



Friends of Leckhampton Hill & Charlton Kings Common

NEWSLETTER

www.leckhamptonhill.org.uk

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New Rural Geology Trail - Leckhampton Hill, Cheltenham



The trail guide also contains information on the quarrying history of Leckhampton Hill and Charlton Kings Common, the hillfort and round barrow and some of the plants and wildlife as well as an overview of the way in which the rocks were laid down.

Because of the national importance of the stratigraphy exposed in the many old quarries on Leckhampton Hill,

The disused quarries on Leckhampton Hill and Charlton Kings Common expose an almost complete sequence of the Cotswolds Middle Jurassic Inferior Oolite rocks plus the uppermost part of the underlying Early Jurassic Lias Group of silts and clays.

The Jurassic rocks of the Cotswolds were laid down in a warm tropical sea, between 180-135 million years ago. These rocks are now almost 300m above sea level at Leckhampton. Originally these rocks would have filled the Severn Vale and extended as far as the Malvern Hills, but Ice Age glaciers and the River Severn have since eroded down through the rocks and left us with the Cotswold Escarpment as we see it today. The rocks on Leckhampton are very important for their stratigraphy and the fossils they contain, providing valuable evidence of past processes and environments.

Gloucestershire Geoconservation Trust have produced a self guided trail exploring the geology as part of their "Gloucestershire Uncovered" series of Rural Geology trails.

The trail starts from Brownstone Quarry car park and heads at first to Charlton Kings Common to the view across Cheltenham to Cleeve Hill, the site of another one of the trails, and across the

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wide flat plain of the Severn Vale to the Malverns (on a clear day). From here the trail drops down into Lower Limekilns Quarry where the grey silty-clay at the top of the Early Jurassic Lias Group can be seen. Directly above this is a sandy orange coloured rock named the "Leckhampton Member" as this is the best exposure of it in the country. The remainder of the quarry shows the lowest beds of the Middle Jurassic rocks and marks the start of the world renowned Cotswold limestones. The leaflet describes the different rock types seen here and briefly explains how they formed in a warm tropical sea. At the time when these rocks were being formed, Britain, as we know it today, was much nearer the equator in a latitude roughly equivalent to that of Bermuda today. Movements of the earth's tectonic plates have slowly brought the Eurasian continent northwards over the last 180 million years.

From the Limekilns Quarry, the trail follows the base of the escarpment southwards to Firsbrake Quarry, just below the plaque commemorating the Leckhampton rioter. This site exposes some of the freestones that were popular as building stone but also has a number of interesting geological features such as borings and cross-bedding.

Coming up onto the plateau the trail



heads to Devil's Chimney, a pillar of freestone left by the old quarrymen, and then into the large Deadmans Quarry where the freestones are exceptionally exposed along with the finer grained Oolite Marl. Climbing out of the quarry into the area of the Iron Age camp on top of the hill brings you onto the "grits" or "ragstones" that contain so many fossils that many of the rock units are named after the most abundant bivalve fossils to be found in them (e.g. Gryphite Grit named after *Gryphaea*, better known as 'devil's toenails').

The trail guide is written in such a way as to be accessible and informative for all abilities but still has enough information to keep the more knowledgeable happy. It is laminated to make it shower-proof, in full colour and contains many photographs to help non-geologists decipher the information in the text.

Trail guides are priced at £1.95 and are available from local Tourist Information Centres or can be ordered directly from Gloucestershire Geoconservation Trust on 01452 864438 or www.glosgeotrust.org.uk and click on PUBLICATIONS.

If you would like more information on GGT or the geology of Gloucestershire, give them a ring or visit the website, they are only too happy to help.

The views expressed in the articles are of those of the authors and do not necessarily reflect the views of FOLK or its Executive Committee

DATE FOR YOUR DIARY

Friends of Leckhampton Hill

and

Charlton Kings Common

Annual General Meeting

to be held at **Leckhampton School Hall**
on **Monday 25th October 2004 at 7pm**

followed by

A TALK ON THE GEOLOGY OF THE HILL
BY GLOUCESTERSHIRE GEOCONSERVATION TRUST

LECKHAMPTON HILL SSSI BIRD SURVEY SPRING/SUMMER 2004

As required by the Leckhampton Hill and Charlton Kings SSSI Management Plan a thorough Bird Survey was conducted in May and June of this year. It will form one of the contributions to a database covering animal and plant wildlife. From this it will be possible to monitor any changes to flora and fauna on a regular basis.

The extent of land to be covered would clearly require at least two pairs of observers and we were keen to follow standard BTO (British Trust for Ornithology) procedures in which both my wife and I were already experienced. Although we are both members of Cheltenham Bird Club we thought it would be good to involve another local Club which was also well-versed in surveys and thus contacted NCOS (North Cotswold Ornithological Society) members Duncan and Becky Dine.

The area is neatly divisible by a north/south line following the footpath ascending from the side of "Larchlands" on Daisybank Rd and forming the Parish Boundary between Leckhampton and Charlton Kings. It was agreed that Duncan and Becky would cover the ground west of the line and Frances and I the area to the east. Each pair would conduct 3 surveys with at least 2 weeks in between each survey. The ground would be walked following selected footpaths chosen to provide the opportunity to record all bird activity in relation to 200 metre grid squares derived from the OS grid. One of the observers in each pair would record the location of birds in relation to the footpath ie approximate distance and direction up to 100 meters either side of the path, enabling the data to be later transferred to the OS map.

