

Backwell Environment Trust

Registered Charity No. 1109406

Bulletin 17 - Spring 2010



A very warm welcome to our latest spring bulletin

As ever it's been another busy winter season for your Trust, especially with the acquisition of Badgers Wood at the end of last year. The management of our new reserve started almost immediately after the sale was completed and already, many new habitats and improvements have been created, some by contractors, but mainly by the hard working BET volunteers. To help you find your way around our action packed bulletin the contents are listed below:

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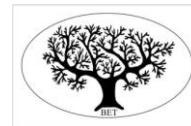
Mining in the Woodland



Badgers Wood Celebration Day !

BET's, not to be missed & long awaited, bash to celebrate the acquisition of our second nature reserve will be held on the afternoon of **Sunday May 16th** from 2 - 5pm. There will be walks, talks, displays, bug hunts, a raffle & music to name just a few of the events planned, *plus* lots of things for the little ones to do, and did I mention lashings of tea & cakes ? ? **Everyone** is welcome, so bring your friends, family & neighbours along to make it a day to remember. Put it in your diary **NOW !!**

View From The Chair



Badgers Wood..... The Final Chapter?..... Not Quite!

The really good news for Bulletin 17 is that we are now the proud owners of most of Badgers Wood. If you have been following the twists and turns of our negotiations with Cemex UK Ltd you will know that at a late stage they decided to retain a three acre section close to their industrial buildings in Coles Quarry (see the map of BET's holdings below). Unfortunately, and to the special disappointment of our archaeological members, this retained section contains the historic Backwell Cave. We still have hopes of obtaining this final section however and will continue to make representations to Cemex about it.

Unsafe Trees in Cheston Combe

One of our first actions in taking possession of Badgers Wood was to organise an inspection by North Somerset Council experts of trees close to the road. Unfortunately this revealed that we had seven very large ones (three ash, three sycamore and one field maple), which were decayed or diseased and could fall onto the road. As a matter of urgency we have had these removed. You may have noticed the road closure that was necessary to carry out the work. This cost us quite a lot of money but at least we are now confident that no serious incidents can occur.

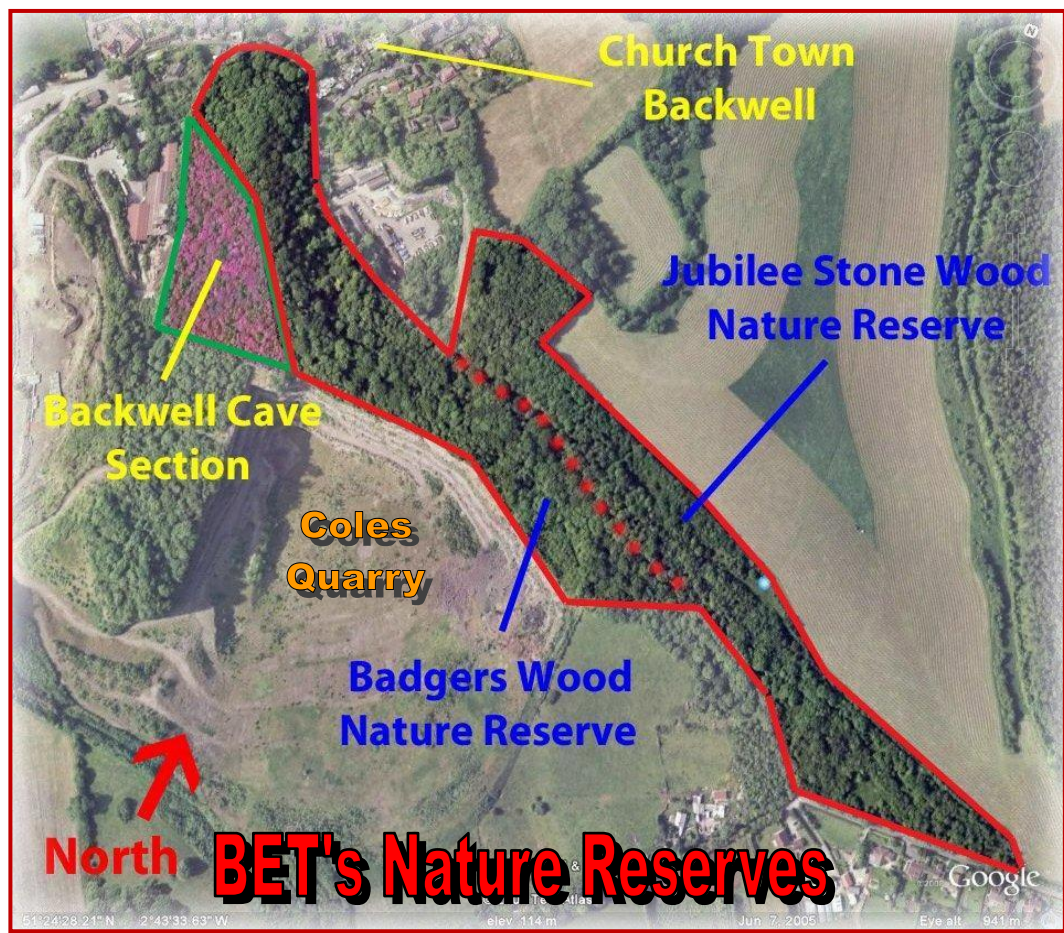
Theft of timber

Having felled our unsafe trees we asked the contractors to leave them in long heavy sections which could not be moved except by specialised equipment. I am afraid we were too trusting. Thieves moved in almost immediately with chain saws and their activities were only discovered when they started to remove timber from the felled trees close to the houses at the bottom of the Combe. Several tonnes of material have been lost. All of this has of course been reported to the police and crime numbers obtained. Even though there were eyewitnesses to one of the thefts and registration numbers taken, the police have yet to take any action.

