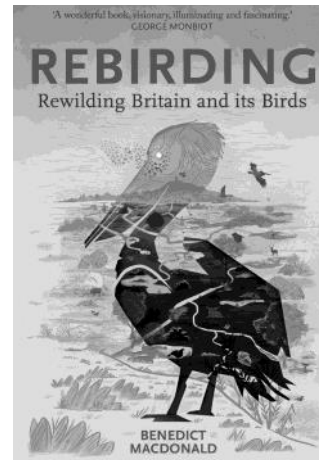
Review by Stephen Mullard

George Monbiot’s *Feral* thrust the idea of rewilding into the debate about land management and conservation. Restoring nature’s dynamic processes to create a more diverse and abundant wildlife in the UK seemed a beguiling if perhaps unachievable aspiration for many although significant projects around the country were taking first steps. Bursting next on the scene was Isabella Tree’s account, in her book *Wilding*, of the near miraculous transformation of unproductive farm land at Knepp in Surrey to wildlife haven as Nightingales, Turtle Doves and Purple Emperors established themselves. Even former Environment Minister Michael Gove became enthusiastic and strategies and opportunities to apply the principles of rewilding are increasingly being examined. Benedict Macdonald’s *Rebirding* makes a comprehensive attempt to define steps to embody the idea in different contexts across the UK. Birds are his passion but his vision is inclusive of all of our wildlife.

Macdonald describes Britain’s landscape and wildlife over an 8,000 year period in terms that are never dull. He sets out the ways in which landscape architects: Red Deer, Moose, possibly wild horses, wild cattle, Beaver and boar, would have shaped the land allowing scrub and coppice willow and hazel to thrive. The impact of agricultural practices up to the present day is also assessed and the decline of species which would have thrived in the previous “untidy” landscapes highlighted: Wryneck, Red-backed Shrike, Spotted Flycatcher, Yellowhammer, Lesser Spotted Woodpecker the list is long.

Describing the UK as perhaps the most nature-depleted country in Europe, MacDonald devotes sections of the book to case studies of the national parks, the Scottish Highlands, the uplands of Wales and the Somerset Levels. He highlights the ways in which often highly subsidised industries (dairy farming on the Levels, forestry, sheep,) and long established practice (deer estates and grouse moors) have had the effect of degrading the landscape and driving out wildlife.

MacDonald describes how vastly increased culling of stags in the highlands would allow woodland to regenerate and, paradoxically, enable the estates to become even more profitable as the remaining stags become healthier and their larger antlers earn greater revenue. Closer to home, and pointing to the vast areas of Wales devoted to largely uneconomic sheep pasture sustained mostly by subsidy, MacDonald describes ways in which rural communities can prosper with higher employment. One way would be to allow true ecosystem regeneration to take place in the upland areas by introducing Elk and Lynx to provide the dynamism that these areas lack in their silent hills. He estimates that Snowdonia could provide 20 Golden Eagle territories and describes the positive impact of increased, but managed, wildlife tourism. Another strategy is to



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diversify away from sheep: introducing natural densities of hardy cattle which would create a mosaic habitat for grassland birds without depleting nectar sources. Macdonald contrasts the usual, fairly intensive grazing in the UK with extensive grazing systems (often found in Poland, Romania and other East European countries) where animals can range over wide areas and create the natural disturbance of habitats which provides the dynamism that allows species like Wrynecks and Shrikes and a host of invertebrates and wildflowers to prosper. The introduction of large herbivores such as Elk, Red Deer, Beaver, Konik horses and hardy breeds of pig would, as at Knepp, engineer landscapes to the benefit of all wildlife.

It isn’t just agricultural practices he compares but our values too. MacDonald explains how the UK alone in the world has designated national parks not for the preservation of wildlife but as cultural parks with a nod to nature, dominated by the big six crops: timber, sheep, cereals, dairy, grouse and deer. A key part of his argument is the need to allow wildlife space for the natural processes to develop and he points out that, despite usual assumptions, we have plenty: both within and outside of national parks.

Conservation organisations are praised for their work in protecting individual species but encouraged to have the vision to advocate large scale natural restoration in the UK, to move from cautious, moderate objectives to evolve novel and tenacious large scale strategies as the only way to renew the UK’s wildlife.

MacDonald’s writing is lively, his arguments are underpinned by many references to official reports and research which show that economic well-being in rural communities can go hand in hand with a revitalized natural world. This book is an essential and inspirational read and is undoubtedly a beacon of hope and practical action at this critical time when our future farming policies are under review.

Bob's Postbag

Rob Podmore, RWT Estate Worker



Hello

again and welcome to Spring or Autumn
or Summer or even Winter (*let's face
it, it is very hard to tell the difference
sometimes*) here in Radnorshire.