All 6 Bird Surveys were completed by 20 June and statistical summaries and a formal report is being prepared. Clearly this is not the place to quote chapter and verse. However, suffice it to say, it was reassuring to note that the bird species summaries for the western half of the SSSI were generally similar in content to those for the eastern half but there were some interesting differences. Bullfinches, Greenfinches and Goldfinches were seen in modest numbers on each survey on Charlton Common but not to the west on Leckhampton Hill. However the latter had up to 7 Skylarks but Charlton Common only 2. Only 1 Tree Pipit (an Amber-listed specie) was recorded in the west but up to 5 were seen in the east.

There were 5 Red Listed species present on the SSSI, namely Bullfinch, Linnet, Skylark, Song Thrush and Yellowhammer. Of these it is good to note that there was some evidence of successful breeding. Sadly and unusually there has been no evidence of Grasshopper Warbler this year.

Tony Meredith

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GRAZING REPORT

We are pleased to report that the TB tests on the cattle were negative. On a sad note though, the old brown cow had to be destroyed, despite being in calf, due to rapidly advancing arthritis in her hips and legs. The vet felt that it was kinder not to let her suffer, as her condition would only worsen.

The cows returned to the Hill on 8th of July on the upper slopes of the east side of Charlton Kings Common.

We have experienced further effects of vandalism, requiring a new electric box and battery to be purchased.

On the 10th of September our first calf of the year was born, a heifer. Then on the 14th of September came the second calf, another heifer. And on the 20th a third heifer was born. There is just one cow now left to calve. With these new additions, this means the herd size will have grown to 10.

Anne North

Work Party Report Summer 2004

The summer months have been a fairly quiet period as far as work parties go and have mainly consisted of ragwort pulling. Although we sprayed the weed earlier in the year, there were still areas that needed our attention. You may wonder why we spend so much time and energy on destroying this rather pretty wild flower. In fact it is poisonous to grazing cattle and horses and is fatal even in small amounts. Indeed we have a legal duty under the Weeds Act 1959 to remove it.

Gloves should always be worn when pulling ragwort. It should not be left on site, as the poisons are not destroyed by drying; indeed ragwort becomes more palatable to cattle when cut or wilted as it loses its bitter taste. It must be removed from the site and preferably burnt. FOLK have recently purchased some ragwort forks that remove the root more easily and prevent regeneration from the root fragments.

Don't confuse ragwort with other yellow flowering plants, particularly St. John's Wort (hypericum), which is widespread on the hill. Ragwort leaves have deeply toothed lobes and the flower heads consist of large, flat-topped clusters. St John's Wort has pointed, oval leaves and a much more open flower head. Look at the difference in your wild flower books.

Our main task in the coming months will be to continue the programme of scrub clearance, cutting areas of rank grass, fencing repairs, re-aligning the temporary fencing for grazing paddocks, and the endless task of litter clearance. We hope we will be assisted by BTCV and the Cotswold Voluntary Wardens in some of this work.

Future Work Parties

Midweek Work Parties

Thursday 9 September 2004
Thursday 14 October 2004
Thursday 11 November 2004
Thursday 9 December 2004
Thursday 13 January 2005

Weekend Work Parties

Sunday 26 September 2004
Sunday 24 October 2004
Sunday 28 November 2004
No Sunday work party
Sunday 23 January 2005

Meet at Tramway Cottage car park, Daisybank Road at 9.30am. We provide the tools but wear stout footwear and bring your own gloves.

Allan Wood



PEGASUS RETIREMENT HOMES
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SNAKE-LIKE BUT NOT A SNAKE

From time to time visitors to Leckhampton Hill and Charlton Kings Common may spot a charming little creature, one of only four reptile species that live locally - the slow worm (*Anguis fragilis*). There are two local snakes - the adder and the grass snake, and two local lizards - the common lizard and the slow worm. Unlike snakes, but like lizards, the slow worm possesses moveable eyelids, a broad, non-forked tongue and the ability to break off its tail to escape an enemy. Like snakes it possesses no external limbs although there is a skeletal vestige of the pectoral girdle inside its body. No doubt millions of years ago slow worms evolved various snake-like adaptations for underground living although their ancestry is definitely with the lizards.

Slow worms may be seen creeping among grasses or dead vegetation most usually at dusk when they begin to hunt for small slugs, insects and worms. If you find a slow worm observe it but do not pick it up unless it is in some kind of danger. They must not be removed from their habitat. A favourite place for them in gardens is the compost heap where the raised temperature may be to their liking.

In appearance the slow worm has a polished look with small, smooth scales covering its body. The male is a fairly uniform copper-brown or grey in colour. The female is usually a darker brown underneath and on her sides. In both sexes there may be darker lines along their flanks and the female may have a dark line along her back. The young have a more silvery look.

Both sexes may be up to about 30 to 40 cms in length but they take several years to reach this size. There are reports of them living for more than 25 years. Their main enemies are adders, foxes, hedgehogs, badgers and birds of prey. Depending on their temperature their speed of movement may vary but their usual gait is slow and slinky.

The slow worm spends most of its time underground or under dead vegetation, emerging only for hunting and mating. It hibernates between October and March. They mate during May and June. Later the female may sometimes be seen basking in sunshine to help in the development of the embryos in their eggs retained inside her body. She produces ovo-viviparous young; that is to say, immediately after the membranous eggs are laid the young emerge. The young immediately begin an independent existence.

Slow worms are widespread throughout Great Britain but not Ireland. They may be considered the gardeners' friends as they eat those pesky slugs. All snakes and lizards are protected by law and it is illegal to kill, injure or trade in them on penalty of a huge fine. English Nature has produced a guide for householders to encourage reptiles into their garden (see www.english-nature.org.uk and follow links).

Jack Shepherd September 2004