I would ask all members to be vigilant when using the woods and the Combe and to make a note of any suspicious vehicles parked especially if they have trailers. We do occasionally use chain saws in the wood but this is very rare and usually only when our woodland manager Ian Chambers or one of the other trustees is present. Please contact me on 462083 or Ian on 463315 or any trustee if you see anything suspicious.

Backwell Lake

BET is supporting Backwell Access Group in its bid to make the path around the lake accessible to wheelchairs. This would involve constructing a limestone-based path similar to that in Jubilee Stone Wood. Wessex Water who own the lake support the project as do Backwell Parish Council and



Nailsea Town Council. The project is at the planning stage and funds have not yet been secured although Tarmac of Flax Bourton is offering very considerable help.

Bill Charnock

Membership Renewal

The membership year runs from April 1st to March 31st and renewals for 2010/11 are now due. We hope you will complete and return the enclosed form. The size of the membership is an important factor when applying for grants so although we seem to be very well established we do need to be able to demonstrate a wide base of support. Gift Aid is also a very important source of income for us so if possible please tick the relevant box and don't forget to sign the form.

If you have joined or rejoined since December 2009 please ignore this notice as your membership will go to March 31st 2011. Thank you for your support



BET Trustees

Following the AGM in November 2009, the trustees are now as follows:

Bill Charnock, chairman and membership secretary, 462083, 17 Church Town,
bill.charnock@btinternet.com

John Tarkanyi, treasurer, 462892, 42 Oakleigh Close, john.tarkanyi@jci.com

Ann Chambers, publicity officer, 463315, 24 Backwell Hill Rd., chimpychambs@yahoo.co.uk,
Avon Wildlife Trust volunteer

Ian Chambers, bulletin editor and woodland management team leader, 463315,
24 Backwell Hill Road, chimpychambs@yahoo.co.uk, Avon Wildlife Trust volunteer.

Jean Glasson, trustee, 462922, 39 Church Town, davidglasson@talktalk.net local botanist

Jenny Greenslade, 462849, 22 The Crescent, indianajen@tiscali.co.uk local archaeologist.

Caroline Hoults, trustee, 462172, 9 St Margaret's Lane, houltsfamily@btinternet.com.
Activity morning volunteer & children's activity co-ordinator.

Avril Marks, trustee, 463244, 45 Moorfield Rd., paintermike@btinternet.com, Avon Bat Group

Michael Marks, trustee, 463244, 45 Moorfield Rd., paintermike@btinternet.com, Avon Bat Group

Carrie Riches, trustee, 462908, 14 Farleigh Rd., carriches@btopenworld.com,
Hawk and Owl Trust Member

Amanda Swannell, trustee, 462815, 11 Karen Drive, doug.minter@blueyonder.co.uk,
Activity morning volunteer & children's activity co-ordinator.

Diane Zimmer, trustee, 462892, 42 Oakleigh Close, diane.zimmer@uwe.ac.uk, Activity morning
volunteer.

Also, the Trustees couldn't get by without the tremendous help of:

Barbara Charnock, 462083, 17 Church Town, barb.chnock@btinternet.com acting secretary, and events co-ordinator

Dr Terry Smith, 854317, 8, Friendship Road, Nailsea, botanical and environmental consultant, Acting Chairman, Nailsea Environment and Wildlife Trust (NEWT), t.a.smith@blueyonder.co.uk

Your BET Trustees for 2010



Front Row, left to right : Diane Zimmer (woodland volunteer), Bill Charnock (chairman & membership secretary), Carrie Riches (Hawk & Owl Trust), Ann Chambers (publicity), Caroline Hoults (children's activities), Jean Glasson (local botanist).

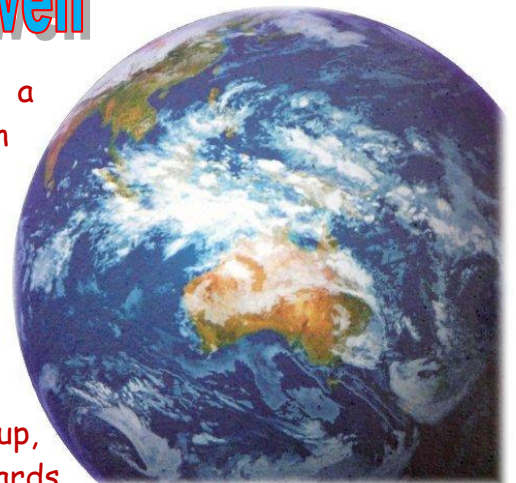
Back Row, left to right : Ian Chambers (woodland management & bulletin editor), John Tarkanyi (treasurer), Amanda Swannell (children's activities), Jenny Greenslade (local archaeologist), Avril Marks (Avon Bat Group), Michael Marks (Avon Bat Group).



Towards a More Sustainable Backwell

Last October, Backwell's popular Fairtrade Café organized a showing of the 'Age of Stupid'. The film is set in 2050 when the world has suffered disastrously from the effects of runaway climate change raising the obvious question - 'why didn't we do more when we had the chance?'

