Backwell Environment Trust

Registered Charity No. 1109406

Bulletin 15 - Summer 2009

A Very Warm Welcome to our Summer Bulletin

In this edition we report on the progress being made with the purchase of Badgers Wood, record the changes made to the reserve by the hard working BET volunteers and highlight some new discoveries made on the archaeology front. To help you find your way around our action packed bulletin the contents are listed below:

The Purchase of Badgers Wood- Episode 3

The story so far…

Regular readers will know that at the time of Bulletin 14 (spring 2009) we had secured all necessary funding to buy the 15 acres of Badgers Wood in two lots; 13 or so acres from Cemex UK Ltd and the other two acres from a Backwell resident. Terms had been agreed and the main issue remaining was with Cemex UK Ltd and concerned the state of, and ongoing responsibility for the fence protecting the cliff edge. Everything was hunky-dory.

Now read on…

Suddenly things went very quiet. Cemex stopped responding to e-mails and answering telephone calls and we started to get very nervous. It transpired however that they were undertaking an internal reorganisation and that our woodland was pretty small beer in their scheme of things. In addition they were considering uses for the quarry itself and the proximity of the wood was a complication for them.

At long last on June 11th 2009 we received a formal letter from Cemex offering us 9.75 acres rather than the original 13 but at the same unit price. We have accepted this offer and our main grantor YANSEC (The Landfill Community Fund) has agreed to continue its support. Unfortunately the 3.25 acres that Cemex are retaining contains the pre-historic Backwell Cave which we were very much hoping to acquire. However they have informally suggested that this section may also eventually be offered to us.

There have also been delays in the sale of the 2-acre section but this is still proceeding slowly. In the meantime, with the permission of the owner, we have started some clearance work in this area.

I would very much like to thank the numerous members who have made donations to this project and for their support to BET in general. Two members have made particularly generous contributions but of course all are welcome especially as the delays and complications have necessarily increased our legal costs.

To be continued once again! **Bill Charnock**

We are very grateful to Barbara Hunt of solicitors Gregg Latchams WRH for donating some of our legal costs, to a fellow of the Royal Institute of Chartered Surveyors for advice on land issues, to our members and supporters and the Parish Council for moral and financial support, to North Somerset for the Aggregates Levy seed fund grant and of course to the Landfill Levy in the shape of YANSEC (Yanley and North Somerset Environment Company) for the bulk of the purchase price.

We are also very grateful for the patience YANSEC have shown and their continued support through all the problems we have encountered.

Forthcoming Events

Sunday 16th August – Wildlife Wardens Nature Afternoon & Evening at Backwell Lake

Events for all the family – including pond dipping, bird and butterfly identification followed by evening moth & bat surveys. Refreshments available. From 4pm onwards.

Saturday 22nd August – BET Members Walk & Talk through Jubilee Stone & Badgers Wood

Come along & see the results of all the changes we have been making to Jubilee Stone Wood and hear our ideas for Badgers Wood. Meet 3pm at the Jubilee Stone.

Phil Chapman (who is involved with virtually everything to do with birds for BET!) has just returned from working on a ten-week project in Costa Rica. Within the next few weeks Phil will be putting together a photographic talk on what he has been getting up to, so look out for posters around the village & your e-mail once we have secured a date.

If you have ever wondered just exactly who your current BET Trustee and Committee members are, then see below...

BET Trustees & Committee Members 2009

Back Row, left to right : Bill Charnock (chairman & membership secretary), John Tarkanyi (treasurer), Carrie Riches (Hawk & Owl Trust), Michael Marks (Avon Bat Group), Ian Chambers (woodland management & bulletin editor), Terry Smith (environmental consultant), Barbara Charnock (acting secretary).
Front Row, left to right : Diane Zimmer (woodland volunteer), Jean Glasson (local botanist), Jenny Greenslade (local archaeologist), Ann Chambers (publicity), Avril Marks (Avon Bat Group).