Well, it's time to open up another bulging Postbag and first up is one from our 'Forgotten Lives' series:

Lily in Llanelwedd writes: "Dear Bob, a much-treasured member of our family was a Mr. H.C. Watson. It is very sad that nobody seems to have ever heard of him, please can you help to put this right?"

Of course I can Lil.

Hewett Cottrell Watson (1804-1881) was, amongst other things, a botanist and an evolutionary theorist. Darwin acknowledged him as a vital source of information. He is remembered today for what is known as the Watsonian Vice County System. This is the geographical division of the British Isles into standard sized units. Watson used the ancient Counties of Britain but subdivided them to create uniformity and he did all this in 1852. All well and good but what for? If you are recording living things and indeed other scientific data, it's a great way of comparing this information gathered over a long period of time easily and with accuracy. There are 112 VCs covering England & Wales, the Isle of Man and Scotland. Ireland was done in 1901 by R.L. Praeger, an extra 40. How about the Channel Islands I hear you ask. Well, Watson never included them so now they're either classed as one unit or, less usually, five. Ah well nobody's perfect! Radnorshire, by the way, is VC 43.

Chuck-a-luck

Bert from Boughrood writes: "Hey Bob, how do you know what to do and when to do it, or do you just make it all up as you go along?"

Well Bert, I'll assume that you mean how do we plan our Nature Conservation works and not how I live my life! It's not just by throwing dice, oh no. I'll let you into a secret, we have a first edition of 'The Really Really Big Book of Practical Nature Conservation and Habitat Management' published by Acme. There are so few of these left now that we have to keep our book in a secure vault in a bunker under Warwick House and no one person is allowed in. Huh! I hear you say, why don't you just photocopy the relevant chapters when needed? That's where Acme have been so clever, it states clearly on the flyleaf... *'that any attempt to electronically replicate any of the text, photographs or diagrams will instantly result in the self-destruction of the product, ACME Inc.'* : we simply can't take that risk. A dedicated team of volunteers are tirelessly working on transcribing it but there are 50,000 pages and that's not counting the 26 appendices and its A1 paper size, beautifully illuminated. At the moment I'm working my way through Chapter 36: Sub Section 111: --How to avoid Volunteer Mutiny: a pragmatic, unarmed approach to Conflict Management. Helpfully there are three dice and a flowchart.

LITERARY CORNER

*"There is a pleasure in the pathless woods,
There is a rapture on the lonely shore,
There is society, where none intrudes,
By the deep Sea, and music in its roar:
I love not Man the less, but Nature more."*

Who and from What? There was one lucky winner from last time, he declined the prize, said it may impair his editorial acumen. And talking of Newsletter editors, Bob would like to thank Joan for her patience with his slipped deadlines and her unfailing encouragement as he sometimes struggles to write silly things around a serious subject: because, *'Nature is not a place to visit. It is home'*. Gary Snyder. We have a team of three now and Bob's not sure where this piece will end up, Features...Fashion...under your Fish & Chips?

Good luck and hold on tight!

Bob



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Jonathan Stone	Reserves Officer
Alicia Leow-Dyke	WTW Welsh Beaver Project Officer



OPENING TIMES

RWT Shop, Llandrindod Wells: In accordance with advice regarding Covid-19 virus, the shop is closed until further notice. Please ring 01597 823298.

RWT Nature Reserves: Access is open at all times - see page 9 for current advice. Several reserves have restrictions on dogs. See RWT website for information. *Bird hides are currently closed.*

Gilfach: The Byre with self-service refreshments is currently closed along with the toilets. Both will be re-opened when it is safe to do so. Please ring 01597 823298 for further information.

RECORDERS FOR RADNORSHIRE (Vice-County 43)

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Plants Liz Dean & Sue Spencer, Enmore House, Croft Lane, Kingsland, Leominster. HR6 9PP tel: 01568 780769
erd@btconnect.com

See Recording Wildlife page on RWT website

EMERGENCY CONTACT NUMBERS

Injured or Sick Animals & Birds:
Tiggyswinkles Wildlife Hospital 24hr helpline 01844 292292
RSPCA 0300 1234 999

**Suspected water pollution, illegal tree felling, fish poaching,
illegal waste dumping, suspected tree disease**
Natural Resources Wales (NRW) 0300 065 3000

All suspected Wildlife Crime
including damage to bats or roosts
The Police 101

Other Useful Numbers

National Bat Helpline 0345 1300 228
Poisoned, trapped, shot protected birds RSPB 01767 680551
British Hedgehog Preservation Society 01584 890801

BTO Regional Representative for Radnorshire Carlton Parry,
1 Upper Caerddu, Howey, Llandrindod Wells. LD1 5PS tel: 01597
824050 / 07854 070223 cj.parry@tiscali.co.uk

Wales Raptor Study Group (especially breeding, ringed or tagged
kites) Tony Cross, Samaria, Nantmel, Llandrindod Wells. LD1 6EN
tel: 07837 521673 avcross@btinternet.com

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