The film prompted a number of us to take action to try To reduce the village's ecological footprint and to help us all to live more sustainably. We have recently formed a group, provisionally called ***Sustainable Backwell*** and are working towards becoming a 'Transition Village' (you can find out more about these on the internet). Nineteen people have joined so far and we have had two meetings. Currently we are concentrating on three broad areas, energy, transport and food, and have a number of suggested actions in each. These range from the ambitious; establishing a community wind turbine and opening up some allotment space at the west end of the village, to the modest; encouraging cycling, shared transport and gardens and spreading information about insulation audits and grants, with many other suggestions and schemes jostling for attention.



The implementation of these projects will take time and energy and many of you may have different ideas about what such a group should prioritise. So if you are also concerned about what our way of life is doing to our planet and its creatures (including humans, the poorest of whom suffer the most) please join us, have your say and get involved. **Barbara Charnock**

Our next meeting is on Tuesday March 16th at 7:30pm

Terry Black is our convenor and can be contacted on tezzness@yahoo.co.uk or 07891 446348 or you can contact me, Barbara Charnock, on Barb.charnock@btinternet.com or 462083



Woodland Report

As ever, those hard working BET volunteers have been extremely busy over the winter season on both Jubilee Stone and Badgers Wood Nature Reserves. Naturally enough, Badgers Wood has seen the lion's share of the effort, especially as we felt our first priority was to address the potential safety issues of the reserve's close proximity to the abandoned quarry cliff face.

Jubilee Stone Wood

A hundred years ago, large parts of Backwell Hill were covered in both heather and gorse but despite our best efforts, the last known heather plant sadly passed away in 2006. Since then, we have been determined to restore heather to Jubilee Stone Wood (JSW) by re-establishing the open grasslands that were once such a feature of the landscape. Happily, in 2008 we saw the first few plants emerge from long dormant seeds, and last year we counted 133 individual plants of **bell heather** and **ling** so we are naturally very pleased that this beautiful, hardy perennial is once again part of the village landscape.

However, the area of acidic soil that the heather prefers in JSW is quite restricted in area and so this season we expanded the heather's possible range by removing an additional 11 x 8 metre area of hawthorn scrub at the bottom of the 'coupe' wildflower meadow. So hopefully after a few more years of regeneration, this section of the reserve should once again be the dramatic and colourful sight that it was in days gone by.



Badgers Wood

Hedgerows

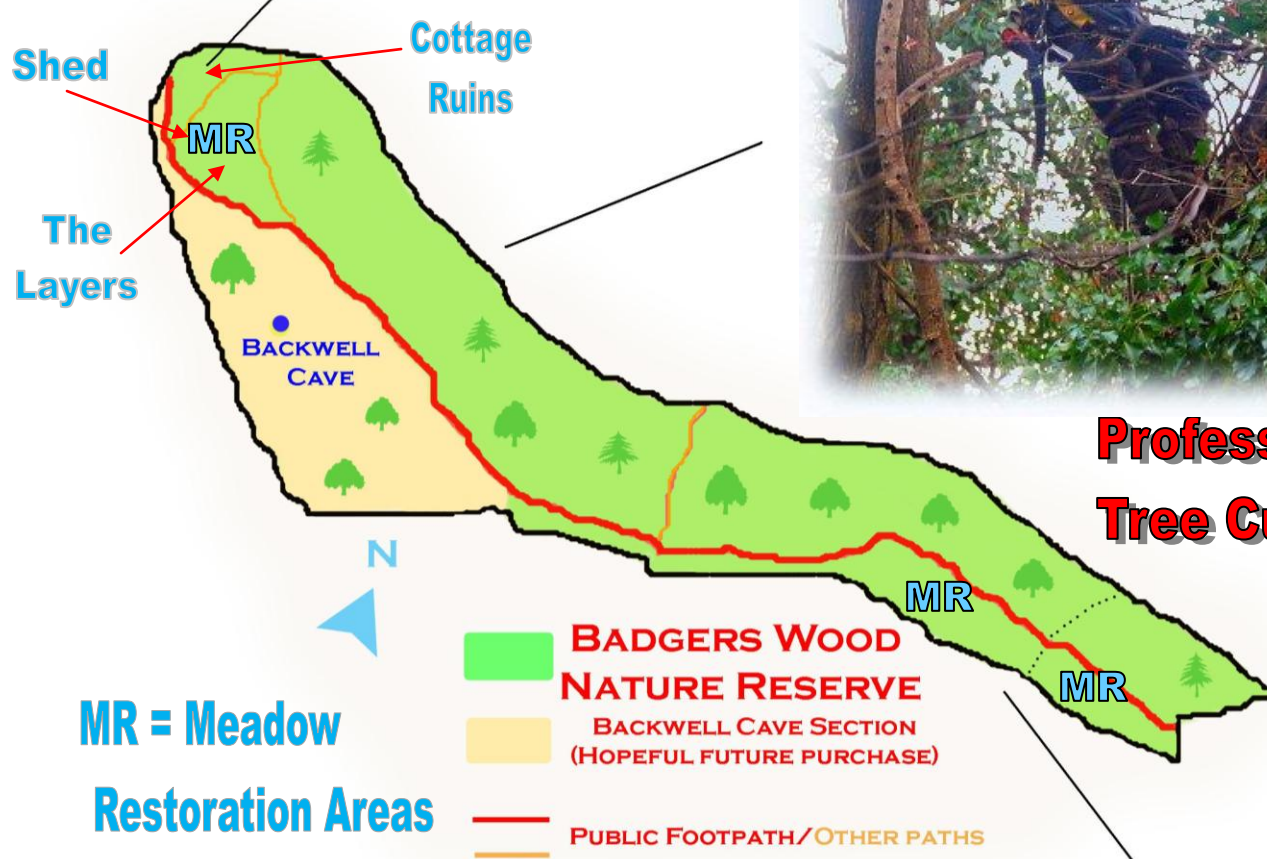
Our newest reserve borders a spectacular 30 metre sheer cliff face for around 300 metres of its length but unfortunately, in places, the quarry company's fence is not as secure as it might be. We were very keen therefore to increase its safety, whilst, at the same time, create a very beneficial wildlife



Rock Face Clearance



Professional Tree Cutting



habitat and corridor. As we went to press, we had laid over 200 metres of hedges in two rows in Badgers Wood, both adjacent to the footpath and right at the quarry edge.