Clay Pipes

Recently a well-preserved bowl of an old clay pipe was found in Jubilee Stone Wood on top of the remains of our ancient (1318AD to c1820AD) rabbit warren. Its ribbed design was quite distinctive (see photograph) so this encouraged us to start researching the history of clay pipes in our area in an attempt to date this fascinating discovery.

History

The earliest clay pipes were first produced in England and Holland from around 1580 to 1600AD and they initially had tiny bowls largely due to the high cost of tobacco at that time. By 1620 however, tobacco prices had fallen, the smoking habit was spreading rapidly and consequently the clay pipe bowls began to grow in size. Smoking quickly became a major fashion, so much so that in the early 18th century the city of Exeter was exporting over two million clay pipes to Europe and North America alone each year!

Luckily for us 'our' clay pipe bowl with its characteristic ribbed design is very typical of the style used during the Napoleonic Period which has allowed us to date it quite accurately to sometime between 1790 and 1820. It may also have been produced locally as Bristol was a leading centre for clay pipe manufacture at that time. The date of the pipe coincides nicely with the final years of the rabbit warren in what is now Jubilee Stone Wood, so the real possibility exists that this very pipe could have been owned by one of the last warreners to have lived and worked on Backwell Hill.

Ian Chambers

Woodland Report

After the long, hard winter of 2008/9 it's good to see that the spring and summer flowers are doing so well on the reserve this year. The flowers that have done particularly well so far this year include:

Cowslips - have dramatically increased in number on the Jubilee Stone meadow from 3 plants in 2007 to over 300 this year. This meadow area suits them particularly well as they tend to prefer the shorter grass to be found under the trees here and have also benefited from the selective tree thinning and bracken removal which has let in a lot more sunlight.

Bluebells and Wild Garlic - have also had a good season and have been very prolific, especially in the lower sections of the woodland where selective tree thinning was carried out to reduce the dense shade from the trees. These plants tend to spread only very slowly so it will take another year or two for us to see if the spring flowers increase in number with the brighter conditions.

Toothwort - has also been very numerous this season and has flowered continuously right through from April to June (**see textbox**). Interestingly this year, the flowers have been quite pink in colour instead of the more usual ivory, which has made this somewhat illusive plant slightly easier to spot!

Toothwort *(Lathraea squamaria)*

The apothecaries of the Middle Ages saw this plant's resemblance to teeth as a clear sign that it could be used for the treatment of tooth disorders and toothache – hence its common name. The whole of the plant is either cream or pale pink in colour with no green leaves at all. It is a fairly uncommon parasitic plant that survives by attaching itself to the roots of either hazel or elm. The plants typically grow 10cm-30cm tall and flower between April and June.

Foxgloves – in 2006 the small section of meadow to the left of the Jubilee Stone was covered in 2 metre high bracken with precious little in the way of other plants being able to compete. Since its removal, white and purple foxgloves have gained a strong foothold here with many hundreds of plants now present.

SPRING/SUMMER PROJECTS

The ever-eager BET volunteers have been busy on a wide range of woodland tasks over the period and have also completed two major construction projects. These projects have both raised the visual appeal of the reserve and also increased the range of habitats to be found in the woodland.

Dry Stone Wall Restoration

The upper entrance to the reserve, off Cheston Combe Road, has always been a bit unappealing

Restored Dry Stone Wall

d dry stone wall. This year some of
ring flowers and the old, collapsed
ne right-hand side of the track has

r and spring of 2007/8. Eighteen
a big success with numerous pond
ls of the reserve (deer, badgers,

squirrels, birds, etc) regularly using it as an invaluable source of water. This year we had our first frogspawn and newt eggs laid and are hoping that toads will breed here one day as well. Damselflies have also hatched from the pond and dragonflies have been seen laying their eggs on the submerged pond plants. The first pond was constructed approximately 70cms deep and its shape did not allow us to create too much in the way of surrounding bog plants and foliage. So we were keen to create a second, shallower pond next to the first with a lot more in the way of bog and submerged plants and this we achieved during the spring. Many native marsh plants have now been planted on the pond margins such as ragged robin, water mint, fleabane and purple loosestrife and all are thriving in the sheltered, sunny glade close to the Jubilee Stone. Already this pond has attracted many aquatic creatures including, for the first time on the reserve, newts. Hopefully this second pond will be as successful as our first and help to increase the range of habitats to be found on the nature reserve.