Unsafe Trees

At the end of 2009, BET had a very thorough tree safety survey performed by North Somerset Council's tree officers who focussed their inspection on those trees that could potentially fall into Cheston Combe Road. This survey identified seven extremely large trees that were considered



Cliff-top Hedgelaying

to be in imminent danger of collapse through advanced decay. In January therefore, BET placed a contract with specialist tree surgeons to bring down these dying trees and make the road safe again (for more information see Bill's '*view from the chair*', on page 2).

Geology & Spring Flowers

At the western end of the reserve, close to the narrow road leading down to the recycling centre, is an important geological feature where the Carboniferous limestone is exposed in a spectacular cliff face. This area is also a fantastic place to see a multitude of primroses in springtime and so this heavily overgrown area has been selectively cleared to let in more light for the spring flowers and also to reveal the stunning rock face.

Meadow Restoration

Fifty years ago large parts of what is now Badgers Wood Nature Reserve was fairly open grassland with only a few trees interspersed. Since then, the woodland canopy has rapidly expanded its range which has resulted in most of the ground based flowering plants being shaded out. So naturally, high up on BET's wish-list this winter was the restoration of sections of lost wildflower meadows right across the reserve. Over the winter season we have managed to restore approximately one third of an acre of scrubby woodland to what will hopefully become once again, spectacular wildflower-rich meadows.



Ian Chambers



Activity Mornings - on the **SECOND THURSDAY** and the **FOURTH SATURDAY** of every month starting at 10 am on both days and continuing for 2 hours or as long as your energy lasts.

The tasks will change as the year progresses and can vary according to your strength and interests. Please wear stout footwear and suitable old clothes and, if possible, bring garden gloves. We **always** break at about 11am for vast amounts of chat, tea and biscuits.

Meet at the lower entrance to Jubilee Stone Wood outside No17 Church Town just before 10am or telephone in advance to find out where we shall be working (01275 463315)



Heathers

Heathers are a group of low-growing, woody shrubs mainly of the *Ericaceae* family and they characteristically tend to be found on acidic soils. To help them survive in the poor quality soil typical of heathlands, their roots have developed a close association with a fungus (*mycorrhiza*) which enables them to absorb extra nutrients from the earth. Both of BET's nature reserves are to be found lying on top of Carboniferous limestone bedrock which tends to lead to the formation of either neutral or slightly alkaline soils so why should acid-loving plants such as heathers and gorse be present there?

Well, the theory goes that after the last ice age, large quantities of rock which had been ground to a fine powder by the action of glaciers (called *loess*), was deposited from rivers of glacial melt-water into large floodplains. During the winter season however the flow of melt-

water from these glacial rivers either ceased or was greatly reduced which left the plains susceptible to drying out when exposed to the wind. These deposits could then be picked up during storms and deposited, often many miles away, in depressions to form pockets of often acidic soil.

Jubilee Stone Wood has two types of heather:
Bell Heather (*Erica cinerea*) and Ling (*Calluna vulgaris*)

Bell Heather (*Erica cinerea*)

These hardy perennial plants grow into compact dwarf shrubs, usually up to 40cms high. Their foliage can range from dark green to bronze in colour with the 4 to 7mm crimson-purple flowers forming in long clusters. Their preferred habitat is on dry heaths, moorland and coastal cliffs. Flowering time can be anytime between June and September.



Heather, Ling (*Calluna vulgaris*)

This form of heather usually grows anywhere between 10 – 50 cms tall to form a dwarf, compact shrub and with age their lower stems can become quite woody. Their leaves are quite different to bell heather in that they are longer and densely overlapping. Its flowers are small, pale purple in colour (rarely white) and are held in branched spikes. Flowering time is usually August to September.



Heather has had numerous uses through the ages. In Scotland, the crofters mixed it with earth and straw to form the walls of their cottages, whilst on its own it provided the material for their thatched roof. It was also their staple fuel, their source of material for baskets,



rope and brooms as well as being an essential feed for their sheep. On top of all that, an orange dye could be made from it and, after the crofter had spent a long day using the heather in every conceivable way, it provided him with a very comfy, scented bed on which to sleep. These heather beds were so comfortable that during the highland clearances, when many Scots emigrated to America, some insisted on taking their old beds with them which resulted

in the accidental introduction of the plant through their discarded mattresses!

Heather honey is considered by connoisseurs to be one of the best varieties to have. The Saxons however made a sort of mead or honey wine out of it and Saxon men would drink one

cupful of this every day for the first 30 days of marriage. (It was felt such refreshment would help to fortify the groom and enable him to cope with the 'rigours' of his marital duties!). From this custom comes the modern word 'honeymoon' which referred, not to a romantic holiday for newly-weds, but to the taking of heather honey wine to keep up one's strength during the first moon of marriage. So now you know.....

Ian Chambers



Fairtrade cafe and shop



2nd Saturday of the Month
10:15am - 12:15 Backwell Parish Hall
(March Cafe in the WI Hall)
**Why don't you pop in for a great
tasting cup of tea or coffee
and stock up on Fairtrade goods?**



This has now become a regular monthly event and a lively meeting place. As well as supporting Fair Trade, the cafe invites local groups to run stalls to promote their activities and develops initiatives to encourage sustainable living. The latest of these is the Ecover refill service (washing-up, laundry, multi-surface liquids etc) and an opportunity to borrow a 'Smart Meter' for a month to check your electricity consumption. **So why not call in sometime?**

At our March meeting, Backwell's Community Plan will be launched
Don't miss it !!



Nailsea Environment & Wildlife Trust

Many congratulations to the Nailsea Environment & Wildlife Trust (NEWT) who have just successfully completed the purchase of 6 acres of wet meadows and woodland at Moorend Spout (off Pound Lane, Nailsea). For more information and to find out how you can get involved, visit their website at www.newt.btik.com or phone Terry Smith on 01275 854317.



By the way, NEWT's logo was inspired by the many beautiful Banded Damiselles that are such a feature of the streams on the reserve in the summer and one that we are hoping to attract to the ponds in Jubilee Stone Wood.

Banded Damoiselle

Britain's largest damselfly is a common sight from early summer onwards along the fast flowing streams and rivers at Moorend Spout. Its eyes are smaller and more widely spaced than a dragonfly's, giving its head a dumbbell appearance. The bodies of both the male and female are a burnished blue-green colour, however the male can be identified by the blue patches on its wings and the female by her metallic green wings. Like dragonflies, they catch small insects on the wing and have specialised legs for perching on vegetation although the shape of their legs means they are unable to walk on the flat!



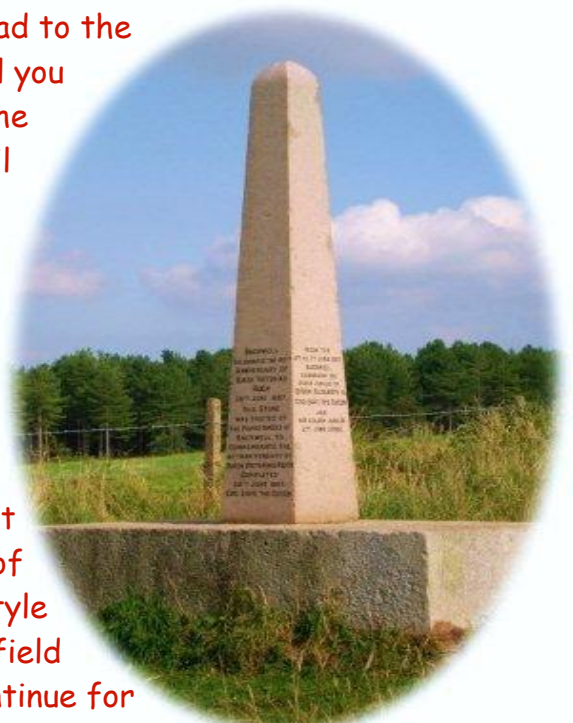
Winter Warmer Walk

In January, BET organised a bracing walk taking in some of the fantastic features of Backwell Hill and hopefully blowing away those post-Christmas cobwebs at the same time.

The walk is superb at any time of the year and well worth recounting....

**A 4 mile walk, almost all of which is on footpaths and bridleways.
Allow about 2 hours, depending on the enthusiasm of the walkers!**

Starting from **Church Town**, take the path up to the Jubilee Stone and then continue to the car park at the top end of the Reserve. Turn left onto the road to the T-junction where you turn right for about 50 metres until you reach the bridleway on your left. At this point, follow the bridleway to the right which runs parallel to the road until it pops out on what is signed as **Long Lane**. Go left down the lane as far as the restricted byway on the right. This is '**Tinker's Lane**' which you now follow as it winds its way between the hedges of the adjoining fields. After about half a mile you will find the enigmatic **Oatfield Pool** on your left, just where the lane bends sharply, turn to the right. Carry on until you reach **Hyatt's Wood Road** where you turn right, then almost immediately cross to turn left down the driveway of **Oatfield Farm**. Just by the farmhouse there is a stone stile to the left into a field. Bear right and head across the field towards the gate in the valley. Once through the gate continue for



about 100 metres. At this point you will notice a stile into the woods on your left. Turn your back on this and head up the field to a newly refurbished stile. Now bear left to a stile in the corner of the next field which brings you onto a track which you then follow, crossing **Long Lane**, until you come to a junction with another track and the stile into the fields above the quarry.



Bear right towards quarry boundary and then over two stiles which will bring you to the upper entrance of **Badgers Wood**. Follow the path all the way through the nature reserve until you eventually pass an old abandoned building on your right. Immediately after it, take the small path leading off to the right which will take you back down to **Church Town**.

Just Some Of The Fantastic Views To Be Seen From The Top Of Badgers Wood



Steep Holm with a snow-capped Exmoor beyond



Sand Point and Flat Holm

If you wish to cut out the Oatfield Pool loop, turn right when you get to Pear Tree Lane and go straight across at the crossroads into Long Lane. After about half a mile, turn right down the track and follow directions from 'crossing Long Lane'.