Limekilns

Today BET's limekiln is tucked away in the peaceful, wooded hillside of the JSWNR and it is hard to imagine the site over 150 years ago with its noise, heat and noxious fumes. Lime then was in great demand, not only as a basis for mortar when mixed with sand and/or gravel and water, but also as a whitewash/limewash for waterproofing walls. However its main use was for spreading on the fields after being 'slaked', ie. reduced to a powder after being mixed with water. It sweetened and improved the soil, most crops requiring a neutral or slightly alkaline one, and made heavy clay better draining and more porous. Modern farming methods use 1-2 tons per acre (2.5 - 5 tonnes per hectare) as a dressing every 4-6 years, and lime produced by BET's limekiln, c1843-1902 was probably used for this purpose.

To produce 1 ton of quicklime (calcium oxide) it took over 2 tons of limestone (calcium carbonate) using layers of coal, possibly from the coal-pits on Backwell Common. The lime-burner had to cope with temperatures averaging 1000 degrees centigrade and avoid falling into the red-hot 'pot' whilst topping up with

new stone and coal. Another hazard was that the burning material gave off CO_2 (carbon dioxide) which cooled and collected in hollows around the interior. This was potentially dangerous on still days and nights where its tasteless, odourless presence killed many tramps who often visited limekilns for overnight warmth. When water is mixed with lime it can easily boil, as the reaction is profoundly exothermic. Contact with lime can burn watery parts of bodies like the eyes.

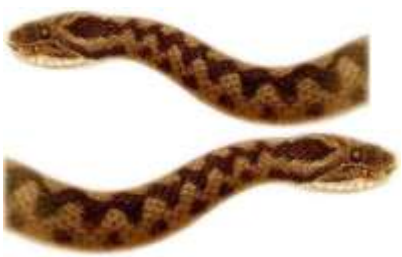
Ancient writers gave plentiful advice on methods of soil-management, and the earliest description of limekilns comes from Marcus Porcius Cato (234-149BC.) with archaeological evidence here from the Roman period (1st - 4/5th century AD.). It was not until the 13th century that demand for lime mortar increased with the building of many castles (several with their own limekilns) and religious houses. Often provision for limekilns was included in their contracts, like the Tower of London in 1278, and Windsor Castle in 1366, whilst it is recorded that Henry VIII's Tudor Palace of Nonesuch in Surrey produced 890 loads of lime in brick kilns between May and September 1538.

In those early days lime was sent by water-transport or overland by cart or packhorse – travel was free, or at a reduced price on turnpike (toll) roads. Although un-slaked lime was unstable and could burst into flames, farmers still risked carrying it to spread on their fields - the rain or frost did the 'slaking' for them. In the 17th century lime burning was more common as strip cultivation was replaced by larger enclosed fields and by the 18th century, demand for it as a soil-improver was enormous. Over 2 million acres (800,000 hectares) of new fields were created between 1790 and 1810 because of increased grain prices and huge numbers of limekilns were built, many for individual farmers.

With blocks of limekilns being built beside canals or on the coast, shipment of raw materials became a major trade. However by the 20th century, most lime production moved to large quarries or chalk-pits and with the expansion of the railways and the introduction of Portland cement, demand rapidly fell for simple lime mortar. Now in the 21st century, we have turned full circle and many goods are sent by road which is once again the cheapest method of transport.