Carrie Riches & Amanda Swannell



BET Bird Box Survey

In February, three enthusiastic members of YACWAG very kindly braved the winter chills to survey, clean out and repair the seventeen bird boxes we have in Jubilee Stone Wood. Of the seventeen boxes, **ten** had nests, **three** had been used by mammals, **three** used for roosting and **one**, unfortunately, had been opened by someone and therefore remained empty. Good nesting sites are always at a premium in any woodland so it was great news to find out that all of the viable nest boxes had been used by one creature or another on the reserve.

In Badgers Wood, BET volunteers inspected eleven boxes - **three** had nests and **one** had been used for roosting. (The level of occupancy on this reserve will certainly improve over the coming years when our meadow & glade creation programme starts to make the woodland more productive for birdlife).



PS : if you find yourself walking from our small car park to the Jubilee Stone along the public bridleway, don't forget to look closely at the many flat stones embedded in the path along the route. This path is regularly used by song thrushes because the exposed stones seemingly make perfect 'anvils' on which they smash open snail shells to get to the succulent contents (*yummy*). If you're lucky you may also be able to hear their frantic hammering as they break open the shells - the large number and variety of which found along the path, would tend to suggest that they're also quite good at it!



Local Memories of Badgers Wood



The remains of the old cottage on the edge of Church Town (see the Badgers Wood map on page 6) was once inhabited by a Backwell resident when she was newly married and at that time was owned by Hobbs & Co. In the 1990's she recalled how cold and dark it was and how she felt very miserable there. The laurels, a few daffodils and the extensive periwinkle ground cover mark the area.

The large stone-walled shed by the footpath was used as a garage by the Gannicliff family for their Rolls Royce, after they built the bungalow below it then called 'Tally Ho'. (David Gannicliff is the grandson of the founder of Joseph Coles Ltd). The bungalow was sold to RMC and then bought privately and is now known as 'Quarry House'. The shed was then used as a hay store for horses, then using the fields where the newer part of the quarry was developed.

The original footpath up the hill (now in Badgers Wood), followed a valley now occupied by the old Dry-Pack buildings. As the quarry expanded, the path was moved further towards the Combe several times. The re-growth of trees to the right (not BET land), where the footpath veers left, followed clearing of the land where planning for quarrying had been granted prior to RMC's ownership. This was fortunately switched to extraction permission behind the woodland screen otherwise the massive scar would have been an eyesore visible as far as Clevedon.

RMC took over from Hall & Ham River and they in turn were bought up by Cemex. Extraction ceased at Coles Quarry when permission was given for the development of a new quarry at Freemans Farm on land beyond Bourton Common with easy access to the A38.

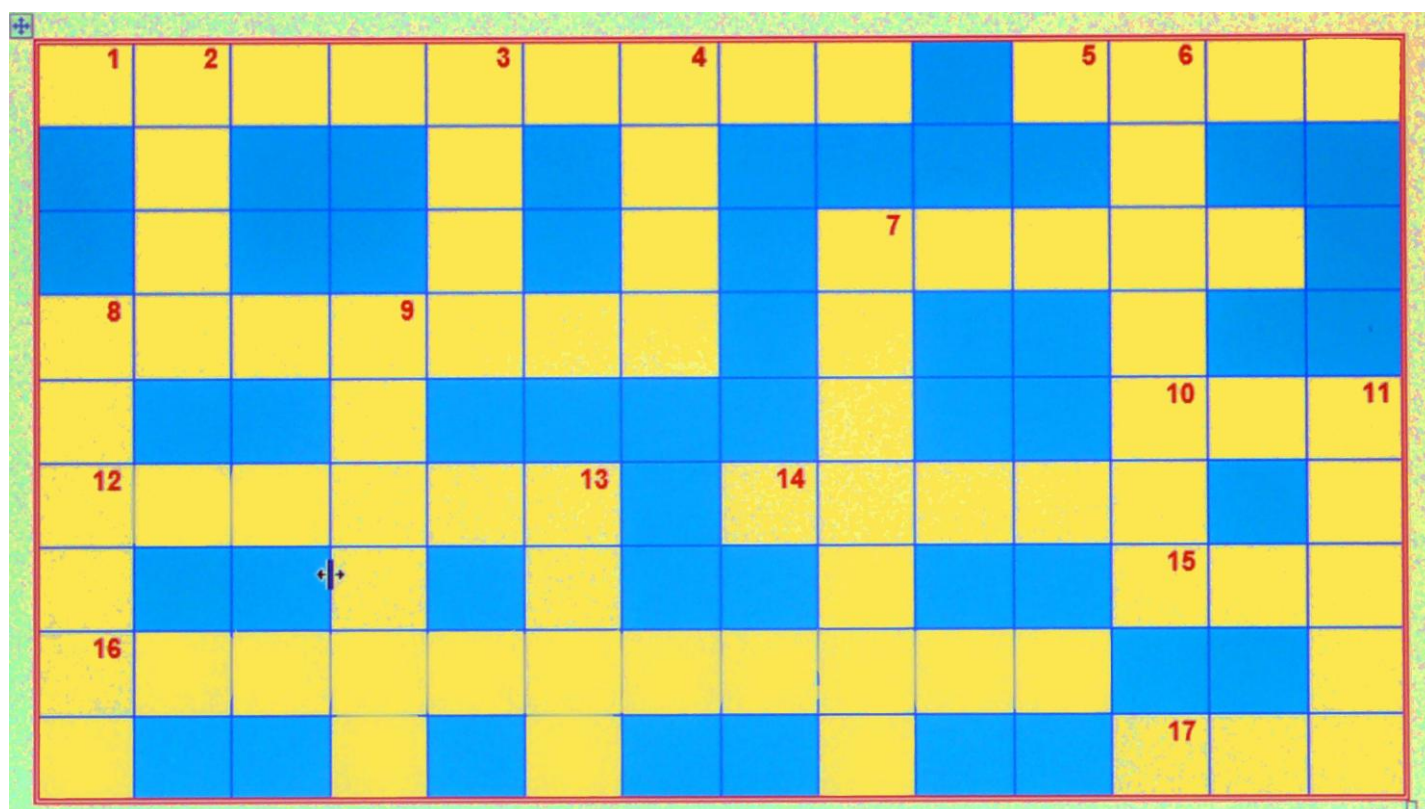
The small overgrown pond near Cheston Combe is a remnant from a cross country riding event held on the Coles Quarry land prior to 1965. The intermittent remnants of an earth bank on the wooded side of the path, beside the quarry edge, was produced by an earth-mover clearing the field for horse grazing (which is now largely quarried out).