Many limekilns are still visible, often in a sad state of decay; their walls robbed for stone or overgrown by trees and brambles. However BET's limekiln has been rescued from its toppled pile of stones and a continuing programme of excavation and research is uncovering more of the background of both the lime industry and hard-working lime-burners themselves.

Jenny Greenslade ..... with thanks to Vince Russett (our County Archaeologist)



BET Wildlife Rescue

On the last day of May, BET was called out to rescue a very large (about 85cms long) grass snake that had managed to securely entangle itself in plastic netting which was

covering a Backwell garden pond. Ten minutes of very careful snipping later we were able to successfully cut it free and place it on the lawn to recover from its ordeal (and of course to pose for an unmissable photo opportunity!). We knew that the snake wasn't too highly stressed as this species of snake will often go completely limp and 'play dead' in situations such as this, but to our amazement it did regurgitate its lunch – a rather large frog. (Luckily for you I was far too shocked at the time to take a picture of this!). A few minutes of rest and recuperation later it slithered off back into the undergrowth probably to plan its next frog snack.

Please Always Remember...

If you ever need help or advice on any wildlife, conservation or historical topic then just ask BET using the contact box below :

Need help in identifying plants, animals, fungi, etc ???
Want to know the best techniques for creating living hedges or constructing dry stone walls ???

Within the BET membership there is a wealth of experience on all aspects of wildlife conservation so why not contact us and we will do our very best to answer your queries.

BET Chairman : billcharnock@btinternet.com or 01275 462083
Woodland Management : chimpychambs@yahoo.co.uk or 01275 463315
Bats : painter.mike@btinternet.com or 01275 463244
Flora & Fauna : davidglasson@talktalk.net or 01275 462922
Archaeology : indianajen@tiscali.co.uk or 01275 462849

The Small-Leaved Lime (Tilia cordata)

The Small-leaved Lime tree is an indicator of ancient woodland as it rarely sets seed and so is unable to spread. The generic name *Tilia* may be derived from the Greek 'ptilon' meaning a feather, by reference to the bract that bears the fruit. It has heart shaped leaves, hence its specific name *cordata,* relating to the heart, which also gives us the word 'cardiac'. The leaves are hairless except for brown tufts of hair on the underside of the vein-joints. Similar tufts occur on the hybrid Lime but these are usually almost white. The Tiliaceae is closely related to the Malvaceae, which contains plants like Hollyhock.

It was commonly known as 'pry' in the Middle Ages. Its flowers are scented and attract bees, but it sets seed only in exceptionally hot years. It was well known to our ancestors who used the fibres in the phloem, called the bast, to produce a very strong rope. Almost certainly Lime bast rope was used to drag the large rocks from South Wales to Salisbury Plain in the construction of Stonehenge. In the First World War the rope was used by the Germans to haul tanks. The closely related tropical plant, *Corchorus capsularis,* produces the fibre known as jute, which is woven to make sacks. The wood has almost no grain and is ideal for carving. The famous works by Grinling Gibbons (1648-1721) adorn many of England's stately homes with a particularly good collection at Chatsworth House. It has also been the favourite wood for the construction of the mechanism in the piano, where precision of shape is required.

Small-leaved Lime

Lime has been traditionally coppiced, a process in which the tree is cut to the base encouraging new shoots to grow up, enabling the tree to live for a very long time. Some coppice stools are over 12 metres in diameter and are quite ancient. Over time it has radiated from a central stump that has long since decomposed, and its outer stems form a circle, appearing rather like a fairy ring. A coppiced Small-leaved Lime at Westonbirt Arboretum, Tetbury, is estimated to be over 2000 years old. An individual tree of this species would be expected to survive only a few hundred years; its increased longevity is due to the rejuvenating influence of coppicing. Some coppiced woodlands are ancient woods descended from the original primeval woodland cover, whilst others are more recent plantations.

The Common Lime tree *(Tilia x europaea)* was formed as a cross between the Small-leaved Lime *Tilia cordata* and the Large- leaved Lime *Tilia platyphyllos*, which is native in the North of England. This cross has probably happened on many occasions in prehistory. The strange specimen of Common Lime *Tilia x europaea* in Backwell Hill Wood has a 'buttressed' trunk, and was apparently one of the early progeny derived from the hybridisation. Other examples of this variant are found in Bristol. (ref : A. Titchen; Nature in Avon 2000 vol. 60, page 63).

There is doubt whether Small-leaved Lime is found in Jubilee Stone Wood (JSW) but I have been assured that it is present in Badgers Wood, however there are several examples of the hybrid in JSW, notably near to the northern (lower) entrance. This is characterised by a large number of shoots arising at the base of the trunk (so-called epicormic growth), which are not usually so pronounced in the parents.

In earlier centuries, the Small-leaved Lime tree was dominant in the woodlands of Wales, the South West of England, and across Northern Europe. The prefix Lin- suggests a connection with this tree and the Lime tree is well represented with family names like Lindley (ley referring to 'field'). Even Linnaeus derived his name from his father who owned a field in which three lime trees grew. Several local place names incorporate reference to this tree, like Lime Breach Wood, but of course, 'Lime' in a place name can also refer to the character of the rocks!

Dr Terry Smith

Oatfield Pool

You could be forgiven, even if you've lived in Backwell for many years, if you hadn't yet stumbled on Oatfield Pool (grid ref : ST508667). Hidden away on top of Backwell Hill, just

off Tinker's Lane and quite close to Downside, is a very strange and magical place. It is all the more unusual as it is situated almost on the highest point of Backwell Hill and surrounded by a dry landscape so characteristic of most of our upland areas.

So why is it there?

Geologically Oatfield Pool sits on impermeable rocks that are around 100 million years younger than the Carboniferous limestone of most of the hill and are very similar to the bedrock that underlies Felton Common. This type of silicate-rock strata tends to be acidic in nature although it does not appear to have affected the water chemistry in the pool, which is in fact slightly alkaline. Oatfield Pool is a small yet largely undisturbed, impenetrable wilderness filled with a tangle of trees and shade-tolerant plants. It is dominated by sallow ('pussy willow') with hazel, oak and field maple surrounding its edges. There are also an abundance of ferns, mosses, liverworts and lichens with numerous species of fungi sprouting from the dead wood. All these shady, humid conditions attract many insects which, in turn, attract a large number of birds to the pool.

The pool has been a major feature in our landscape for some considerable period of time - certainly for many hundreds, if not thousands of years. The earliest surviving written record of the pool dates from 1675 where it features in a lease that retained the farmer's right of **"coming and going with his cattle to Oatfield Pool"**. Later in a village survey of 1898, it was described as **"a marshy pond, known as Oatfield Pool, upon a farm bearing that name, and situate on high ground in the South East part of the Parish, is noted for its water-lilies and aquatic plants."** Today most of the open areas of the pool are choked with reedmace ('bullrush') and the water lilies have all but disappeared but I'm sure with a bit of gentle pond management they may well be persuaded to return!

Ian Chambers

BET's Bat Evening

On the evening of Wednesday 20th May, eleven BET members and supporters attended a bat evening at Cheston Combe. Mike explained how to use the bat detectors prior to walking to Badgers Wood, where we left a party by the old garage in the wood to survey for bats there. The rest then carried on up through the woods and back out onto the road in front of the old recycling centre. By this time the bats were busy flying up and down the road, illuminated against the clear night sky, and we were able to identify two species of pipistrelles and myotis. We

continued back into the wood to meet up with the rest of the party who had also recorded bats, but had not recorded any leaving the garage. We had good positive feedback on the evening with some members of the group saying they would like to learn more about our local bats.