The woods were used for rough shooting by a Gloucestershire club prior to the RMC takeover. No shooting has been allowed since. There were also plans to build a house on the flattish grassy area ('the layers' - see map on page 6) prior to the takeover of Joseph Coles - now lapsed (thank goodness!). The quarry path was planted with unsuitable non-native trees such as purple leaved Norway Maple.

Jean Glasson



BET Crossword



1 Across Brightly coloured insect found near our pond (9)

2 Down Too (4)

3 Down This way to Mecca (4)

4 Down Not to be confused with bracken (4)

5 Across Don't leave **11D** like this (4)

6D & 14A High point of our woods (7&5)

7 Down Talk (7)

8A & 7A Local beauty spot (7&5)

9 Down Once farmed in our woods by the warrener (6)

8 Down Pancake Mix (6)

10 Across Type of cabin (3)

11 Down They keep the cattle out (5)

12 Across The product of many of our activity sessions (6)

13 Down Pull bracken out by this (4)

14 Across See **6D** (5)

15 Across Re-fuel (3)

16 Across At the heart of BET (11)

17 Across Carbon dioxide is an example of this (3)

John Tarkanyi & Diane Zimmer



THE MYSTERY OF THE MOUNDS



In the field where cows now gently graze adjacent to the Jubilee Stone, are the remains of four low, circular mounds which may be Bronze Age burial barrows from 2,500 to almost 4,000 years ago. There were once between 10,000 and 20,000 of these in the countryside but many have been destroyed by ploughing, being built over, or dug out by treasure hunters (a frequent occurrence in the 19th century), although there were a few good antiquarians who recorded and illustrated everything they excavated.



Bronze Age Settlement

By the middle of the Bronze Age, the landscape was more domesticated with permanent settlements of roundhouses and farmsteads which were surrounded by well-defined fields, dry stone walls and deeply-worn track-ways. Smaller round barrows for cremation urns were built now, some in isolation, but many in clusters or cemetery groups. They were usually carefully positioned on the false crest of a hillside so they could still be seen by people living below them.

The largest mound in the field at Backwell was 9.2 metres (30 feet) in diameter and excavated by the Reverend George S. Masters in 1898, but instead of cremation urns or burials all he found, half a metre down beneath a stone pavement, were animal bones,

pottery sherds, clay tobacco pipes and iron nails. He declared it “a puzzle” as the items were modern (ie. 19th century), but we now believe that it was probably rubbish left by workmen who built the Jubilee Stone in 1897, as the stone pavement was of the same material that was used beneath the granite obelisk.

The mound could still be a barrow with burials lying undisturbed beneath the rubbish, or it and the other 3, could be there for an entirely different reason. In the first half of the 20th century, the field was a golf course, so they could be bunkers, or perhaps windmill mounds, spoil-heaps from lead mining, prehistoric hut circles, sheep-folds or sow-kilns for burning limestone. Large mounds were sometimes built to provide good viewpoints from a hilltop, such as the large one of 18.5metres (60 feet) circumference at Beacon Hill near Shepton Mallet with a 2 metre (6 feet) high stone pillar in the centre. Reverend John Skinner of Camerton wrote in his diary in October 1823 that an old gentleman told him about Mr Thomas Horner who held a large dinner party on top of the mound and christened it in honour of the Duke of Cumberland by throwing a bottle of wine against the pillar, no doubt part of celebrations after defeat of the Scots at Culloden in 1746. Skinner excavated this mound, and found it to contain only black soil unlike the 11 or so other real barrows already there.

If the name ‘**Horner**’ sounds familiar, the Thomas Horner mentioned above may have been a descendant of the original Horner family - another Thomas and his nephew John who in the 1500s were big land-owners, but a little-loved Somerset family with, literally, a ‘finger in every pie’, not just the Christmas pie of nursery rhyme fame. Apparently they were fanatical in implementing law and order, not only executing rioters from Taunton in 1536, but also playing a gruesome part in execution proceedings of Abbot Whiting of Glastonbury.



Bronze-age Burial

There may not be any exciting tales to tell about the 4 mounds in the field by the Jubilee Stone, but BET would still like to find out whether or not they are Bronze Age burial barrows. Their high position on the hillside, and existence of later Iron Age and Roman burials in the nearby Backwell Cave, suggests continuity of use for this once-sacred site. We are hoping to have some geophysical surveys done over the next few months to 'read' what lies below the surface, without the need for excavation, and will hopefully let you know the results in our next Bulletin.