The **pipistrelle bat** is quite widespread throughout mainland Britain, has a typical body length of around 35 to 50mm and weighs somewhere between 4 and 8 grams. The maximum life span recorded in Europe is 12 years. There are two types of pipistrelle bat - the common pipistrelle will usually utilise a wide range of habitats, whereas the soprano pipistrelle prefers lakes and rivers. They can be identified from each other by the frequency of their echolocation signals. Emerging soon after sunset, and hunting over farmland, open woodland, gardens, lakes and hedgerows, a pipistrelle can consume up to 3000 insects in a single night!

In summer, pipistrelles roost in tree holes, confined roof spaces, in small crevices on the outsides of buildings and is the most urban-dwelling of all British bat species. Pipistrelles usually have a single offspring, but occasionally twins, born in June or July. The young are fed on their mother's milk until, within three weeks of birth, they are able to make their first flight and begin foraging for food. The maternity roosts are usually occupied between May and August and sometimes into September.

Mike & Avril Marks

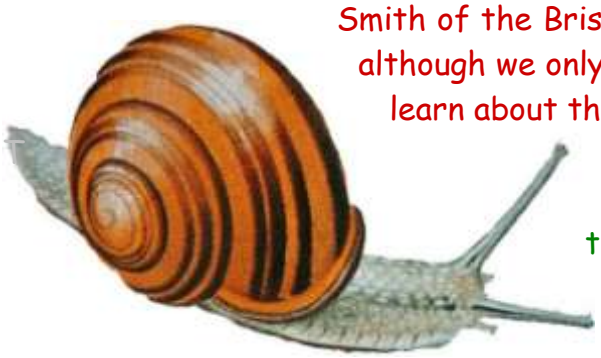
Ticks, Ticks, Ticks....

Just a reminder that when you are out & about in the countryside or even spending time in your garden, it is always wise to be on the lookout for ticks. Ticks are very small creatures (between 0.5mm & 2mm) and when they jump on you they tend to migrate to the softer areas (!) of the body where they firmly attach themselves. The problem arises because an increasing number of ticks now carry Lyme Disease which can be quite serious if not treated promptly. The best way to remove them is with a tick remover (on sale at the vets) or to use tweezers. The chance of you getting Lyme Disease from a single bite is extremely low but just in case, look out for a red circular rash which may form around the bite

site. I personally get well over a hundred ticks on me every year so if you see me looking silly on the reserve with my socks and T-shirt *firmly* tucked into my jeans you'll know why!

BET's Snail Training Day

Eight of us sat around our kitchen table on Saturday June 6th, armed with our hand lenses and eager to be introduced to the world of snails, slugs and ground beetles. This was what Tony Smith of the Bristol Naturalists' Society had entitled his training session, although we only had time to talk about land snails and have a lot more to learn about them!



Tony's goal for the day was to teach us how to use a key to identify snails; in this case the one produced by the Field Studies Council. He began by teaching us some essential terms and the ratios and measurements used in identification, so we learned about the protoconch, columella, umbilicus, dextral and sinistral whorls, ribs and striations and so on. Then he unpacked his many containers of snails, most of which were very small (all gathered when dead we were assured), and we were challenged to identify them by working through the key, using the microscope Tony had provided when necessary.

It wasn't easy – using a key is tricky because so much depends on interpretation of ambiguous terms and beginners quickly get frustrated and disheartened. But Tony is a patient teacher and the combination of a well-designed key and handy expert meant that we were all more confident in our skills by the end of the session. The next day I eagerly hunted for empty snail shells in our garden (you'll be surprised how many there are once you get your eye in) and identified at least one that was new to me.

Barbara Charnock

Fairtrade Cafe & Shop

2nd Saturday of the month, 10am-12noon Backwell Parish Hall

Ecological washing liquid refills and wholefood bulk-buy co-op now available!

If you are interested in joining our Fairtrade bulk-buy scheme, then please contact Barbara Charnock on 01275 462083

Please Note : The Fairtrade Café will be on holiday during August but will re-open again in September

And finally...

Keep yourself up to date by visiting

www.bet.btik.com