Jenny Greenslade



Mining in Jubilee Stone Wood

The geology of Jubilee Stone Wood is dominated by Carboniferous limestone which was laid down some 300 to 350 million years ago in a warm, shallow sea from the remains of countless marine animals. One hundred and fifty million years later during the Jurassic Period, mineral rich water began to be forced up from the hot depths of the earth through the many faults and fissures in the limestone which today has resulted in the accumulation of numerous metal ores in the bedrock.

Woodland Minerals

Whilst both copper, barium and iron ores are present in the Carboniferous limestone of

Backwell Hill, the most abundant minerals are 'galena' (lead sulphide) and 'calamine' (zinc carbonate). Historical records confirm that both these metals were being mined here during the 17th century and possibly even earlier as was the case at nearby Goblin Combe. Zinc combined with copper is converted into brass which was a highly prized alloy during the period and was much in demand. In fact



Galena - Lead Sulphide

during this century, most of the calamine extracted from the west of England originated from this area which, in turn, led to the city of Bristol becoming a major centre for the industry.

Mining Methods

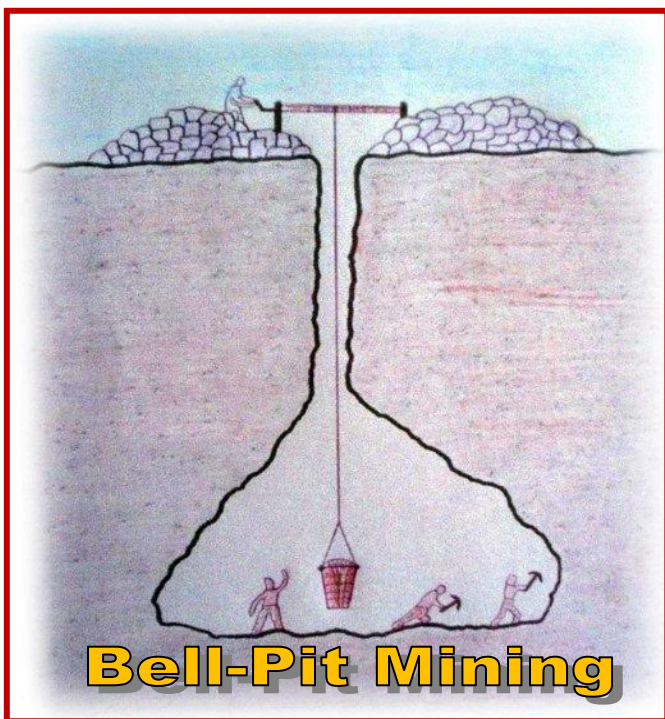
The mining of lead in the British Isles goes back to prehistoric times and was one of the



Malachite - Copper Carbonate

factors that attracted the Romans to Britain in 43AD. Lead ore or 'galena' usually occurs in narrow, vertically orientated seams. When the miners located these outcrops at or near the surface they would have dug simple, open cast circular pits or grooves to extract the ore. (You can see a possible example of two of these pits in a small semi-circular clearing to the right of the footpath, just opposite the bottom of the wildflower meadow 'coupe').

Some of the deposits of lead however were found to descend deeper into the bedrock and the miners would have ultimately reached a point where it would become too difficult to remove the rock by shovel whilst the steep walls of the pit would have become increasingly unstable. When this situation developed the miners would have dug vertically down through the limestone bedrock opening up a small shaft and ultimately a narrow, bell-shaped chamber underground. The two circular mounds you can see from this point are thought to be examples of these narrow bell-pits covered with a layer of waste material from the mining process.



The ore and waste material was removed from the pit by the use of a hand winch (referred to as a 'jack roller' or 'windlass') attached to a bucket (known as a 'kibble'). When the miners reached

the bottom of the seam or the limits of practical working they would follow the ore seam on the surface and start a new bell pit adjacent to the last repeating the process as far as it was practical to do so.

Ian Chambers



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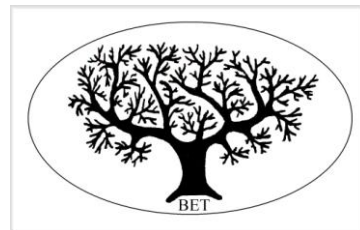
and finally.....

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Backwell Environment Trust

Membership Form



April 1st 2010 to March 31st 2011

**I / We would like to take out membership of the
Backwell Environment Trust for 2010/11**

Adult Member Details:

Forename..... Surname.....

Forename..... Surname.....

Address

.....

.....

County Post Code

Telephone

E-mail

To receive your bulletins as e-mail (up to 6MB) please tick here

Individual £5.00 (one voting member aged 18 years or over).

Please tick here.....

Family £10.00 (two voting members aged 18 years or over & dependants).

Please tick here.....

I / We wish to make a donation of £

I / We enclose a cheque payable to 'Backwell Environment Trust' for £.....

Gift Aid

I/We want all payments made since 6th April 2000 and all future payments to be GiftAid until further notice. Please tick here.....

(To qualify your annual income tax or capital gains tax must equal or exceed the tax BET can claim back. For every pound you pay for membership or give as a donation, BET can claim an extra 25p from the Inland Revenue).

Signed :

Date :

**Please return to : Bill Charnock, BET Membership Secretary
17 Church Town, Backwell, BS48 3JQ. Also 462083 &
bill.chnock@btinternet.com**

**PLEASE DON'T FORGET TO SIGN AND DATE THE FORM AND TICK THE GIFTAID BOX IF APPLICABLE..... and
thank you so much for your continued support**